TS422

S/4HANA Production Planning & Manufacturing Academy Part II 1/2

Duplication is prohibited.

Duplication is prohibited.

PARTICIPANT HANDBOOK
INSTRUCTOR-LED TRAINING

Course Version: 17
Course Duration: 10 Day(s)
Material Number: 50157127

Duplication is prohibited.

Duplication is prohibited.

SAP Copyrights, Trademarks and Disclaimers

© 2021 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see http://global12.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials may have been machine translated and may contain grammatical errors or inaccuracies.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

Duplication is prohibited.

Duplication is prohibited.

Typographic Conventions

American English is the standard used in this handbook.

The following typographic conventions are also used.

This information is displayed in the instructor's presentation	
Demonstration	
Procedure	
Warning or Caution	
Hint	
Related or Additional Information	
Facilitated Discussion	
User interface control	*Example text*
Window title	*Example text*

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Contents

ix	Course Overview	
1	Unit 1:	Introduction to Production Orders
2		Lesson: Outlining SAP Fiori and the System Landscape
7		Exercise 1: Login to the SAP Systems and Access the SAP Fiori Launchpad
12		Lesson: Outlining Production Orders
19		Exercise 2: Analyze Master Data
33		Exercise 3: Assign your Area of Responsibility
35		Exercise 4: Create Planned Independent Requirements, Run MRP, and Convert a Planned Order
45	Unit 2:	Order Processing and Order Structure
46		Lesson: Processing a Production Order
47		Exercise 5: Execute a Production Order
57		Lesson: Analyzing the Order Structure
59		Exercise 6: Analyze the Production Order Structure
77	Unit 3:	Order Creation
78		Lesson: Creating Production Orders
83		Exercise 7: Create Production Orders by Planned Order Conversion
93		Exercise 8: Create a Production Order with Material and Copy a Production Order
97		Exercise 9: Create a Production Order without Material
101		Exercise 10: Create Production Orders for Sales Orders
115		Lesson: Analyzing Master Data Selection
127		Exercise 11: Define an Order Type
133		Exercise 12: Analyze Master Data Selection
151		Lesson: Scheduling Production Orders
155		Exercise 13: Set Up and Analyze Scheduling
165		Lesson: Describing the Costing of Production Orders
167		Exercise 14: Analyze the Calculation of the Planned Costs

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

179 Unit 4: Availibility Checks, Capacity Planning, Order Release and Printing

180 Lesson: Performing Availability Checks
185 Exercise 15: Set Up and Perform Material Availability Checks
210 Lesson: Discussing Capacity Planning
217 Exercise 16: Use Capacity Evaluation and Capacity Leveling Tools
234 Lesson: Releasing Production Orders
239 Exercise 17: Release Production Orders
249 Exercise 18: Define and Test a Production Scheduling Profile
257 Exercise 19: Analyze and Test a User Status Profile
267 Lesson: Printing Shop Floor Papers
271 Exercise 20: Print Shop Floor Papers

289 Unit 5: Order Execution

290 Lesson: Performing Material Staging and Goods Issue Postings
301 Exercise 21: Post Goods Issues with the Goods Movements App and with the Picking List
325 Exercise 22: Stage Materials with the Pull List
337 Exercise 23: Post Goods Issues via Backflushing
343 Exercise 24: Stage Materials with KANBAN
358 Lesson: Confirming Production Orders
365 Exercise 25: Check the Customizing Settings for Confirmations
369 Exercise 26: Confirm Operations and Production Orders
408 Lesson: Posting Goods Receipts
413 Exercise 27: Post Goods Receipts

443 Unit 6: Order Settlement, Archiving, and Deletion

444 Lesson: Performing Order Settlement
449 Exercise 28: Settle a Production Order
458 Lesson: Archiving and Deleting Production Orders
461 Exercise 29: Archive and Delete a Production Order

473 Unit 7: Information Systems, Mass Processing, and Automation

474 Lesson: Outlining Informations Systems and Reporting
477 Exercise 30: Analyze Production Data with the Order Information System
480 Lesson: Outlining Mass Processing and Automation
485 Exercise 31: Get an Overview of the Mass Processing Functions
487 Exercise 32: Execute a Trigger Point
495 Lesson: Outlining the Data Exchange with the Process Control Level

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

505 Unit 8: Further and Advanced Functions

506 Lesson: Performing Order Splits
511 Exercise 33: Split Production Orders
527 Lesson: Creating Shift Notes and Shift Reports
535 Exercise 34: Create Shift Notes and Shift Reports

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Course Overview

TARGET AUDIENCE
This course is intended for the following audiences:

- Super / Key / Power User
- Business Process Architect
- Business Process Owner/Team Lead/Power User
- Help Desk/CoE Support

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 1 Introduction to Production Orders

Lesson 1

Outlining SAP Fiori and the System Landscape 2

Exercise 1: Login to the SAP Systems and Access the SAP Fiori Launchpad 7

Lesson 2

Outlining Production Orders 12

Exercise 2: Analyze Master Data 19

Exercise 3: Assign your Area of Responsibility 33

Exercise 4: Create Planned Independent Requirements, Run MRP, and Convert a Planned Order 35

Duplication is prohibited.

Duplication is prohibited.

UNIT OBJECTIVES

- Describe SAP Fiori and the system landscape
- Describe the application areas, the integration, the characteristics, and the master data of production orders

© Copyright. All rights reserved.

Unit 1
Lesson 1

Outlining SAP Fiori and the System Landscape

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe SAP Fiori and the system landscape

SAP Fiori - Concept and Architecture

SAP Fiori realizes the concept of a uniform, cross-system and role-specific user interface for end users.

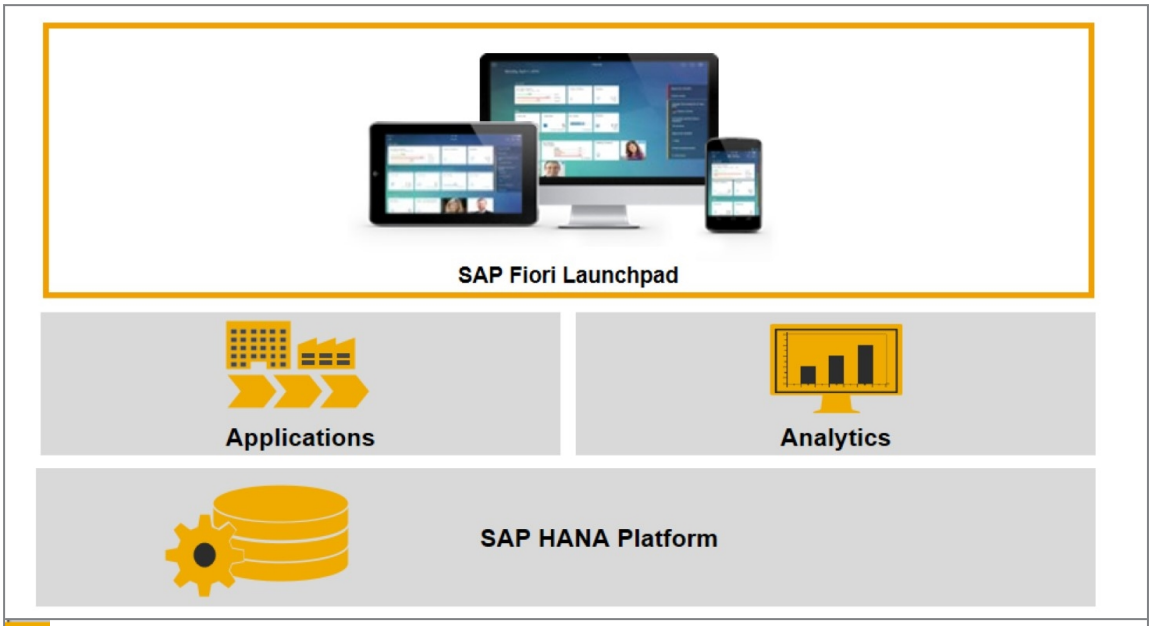

Figure 1: SAP Fiori

The SAP Fiori Launchpad offers users a collection of exactly the apps they need in their day-to-day business. SAP Fiori is also independent of the type of device and can be used on desktops, tablets and smartphones.

One goal of the SAP strategy is to run all business and analytics applications on SAP HANA with SAP Fiori as the user interface.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

SAP Fiori Architecture

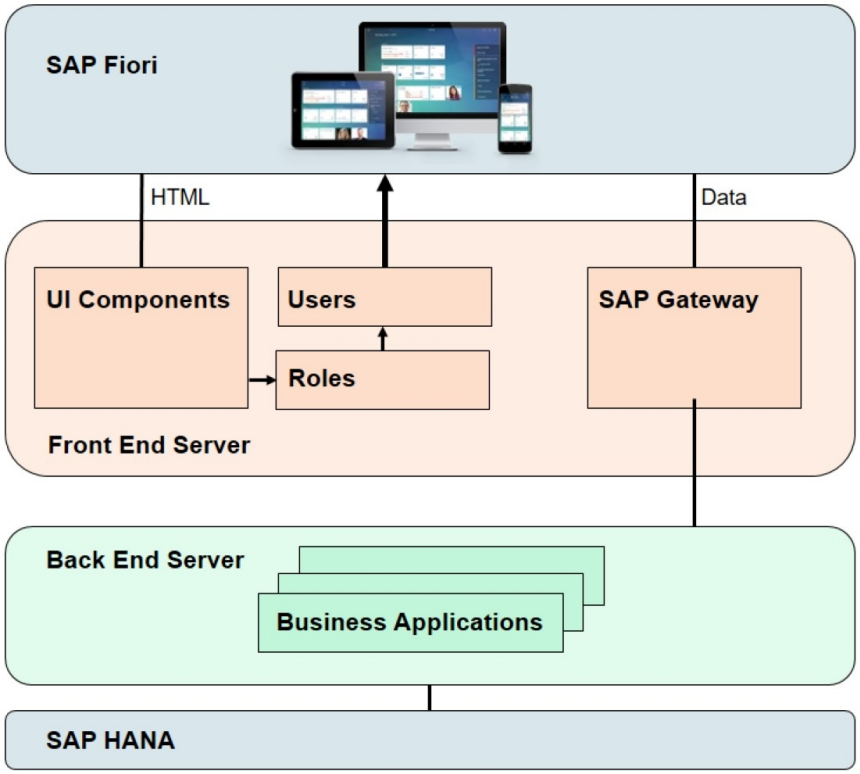

Figure 2: SAP Fiori Architecture

The figure above is a simplified description of the principle of the SAP Fiori architecture.

In the frontend server, the UI components for the SAP Fiori Launchpad are configured and the roles and users are maintained. Via SAP Gateway, the access to the applications in the backend server is realized.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

SAP Fiori Launchpad

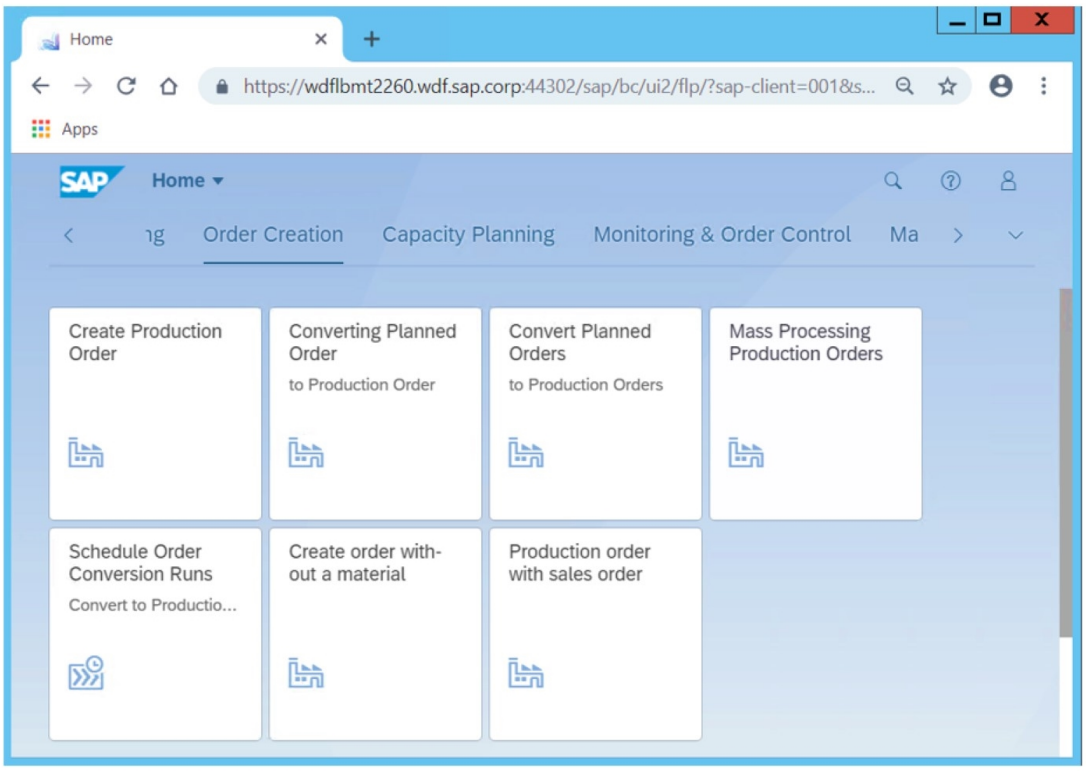

Figure 3: SAP Fiori Launchpad

The figure above shows as an example the SAP Fiori Launchpad for our course S4225.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Configuration of the SAP Fiori Launchpad

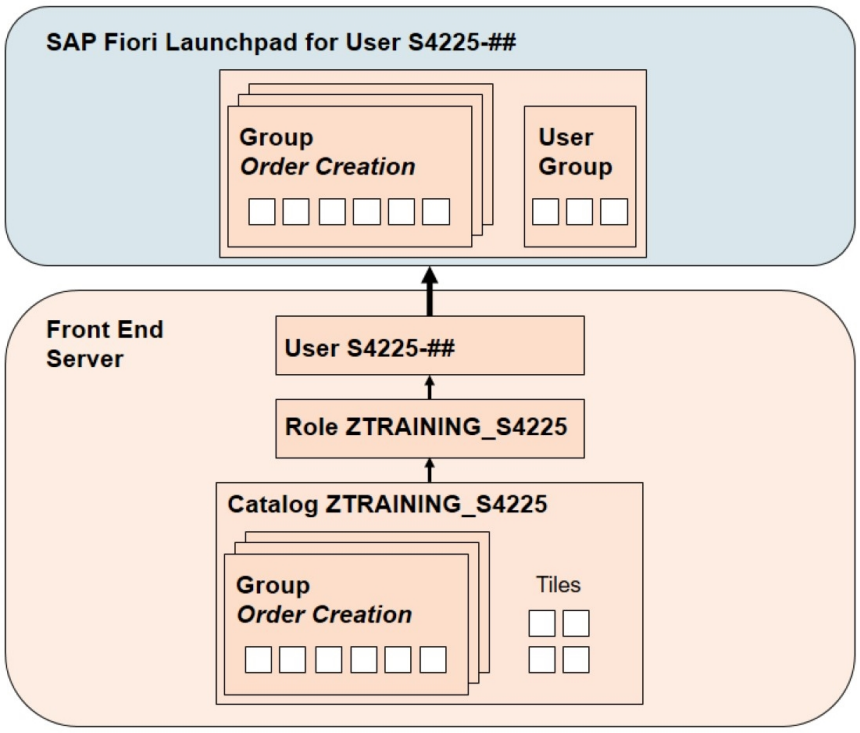

Figure 4: Configuration of the SAP Fiori Launchpad

The tiles (apps) for the SAP Fiori Launchpad are organized in catalogs in the backend system. To display a tile in the launchpad, it must be assigned to a group. Catalogs and groups are assigned to users via roles.

The individual users can adapt the SAP Fiori Launchpad to their requirements. In addition to general settings such as language, they can rearrange groups and tiles, create new groups, add tiles to groups, or delete tiles from groups.

The figure above shows the settings made for our course S4225.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Unit 1
Exercise 1

Login to the SAP Systems and Access the SAP Fiori Launchpad

Business Scenario

In your company, you are responsible for the processing of production orders. You log on to the corresponding SAP systems and open the SAP Fiori Launchpad. You use apps in the SAP Fiori Launchpad or transactions in the SAP S/4HANA backend server to maintain and analyze data or to perform business processes.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Log on to the SAP systems and open the SAP Fiori Launchpad

1. The trainer will give you the information how to log on to the training system environment. In the training system environment, choose the SAP Logon to log on to the following training systems:

System	Client	User	Password
T41 (SAP S/4HANA backend server)	400	S4225-##	Welcome1
T4N (gateway server)	001	S4225-##	Welcome1

> Note:
> In the case of other systems or users in a special system landscape, you will be informed by the trainer.

2. Open the SAP Fiori Launchpad. Use one of the following options.

   First option (recommended):

   Open the SAP Fiori Launchpad from the Windows Start menu. Click on the *Fiori Launchpad* tile. In this case, the launchpad will open in the Google Chrome browser.

   Second option:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Open the SAP Fiori Launchpad in the gateway server. You can find the corresponding transaction in the user menu. In this case, the launchpad will open in the Microsoft Internet Explorer.

Task 2: Use Apps in the SAP Fiori Launchpad

Depending on the tasks you have to do in your day-to-day business, you use apps in the SAP Fiori Launchpad or transactions in the SAP S/4HANA backend server to maintain and analyze data or to perform business processes.

1. The SAP Fiori Launchpad contains apps that you need for the areas of your responsibility.

   > Note:
   > In the gateway server, these apps are assigned to a corresponding role, and this role is assigned to your user.

   Open for example the *Stock* app by choosing the corresponding tile in the tile group *Inventory Management* and analyze the stock for material T-RSP1##.

   Then navigate back to the home page.

2. You can personalize your Launchpad. Create for example a new tile group and assign tiles to it.

   Choose the *S4225-##* symbol. Then choose *Edit Home Page*.

   Choose + *Add Group* and enter the group name **`S4225 Example Group`**.

   In your new group, click on the empty tile to open the App Finder. Add some apps to your group.

   Then choose the *SAP (Navigate to Home Page)* icon to switch back to the group maintenance. Choose *Close* to exit the edit mode and to save your changes.

3. In certain cases, you want to maintain data or execute functions directly in the SAP S/4HANA backend system.

   In the backend system, choose for example transaction `OPJH` to open the Customizing view for maintaining production order types.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Login to the SAP Systems and Access the SAP Fiori Launchpad

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

In your company, you are responsible for the processing of production orders. You log on to the corresponding SAP systems and open the SAP Fiori Launchpad. You use apps in the SAP Fiori Launchpad or transactions in the SAP S/4HANA backend server to maintain and analyze data or to perform business processes.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Log on to the SAP systems and open the SAP Fiori Launchpad

1. The trainer will give you the information how to log on to the training system environment. In the training system environment, choose the SAP Logon to log on to the following training systems:

System	Client	User	Password
T41 (SAP S/4HANA backend server)	400	S4225-##	Welcome1
T4N (gateway server)	001	S4225-##	Welcome1

> Note:
> In the case of other systems or users in a special system landscape, you will be informed by the trainer.

   a) Ask the trainer for help if you have problems with the login processes.

2. Open the SAP Fiori Launchpad. Use one of the following options.

   First option (recommended):

   Open the SAP Fiori Launchpad from the Windows Start menu. Click on the *Fiori Launchpad* tile. In this case, the launchpad will open in the Google Chrome browser.

   Second option:

© Copyright. All rights reserved.

Open the SAP Fiori Launchpad in the gateway server. You can find the corresponding transaction in the user menu. In this case, the launchpad will open in the Microsoft Internet Explorer.

a) Ask the trainer for help if you have problems to open the Launchpad.

Task 2: Use Apps in the SAP Fiori Launchpad

Depending on the tasks you have to do in your day-to-day business, you use apps in the SAP Fiori Launchpad or transactions in the SAP S/4HANA backend server to maintain and analyze data or to perform business processes.

1. The SAP Fiori Launchpad contains apps that you need for the areas of your responsibility.

> Note:
> In the gateway server, these apps are assigned to a corresponding role, and this role is assigned to your user.

Open for example the *Stock* app by choosing the corresponding tile in the tile group *Inventory Management* and analyze the stock for material T-RSP1##.

Then navigate back to the home page.

a) For this exercise step no further information is needed.

2. You can personalize your Launchpad. Create for example a new tile group and assign tiles to it.

Choose the *S4225-##* symbol. Then choose *Edit Home Page*.

Choose + *Add Group* and enter the group name **`S4225 Example Group`**.

In your new group, click on the empty tile to open the App Finder. Add some apps to your group.

Then choose the *SAP (Navigate to Home Page)* icon to switch back to the group maintenance. Choose *Close* to exit the edit mode and to save your changes.

a) For this exercise step no further information is needed.

3. In certain cases, you want to maintain data or execute functions directly in the SAP S/4HANA backend system.

In the backend system, choose for example transaction `OPJH` to open the Customizing view for maintaining production order types.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe SAP Fiori and the system landscape

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Outlining Production Orders

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the application areas, the integration, the characteristics, and the master data of production orders

Production Orders

Depending on a number of different criteria, a company has various requirements with regard to shop floor control.

For this reason, the SAP S/4HANA Manufacturing supports different production types.

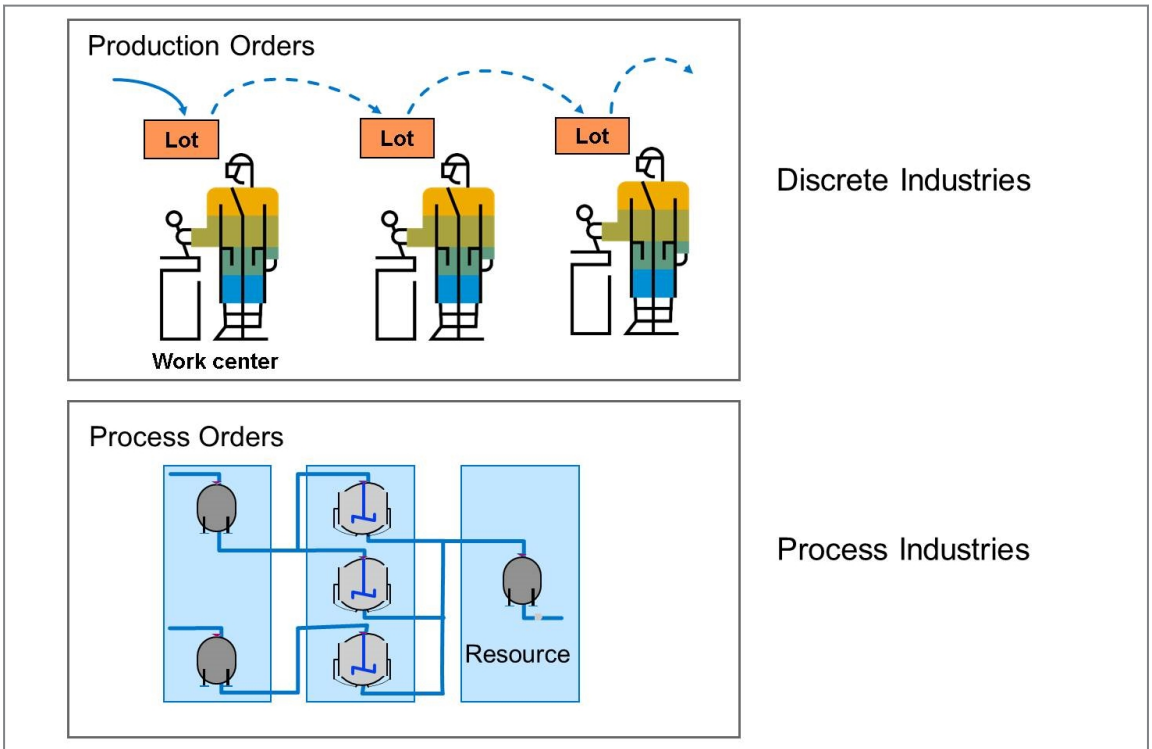

Figure 5: Order-related Production

In discrete manufacturing industries, mainly production orders are used. Process orders offer suitable functions for companies in the process industries.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Lean Manufacturing

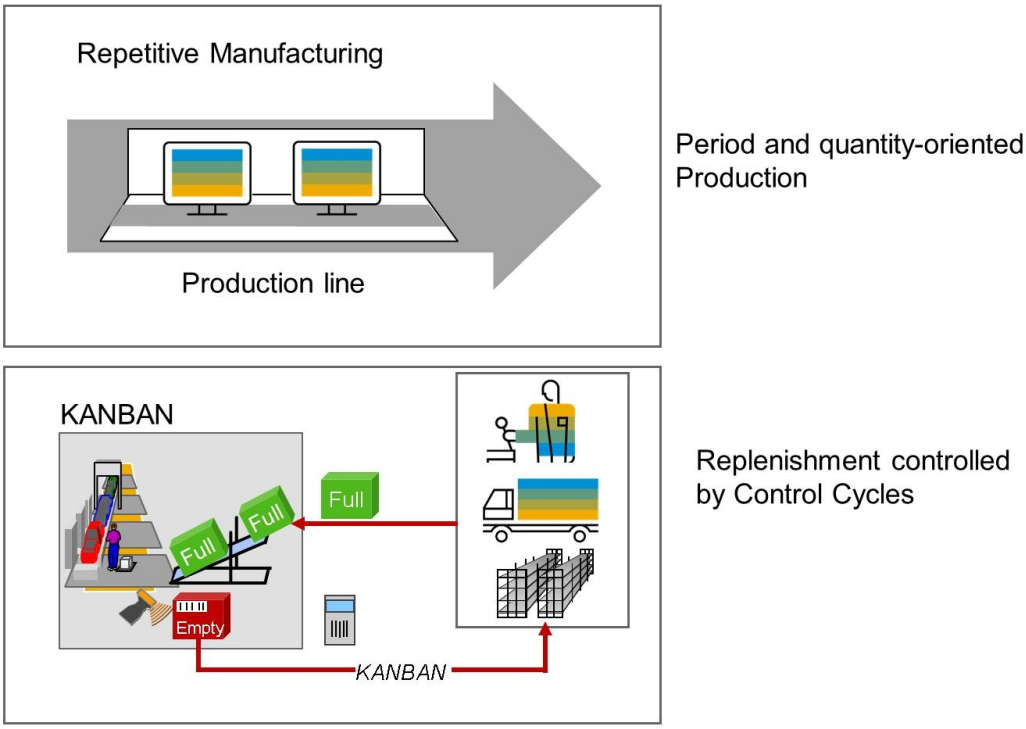

Figure 6: Lean Manufacturing

Repetitive manufacturing is mainly used in mass production and provides lean methods of production control. Kanban is a lean and effective method of material staging applicable in all production types.

Application Areas of Production Orders

Production orders are used in a variety of industries and industry sectors and can be applied in many different production processes.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

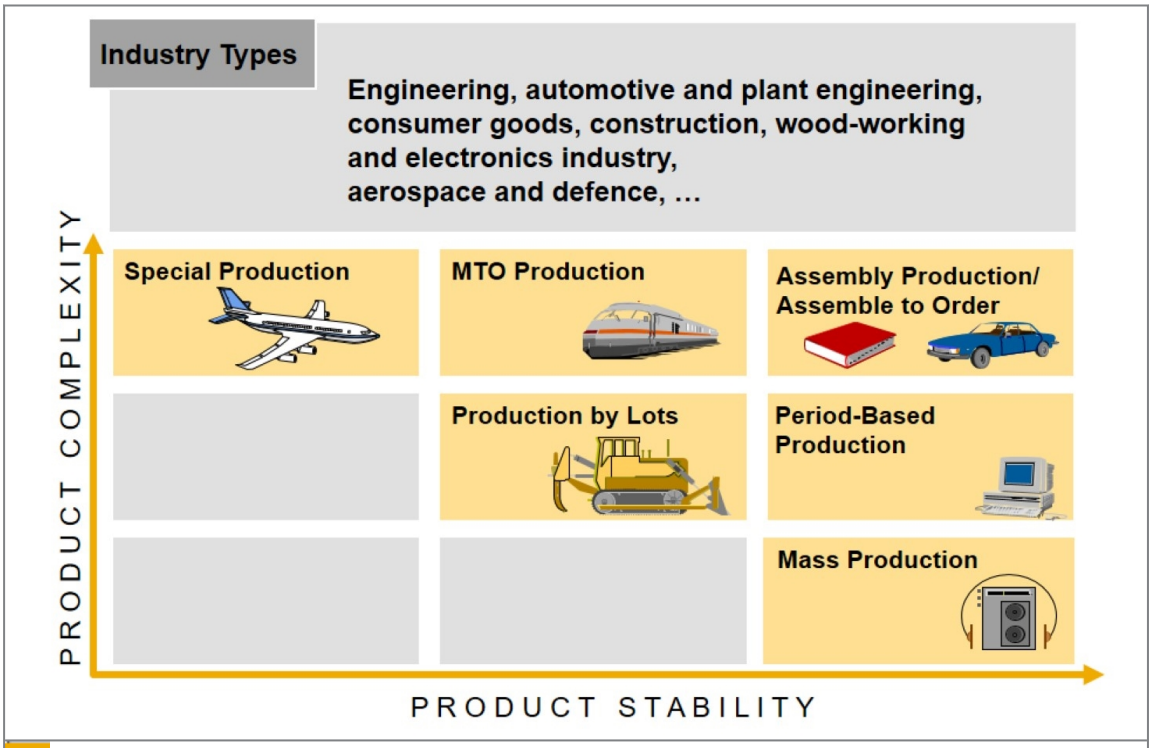

Figure 7: Application Areas of Production Orders

Amongst other things, the production processes can be characterized by product stability and product complexity.

Integration of Production Orders

Production orders are a central part of a complex process chain starting with a requirement (planned independent requirement or sales order) and ending with the goods receipt of the finished product.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

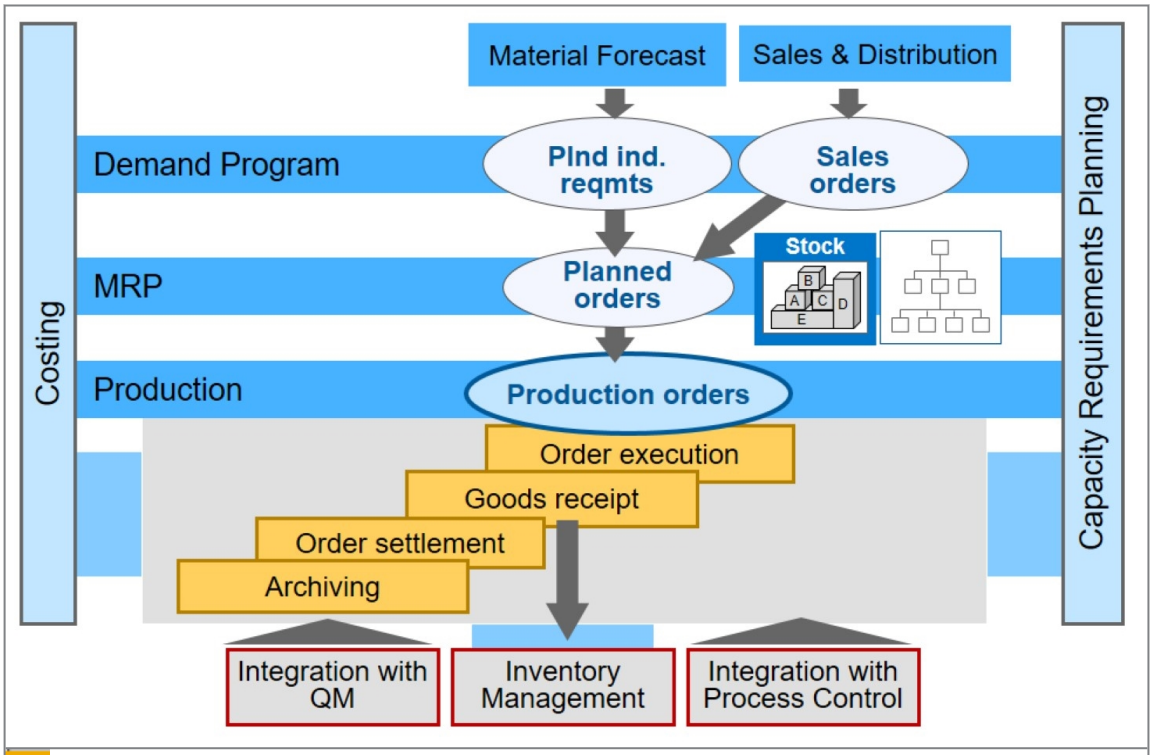

Figure 8: Cross-Application Functional Process

Production orders control the whole process of in-house production of products and are integrated in the functions of capacity requirements planning, costing, inventory management, quality management and many other SAP S/4HANA applications. Furthermore, there are various interfaces to external systems.

Integration of Production Orders:

- Master Data Management
- Sales and Distribution
- Production and Material Requirements Planning/Advanced Planning
- Capacity Planning/Detailed Scheduling
- Materials Management
- Warehouse Management/Extended Warehouse Management
- Quality Management
- Batch Management
- Handling Unit Management
- Variant Configuration
- Accounting and Controlling

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Characteristics of Production Orders

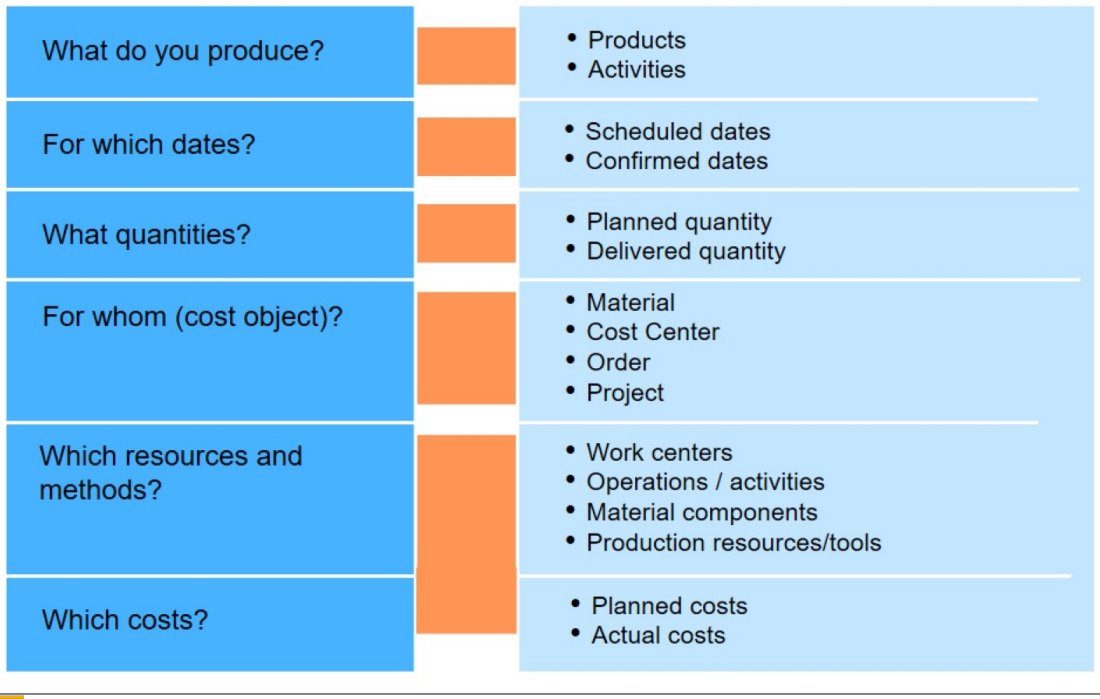

Figure 9: Definitions in the Production Order

The figure describes the definitions in the production order.

Basic Functions of Production Orders:

- Status Management
- Master Data Selection
- Scheduling
- Calculation of Capacity Requirements
- Costing
- Availability Checks
- Printing Shop Floor Papers
- Material Staging and Goods Issues
- Confirmations
- Goods Receipt
- Order Settlement
- Archiving and Deletion

A variety of functions are available for production orders. This allows a seamless support of a complex production. In addition to the basic functions, there are still many advanced features.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Master Data for Production Orders

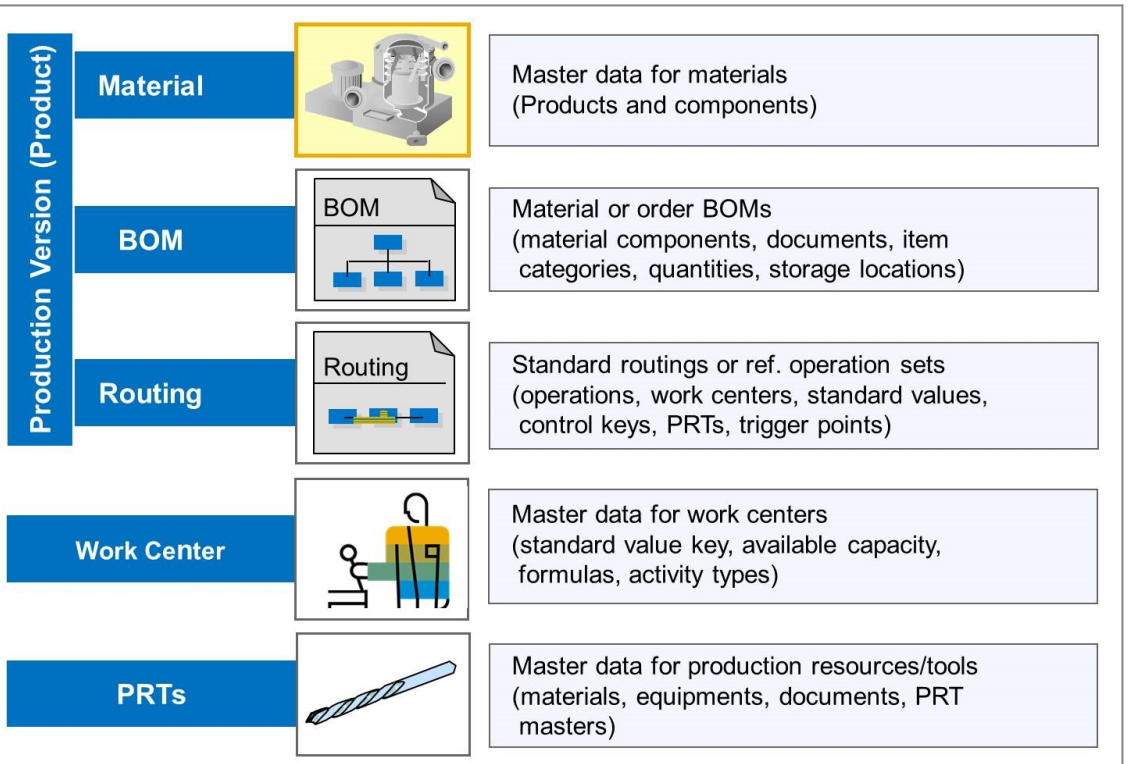

Figure 10: Master Data for Production Orders

The figure, Master Data for Production Orders, shows the master data required to create production orders. When a production order is created, a production version with a routing and a BOM is selected.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze Master Data

Business Scenario

Your company manufactures bicycles. As a production engineer, you will analyze the corresponding master data.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Analyze BOM Structure and Material Master

You analyze the multilevel BOM structure of your finished product T-FSP1## *Bike Special* and check the material master data settings.

1. In the *SAP Fiori Launchpad*, execute the *Multilevel BOM* tile to analyze the multilevel BOM structure of your finished product *T-FSP1## Bike Special.*

   A new tab with the title *Explode BOM: Multilevel BOM: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
Alternative BOM	1
BOM Application	PP01

2. In the *Display Multilevel BOM* screen, check the multilevel BOM structure for material T-FSP1##. Note the BOM structure in the following table:

Field	Value
Material	
Description	
Base Qty (PC)	

Level no.	Component number	Object description	Comp. Qty	Unit	Ict
.1					
..2					

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Level no.	Component number	Object description	Comp. Qty	Unit	Ict
..2					
..2					
...3					
....4					
....4					
...3					
.1					
..2					
..2					
.1					
.1					

Close the *Display Multilevel BOM* screen.

3. In the *SAP Fiori Launchpad,* execute the *Display Bill of Material* tile to display the BOM of material T-FSP1##.

   A new tab with the title *Display material BOM: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
BOM Usage	1
Alternative BOM	1

4. In the *Display Material BOM: General Item Overview* screen, first check the components of the BOM.

   Then double-click material T-FSP1## *Bike Special* to display the material master of the product.

   In the *Display Material T-FSP1## (Finished Product)* screen, choose the *MRP 4* view for plant 1010.

   Push the *ProdVersions* button to check, whether a production version is defined.

Field	Value
Version	

   Display *Details* of the product version.

5. In the *Display Material T-FSP1## (Finished Product)* screen, choose the *Additional Data* button, and display the *Document data* view.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

What document is linked to the material?

Document
>

Finally close the material display.

Task 2: Analyze Routing and Work Centers

You analyze the routing for your finished product T-FSP1## and check the master data settings of the work centers.

1. In the *SAP Fiori Launchpad,* execute the *Display Routing* tile to display the routing for material T-FSP1##.

   A new tab with the title *Display Routing: Initial Screen* will be opened.

   In the *Display Routing: Initial Screen,* enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010

2. In the *Display Routing: Operation Overview* screen, note some information on the operations in the following table:

Operation	Work center	Control key	PRT
>			
>			
>			

3. Now select all operations and double-click the number of the first operation to display the *Operation Details* screen:

   Check for each operation the standard values and the interoperation times.

4. Try to get detailed information on the settings of control key YBP1. Note some of the settings in the following table:

Field	Value
Scheduling	
Det. Cap. Reqmnts	
Cost	
Automatic GR	
Print	
Confirmations	

5. In the *Operation Overview* screen, choose *More* → *PRT* for operation 0020, or double-click the PRT indicator to display the *PRT Overview.*

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Note the PRTs assigned to operation 0020 in the following table.

Item	Cat	PRT
>		
>		

6. In the *Operation Overview* screen, choose *More* → *Goto* → *Trigger point overview* for operation 0030 to display the *Operation Trigger Points.*

   Note the Trigger Point assigned to operation 0030 in the following table:

Description	Functions
>	

7. In the *Operation Overview* screen, choose *More* → *Goto* → *Sequence overview* to display the *Sequence Overview.*

   In addition to the standard sequence, are there also alternative or parallel sequences?

8. Now you want to analyze the master data of a work center.

   In the *Operation Overview* screen, double-click on a work center.

   In the *Display Work Center: Basic Data* screen, check the available standard values:

Key Word
>
>
>

9. In the *Display Work Center: Capacity Overview* screen, check the formulas for calculating the capacity requirements for setup and processing of an operation.

10. In the *Display Work Center: Capacity Overview* screen, double-click a capacity category to display the *Display Work Center Capacity: Header* screen.

    Check the available capacity:

Field	Value
Start Time	
End Time	
Length of breaks	

11. In the *Display Work Center: Scheduling* screen, check the formulas for calculating the durations for setup and processing of an operation.

12. In the *Display Work Center: Cost Center Assignment* screen, check which cost center is assigned to the work center and which activity types for calculating the production costs of an operation are assigned to the standard values.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Cost Center	

Alt. Activity Text	Activity Type
Setup	
Machine	
Labor	

Finally close the work center display.

Task 3: Analyze Stocks and Post Goods Receipts for Material Components

In the following exercises, we assume that the stocks of the material components required to produce the finished product T-FSP1## have been procured in sufficient quantities.

You check the stocks of the material components and fill them up to 2000 PC each.

1. In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stocks of the material components T-SSP1##, T-SSP2##, and T-RSP1##.

   In the *Stock – Single Material* screen, enter the material number T-SSP1##.

   Check the stock for storage location 101B. Select this storage location and choose *Manage Stock*

   In the *Manage Stock* screen, choose the *Unrestricted-Use Stock* button.

   In the *Manage Stock* dialog box, make the following entries:

Field	Value
Stock Change:	Initial Entry
Quantity	Quantity required to fill up the stock to 2000 PC

   Post the goods receipt.

   Repeat the upper steps also for the material components T-SSP2## and T-RSP1##.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze Master Data

Business Scenario

Your company manufactures bicycles. As a production engineer, you will analyze the corresponding master data.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Analyze BOM Structure and Material Master

You analyze the multilevel BOM structure of your finished product T-FSP1## *Bike Special* and check the material master data settings.

1. In the *SAP Fiori Launchpad*, execute the *Multilevel BOM* tile to analyze the multilevel BOM structure of your finished product *T-FSP1## Bike Special.*

   A new tab with the title *Explode BOM: Multilevel BOM: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
Alternative BOM	1
BOM Application	PP01

   a) Enter the values given in the table and choose *Execute.*

2. In the *Display Multilevel BOM* screen, check the multilevel BOM structure for material T-FSP1##. Note the BOM structure in the following table:

Field	Value
Material	
Description	
Base Qty (PC)	

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Level no.	Component number	Object description	Comp. Qty	Unit	Ict
.1					
..2					
..2					
..2					
...3					
....4					
....4					
...3					
.1					
..2					
..2					
.1					
.1					

Close the *Display Multilevel BOM* screen.

a) You should see the following BOM structure:

Field	Value
Material	T-FSP1##
Description	Bike Special
Base Qty (PC)	1

Level no.	Component number	Object description	Comp. Qty	Unit	Ict
.1	T-SSP1##	Frame	1	PC	L
..2	T-RSP5##	Metal Tube	1	PC	L
..2	T-RSP6##	Seat Metal Tube	1	PC	L
..2	T-SSP3##	Bike Paint Red	0,1	L	L
...3	T-SPT1##	Basic Paint	0,1	L	L
....4	T-RPT3##	Basic Paint Mix	0,01	KG	L
....4	T-RPT4##	Solvent Mix	0,1	L	L
...3	T-RPT2##	Pigment Red	0,01	KG	L
.1	T-SSP2##	Wheel	2	PC	L
..2	T-RSP7##	Rim with Spokes	2	PC	L

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Level no.	Component number	Object description	Comp. Qty	Unit	Ict
..2	T-RSP8##	Tyre and Tube	2	PC	L
.1	T-RSP1##	Chain	1	PC	L
.1	T-DSP100	Bike Standard Assembly Instruction	1	PC	D

3. In the *SAP Fiori Launchpad,* execute the *Display Bill of Material* tile to display the BOM of material T-FSP1##.

   A new tab with the title *Display material BOM: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
BOM Usage	1
Alternative BOM	1

   a) Enter the values given in the table and choose *Enter.*

4. In the *Display Material BOM: General Item Overview* screen, first check the components of the BOM.

   Then double-click material T-FSP1## *Bike Special* to display the material master of the product.

   In the *Display Material T-FSP1## (Finished Product)* screen, choose the *MRP 4* view for plant 1010.

   Push the *ProdVersions* button to check, whether a production version is defined.

Field	Value
Version	

   Display *Details* of the product version.

   a) The following production version should be defined:

Field	Value
Version	0001

   In the *Production Version Overview* window, choose *Details* to display the *Production Version Details* view.

5. In the *Display Material T-FSP1## (Finished Product)* screen, choose the *Additional Data* button, and display the *Document data* view.

   What document is linked to the material?

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Document
>

Finally close the material display.

a) The following document should be linked to the material:

Document
T-DSP200

Task 2: Analyze Routing and Work Centers

You analyze the routing for your finished product T-FSP1## and check the master data settings of the work centers.

1. In the *SAP Fiori Launchpad,* execute the *Display Routing* tile to display the routing for material T-FSP1##.

   A new tab with the title *Display Routing: Initial Screen* will be opened.

   In the *Display Routing: Initial Screen,* enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010

   a) Enter the values given in the table and choose *Continue (Enter).*

2. In the *Display Routing: Operation Overview* screen, note some information on the operations in the following table:

Operation	Work center	Control key	PRT
>			
>			
>			

   a) You should find the following information:

Operation	Work center	Control key	PRT
0010	T-BK1##	YBP1	
0020	T-BK2##	YBP1	X
0030	T-BK3##	YBP1	

3. Now select all operations and double-click the number of the first operation to display the *Operation Details* screen:

   Check for each operation the standard values and the interoperation times.

   a) Choose *Next Operation* or *Previous Operation* to navigate from operation to operation.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. Try to get detailed information on the settings of control key YBP1. Note some of the settings in the following table:

Field	Value
Scheduling	
Det. Cap. Reqmnts	
Cost	
Automatic GR	
Print	
Confirmations	

a) In the *Operation Overview* screen, set the cursor on a control key and choose *F4.*
In the list of control keys, select control key YBP1 and choose *Detailed Information*.

You should find the following settings:

Field	Value
Scheduling	X
Det. Cap. Reqmnts	X
Cost	X
Automatic GR	
Print	X
Confirmations	2 (Confirmation required)

5. In the *Operation Overview* screen, choose *More* → *PRT* for operation 0020, or double-click the PRT indicator to display the *PRT Overview.*
Note the PRTs assigned to operation 0020 in the following table.

Item	Cat	PRT
>		
>		

a) You should find the following PRTs:

Item	Cat	PRT
0010	O	T-PRT100
0020	D	T-DSP100

6. In the *Operation Overview* screen, choose *More* → *Goto* → *Trigger point overview* for operation 0030 to display the *Operation Trigger Points.*
Note the Trigger Point assigned to operation 0030 in the following table:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Description	Functions
>	

a) You should find the following Trigger Point:

Description	Functions
Rework	x

7. In the *Operation Overview* screen, choose *More* → *Goto* → *Sequence overview* to display the *Sequence Overview.*

   In addition to the standard sequence, are there also alternative or parallel sequences?

   a) No, in this routing no alternative or parallel sequences are defined.

8. Now you want to analyze the master data of a work center.

   In the *Operation Overview* screen, double-click on a work center.

   In the *Display Work Center: Basic Data* screen, check the available standard values:

Key Word
>
>
>

   a) The following standard values are available:

Key Word
Setup
Machine
Labor

9. In the *Display Work Center: Capacity Overview* screen, check the formulas for calculating the capacity requirements for setup and processing of an operation.

   a) To display a formula, choose *More* → *Extras* → *Formula* → *Display...*

10. In the *Display Work Center: Capacity Overview* screen, double-click a capacity category to display the *Display Work Center Capacity: Header* screen.

    Check the available capacity:

Field	Value
Start Time	
End Time	
Length of breaks	

    a) The work center has the following available capacity:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Start Time	07:00:00
End Time	16:00:00
Length of breaks	01:00:00

11. In the *Display Work Center: Scheduling* screen, check the formulas for calculating the durations for setup and processing of an operation.
    a) To display a formula, click the *Information* button.
12. In the *Display Work Center: Cost Center Assignment* screen, check which cost center is assigned to the work center and which activity types for calculating the production costs of an operation are assigned to the standard values.

Field	Value
Cost Center	

Alt. Activity Text	Activity Type
Setup	
Machine	
Labor	

Finally close the work center display.

a) You should find the following assignments:

Field	Value
Cost Center	10101301

Alt. Activity Text	Activity Type
Setup	3
Machine	1
Labor	11

Task 3: Analyze Stocks and Post Goods Receipts for Material Components

In the following exercises, we assume that the stocks of the material components required to produce the finished product T-FSP1## have been procured in sufficient quantities.

You check the stocks of the material components and fill them up to 2000 PC each.

1. In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stocks of the material components T-SSP1##, T-SSP2##, and T-RSP1##.

   In the *Stock – Single Material* screen, enter the material number T-SSP1##.

   Check the stock for storage location 101B. Select this storage location and choose *Manage Stock*

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *Manage Stock* screen, choose the *Unrestricted-Use Stock* button.

In the *Manage Stock* dialog box, make the following entries:

Field	Value
Stock Change:	Initial Entry
Quantity	Quantity required to fill up the stock to 2000 PC

Post the goods receipt.

Repeat the upper steps also for the material components T-SSP2## and T-RSP1##.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Assign your Area of Responsibility

Business Scenario

You must assign your area of responsibility in order to use certain apps in requirements and capacity planning.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Assign your Area of Responsibility

1. In the SAP Fiori Launchpad, execute the *My Area of Responsibility* tile to assign your MRP controller P## in plant 1010.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Assign your Area of Responsibility

Business Scenario

You must assign your area of responsibility in order to use certain apps in requirements and capacity planning.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Assign your Area of Responsibility

1. In the SAP Fiori Launchpad, execute the *My Area of Responsibility* tile to assign your MRP controller P## in plant 1010.
   a) In the *My Area of Responsibility* app, select and assign MRP controller P## for plant 1010.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Create Planned Independent Requirements, Run MRP, and Convert a Planned Order

Business Scenario

Based on sales forecasts, a planner specifies requirements for the make-to-stock (MTS) production of the bicycles. An MRP controller schedules an MRP run, checks the result, and converts planned orders to production orders.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create Planned Independent Requirements

As a planner, you create planned independent requirements for the finished product T-FSP1## *Bike Special*.

Previously, you set up a preferred planning strategy for MTS production in the material master.

1. In the *SAP Fiori Launchpad*, execute the *Change Material* tile to set up the MTS planning strategy *40 Planning with final assembly* for your finished product T-FSP1## *Bike Special*.

   Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *40 Planning with final assembly*.

   Save the material and choose *Exit* to leave the material master maintenance.

2. In the *SAP Fiori Launchpad*, execute the *Maintain PIRs* tile to create planned independent requirements for your finished product T-FSP1## *Bike Special*.

   In the *Maintain PIRs* screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
Period Indicator	Weekly (W)
Version Active	

   Choose *Go*.

   Select the listed material T-FSP1## and choose *Create*.

   In the *Manage PIRs* screen, click in the line of material T-FSP1##.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *Create PIRs* window, enter the following data:

Field	Value
Version	00
Requirements Type	VSF

Choose *Create and Edit*.

In the *Edit PIRs* screen, define the following quantities:

Period	Draft PIRs
Actual week	0
Actual week +1 week	0
Actual week + 2 weeks	30
Actual week + 3 weeks	30
Actual week + 4 weeks	30
Actual week + 5 weeks	30
Actual week + 6 weeks	30
Actual week + 7 weeks	30
Actual week + 8 weeks	30
Actual week + 9 weeks	30
Actual week + 10 weeks	30

Set the version to active.

Choose *Save*.

Navigate back to the homepage.

Task 2: Run MRP

As a MRP controller, you start an MRP run for your finished material T-FSP1##.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage* tile to check the stock availability for the materials for MRP controller P##.

   In the *Monitor Material Coverage - Net Segments* screen, select your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

   Then choose *Manage Materials* to check the Stock/Requirements Lists for the selected materials.

   Analyze and interpret the current situation.

2. In the *Monitor Material Coverage* app, display the Stock/Requirements List for product T-FSP1## and choose *Start MRP Run*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Check the result of the MRP run in the Stock/Requirements Lists for your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

Analyze and interpret the current situation.

Task 3: Convert a Planned Order

As an MRP controller, you convert the next planned order into a production order and analyze the production order from an MRP point of view.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage* tile to check the stock availability for the materials for MRP controller P##.

   In the *Monitor Material Coverage Screen*, select your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

   Then choose *Manage Materials* to check the Stock/Requirements Lists for the selected materials.

   Select the Stock/Requirements List for your product T-FSP1##.

   For the first planned order, select the *Edit* dropdown button in the *Actions* column, then select *Convert*.

   In the *Change Planned Order* window, select *Convert to Production Order* and choose *OK* to start the conversion.

   Check the result of the planned order conversion in the Stock/Requirements Lists for your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

   Analyze and interpret the current situation.

2. In the *SAP Fiori Launchpad*, execute the *Monitor Production Orders (MRP View)* tile to analyze the production orders for MRP controller P##.

   In the *Monitor Production Orders* screen, check the information on the production order for your product T-FSP1##.

   Select the production order and choose *Manage Orders*.

   In the *Manage Orders* Screen, you get detail information on the production order from an MRP point of view.

   Check the information on the following detail views: Stock/Requirements List, Components, Milestones, Material, Production Order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Unit 1
Solution 4

Create Planned Independent Requirements, Run MRP, and Convert a Planned Order

Business Scenario

Based on sales forecasts, a planner specifies requirements for the make-to-stock (MTS) production of the bicycles. An MRP controller schedules an MRP run, checks the result, and converts planned orders to production orders.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Duplication is prohibited.

Duplication is prohibited.

Task 1: Create Planned Independent Requirements

As a planner, you create planned independent requirements for the finished product T-FSP1## *Bike Special*.

Previously, you set up a preferred planning strategy for MTS production in the material master.

1. In the *SAP Fiori Launchpad*, execute the *Change Material* tile to set up the MTS planning strategy *40 Planning with final assembly* for your finished product T-FSP1## *Bike Special*.

   Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *40 Planning with final assembly*.

   Save the material and choose *Exit* to leave the material master maintenance.

   a) For this exercise step no further information is needed.

2. In the *SAP Fiori Launchpad*, execute the *Maintain PIRs* tile to create planned independent requirements for your finished product T-FSP1## *Bike Special*.

   In the *Maintain PIRs* screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
Period Indicator	Weekly (W)
Version Active	

   Choose *Go*.

   Select the listed material T-FSP1## and choose *Create*.

© Copyright. All rights reserved.

In the *Manage PIRs* screen, click in the line of material T-FSP1##.

In the *Create PIRs* window, enter the following data:

Field	Value
Version	00
Requirements Type	VSF

Choose *Create and Edit*.

In the *Edit PIRs* screen, define the following quantities:

Period	Draft PIRs
Actual week	0
Actual week +1 week	0
Actual week + 2 weeks	30
Actual week + 3 weeks	30
Actual week + 4 weeks	30
Actual week + 5 weeks	30
Actual week + 6 weeks	30
Actual week + 7 weeks	30
Actual week + 8 weeks	30
Actual week + 9 weeks	30
Actual week + 10 weeks	30

Set the version to active.

Choose *Save*.

Navigate back to the homepage.

a) For this exercise step no further information is needed.

Task 2: Run MRP

As a MRP controller, you start an MRP run for your finished material T-FSP1##.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage* tile to check the stock availability for the materials for MRP controller P##.

   In the *Monitor Material Coverage - Net Segments* screen, select your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

   Then choose *Manage Materials* to check the Stock/Requirements Lists for the selected materials.

   Analyze and interpret the current situation.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

a) You should find the following current situation:

- Product T-FSP1##: PIRs, no stock
- Components: no requirements, stock: 2000 PC

2. In the *Monitor Material Coverage* app, display the Stock/Requirements List for product T-FSP1## and choose *Start MRP Run*.

   Check the result of the MRP run in the Stock/Requirements Lists for your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

   Analyze and interpret the current situation.

   a) You should find the following current situation:

   - Product T-FSP1##: PIRs, Planned Orders, no stock
   - Components: Dependent Requirements, stock: 2000 PC

Task 3: Convert a Planned Order

As an MRP controller, you convert the next planned order into a production order and analyze the production order from an MRP point of view.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage* tile to check the stock availability for the materials for MRP controller P##.

   In the *Monitor Material Coverage Screen*, select your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

   Then choose *Manage Materials* to check the Stock/Requirements Lists for the selected materials.

   Select the Stock/Requirements List for your product T-FSP1##.

   For the first planned order, select the *Edit* dropdown button in the *Actions* column, then select *Convert*.

   In the *Change Planned Order* window, select *Convert to Production Order* and choose *OK* to start the conversion.

   Check the result of the planned order conversion in the Stock/Requirements Lists for your product T-FSP1## and the components T-SSP1##, T-SSP2##, and T-RSP1##.

   Analyze and interpret the current situation.

   a) You should find the following current situation:

   - Product T-FSP1##: PIRs, Production Order, Planned Orders, no stock
   - Components: Reservation, Dependent Requirements, stock: 2000 PC

2. In the *SAP Fiori Launchpad*, execute the *Monitor Production Orders (MRP View)* tile to analyze the production orders for MRP controller P##.

   In the *Monitor Production Orders* screen, check the information on the production order for your product T-FSP1##.

   Select the production order and choose *Manage Orders*.

   In the *Manage Orders* Screen, you get detail information on the production order from an MRP point of view.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Check the information on the following detail views: Stock/Requirements List, Components, Milestones, Material, Production Order.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the application areas, the integration, the characteristics, and the master data of production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Which of the following Statement is correct?

   Choose the correct answer.

   - ☐ A SAP Fiori is primarily a tool for analytical evaluations.
   - ☐ B SAP Fiori is a collection of UX-driven apps.
   - ☐ C SAP Fiori offers single complex transaction for many user roles.

2. Which of the following Statements are correct?

   Choose the correct answers.

   - ☐ A Production orders are mainly used in mass production.
   - ☐ B Production orders control the whole process of external procurement.
   - ☐ C Production orders are integrated in the functions of Production Planning.
   - ☐ D When a production order is created, a production version is selected.
   - ☐ E Kanban offers an alternative for the use of production orders.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Which of the following Statement is correct?

   Choose the correct answer.

   - [ ] A SAP Fiori is primarily a tool for analytical evaluations.
   - [x] B SAP Fiori is a collection of UX-driven apps.
   - [ ] C SAP Fiori offers single complex transaction for many user roles.

   Correct. SAP Fiori is a collection of UX-driven apps.

2. Which of the following Statements are correct?

   Choose the correct answers.

   - [ ] A Production orders are mainly used in mass production.
   - [ ] B Production orders control the whole process of external procurement.
   - [x] C Production orders are integrated in the functions of Production Planning.
   - [x] D When a production order is created, a production version is selected.
   - [ ] E Kanban offers an alternative for the use of production orders.

   Correct. Production orders are integrated in the functions of Production Planning. When a production order is created, a production version is selected.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 2 Order Processing and Order Structure

Lesson 1

Processing a Production Order 46
Exercise 5: Execute a Production Order 47

Lesson 2

Analyzing the Order Structure 57
Exercise 6: Analyze the Production Order Structure 59

UNIT OBJECTIVES

- Describe the various steps of production order processing
- Describe the structure and elements of a production order

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Processing a Production Order

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the various steps of production order processing

Order Processing

A production order goes through many individual activities. Important steps in production order processing are order creation, scheduling, release, material withdrawal, confirmation, goods receipt, and settlement.

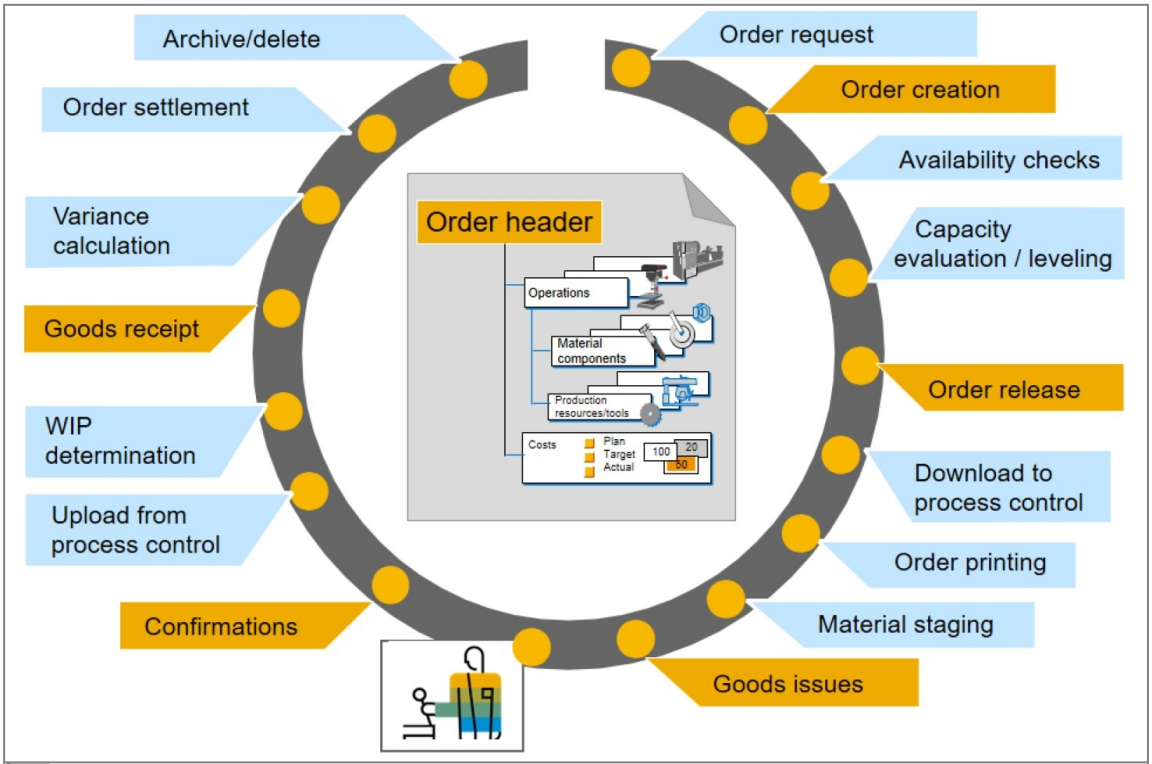

Figure 11: Production Order Processing

Many of these activities can run automatically or in the background so that manual processing of orders is minimized. Various specific Customizing settings allow the successful execution of each individual step in order processing.

WIP determination, variance calculation, and settlement are generally periodic work for Cost Object Controlling (COC), and are usually processed in the background.

Various interfaces for process integration are available for downloading orders and uploading actual data.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Execute a Production Order

Business Scenario

A production supervisor controls the further execution of the production orders. The production orders will be released and printed. The next steps in order processing are goods issue postings, confirmations, and goods receipt postings.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Release a Production Order

As a production supervisor, you release the production order for the finished product T-FSP## Bike Special and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to analyze the production orders for production supervisor P##.

   When you start the app for the first time, you must specify as an area of responsibility a combination of plant and production supervisor or work center.

   Choose *Production Supervisor* for the area of responsibility and add Plant 1010 / Production Supervisor P##.

   > Note:
   > In the app, you can change the area of responsibility in the app settings of your user.

   In the *Mange Production Orders* Screen, check the information on the production order for your product T-FSP1##.

   Note the actual status.

Status
>

2. Click in the line of the production order to get more detailed information.

   Check the following detail information on the order: Issues, Order Information, Components, Order Schedule, Confirmation, Inspection.

   Have the quantities of the components already been committed by a material availability check?

   Note the actual status of the operations.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Status
>

3. Stay in the detail view of the order and choose *Release*.
   Note the actual status of the order and of the operations.

Status
>

   Have the quantities of the components been committed now?

4. Choose *Edit Order* to open the production order in change mode.
   In the *Header* screen, choose the *i* icon to display the status in detail.

   Has the order been printed?

5. Exit the production order and close the tab.
   In the *Mange Production Order* tab, choose *Back* twice to navigate back to the Launchpad.

Task 2: Post Goods Issues

For the production order of your finished product T-FSP1##, you post the goods issues in the picking list and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Pick Components for Production Orders* tile to pick the components for the production order of material T-FSP1## and to post the goods issues.
   A new tab with the title *Picking List: Initial Screen* will be opened. In the *Picking List: Initial Screen*, enter the following data.

Field	Value
Profile	000002
Production Supervisor	P##

   Choose *Execute*.

   In the *Order Information System: Detail List of Components* screen, select all components for your production order, and choose *Picking*.

   In the *Picking List*, select all components and choose *Post* to post the goods issues.

   Refresh the list.

   Finally close the tab.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to analyze the material components of your production order.
   Click in the line of the production order and check the detail information on the components.

   Have the required quantities of the components been consumed by goods issue postings?

   What are the open quantities for the components?

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

3. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage – Net Segments* tile to check the stock/requirements situation for the components T-SSP1##, T-SSP2##, and T-RSP1##.

   In the *Monitor Material Coverage* screen, select the components.

   Then choose *Mange Materials* to check the Stock/Requirements Lists for the components.

   Analyze and interpret the current situation.

Task 3: Confirm Operations

For the production order of your finished product T-FSP1##, you confirm the operations and analyze the result.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to analyze and confirm the operations of your production order.

   Click in the line of the production order and choose *Order Schedule* to display the operations.

   Click in the line of the first operation to open the *Manage Production Operations* view and choose *Confirm Operation*.

   A new tab with the title *Enter Time Ticket for Production Order* will be opened. Check the confirmation data and save the confirmation.

   Exit the *Enter Time Ticket for Production Order* screen and close the tab.

   Refresh the *Manage Production Operations* view and check the updated information for the first operation.

   Check the operation progress and note the actual status of the operation.

Status
>

2. Confirm the other operations of the order in the same way.

   Finally, navigate back from the *Manage Production Operations* view to the *Manage Production Orders* view and check the status of the entire order.

Status
>

Task 4: Post Goods Receipt

For the production order of your finished product T-FSP1##, you post the goods receipt and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of your product T-FSP1##.

   In the *Stock – Single Material* screen, enter the material number T-FSP1##.

   Describe the current situation.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to get the number of your production order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Order
>

3. In the *SAP Fiori Launchpad*, execute the *Post Goods Movements* tile to post the goods receipt for your production order.

   A new tab will be opened. Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Set the *OK* flag, select *Check* to check the goods receipt and select *Post* to post the goods receipt.

   Finally, close the tab.

4. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to check the status of your production order:

Status
>

5. In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of your product T-FSP1##.

   In the *Stock – Single Material* screen, enter the material number T-FSP1##.

   Analyze and interpret the current situation.

6. In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to analyze the stock/requirements list of your product T-FSP1##.

   Analyze and interpret the current situation.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Execute a Production Order

Business Scenario

A production supervisor controls the further execution of the production orders. The production orders will be released and printed. The next steps in order processing are goods issue postings, confirmations, and goods receipt postings.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Release a Production Order

As a production supervisor, you release the production order for the finished product T-FSP## Bike Special and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to analyze the production orders for production supervisor P##.

   When you start the app for the first time, you must specify as an area of responsibility a combination of plant and production supervisor or work center.

   Choose *Production Supervisor* for the area of responsibility and add Plant 1010 / Production Supervisor P##.

   > Note:
   > In the app, you can change the area of responsibility in the app settings of your user.

   In the *Mange Production Orders* Screen, check the information on the production order for your product T-FSP1##.

   Note the actual status.

Status
>

   a) You should find the following status:

Status
Created

2. Click in the line of the production order to get more detailed information.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Check the following detail information on the order: Issues, Order Information, Components, Order Schedule, Confirmation, Inspection.

Have the quantities of the components already been committed by a material availability check?

Note the actual status of the operations.

Status
>

a) The quantities of the material components haven't been committed yet (red bar).
You should find the following operation status:

Status
Created

3. Stay in the detail view of the order and choose *Release*.
Note the actual status of the order and of the operations.

Status
>

Have the quantities of the components been committed now?

a) You should find the following order and operation status:

Status
Released

b) The quantities of the material components have been committed now (green bar).

4. Choose *Edit Order* to open the production order in change mode.
In the *Header* screen, choose the *i* icon to display the status in detail.

Has the order been printed?

a) The order has been printed. The status *PRT Printed* is set.

5. Exit the production order and close the tab.
In the *Mange Production Order* tab, choose *Back* twice to navigate back to the Launchpad.

a) For this exercise step no further information is needed.

Task 2: Post Goods Issues

For the production order of your finished product T-FSP1##, you post the goods issues in the picking list and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Pick Components for Production Orders* tile to pick the components for the production order of material T-FSP1## and to post the goods issues.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

A new tab with the title *Picking List: Initial Screen* will be opened. In the *Picking List: Initial Screen*, enter the following data.

Field	Value
Profile	000002
Production Supervisor	P##

Choose *Execute*.

In the *Order Information System: Detail List of Components* screen, select all components for your production order, and choose *Picking*.

In the *Picking List*, select all components and choose *Post* to post the goods issues.

Refresh the list.

Finally close the tab.

a) For this exercise step no further information is needed.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to analyze the material components of your production order.

   Click in the line of the production order and check the detail information on the components.

   Have the required quantities of the components been consumed by goods issue postings?

   What are the open quantities for the components?

   a) Select the bars in column *Coverage*. The quantities of the material components have been consumed.

   b) The open quantities are 0.

3. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage – Net Segments* tile to check the stock/requirements situation for the components T-SSP1##, T-SSP2##, and T-RSP1##.

   In the *Monitor Material Coverage* screen, select the components.

   Then choose *Mange Materials* to check the Stock/Requirements Lists for the components.

   Analyze and interpret the current situation.

   a) You should find the following current situation for the components:

      The order reservations are no longer relevant for MRP and are no longer visible in the stock/requirements list.

      The stocks were reduced by the quantities withdrawn.

Task 3: Confirm Operations

For the production order of your finished product T-FSP1##, you confirm the operations and analyze the result.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to analyze and confirm the operations of your production order.

   Click in the line of the production order and choose *Order Schedule* to display the operations.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Click in the line of the first operation to open the *Manage Production Operations* view and choose *Confirm Operation*.

A new tab with the title *Enter Time Ticket for Production Order* will be opened. Check the confirmation data and save the confirmation.

Exit the *Enter Time Ticket for Production Order* screen and close the tab.

Refresh the *Manage Production Operations* view and check the updated information for the first operation.

Check the operation progress and note the actual status of the operation.

Status
>

a) You should find the following situation:

The updated operation progress indicates that the total operation quantity has been confirmed.

The operation status should be as follows:

Status
Confirmed

2. Confirm the other operations of the order in the same way.

Finally, navigate back from the *Manage Production Operations* view to the *Manage Production Orders* view and check the status of the entire order.

Status
>

a) When all operations have been confirmed, the order status should be as follows:

Status
Confirmed

Task 4: Post Goods Receipt

For the production order of your finished product T-FSP1##, you post the goods receipt and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of your product T-FSP1##.

In the *Stock – Single Material* screen, enter the material number T-FSP1##.

Describe the current situation.

a) There should be no stock for the material.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to get the number of your production order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Order
>

a) Note the order number.

3. In the *SAP Fiori Launchpad*, execute the *Post Goods Movements* tile to post the goods receipt for your production order.

   A new tab will be opened. Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Set the *OK* flag, select *Check* to check the goods receipt and select *Post* to post the goods receipt.

   Finally, close the tab.

   a) For this exercise step no further information is needed.

4. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to check the status of your production order:

Status
>

   a) The order status should be as follows:

Status
Delivered

5. In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of your product T-FSP1##.

   In the *Stock – Single Material* screen, enter the material number T-FSP1##.

   Analyze and interpret the current situation.

   a) You should find the following current situation for your product:

      The stock of storage location 101A in plant 1010 was increased by the goods receipt quantity.

6. In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to analyze the stock/requirements list of your product T-FSP1##.

   Analyze and interpret the current situation.

   a) You should find the following current situation for your product:

      - The production order is no longer relevant for MRP and is no longer visible in the stock/requirements list.
      - The stock was increased by the goods receipt quantity.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the various steps of production order processing

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyzing the Order Structure

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the structure and elements of a production order

Order Structure

A production order has a complex structure with many different elements.

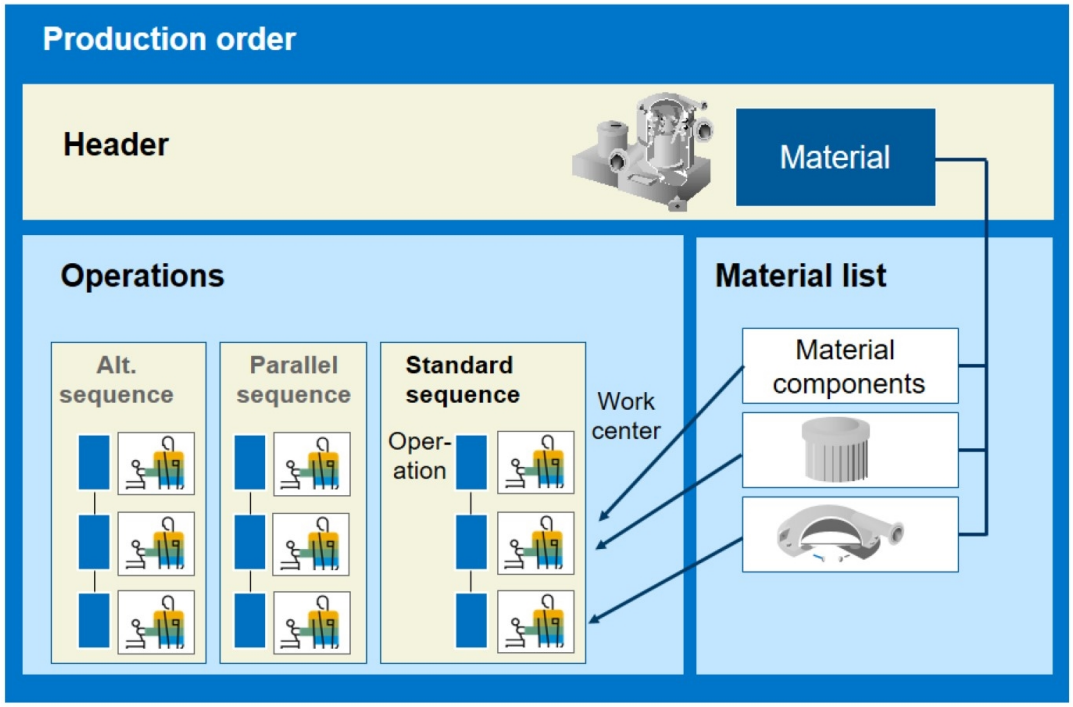

Figure 12: Production Order Structure

The figure describes the production order structure.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Elements of a Production Order

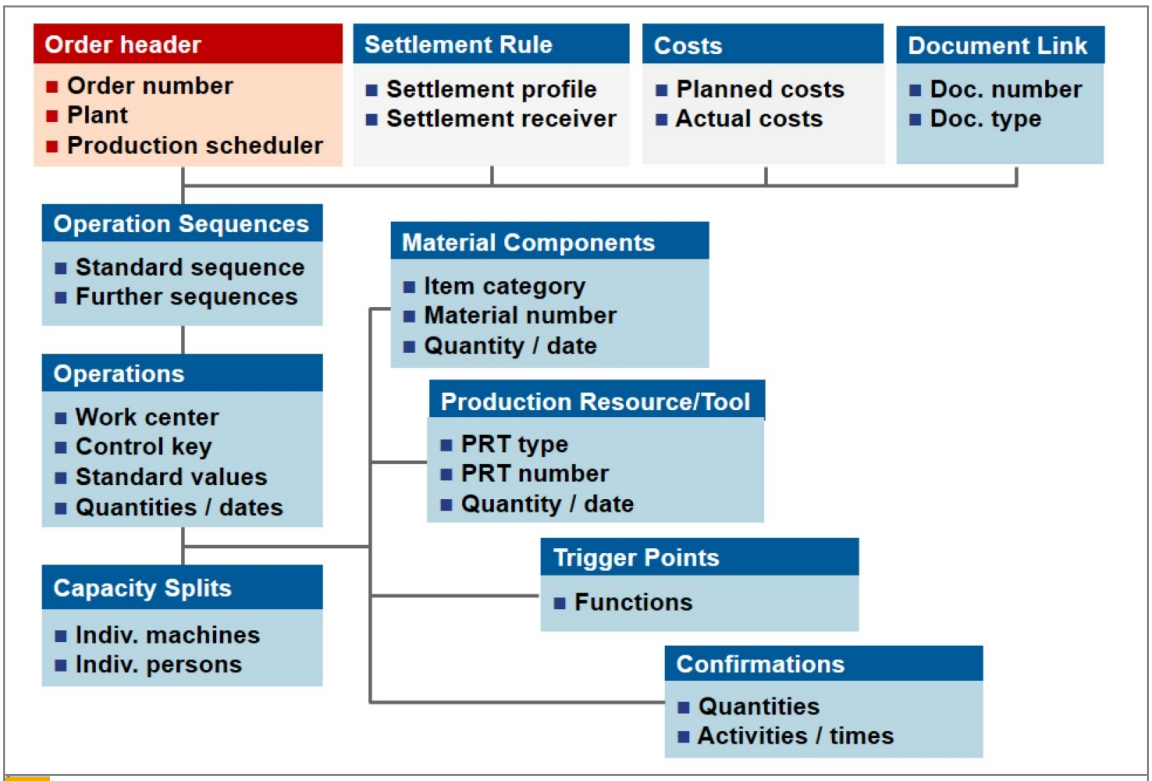

Figure 13: Elements of a Production Order

The order header describes the product that is to be manufactured with the production order.

The order has a standard sequence of operations. The standard sequence may have additional parallel and alternative operation sequences. The standard sequence must have at least one operation. If necessary, the system creates the operation itself.

An operation describes an individual work step of the production order. Material components, production resources/tools and trigger points can be assigned to an operation.

An operation can have several sub-operations. This is used for detailed calculation and capacity planning. Scheduling always occurs at operation level. It is not possible to assign material components, production resources/tools and trigger points to sub-operations.

Documents of the Document Management System can be linked to the production order.

For order-related COC, costs are managed at order header level, and a settlement rule is assigned.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze the Production Order Structure

Business Scenario

As a production supervisor, you must often check and change the data of production orders. In special cases, you must even be able to create production orders without master data.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Display and Change a Production Order

As a production supervisor, you must be able to display and change the data of production orders.

1. In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the stock/requirements situation for your product T-FSP1##.

   Convert the next planned order into a production order.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for production supervisor P##.

   Select line of the new production order with status *Created* and choose *Edit* to open the production order in change mode.

   A new tab with the title *Production Order Change: Header* will be opened.

3. In the *Production order Change: Header* screen, try to get an overview of the data on the following views:

   - *General*
   - *Assignment*
   - *Goods Receipt*
   - *Control*
   - *Dates/Qties*
   - *Master Data*
   - *Administration*

   In the *Assignment* view, note the number of the reservation which was created for goods issue posting in materials management.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Reservation
>

In the *Master Data* view, double-click the routing and the BOM to display the master data.

4. In the *Production order Change: Header* screen, choose the *Status* icon (i) to check the actual status of the production order.

   Note the first status.

Status	Text
>	

   In the *Change Status* screen, choose the *Business process* view to check the allowed or forbidden transactions.

   Are goods movements allowed for the actual status?

5. Navigate back to the *Production order Change: Header* screen and choose *Documents* or *More → Header → Documents* and note the documents linked to the production order.

Document
>
>

6. Navigate back to the *Production order Change: Header* screen and choose *More → Goto → Costs → Analysis* to get an overview of the planned and actual costs.

   In the cost report, assign the layout *SCM-PP*. To do this, choose the *Select Layout* icon.

   Which transactions are included in the calculation?

Transaction
>
>
>

7. Exit the cost analysis. In the *Production order Change: Header* screen, choose *More → Header → Settlement Rule*.

   Note the settlement receiver of the production order.

Cat	Settlement Receiver
>	

8. Exit the settlement rule. Choose *Operations* to display the *Operation Overview*.

   In the *Operation Overview*, check the actual status of the operations. Double-click the status of an operation and note the following:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Status	Text
>	

Check the business processes.

Are confirmations allowed?

9. Exit the status view. In the *Operation Overview*, select all operations and double-click the first operation.
   For each operation, check the data on the following views:
   - *StandardVals*
   - *Interop. Times*
   - *Dates/Times*
   - *Qties/Activities*
   - *Cap. Rqmt Assignment*
10. Navigate back to the *Operation Overview*. Check the assignment of PRTs and trigger points as defined in the routing.
11. Choose *Components* to display the *Component Overview*.
    In the *Component Overview*, select all components and double-click the item number of the first component.
    Check the *General Data* for each component.
    Check the actual status of the components.

Status	Text
>	

Are quantities already committed by availability check?

Are quantities already withdrawn by goods issues?

12. Navigate to the *Operation Overview*.
    Choose the *Insert operation* (+) icon to insert the following operation:

Op.	Work Center	Control Key	Operation short text
0025	T-BK5##	YBP1	Painting

Double-click the new operation number and maintain the following standard values:

Field	Std Value
Setup	15 MIN
Machine	5 MIN

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Std Value
Labor	5 MIN

13. Navigate to the *Component Overview*.

    Add another material component:

Item	Component	Reqmt Qty
0040	T-SSP3##	3

In the *Allocation Operation/Sequence* dialog box, allocate the new component to operation 0025.

Finally, save the order and close the *production order* tab.

Task 2: Create a Production Order without Master Data

As a production supervisor, in special cases you must even be able to create production orders without master data.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Versions* tile to check whether a production version of the prototype material T-SPROT## already exists.

   In the *Production Version* app, enter plant 1010 and the material number and choose *Enter* to find production versions of the material.

   Do production versions exist?

2. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for material T-SPROT##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SPROT##
Production Plant	1010
Order Type	YBM1

Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	10
End	choose any date in the near future

Choose *Enter* to create the order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

You get the message `No valid production version found for material T-SPROT##`.

Choose *Generate Operation* in the *Routing selection T-SPROT##* dialog box and confirm the subsequent information message by selecting *Continue*.

3. Choose *Operations* to navigate to the *Operations Overview*.
   Define the following operations:

Op.	Work Center	Control Key	Operation short text
0010	T-BK4##	PT01	Welding
0020	T-BK5##	YBP3	Painting

Define the following standard values and interoperation times for operation 0010:

Field	Value
Setup	15 MIN
Machine	20 MIN
Labor	20 MIN
Minimum Wait Time	1 H
Standard Queue Time	1 D
Minimum Queue Time	2 H
Standard Move Time	2 H
Minimum Move Time	1 H

Define the following standard values and interoperation times for operation 0020:

Field	Value
Setup	15 MIN
Machine	10 MIN
Labor	10 MIN
Minimum Wait Time	4 H
Standard Queue Time	2 H
Minimum Queue Time	1 H
Standard Move Time	2 H
Minimum Move Time	1 H

4. In the *Operation Overview*, choose *Components* to navigate to the *Component Overview*.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Define the following components:

Item	Component	Reqmt Qty	Item Category	Operation
0010	T-RSP5##	10 PC	L	0010
0020	T-RSP6##	10 PC	L	0010
0030	T-SSP3##	1 L	L	0020

5. Navigate to the *Operation Overview*, select *operation 0010*, and choose the *PRT* button to assign a PRT.

   In the *Production Order Create: PRT New Entries* dialog box, choose *Other* and enter the following data:

Field	Value
PRT	T-PRT200
Quantity	1 PC
Control Key	1
Standard Text Key	
Text field	Welding Tool Set

   Choose the icon *Adopt & Back* to navigate to the *PRT Overview*.

   Finally, navigate *Back* to the *Operation Overview*.

6. Choose *Sequences* to navigate to the *Sequence Overview*.

   Define the following parallel sequence:

Seq	SeqCat	Branch Op.	Return Op.	Short Text
1	Parallel	0010	0020	Quality Control

   Select the new sequence and choose *Operations* to navigate to the *Operation Overview* of the parallel sequence.

   Define the following operation:

Op.	Work Center	Control Key	Operation short text
0010	T-BKQM	PT01	Quality Control

   Define the following standard values for the operation.

Field	Value
Setup	10 MIN
Machine	10 MIN

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Labor	10 MIN

Finally, navigate back to the *Operation Overview*.

7. Choose *Documents* to navigate to the *Documents Links* screen.
   Link the following document:

Sequence	Activity	Type	Document
1	0010	DRW	T-DSP200

Finally save the order and close the *Production Order Create* tab.

8. Display the production order for material T-SPROT## in the *Manage Production Orders* app.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze the Production Order Structure

Business Scenario

As a production supervisor, you must often check and change the data of production orders. In special cases, you must even be able to create production orders without master data.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Display and Change a Production Order

As a production supervisor, you must be able to display and change the data of production orders.

1. In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the stock/requirements situation for your product T-FSP1##.

   Convert the next planned order into a production order.

   a) For the next planned order, select the *Edit* dropdown box in the *Action* column, then select *Convert*.

      In the *Change Planned Order* window, select *Convert to Production Order* and choose *OK* to start the conversion.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for production supervisor P##.

   Select line of the new production order with status *Created* and choose *Edit* to open the production order in change mode.

   A new tab with the title *Production Order Change: Header* will be opened.

   a) For this exercise step no further information is needed.

3. In the *Production order Change: Header* screen, try to get an overview of the data on the following views:

   - *General*
   - *Assignment*
   - *Goods Receipt*
   - *Control*
   - *Dates/Qties*

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

- *Master Data*
- *Administration*

In the *Assignment* view, note the number of the reservation which was created for goods issue posting in materials management.

Reservation
>

In the *Master Data* view, double-click the routing and the BOM to display the master data.

a) For this exercise step no further information is needed.

4. In the *Production order Change: Header* screen, choose the *Status* icon (i) to check the actual status of the production order.

   Note the first status.

Status	Text
>	

In the *Change Status* screen, choose the *Business process* view to check the allowed or forbidden transactions.

Are goods movements allowed for the actual status?

a) You should find the following first status:

Status	Text
CRTD	Created

b) Goods movements are not allowed for status CRTD.

5. Navigate back to the *Production order Change: Header* screen and choose *Documents* or *More* → *Header* → *Documents* and note the documents linked to the production order.

Document
>
>

a) The following documents assigned to the material master and defined as components in the BOM are linked to the order (see master data exercises):

Document
T-DSP100
T-DSP200

6. Navigate back to the *Production order Change: Header* screen and choose *More* → *Goto* → *Costs* → *Analysis* to get an overview of the planned and actual costs.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the cost report, assign the layout *SCM-PP*. To do this, choose the *Select Layout* icon.

Which transactions are included in the calculation?

Transaction
>
>
>

a) The following transactions are included:

Transaction
Goods issues
Confirmations
Goods Receipt

7. Exit the cost analysis. In the *Production order Change: Header* screen, choose *More → Header → Settlement Rule*.

   Note the settlement receiver of the production order.

Cat	Settlement Receiver
>	

a) The following settlement receiver is assigned:

Cat	Settlement Receiver
MAT	T-FSP1##

8. Exit the settlement rule. Choose *Operations* to display the *Operation Overview*.

   In the *Operation Overview*, check the actual status of the operations. Double-click the status of an operation and note the following:

Status	Text
>	

Check the business processes.

Are confirmations allowed?

a) You should find the following status for the operations.

Status	Text
CRTD	Created

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

b) Confirmations are not allowed for status CRTD.

9. Exit the status view. In the *Operation Overview*, select all operations and double-click the first operation.

   For each operation, check the data on the following views:

   - *StandardVals*
   - *Interop. Times*
   - *Dates/Times*
   - *Qties/Activities*
   - *Cap. Rqmt Assignment*

   a) You can navigate from operation to operation using *Previous Operation* or *Next Operation*.

10. Navigate back to the *Operation Overview*. Check the assignment of PRTs and trigger points as defined in the routing.

    a) In the *Operation Overview*, the PRT indicator is set for operation 0020 and the TP (trigger point) indicator is set for operation 0030. Double-click the indicators or choose the corresponding buttons to display these objects.

11. Choose *Components* to display the *Component Overview*.

    In the *Component Overview*, select all components and double-click the item number of the first component.

    Check the *General Data* for each component.

    Check the actual status of the components.

Status	Text
>	

    Are quantities already committed by availability check?

    Are quantities already withdrawn by goods issues?

    a) You should find the following status for the components:

Status	Text
CRTD	Created

    b) No quantities are committed or withdrawn.

12. Navigate to the *Operation Overview*.

    Choose the *Insert operation* (+) icon to insert the following operation:

Op.	Work Center	Control Key	Operation short text
0025	T-BK5##	YBP1	Painting

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Double-click the new operation number and maintain the following standard values:

Field	Std Value
Setup	15 MIN
Machine	5 MIN
Labor	5 MIN

a) For this exercise step no further information is needed.

13. Navigate to the *Component Overview*.
    Add another material component:

Item	Component	Reqmt Qty
0040	T-SSP3##	3

In the *Allocation Operation/Sequence* dialog box, allocate the new component to operation 0025.

Finally, save the order and close the *production order* tab.

a) For this exercise step no further information is needed.

Task 2: Create a Production Order without Master Data

As a production supervisor, in special cases you must even be able to create production orders without master data.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Versions* tile to check whether a production version of the prototype material T-SPROT## already exists.

   In the *Production Version* app, enter plant 1010 and the material number and choose *Enter* to find production versions of the material.

   Do production versions exist?

   a) There are no production versions for the material yet.

2. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for material T-SPROT##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SPROT##
Production Plant	1010
Order Type	YBM1

Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Total Qty	10
End	choose any date in the near future

Choose *Enter* to create the order.

You get the message `No valid production version found for material T-SPROT##`.

Choose *Generate Operation* in the *Routing selection T-SPROT##* dialog box and confirm the subsequent information message by selecting *Continue*.

a) For this exercise step no further information is needed.

3. Choose *Operations* to navigate to the *Operations Overview*.
Define the following operations:

Op.	Work Center	Control Key	Operation short text
0010	T-BK4##	PT01	Welding
0020	T-BK5##	YBP3	Painting

Define the following standard values and interoperation times for operation 0010:

Field	Value
Setup	15 MIN
Machine	20 MIN
Labor	20 MIN
Minimum Wait Time	1 H
Standard Queue Time	1 D
Minimum Queue Time	2 H
Standard Move Time	2 H
Minimum Move Time	1 H

Define the following standard values and interoperation times for operation 0020:

Field	Value
Setup	15 MIN
Machine	10 MIN
Labor	10 MIN
Minimum Wait Time	4 H

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Standard Queue Time	2 H
Minimum Queue Time	1 H
Standard Move Time	2 H
Minimum Move Time	1 H

a) First, define the operations in the *Operation Overview*. Then select both operations and double-click the first operation. Enter the standard values and the interoperation times on the corresponding tabs. Use *Next Operation* to navigate the second operation. Finally, navigate back to the *Operation Overview*.

4. In the *Operation Overview*, choose *Components* to navigate to the *Component Overview*.
   Define the following components:

Item	Component	Reqmt Qty	Item Category	Operation
0010	T-RSP5##	10 PC	L	0010
0020	T-RSP6##	10 PC	L	0010
0030	T-SSP3##	1 L	L	0020

a) For this exercise step no further information is needed.

5. Navigate to the *Operation Overview*, select *operation 0010*, and choose the *PRT* button to assign a PRT.
   In the *Production Order Create: PRT New Entries* dialog box, choose *Other* and enter the following data:

Field	Value
PRT	T-PRT200
Quantity	1 PC
Control Key	1
Standard Text Key	
Text field	Welding Tool Set

Choose the icon *Adopt & Back* to navigate to the *PRT Overview*.

Finally, navigate *Back* to the *Operation Overview*.

a) For this exercise step no further information is needed.

6. Choose *Sequences* to navigate to the *Sequence Overview*.
   Define the following parallel sequence:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Seq	SeqCat	Branch Op.	Return Op.	Short Text
1	Parallel	0010	0020	Quality Control

Select the new sequence and choose *Operations* to navigate to the *Operation Overview* of the parallel sequence.

Define the following operation:

Op.	Work Center	Control Key	Operation short text
0010	T-BKQM	PT01	Quality Control

Define the following standard values for the operation.

Field	Value
Setup	10 MIN
Machine	10 MIN
Labor	10 MIN

Finally, navigate back to the *Operation Overview*.

a) For this exercise step no further information is needed.

7. Choose *Documents* to navigate to the *Documents Links* screen.
   Link the following document:

Sequence	Activity	Type	Document
1	0010	DRW	T-DSP200

Finally save the order and close the *Production Order Create* tab.

a) For this exercise step no further information is needed.

8. Display the production order for material T-SPROT## in the *Manage Production Orders* app.
   a) Execute the *Manage Production Orders* tile.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the structure and elements of a production order

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Which of the following are the basic activities in production order processing?

   Choose the correct answers.

   - ☐ A Order Creation
   - ☐ B Order Release
   - ☐ C Goods Issues
   - ☐ D Confirmations
   - ☐ E Goods Receipt

2. Header, operations, and material components are the basic views of an production order.

   Determine whether this statement is true or false.

   - ☐ True
   - ☐ False

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Which of the following are the basic activities in production order processing?

   Choose the correct answers.

   [X] A Order Creation

   [X] B Order Release

   [X] C Goods Issues

   [X] D Confirmations

   [X] E Goods Receipt

   Correct. All the listed options are correct.

2. Header, operations, and material components are the basic views of an production order.

   Determine whether this statement is true or false.

   [X] True

   [ ] False

   Correct. Header, operations, and material components are the basic views of an production order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 3 Order Creation

Lesson 1

Creating Production Orders 78
- Exercise 7: Create Production Orders by Planned Order Conversion 83
- Exercise 8: Create a Production Order with Material and Copy a Production Order 93
- Exercise 9: Create a Production Order without Material 97
- Exercise 10: Create Production Orders for Sales Orders 101

Lesson 2

Analyzing Master Data Selection 115
- Exercise 11: Define an Order Type 127
- Exercise 12: Analyze Master Data Selection 133

Lesson 3

Scheduling Production Orders 151
- Exercise 13: Set Up and Analyze Scheduling 155

Lesson 4

Describing the Costing of Production Orders 165
- Exercise 14: Analyze the Calculation of the Planned Costs 167

Duplication is prohibited.

Duplication is prohibited.

UNIT OBJECTIVES

- Describe the different ways of creating production orders
- Define an order type and describe the master data selection for production orders
- Describe the scheduling of production orders
- Describe the determination of the planned costs of a production order

© Copyright. All rights reserved.

Unit 3
Lesson 1

Creating Production Orders

LESSON OBJECTIVES
After completing this lesson, you will be able to:

- Describe the different ways of creating production orders

Order Creation

Depending on the requirements, there are various options for creating production orders. During order creation, various activities take place.

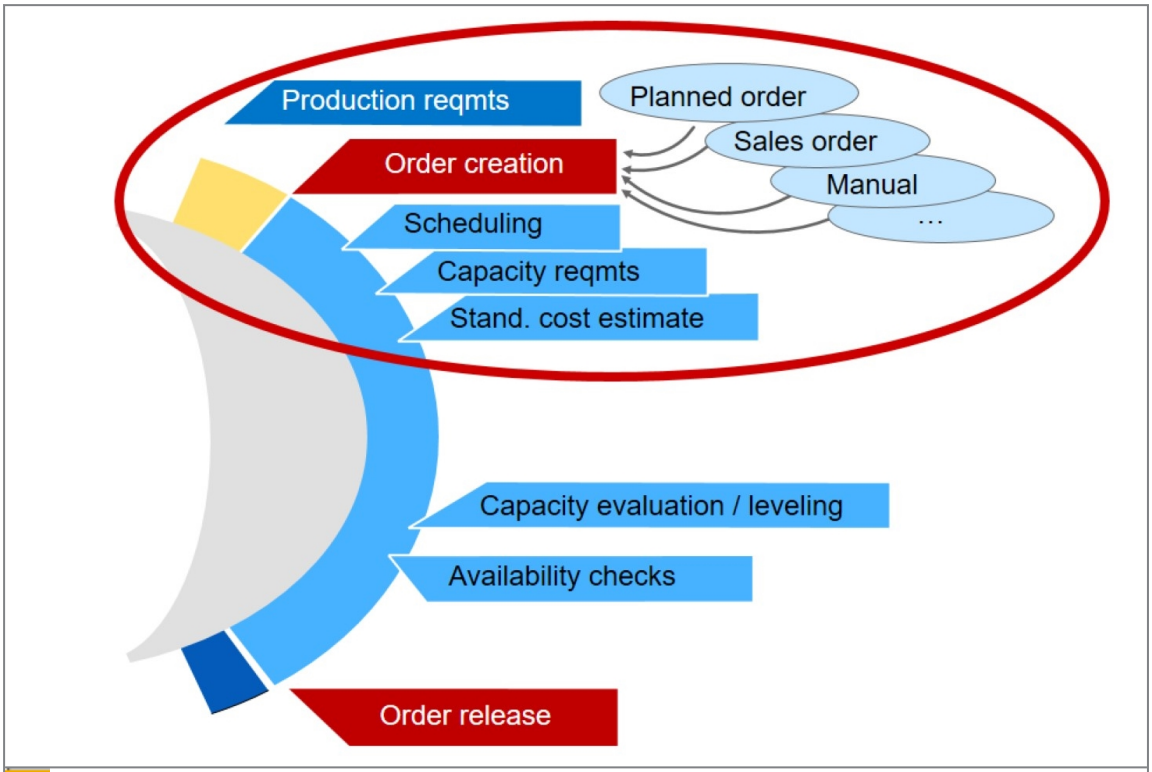

Figure 14: Activities during Order Creation

Creating Production Orders with Planned Orders

Planned orders are created in material requirements planning. Planned orders can be converted into production orders in collective, individual or partial conversion. Collective conversion can be performed in background processing.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

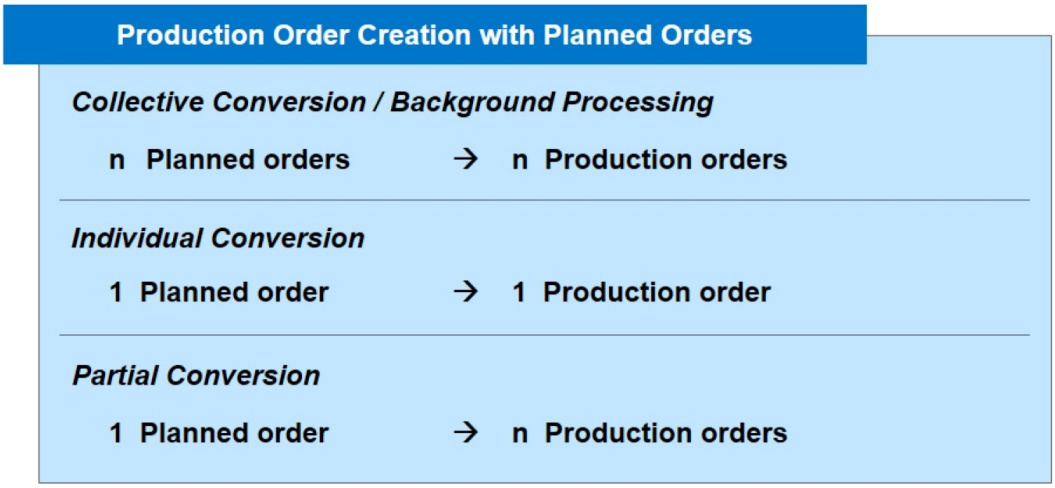

Figure 15: Production Order Creation with Planned Orders

The figure describes the different possibilities of production order creation with planned orders.

Converting a Planned Order to a Production Order I

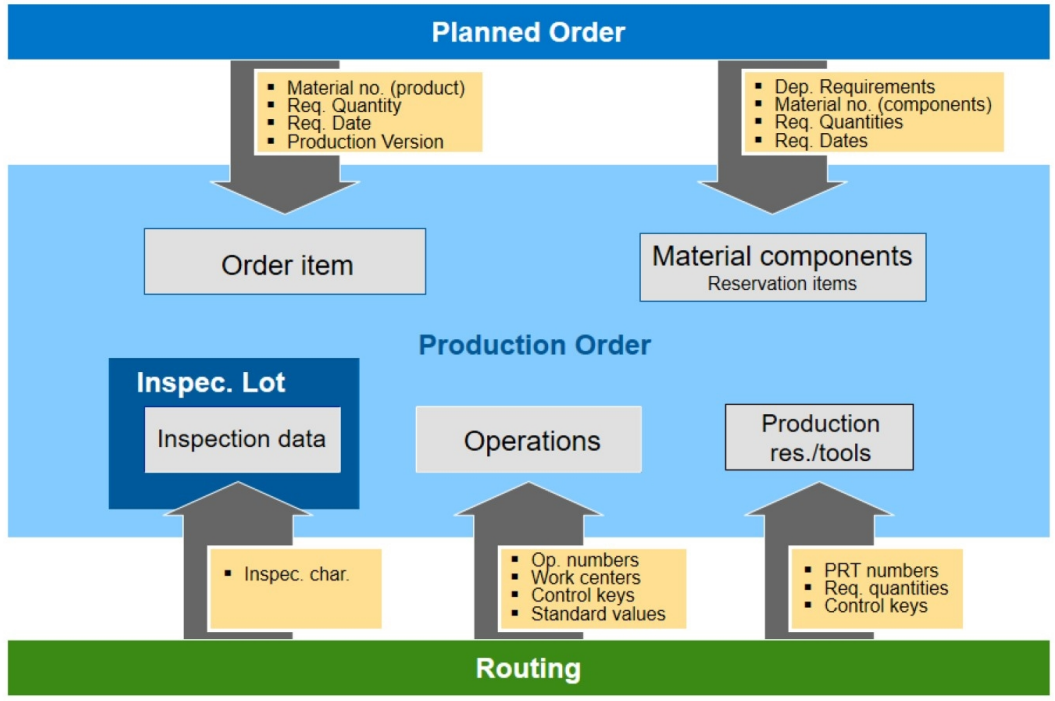

Figure 16: Converting a Planned Order to a Production Order I

Using planned order conversion, the production order data is automatically made available.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Converting a Planned Order to a Production Order II

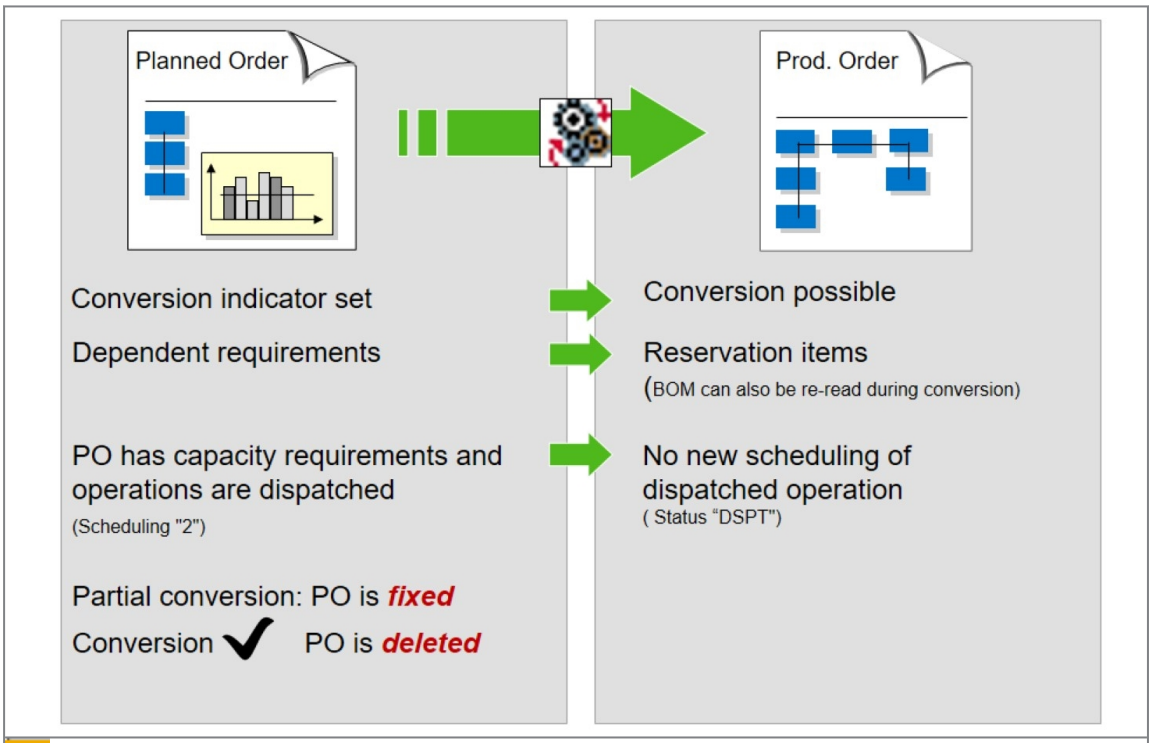

Figure 17: Converting a Planned Order to a Production Order II

When you convert a planned order into a production order, the planned order is deleted. The dependent requirements (material components) and capacity requirements that may exist are reallocated to the new production order. The dependent requirements are turned into reservation items. It is also possible to re-read the BOM during the conversion. In a partial conversion, the planned order still exists and is fixed.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Time-oriented Collective Conversion I

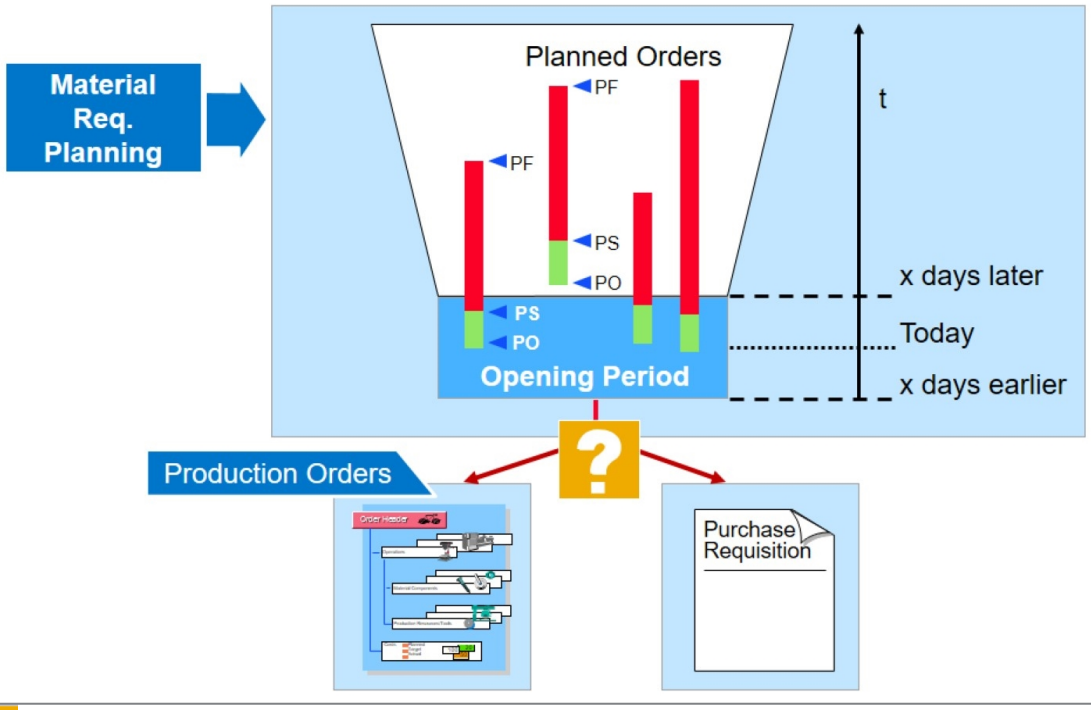

Figure 18: Time-oriented Collective Conversion I

Planned orders consist of a planned order start date (PS), a planned order finish date (PF) and a planned order opening date (PO). When the planned order opening date is reached, you should convert the planned order into a production order or a purchase requisition.

Time-oriented Collective Conversion II

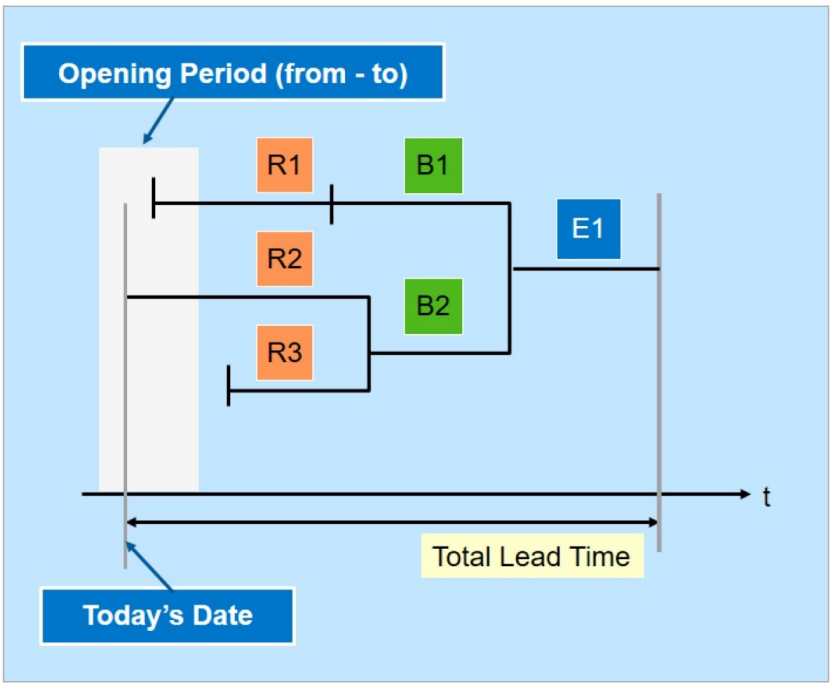

Figure 19: Time-oriented Collective Conversion II

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

The MRP controller uses collective conversion to convert the planned orders of a product structure one after another along the time axis.

Within an entire product structure, only those planned orders are offered for conversion, whose planned opening dates are within a defined opening period.

Alternative Ways and Special Variants of Creating Production Orders

There are many more options available for various special requirements to create production orders.

Alternative Ways of Creating a Production Order are:

- Create with Material
- Create without Material
- Create for Sales Order
- Create for Project

Special Variants of Creating a Production Order are:

- in Assembly Processing (for Sales Orders): Strategy Group 82
- as Collective Orders: Special Procurement 52
- with Variant Configuration
- by Confirmation (for Rework)
- in Kanban Process

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create Production Orders by Planned Order Conversion

Business Scenario

Usually, a collective conversion is used to convert planned orders into production orders. However, an MRP controller must also be able to convert planned orders individually or partially.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create Production Orders by Individual or Partial Conversion

As an MRP controller, you must be able to convert planned orders individually or partially into production orders. There are various apps and transactions available for this purpose.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to display the planned orders for your product *T-FSP1## Bike Special*.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

   Choose *Continue* to open the stock/requirements list.

   Double-click the next planned order.

   In the *Additional Data for MRP Element* dialog box, choose -> *Prod. Ord. (Convert Planned Order to Production Order)*.

   Save the new production order and *Refresh* the stock/requirements list.

   Analyze and interpret the result.

2. Double-click the next planned order.

   In the *Additional Data for MRP Element* dialog box, choose -> *PartConvProdOrder (Convert Planned Order to Production Order (Partial Quantity))*.

   In the *Query Subset/Order Correction* screen, enter the following value:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Target Quantity	15 PC

Choose *Generate* and *Save* to create a production order with the entered target quantity.

Navigate *Back* to the stock/requirements list and *Refresh* the list.

Analyze and interpret the result.

3. Perform a second partial conversion for the planned order.

   In the *Query Subset/Order Correction* screen, enter the current total quantity as the target quantity.

   Choose *Generate*.

   The following information is displayed: *Indicator 'Delete planned order' is set*. Choose *Continue* to confirm the information.

   Choose *Save* to create a second production order for the planned order.

   Navigate *Back* to the stock/requirements list and *Refresh* the list.

   Analyze and interpret the result.

4. Write down the number of the next planned order:

>

Don't close the *Stock/Requirements List* tab.

In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Converting Planned Order to Production Order* tile.

A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Planned Order	Number of the planned order
Partial conversion	
Order Type	YBM1

> Note:
> In this transaction, the order type can be entered. This is not possible in the stock/requirements list, where a default order type is used.
>
> If you set the Partial conversion indicator, you also can carry out a partial conversion.

Choose *Continue (Enter)* to convert the planned order into a production order.

Save the new production order and close the tab.

In *Stock/Requirements List* tab, *Refresh* the list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze and interpret the result.

Don't close the *Stock/Requirements List* tab.

Task 2: Create Productions Orders by Collective Conversion

Usually, a collective conversion is used to convert planned orders into production orders. There are various apps and transactions available for this purpose.

1. In the *Stock/Requirements List* tab, double-click the next but one planned order.

   In the *Additional Data for MRP Element* dialog box, the opening date of the planned order is displayed. Write down the date.

>

   Then close the dialog box again.

   Don't close the *Stock/Requirements List* tab.

2. In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Convert Planned Orders to Production Orders* tile.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Planning Plant	1010
MRP Controller	P##
Opening Date (from)	Today
Opening Date (to)	Opening date of next but one planned order
Order Type	YBM1

   Choose *Run Selection*.

   The next two planned orders should be displayed in the list of the orders to be converted.

   Select both planned orders and choose *Convert*.

   Finally, close the tab.

3. In the *Stock/Requirements List* tab, *Refresh* the list.

   Analyze and interpret the result.

   Don't close the *Stock/Requirements List* tab.

4. In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Production Orders	
Planned Orders	x

Enter the following data in the selection area of the initial screen:

Field	Value
Planning Plant	1010
MRP Controller	P##

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Convert Planned Order
Display applicat. toolbar	x
Icon *Convert Planned Order*	selected

Choose *Execute*.

Select the first planned order and press the *Convert Planned Order* icon.

Choose *More* → *List* → *Refresh*. The line of the converted planned order has been disappeared.

Finally, close the mass processing tab.

5. In the *Stock/Requirements List* tab, *Refresh* the list.

   Analyze and interpret the result.

   Don't close the *Stock/Requirements List* tab.

6. In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Schedule Order Conversion Runs* tile to schedule a planned order conversion run.

   In the *Application Jobs* screen, choose *Create*.

   In the *New Job* screen, enter the following data in three consecutive steps:

Field	Value
Job Template	Convert Planned Order at Opening Date
Job Name	P## Planned Order Conversion
Start Immediately	X
Recurrence Pattern	Single Run
Planning Plant	1010
MRP Controller	P##

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Relative Opening Date	Delete all conditions
Order Type Production Orders	YBM1
Order Type for Process Orders	YBM2

Choose *Schedule* to start the conversion run.

In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

Finally, navigate back to the home page.

7. In the *Stock/Requirements List* tab, *Refresh* the list.

   Analyze and interpret the result.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create Production Orders by Planned Order Conversion

Business Scenario

Usually, a collective conversion is used to convert planned orders into production orders. However, an MRP controller must also be able to convert planned orders individually or partially.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Duplication is prohibited.

Duplication is prohibited.

Task 1: Create Production Orders by Individual or Partial Conversion

As an MRP controller, you must be able to convert planned orders individually or partially into production orders. There are various apps and transactions available for this purpose.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to display the planned orders for your product *T-FSP1## Bike Special*.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

   Choose *Continue* to open the stock/requirements list.

   Double-click the next planned order.

   In the *Additional Data for MRP Element* dialog box, choose -> *Prod. Ord. (Convert Planned Order to Production Order)*.

   Save the new production order and *Refresh* the stock/requirements list.

   Analyze and interpret the result.

   a) In the stock/requirements list, the planned order has been deleted and replaced by a production order.

2. Double-click the next planned order.

   In the *Additional Data for MRP Element* dialog box, choose -> *PartConvProdOrder (Convert Planned Order to Production Order (Partial Quantity))*.

   In the *Query Subset/Order Correction* screen, enter the following value:

© Copyright. All rights reserved.

Field	Value
Target Quantity	15 PC

Choose *Generate* and *Save* to create a production order with the entered target quantity.

Navigate *Back* to the stock/requirements list and *Refresh* the list.

Analyze and interpret the result.

a) The stock/requirements list displays the new production order with the target quantity. The planned order has been reduced by this quantity.

3. Perform a second partial conversion for the planned order.

   In the *Query Subset/Order Correction* screen, enter the current total quantity as the target quantity.

   Choose *Generate*.

   The following information is displayed: *Indicator 'Delete planned order' is set*. Choose *Continue* to confirm the information.

   Choose *Save* to create a second production order for the planned order.

   Navigate *Back* to the stock/requirements list and *Refresh* the list.

   Analyze and interpret the result.

   a) The stock/requirements list displays a second production order with the target quantity of the second conversion. The planned order has been deleted.

4. Write down the number of the next planned order:

>

Don't close the *Stock/Requirements List* tab.

In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Converting Planned Order to Production Order* tile.

A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Planned Order	Number of the planned order
Partial conversion	
Order Type	YBM1

Note:
In this transaction, the order type can be entered. This is not possible in the stock/requirements list, where a default order type is used.

If you set the Partial conversion indicator, you also can carry out a partial conversion.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Choose *Continue (Enter)* to convert the planned order into a production order.

Save the new production order and close the tab.

In *Stock/Requirements List* tab, *Refresh* the list.

Analyze and interpret the result.

Don't close the *Stock/Requirements List* tab.

a) In the stock/requirements list, the planned order has been deleted and replaced by the new production order.

Task 2: Create Productions Orders by Collective Conversion

Usually, a collective conversion is used to convert planned orders into production orders. There are various apps and transactions available for this purpose.

1. In the *Stock/Requirements List* tab, double-click the next but one planned order.

   In the *Additional Data for MRP Element* dialog box, the opening date of the planned order is displayed. Write down the date.

>

   Then close the dialog box again.

   Don't close the *Stock/Requirements List* tab.

   a) For this exercise step no further information is needed.

2. In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Convert Planned Orders to Production Orders* tile.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Planning Plant	1010
MRP Controller	P##
Opening Date (from)	Today
Opening Date (to)	Opening date of next but one planned order
Order Type	YBM1

   Choose *Run Selection*.

   The next two planned orders should be displayed in the list of the orders to be converted.

   Select both planned orders and choose *Convert*.

   Finally, close the tab.

   a) For this exercise step no further information is needed.

3. In the *Stock/Requirements List* tab, *Refresh* the list.

   Analyze and interpret the result.

   Don't close the *Stock/Requirements List* tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

a) The next two planned orders have been converted to production orders.

4. In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	
Planned Orders	x

   Enter the following data in the selection area of the initial screen:

Field	Value
Planning Plant	1010
MRP Controller	P##

   Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Convert Planned Order
Display applicat. toolbar	x
Icon *Convert Planned Order*	selected

   Choose *Execute*.

   Select the first planned order and press the *Convert Planned Order* icon.

   Choose *More* → *List* → *Refresh*. The line of the converted planned order has been disappeared.

   Finally, close the mass processing tab.

   a) For this exercise step no further information is needed.

5. In the *Stock/Requirements List* tab, *Refresh* the list.

   Analyze and interpret the result.

   Don't close the *Stock/Requirements List* tab.

   a) The next planned order has been converted.

6. In the first tab *Home* of the *SAP Fiori Launchpad*, execute the *Schedule Order Conversion Runs* tile to schedule a planned order conversion run.

   In the *Application Jobs* screen, choose *Create*.

   In the *New Job* screen, enter the following data in three consecutive steps:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Job Template	Convert Planned Order at Opening Date
Job Name	P## Planned Order Conversion
Start Immediately	X
Recurrence Pattern	Single Run
Planning Plant	1010
MRP Controller	P##
Relative Opening Date	Delete all conditions
Order Type Production Orders	YBM1
Order Type for Process Orders	YBM2

Choose *Schedule* to start the conversion run.

In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

Finally, navigate back to the home page.

a) For this exercise step no further information is needed.

7. In the *Stock/Requirements List* tab, *Refresh* the list.
Analyze and interpret the result.

a) All remaining planned orders have been converted.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create a Production Order with Material and Copy a Production Order

Business Scenario

As an MRP controller or production supervisor, in certain situations you need to be able to create production orders quickly and flexibly. A corresponding app or transaction is available for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create a Production Order with Material

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for your finished product T-FSP1##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Order Type	YBM1

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	5
Basic Dates / End	choose any date in the near future

   Choose *Enter* to create the order.

   Save the order and write down the order number:

>

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Close the tab.

Task 2: Copy a Production Order

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order as a copy of another production order.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Production Plant	1010
Order Type	YBM1
Copy from / Order	Order no. from the previous task

   Choose *Continue*. The total quantity is copied from the reference order and could be changed. You still have to enter the end date in the *Production order Create: Header* screen:

Field	Value
Basic Dates / End	Choose any date in the near future

   Choose *Enter* to create the order as a copy of the reference order.

   Save the order and close the tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create a Production Order with Material and Copy a Production Order

Business Scenario

As an MRP controller or production supervisor, in certain situations you need to be able to create production orders quickly and flexibly. A corresponding app or transaction is available for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create a Production Order with Material

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for your finished product T-FSP1##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Order Type	YBM1

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	5
Basic Dates / End	choose any date in the near future

   Choose *Enter* to create the order.

   Save the order and write down the order number:

>

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Close the tab.

a) When you save the order, the order number is displayed in a message at the bottom of the screen.

Task 2: Copy a Production Order

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order as a copy of another production order.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Production Plant	1010
Order Type	YBM1
Copy from / Order	Order no. from the previous task

   Choose *Continue*. The total quantity is copied from the reference order and could be changed. You still have to enter the end date in the *Production order Create: Header* screen:

Field	Value
Basic Dates / End	Choose any date in the near future

   Choose *Enter* to create the order as a copy of the reference order.

   Save the order and close the tab.

   a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create a Production Order without Material

Business Scenario

As an MRP controller or production supervisor, in certain situations you must be able to create production orders without material.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Create a Production Order Without Material

You need to set up a production line. The necessary activities lead to costs and have to be confirmed. Furthermore, the activities must be scheduled and capacity requirements must be determined for the work centers concerned. Finally, cleaning materials and lubricants are to be provided by reservations.

You can realize these requirements with a production order without material.

1. In the *SAP Fiori Launchpad*, execute the *Create order without material* tile to create a production order without material.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Production Plant	1010
Order Type	YBM1
MRP Controller	P##
Prodn Supervisor	P##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Material Description	Set up production line T-RM100
Total Qty	1 PC

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Basic Dates / End	choose any date in the near future

Choose *Enter*.

In the *Routing selection* dialog box, choose *Ref. Operation Set*.

In the *Enter Reference Operation Set* dialog box, enter the following group:

Field	Value
Group	SETUP

Choose *Continue*.

In the *Maintain Settlement Rule: Overview* screen, enter the following data:

Cat	Settlement Receiver	%
CTR	10101301	100

Navigate *Back* to the order header screen. Choose *Continue* to confirm an information message about the master data transfer.

Choose *Operations* to navigate to the operation overview. An operation was copied from the reference operation set.

Choose *Components* to navigate to the component overview. Enter the following components:

Item.	Component	Reqmt Qty	Item Category	Operation
0010	T-RCL	100	L	0010
0020	T-RLU	100	L	0010

Save the order and close the tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create a Production Order without Material

Business Scenario

As an MRP controller or production supervisor, in certain situations you must be able to create production orders without material.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Create a Production Order Without Material

You need to set up a production line. The necessary activities lead to costs and have to be confirmed. Furthermore, the activities must be scheduled and capacity requirements must be determined for the work centers concerned. Finally, cleaning materials and lubricants are to be provided by reservations.

You can realize these requirements with a production order without material.

1. In the *SAP Fiori Launchpad*, execute the *Create order without material* tile to create a production order without material.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Production Plant	1010
Order Type	YBM1
MRP Controller	P##
Prodn Supervisor	P##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Material Description	Set up production line T-RM100
Total Qty	1 PC

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Basic Dates / End	choose any date in the near future

Choose *Enter*.

In the *Routing selection* dialog box, choose *Ref. Operation Set*.

In the *Enter Reference Operation Set* dialog box, enter the following group:

Field	Value
Group	SETUP

Choose *Continue*.

In the *Maintain Settlement Rule: Overview* screen, enter the following data:

Cat	Settlement Receiver	%
CTR	10101301	100

Navigate *Back* to the order header screen. Choose *Continue* to confirm an information message about the master data transfer.

Choose *Operations* to navigate to the operation overview. An operation was copied from the reference operation set.

Choose *Components* to navigate to the component overview. Enter the following components:

Item.	Component	Reqmt Qty	Item Category	Operation
0010	T-RCL	100	L	0010
0020	T-RLU	100	L	0010

Save the order and close the tab.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create Production Orders for Sales Orders

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

While the production requirements are created as planned independent requirements in a make-to-stock (MTS) planning strategy, the requirements are created as sales orders in a make-to-order (MTO) strategy. In MTO production, the subsequent functions of MRP and planned order conversion run in principle as in MTS production. The difference is that each sales order is managed separately in an individual segment, independent of other customer or independent requirements. MRP is carried out separately for each individual segment. The goods receipt from production is transferred to a separate customer stock for each sales order.

Although the use of MRP and the subsequent planned order conversion are typical, in special cases an MRP controller must also be able to create production orders directly for sales orders.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create a Sales Order

As an internal sales representative, you create a sales order for your finished product T-FSP1## Bike Special and analyze the result.

Previously, you set up a planning strategy for MTO production in the material master.

1. In the *SAP Fiori Launchpad*, execute the *Change Material* tile to set up the MTO planning strategy *20 Make-to-order production* for your finished product T-FSP1## Bike Special.

   A new tab with the title *Change Material* will be opened. Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *20 Make-to-order production*.

   Save the material and close the tab.

2. In the *SAP Fiori Launchpad*, execute the *Manage Sales Orders* tile to create a sales order for your finished product T-FSP1## Bike Special.

   In the *Manage Sales Orders* screen, choose *Create Sales Order*.

   A new tab will be opened. In the *Create Sales Document* screen, enter the following data:

Field	Value
Order Type	OR
Sales Organization	1010

© Copyright. All rights reserved.

Field	Value
Distribution Channel	10
Division	00

Choose *Continue*. In the *Create Standard Order: Overview* screen, enter the following data:

Field	Value
Sold-To Party	10100001
Cust. Reference	GR##
Req. Deliv. Date	Today + 2 weeks

Choose the *Item Overview* and enter the following data.

Item	Material	Order Quantity
10	T-FSP1##	10

Confirm your entries with *Enter*, *Save* your sales order, and close the tab.

On the *Manage Sales Orders* screen, choose *Go* to refresh and display your sales order in the list. Write down the sales order number:

Sales Order
>

Finally navigate back to the home page.

3. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage (Net / Individual Seg ...)* tile to check the material coverage of the materials for MRP controller P##.

   In the *Monitor Material Coverage – Net and Individual Segments* screen, you should find the following situation:

   Regarding your sales order, there is an individual segment for your finished product T-FSP1##. Note the corresponding shortage in the following table:

Material No.	Individual Segment	Shortage Quantity
T-FSP1##		

Choose *Manage Materials* to get more detailed information for the individual segment in the *Stock/Requirements List*. Note the actual situation in the following table:

Date	MRP Element	Quantity (PC)	Available (PC)
>			

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Date	MRP Element	Quantity (PC)	Available (PC)
>			

Task 2: Create Production Orders for the Sales Order

In special cases, an MRP controller must also be able to create production orders directly for sales orders.

It is also possible to create production orders for materials that are not defined as items in the sales order.

1. In the *SAP Fiori Launchpad*, execute the *Production order with sales order* tile to create a production order directly for your sales order.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Sales Order	Sales order no. / item no.

   Choose *Continue* to create the production order.

   The production order quantity, the production order dates and the production plant are determined form the sales order.

   Confirm the suggested data with *Enter*. The order will be scheduled.

   Note the information about the sales order in the production order header data.

   Save the production order and close the tab.

2. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage (Net / Individual Seg ...)* tile to check the changed material coverage situation.

   You should find the following situation:

   There are now two individual segments, one for your product T-FSP1## and another for the material component T-SSP1##.

   > Hint:
   > You can sort the list ascending or descending by individual segments. Choose the *Sort Table* symbol and make the corresponding settings.

   Note the actual situation for the individual segments in the following table:

Material No.	Individual Segment	Shortage Quantity
T-FSP1##		
T-SSP1##		

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Select the two lines with the individual segments and choose *Manage Materials* to get more detailed information in the *Stock/Requirements List*. Note the actual situation in the following table:

T-FSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			
>			

T-SSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			

Why is material component T-SSP1## also managed and planned in an individual segment for your sales order, but not the other components T-SSP2## and T-RSP1##?

To answer this question, check the settings for the *Individual/coll* field in the MRP 4 view of the materials.

Why is there no shortage regarding the individual segment of material T-FSP1##, but a shortage quantity regarding the individual segment of material T-SSP1##?

> Hint:
> You can also execute the *Monitor Stock / Requirements List* tile or the *Monitor Order Progress* tile in the *SAP Fiori Launchpad* to analyze the current situation and to display the individual segments.

3. In the *SAP Fiori Launchpad*, execute the *Production order with sales order* tile to create a production order to cover the reservation of semi-finished material T-SSP1##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Sales Order	Sales order no. / item no.
Material	T-SSP1##
Production Plant	1010
Order Type	YBM1

Choose *Continue*. You get the following Information:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Material no. T-FSP1## of sales order not same as material number entered.

In the *Production order Create: Header* screen, enter the following data:

Field	Value
Total Qty.	10.
Basic Dates / End	Required date of reservation

Choose *Enter* to create the order.

Finally, save the production order and close the tab.

4. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage (Net / Individual Seg ...)* tile to check the changed material coverage situation.

   You should find the following situation:

   There is no shortage regarding the individual segments of the material T-FSP1## and T-SSP1##.

   Note the actual situation for the individual segments in the following table:

Material No.	Individual Segment	Shortage Quantity
T-FSP1##		
T-SSP1##		

Select the two lines with the individual segments and choose *Manage Materials* to get more detailed information in the *Stock/Requirements List*. Note the actual situation in the following table:

T-FSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			
>			

T-SSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			
>			

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Hint:
You can also execute the *Monitor Stock / Requirements List* tile or the *Monitor Order Progress* tile in the *SAP Fiori Launchpad* to analyze the current situation and to display the individual segments.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create Production Orders for Sales Orders

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

While the production requirements are created as planned independent requirements in a make-to-stock (MTS) planning strategy, the requirements are created as sales orders in a make-to-order (MTO) strategy. In MTO production, the subsequent functions of MRP and planned order conversion run in principle as in MTS production. The difference is that each sales order is managed separately in an individual segment, independent of other customer or independent requirements. MRP is carried out separately for each individual segment. The goods receipt from production is transferred to a separate customer stock for each sales order.

Although the use of MRP and the subsequent planned order conversion are typical, in special cases an MRP controller must also be able to create production orders directly for sales orders.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create a Sales Order

As an internal sales representative, you create a sales order for your finished product T-FSP1## Bike Special and analyze the result.

Previously, you set up a planning strategy for MTO production in the material master.

1. In the *SAP Fiori Launchpad*, execute the *Change Material* tile to set up the MTO planning strategy *20 Make-to-order production* for your finished product T-FSP1## Bike Special.

   A new tab with the title *Change Material* will be opened. Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *20 Make-to-order production*.

   Save the material and close the tab.

   a) For this exercise no further information is needed.

2. In the *SAP Fiori Launchpad*, execute the *Manage Sales Orders* tile to create a sales order for your finished product T-FSP1## Bike Special.

   In the *Manage Sales Orders* screen, choose *Create Sales Order*.

   A new tab will be opened. In the *Create Sales Document* screen, enter the following data:

Field	Value
Order Type	OR

© Copyright. All rights reserved.

Field	Value
Sales Organization	1010
Distribution Channel	10
Division	00

Choose *Continue*. In the *Create Standard Order: Overview* screen, enter the following data:

Field	Value
Sold-To Party	10100001
Cust. Reference	GR##
Req. Deliv. Date	Today + 2 weeks

Choose the *Item Overview* and enter the following data.

Item	Material	Order Quantity
10	T-FSP1##	10

Confirm your entries with *Enter*, *Save* your sales order, and close the tab.

On the *Manage Sales Orders* screen, choose *Go* to refresh and display your sales order in the list. Write down the sales order number:

Sales Order
>

Finally navigate back to the home page.

a) For this exercise no further information is needed.

3. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage (Net / Individual Seg ...)* tile to check the material coverage of the materials for MRP controller P##.

   In the *Monitor Material Coverage – Net and Individual Segments* screen, you should find the following situation:

   Regarding your sales order, there is an individual segment for your finished product T-FSP1##. Note the corresponding shortage in the following table:

Material No.	Individual Segment	Shortage Quantity
T-FSP1##		

Choose *Manage Materials* to get more detailed information for the individual segment in the *Stock/Requirements List*. Note the actual situation in the following table:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			

a) In the *Monitor Material Coverage – Net and Individual Segments* screen, you should find the following situation.

Material No.	Individual Segment	Shortage Quantity
T-FSP1##	CustSt Sales order no.	10 PC

b) In the *Stock/Requirements List*, you should find the following situation.

Date	MRP Element	Quantity (PC)	Available (PC)
Today	CustSt	0	0
Req. Date	CusOrd Sales order no.	-10	-10

Task 2: Create Production Orders for the Sales Order

In special cases, an MRP controller must also be able to create production orders directly for sales orders.

It is also possible to create production orders for materials that are not defined as items in the sales order.

1. In the *SAP Fiori Launchpad*, execute the *Production order with sales order* tile to create a production order directly for your sales order.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Sales Order	Sales order no. / item no.

   Choose *Continue* to create the production order.

   The production order quantity, the production order dates and the production plant are determined form the sales order.

   Confirm the suggested data with *Enter*. The order will be scheduled.

   Note the information about the sales order in the production order header data.

   Save the production order and close the tab.

   a) For this exercise no further information is needed.

2. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage (Net / Individual Seg ...)* tile to check the changed material coverage situation.

   You should find the following situation:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

There are now two individual segments, one for your product T-FSP1## and another for the material component T-SSP1##.

> Hint:
> You can sort the list ascending or descending by individual segments. Choose the *Sort Table* symbol and make the corresponding settings.

Note the actual situation for the individual segments in the following table:

Material No.	Individual Segment	Shortage Quantity
T-FSP1##		
T-SSP1##		

Select the two lines with the individual segments and choose *Manage Materials* to get more detailed information in the *Stock/Requirements List*. Note the actual situation in the following table:

T-FSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			
>			

T-SSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			

Why is material component T-SSP1## also managed and planned in an individual segment for your sales order, but not the other components T-SSP2## and T-RSP1##?

To answer this question, check the settings for the *Individual/coll* field in the MRP 4 view of the materials.

Why is there no shortage regarding the individual segment of material T-FSP1##, but a shortage quantity regarding the individual segment of material T-SSP1##?

> Hint:
> You can also execute the *Monitor Stock / Requirements List* tile or the *Monitor Order Progress* tile in the *SAP Fiori Launchpad* to analyze the current situation and to display the individual segments.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

a) In the *Monitor Material Coverage – Net and Individual Segments* screen, you should find the following situation.

Material No.	Individual Segment	Shortage Quantity
T-FSP1##	CustSt Sales order no.	0
T-SSP1##	CustSt Sales order no.	10 PC

b) In the *Stock/Requirements List*, you should find the following situation.

T-FSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
Today	CustSt	0	0
Available Date	PrdOrd Prod. order no.	10	10
Required Date	CustOrd Sales order no.	-10	0

T-SSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
Today	CustSt	0	0
Required Date	OrderRes Res. no.	-10	-10

The semi-finished material T-SSP1## is also managed and planned in an individual segment for your sales order. This is due to the setting '_' for the *Individual/coll* field in the MRP 4 view of the material master. The components T-SSP2## and T-RSP1## are set as collective requirements and are not managed in individual segments.

The reason for the shortage is the reservation of the material component T-SSP1## for the production order of the finished product T-FSP1##. As the semi-finished material T-SSP1## is also managed in an individual segment for your sales order, the reservation quantity has to be produced for the customer stock and cannot be withdrawn from the collective stock.

3. In the *SAP Fiori Launchpad*, execute the *Production order with sales order* tile to create a production order to cover the reservation of semi-finished material T-SSP1##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   In the initial screen, enter the following data:

Field	Value
Sales Order	Sales order no. / item no.
Material	T-SSP1##
Production Plant	1010

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Order Type	YBM1

Choose *Continue*. You get the following Information:

Material no. T-FSP1## of sales order not same as material number entered.

In the *Production order Create: Header* screen, enter the following data:

Field	Value
Total Qty.	10.
Basic Dates / End	Required date of reservation

Choose *Enter* to create the order.

Finally, save the production order and close the tab.

a) For this exercise no further information is needed.

4. In the *SAP Fiori Launchpad*, execute the *Monitor Material Coverage (Net / Individual Seg ...)* tile to check the changed material coverage situation.

   You should find the following situation:

   There is no shortage regarding the individual segments of the material T-FSP1## and T-SSP1##.

   Note the actual situation for the individual segments in the following table:

Material No.	Individual Segment	Shortage Quantity
T-FSP1##		
T-SSP1##		

Select the two lines with the individual segments and choose *Manage Materials* to get more detailed information in the *Stock/Requirements List*. Note the actual situation in the following table:

T-FSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			
>			

T-SSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
>			

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Date	MRP Element	Quantity (PC)	Available (PC)
>			
>			

Hint:
You can also execute the *Monitor Stock / Requirements List* tile or the *Monitor Order Progress* tile in the *SAP Fiori Launchpad* to analyze the current situation and to display the individual segments.

a) In the *Monitor Material Coverage – Net and Individual Segments* screen, you should find the following situation.

Material No.	Individual Segment	Shortage Quantity
T-FSP1##	CustSt Sales order no.	0
T-SSP1##	CustSt Sales order no.	0

b) In the *Stock/Requirements List*, you should find the following situation.

T-FSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
Today	CustSt	0	0
Available Date	PrdOrd Prod. order no.	10	10
Required Date	CusOrd Sales order no.	-10	0

T-SSP1##

Date	MRP Element	Quantity (PC)	Available (PC)
Today	CustSt	0	0
Available Date	PrdOrd Prod. order no.	10	10
Required Date	OrderRes Res. No.	-10	0

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the different ways of creating production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyzing Master Data Selection

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Define an order type and describe the master data selection for production orders

Master Data Selection

When a production order is created, a production version with a routing and a BOM is selected or assigned to define the order structure. The master data selection is the prerequisite for the further activities of the order creation.

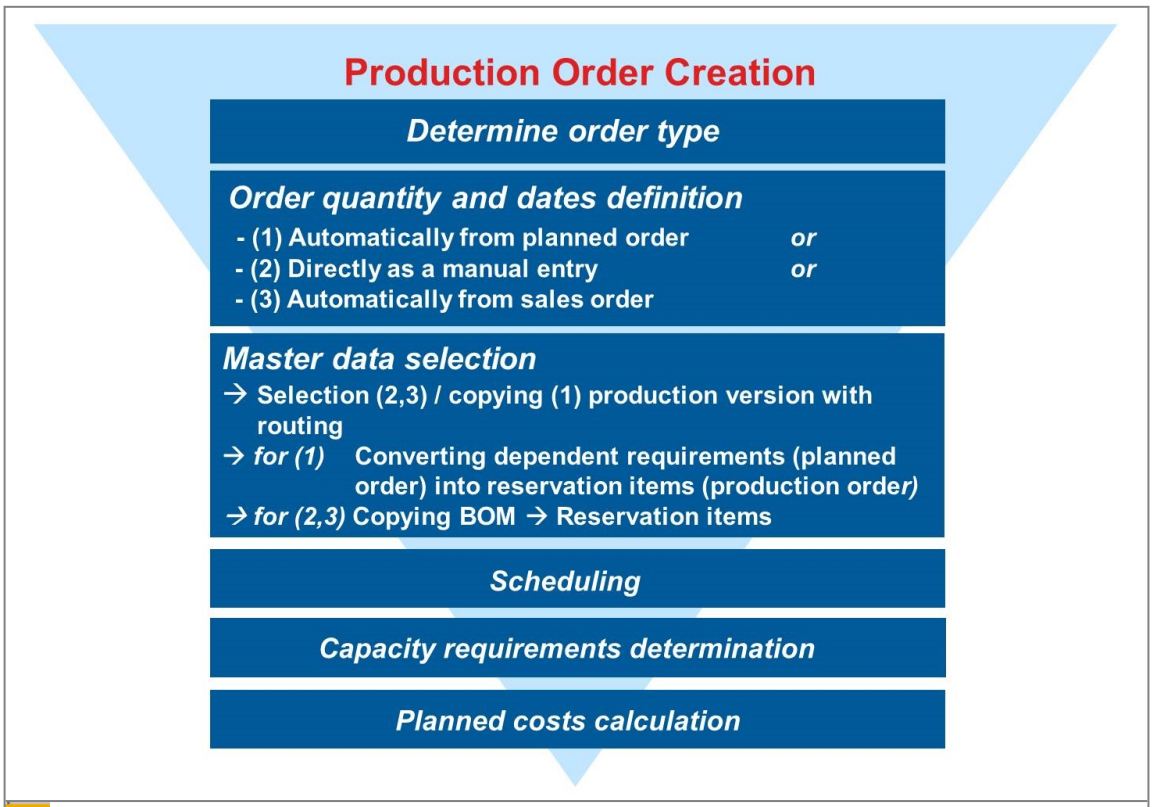

Figure 20: Activities Involved in Production Order Creation

Order Type

A production order is always created with reference to an order type. The order type controls the business processes of an order.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

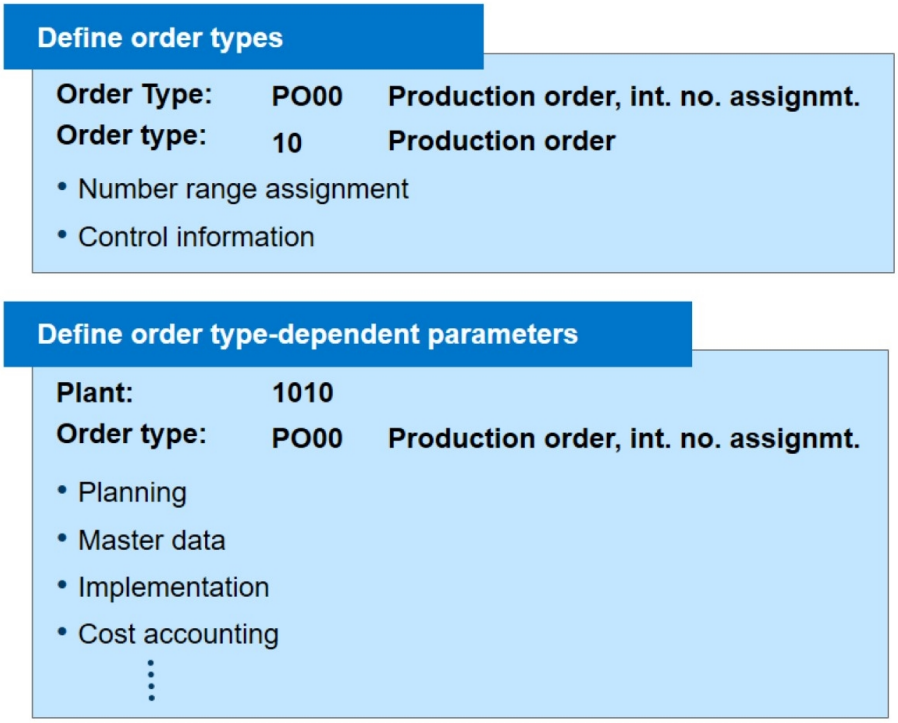

Figure 21: Order Type

As a member of the project team for implementing production orders, you must be able to create and maintain order types. You do this in the customizing environment of the backend system. In a first step for the implementation of production orders, you must create an order type. In a second Customizing step, you must define order-type-dependent parameters for your production plants.

Production Order Creation: Master Data Selection

The selection of the master data for planned orders and production orders is made by the selection of production versions. An MRP controller or production supervisor needs to understand how to automatically select production versions and how to make a manual selection in certain situations.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

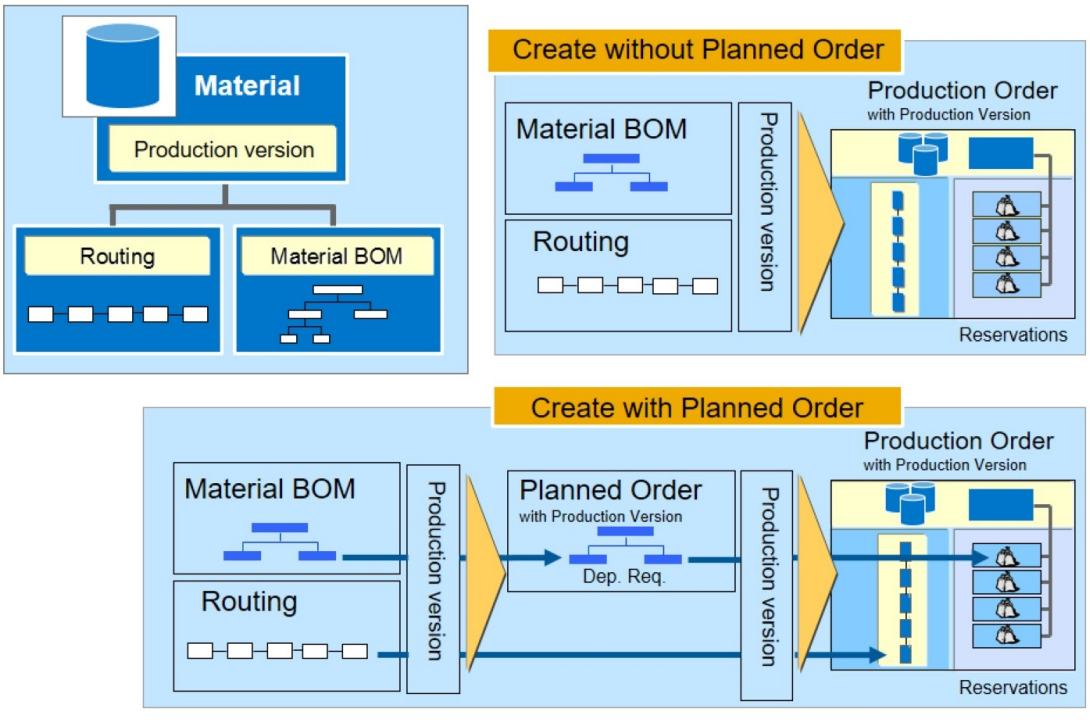

Figure 22: Master Data Selection

The figure describes the master data selection for planned and production orders.

Production Version Selection

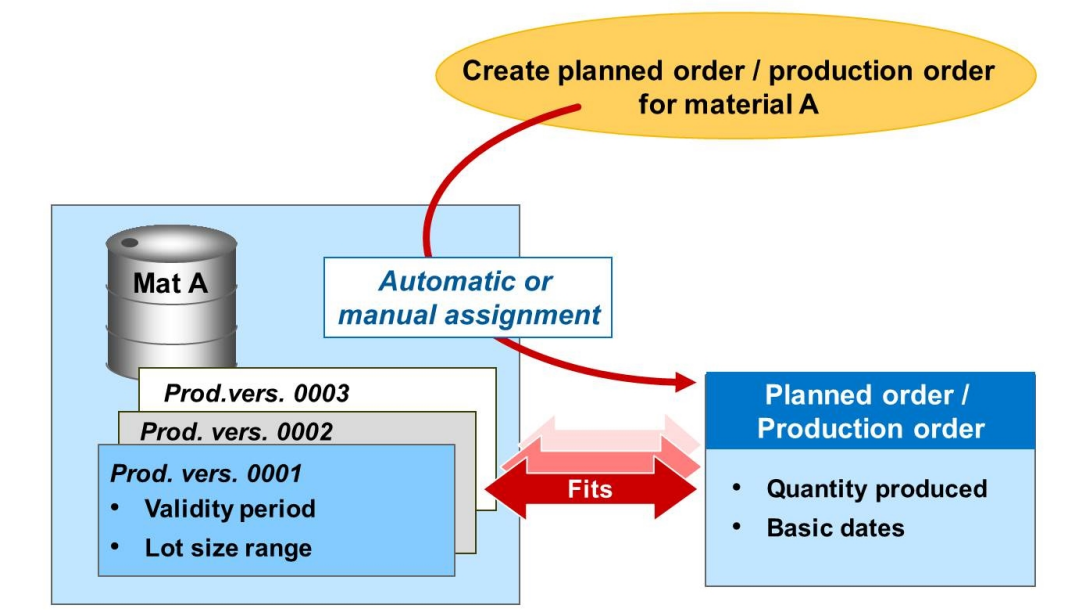

Figure 23: Production Version Selection

When a planned order is created, a suitable production version is selected, based on the validity period and the lot size range. If several production versions are valid at the same time, the system selects the alphanumerical first valid production version. Also, quota arrangements can be maintained to control which production version is to be used. In both cases, you can change the production version assignment in the planned order manually, if necessary.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

When a planned order is converted, the production version is taken over from the planned order to the production order. It is not determined again.

If no production version can be found for a planned order, it will be created without a production version. Such a planned order cannot be converted into a production order.

When a production order is created without a planned order, the system searches for a suitable production version, based on the validity period and the lot size range, as discussed above. If there are several valid production versions and the Customizing setting *Automatic Selection of Production Version* is active, the system selects the alphanumerical first valid production version or a production version defined by quota arrangements, unless you have not explicitly called the manual selection in the dialog. If the Customizing setting *Manual Selection of Production Version* is active, the user always selects the production version in the dialog. You can change the production version assignment in the production order using the *Read Master Data* function.

If no production version can be found for a production order, you can create the order manually without master data.

Checks in Master Data Selection

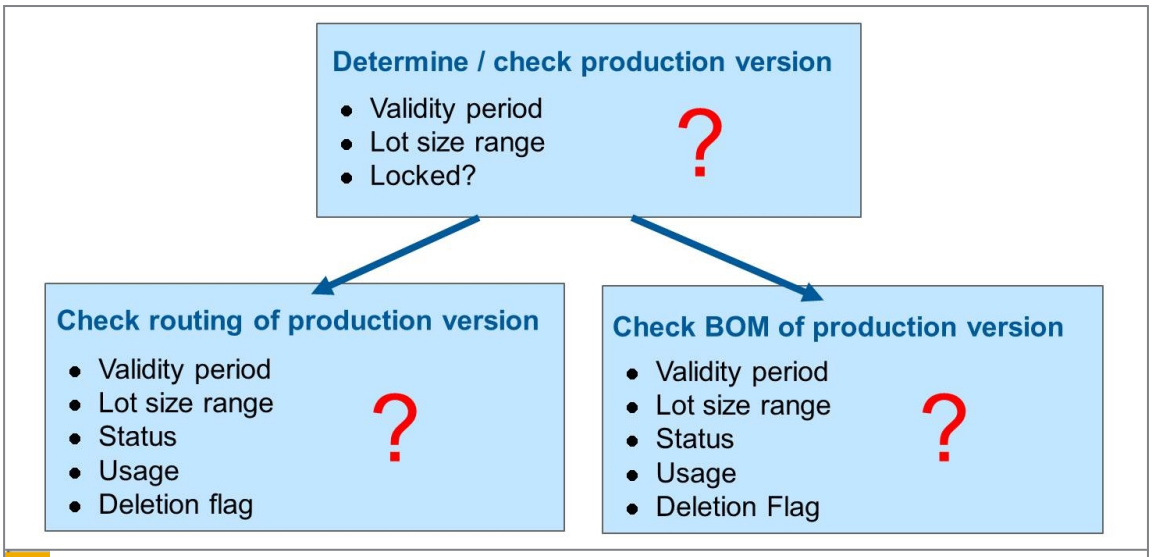

Figure 24: Checks in Master Data Selection

In master data selection for planned orders and production orders, settings are checked in the production version, in the routing, and in the BOM. Depending on the type of order and the way an order is created, incorrect checks have different effects. Planned orders are also created for incorrect checks. The automatic creation of production orders in background processing usually leads to the termination of order creation in the case of incorrect checks.

When creating in the dialog, in certain cases a production order can also be created without master data.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Production Version Consistency

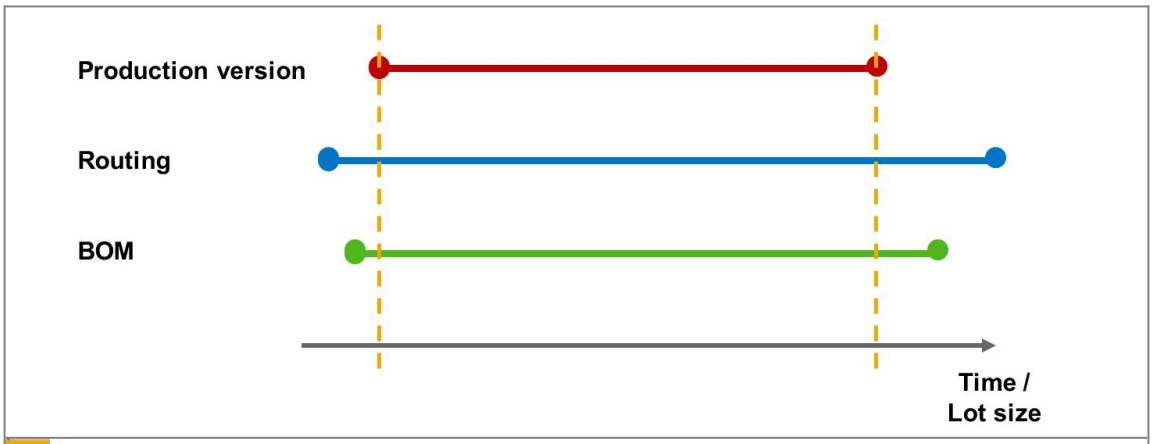

Figure 25: Production Version Consistency

In order for a production version to be consistent, it must fulfill the following requirements: The lot-size range of the production version must be within the lot-size range of the assigned routing as well as of the assigned BOM. The assigned routing and BOM must be valid during the whole validity period of the production version. The deletion flag must not be set for them.

Production Version Consistency Check

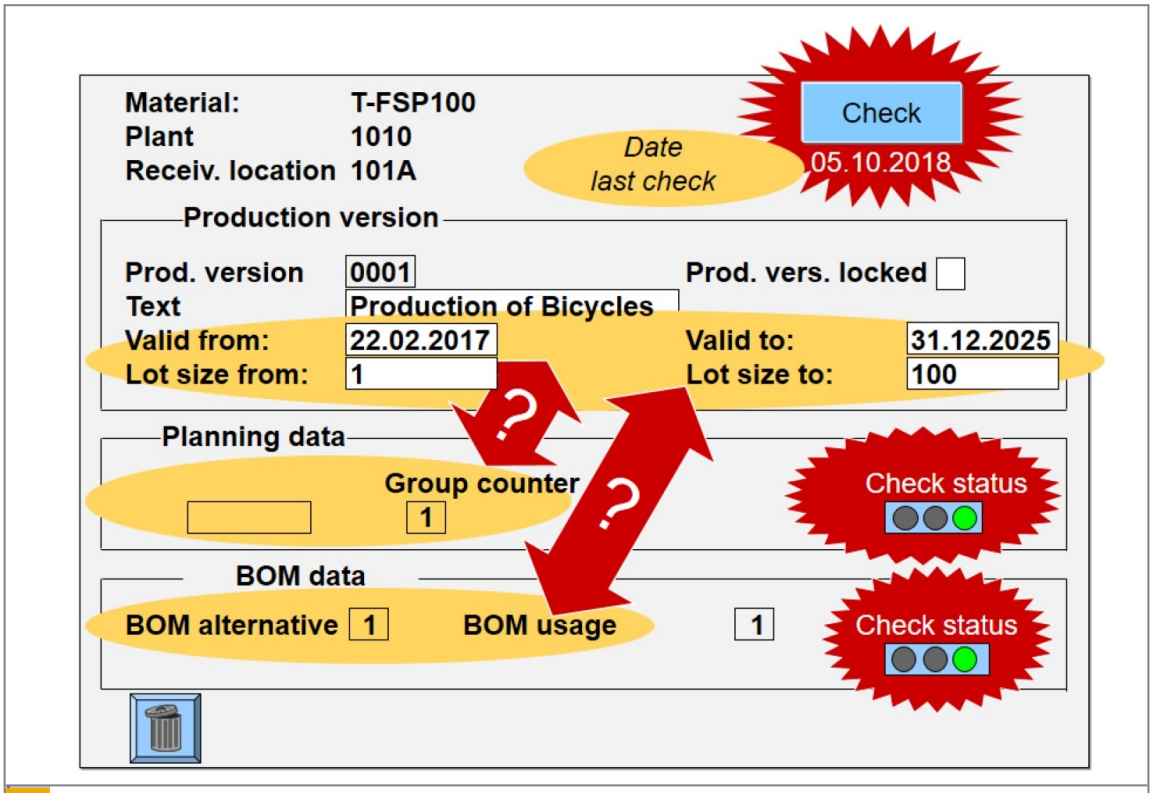

Figure 26: Production Version Consistency Check

You can check whether the data of a production version is consistent with the data of the routing and the data of the BOM assigned to it. You can then be sure that a valid routing or valid BOM actually exists within the whole validity period and lot size range of the production version. If an inconsistency is detected during the check, an error or warning message is

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

displayed in a log on the check result. The check results are updated in the production version as a check status.

Selection Based on a Quota Arrangement

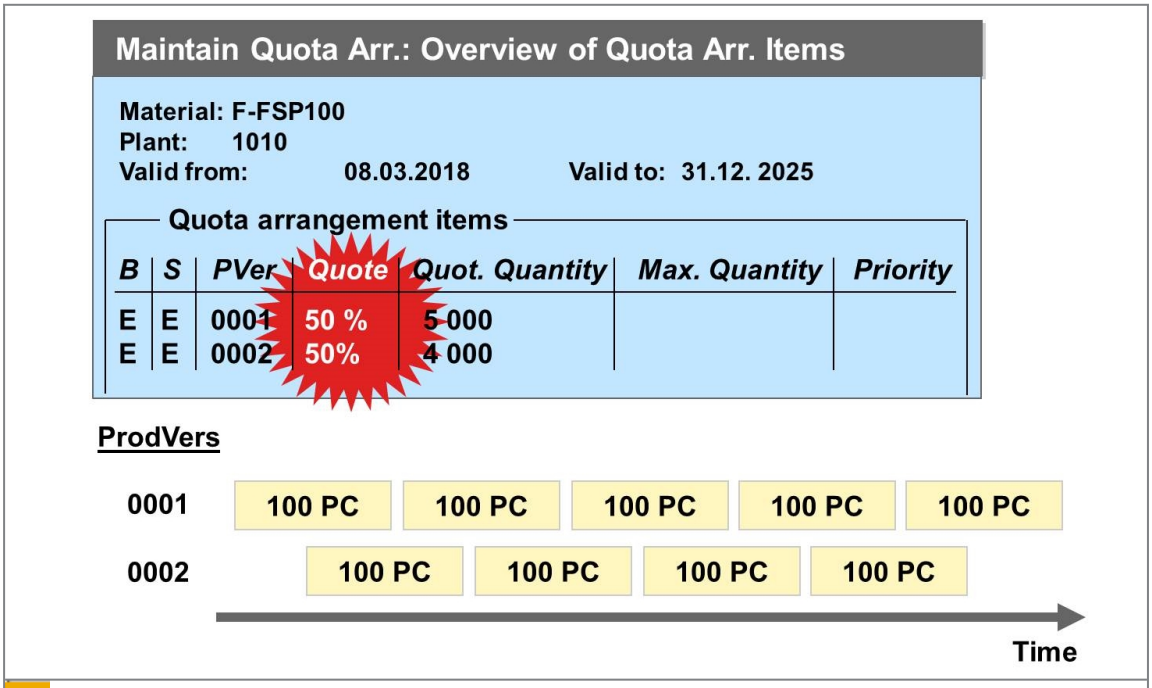

Figure 27: Selection Based on a Quota Arrangement

You can maintain a quotation arrangement to control how the production quantities of a material are to be distributed to several production versions. You can also define the quantity up to which a production version can be used and the priority of a production version.

Item Categories

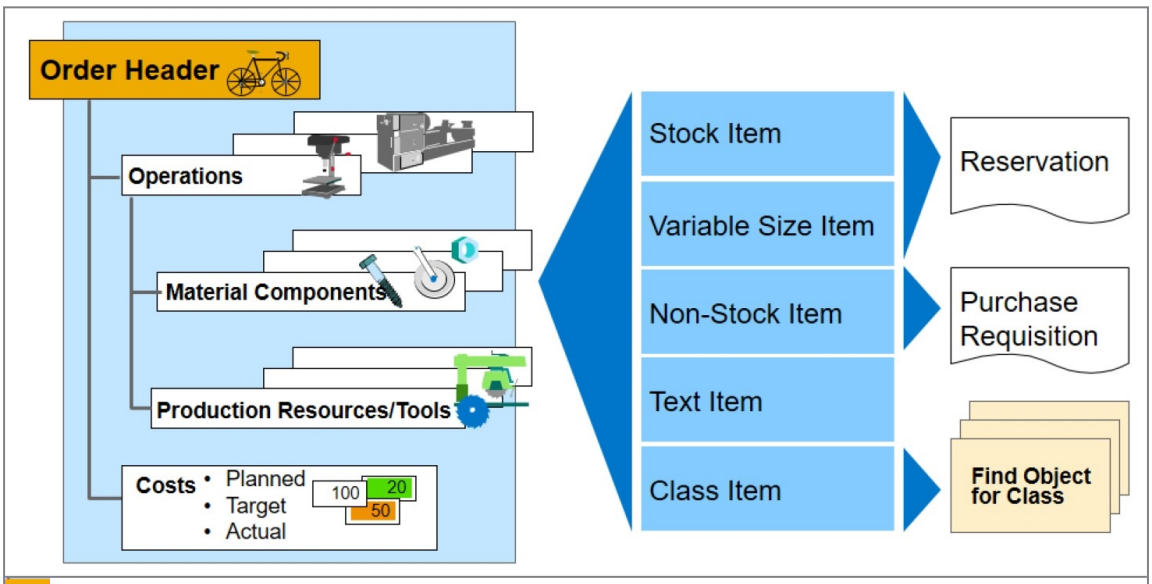

Figure 28: Item Categories

Item categories control the data scope and functions of a material component. Typical examples are stock item, variable-size item, non-stock item, text item and class item. You

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

cannot change the item categories once they have been set. According to the item category, follow-on documents are generated with reference to the production order. Non-stock items automatically generate purchase requisitions. A class item stands for a wide variety of different materials. The system uses the *find object function for class* function to specify the class item as a specific stock item. The document item is copied to the document list of the production order and defines a document link.

Reservation

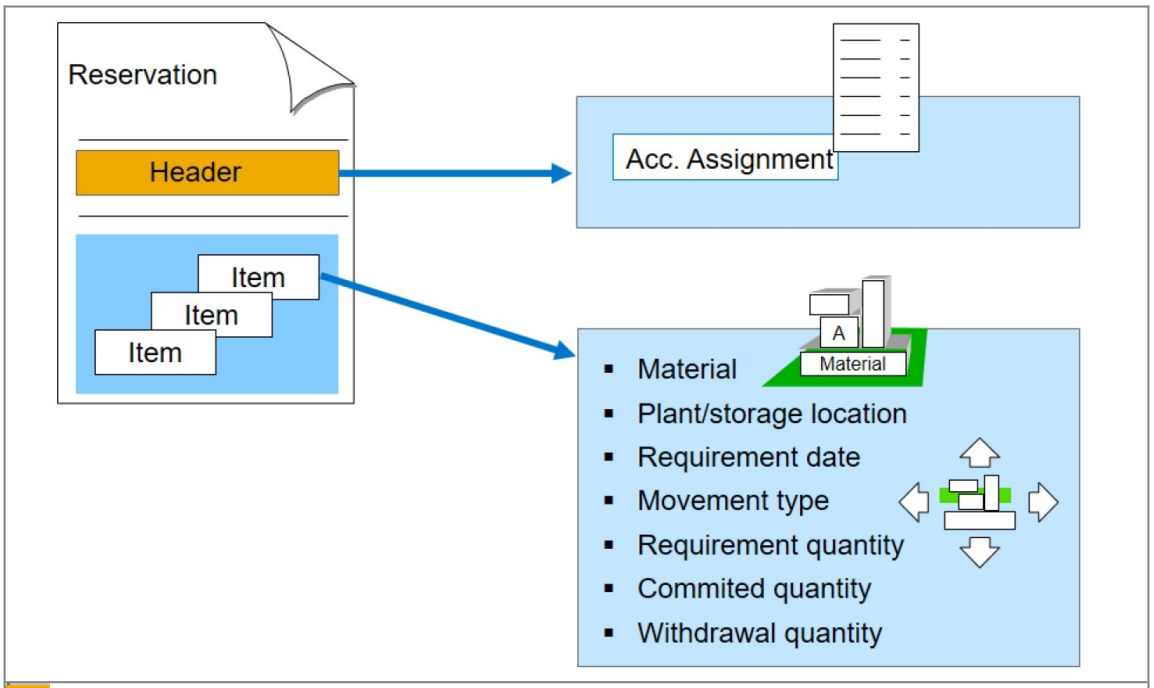

Figure 29: Reservation

When creating a production order, a reservation is created with reference to the order. The material components with the item categories L (stock item) and R (variable size item) are assigned to this reservation as items. The planned goods issues for the production order are posted with reference to the reservation.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Material Assignment

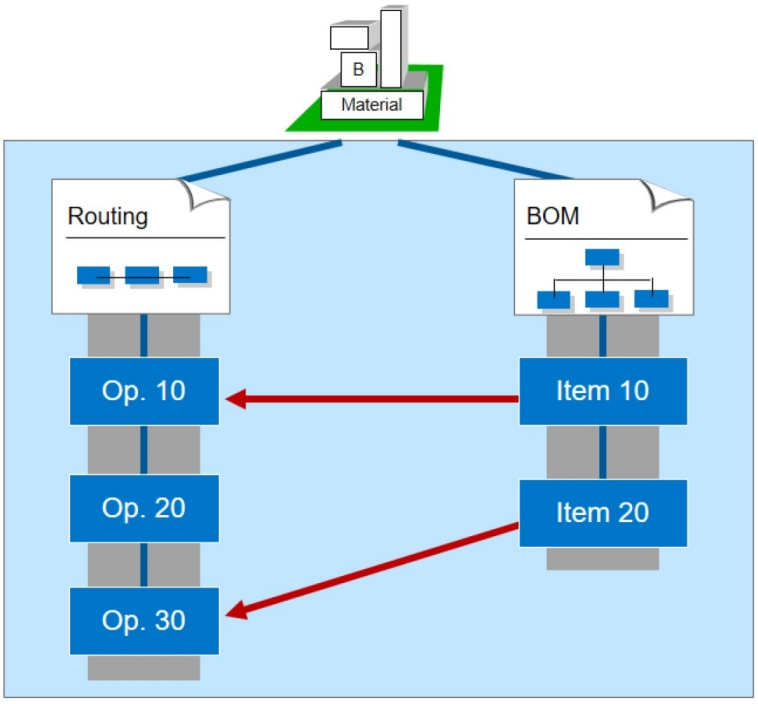

Figure 30: Material Assignment

You can assign material components to operations in the component allocation view of a routing. The assignment is copied to the production order. If no assignments are maintained, then the system automatically assigns the material components to the first operation of an order. In the component overview of the order, you can reassign materials up to the point of order release.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Document Integration

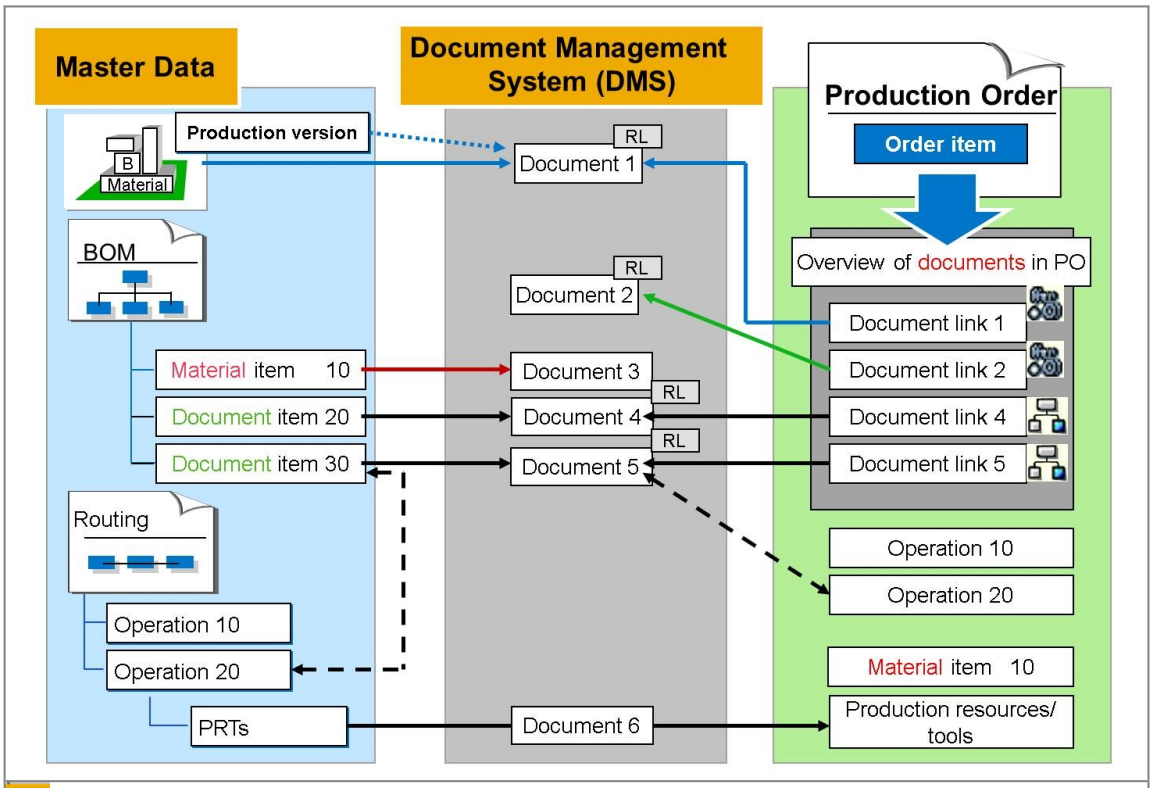

Figure 31: Document Integration

You can assign documents that are maintained in the document management system (DMS) to a production order. The documents are only linked to the production order but not saved with it. Document links to a production order can be created manually or automatically with order release. You can automatically link documents that are defined as document items in the BOM and documents that are assigned to the production version or the material master of the product. In the production order, document links can be displayed, changed, deleted, printed, archived, and displayed in the product structure browser. All document types used must be permitted for the object PORDER (production order), work with the DMS status management, and the documents must be released.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Alternative Sequences

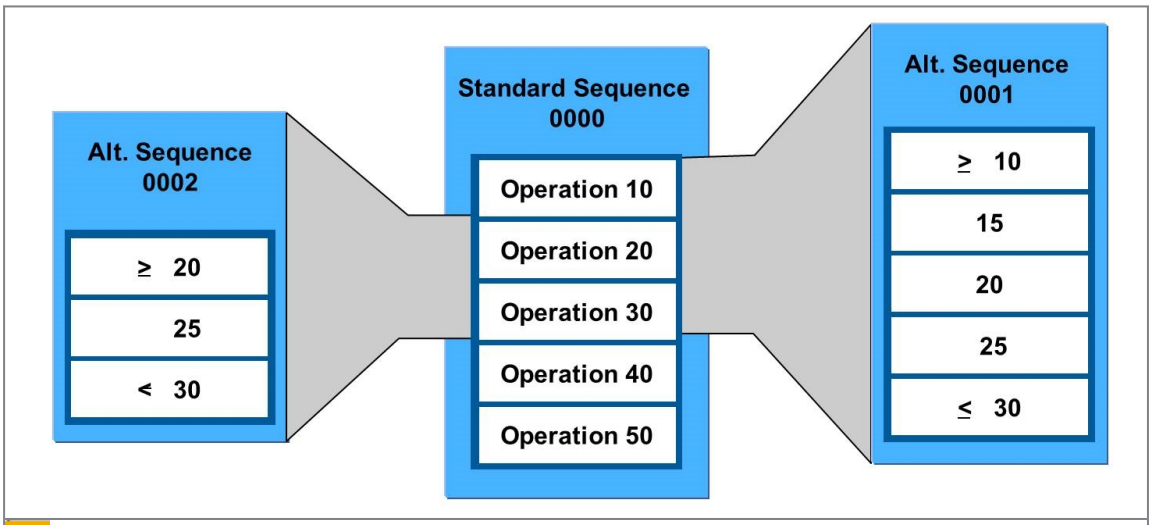

Figure 32: Alternative Sequences

Alternative sequences allow you to exchange operations of the standard sequence with alternative operations. You can use the *Exchange Sequences* function as long as the order has not been released.

Parallel Sequences

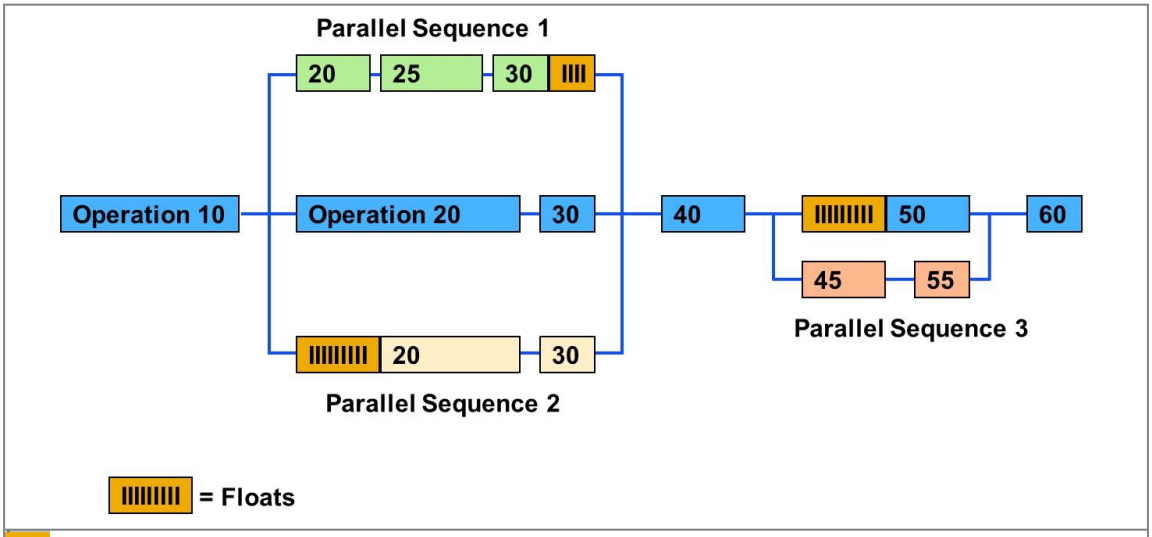

Figure 33: Parallel Sequences

With parallel sequences, you can perform operations parallel to and independent of other operations. Parallel sequences are linked to the standard sequence through predecessor/successor relationships. The standard sequence and parallel sequences usually have different lead times. This causes floats within the sequences. With the alignment key, you can control whether these floats should be at the beginning or at the end of the sequences.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Reading Master Data

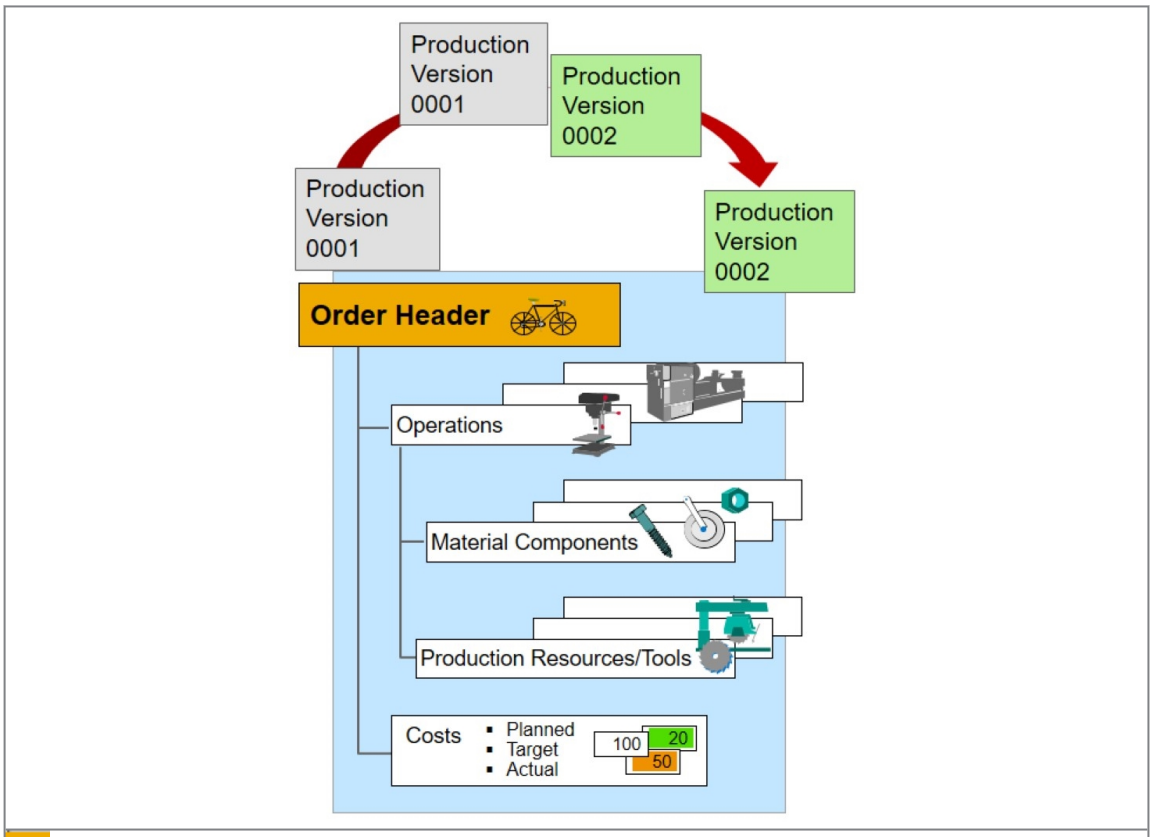

Figure 34: Reading Master Data

The *Read master data* function allows you to replace the originally selected production version with an updated or another production version. This exchange is possible as long as certain functions, such as material withdrawals and confirmations, have not yet been executed.

Order Change Management (OCM)

Goals of change management for production orders are:

- Provision of a system-supported tool for automated change of production orders that are already being used in the production process.
- The changes concerned can be triggered by changes in sales orders and/or master data.

When do you need OCM tools?

- Production orders are in production and have been started.
- Customers change their orders.
- Engineering or technological changes are necessary.

Who needs OCM tools?

- Sales order-related production.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

If you wish to change production orders already being processed and, for example, goods movements and confirmations have been posted, the *Read master data* function can no longer be used. In such cases, you may use the Order Change Management (OCM). OCM supports automatic changes to such production orders and allows you to search for the planned orders and purchase orders that are affected by these changes. The basis for changes to be made by OCM are both changes of the master data and changes of sales orders.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Define an Order Type

Business Scenario

A production order is always created with reference to an order type. The order type controls the business processes of an order. As a member of the project team for implementing production orders, you must be able to create and maintain order types. You do this in the Customizing environment of the back end system.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Define an Order Type

In a first step for the implementation of production orders, you must create an order type.

1. In the Customizing environment of the back end system, create order type PO## along with the description **`GR## Production Order`** as a copy of order type YBM1.

   Choose transaction `SPRO` and choose the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order Types.

   In the *Maintain Production Order Types: Overview* screen, select the line of order type YBM1 and choose *Copy As*.

   In the *Maintain Production Order Types: Details* screen, overwrite order type YBM1 and the short text of the order type with:

Order Type	Short Text
PO##	GR## Production Order

   Press *Enter* to copy the settings. Finally save your order type. Confirm an information message about the number ranges.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> If you are prompted to specify a Customizing request, you must first create a new request in this exercise. You can then confirm your activities with reference to this request in all further Customizing exercises. Proceed as follows: In the dialog box *Prompt for Customizing request* , choose the symbol *Create Request (F8)*. Then enter GR## in the *Short Description* field and save the entry. On the *Prompt for Customizing request* screen, confirm the newly created request by choosing *Continue (Enter)* .

Task 2: Define Order-Type-Dependent Parameters

In a second Customizing step, you must define order-type-dependent parameters for your production plants.

1. In the Customizing environment of the back end system, create the order-type-dependent parameters for your order type PO## in plant 1010 by copying the settings for order type YBM1.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order-Type-Dependent Parameters.

   In the *Order Type-Dependent Parameters Overview* screen, select the line of order type YBM1 and plant 1010 choose *Copy As*.

   Overwrite order type YBM1 with your order type:

Order Type
PO##

   Press *Enter* to copy the settings. Finally save your order-type-dependent parameters.

Task 3: Create a Production Order with your Order Type

Now you want to test your new order type. You do this in the back end system.

1. Choose transaction `CO01` to create a production order. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Order Type	PO##

   Choose *Enter* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	5

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Basic Dates / End	Choose any date in the near future.

Choose *Enter* to create the order.

Save the production order.

> Note:
> We will define further Customizing parameters for the order type in the following exercises.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Define an Order Type

Business Scenario

A production order is always created with reference to an order type. The order type controls the business processes of an order. As a member of the project team for implementing production orders, you must be able to create and maintain order types. You do this in the Customizing environment of the back end system.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Define an Order Type

In a first step for the implementation of production orders, you must create an order type.

1. In the Customizing environment of the back end system, create order type PO## along with the description **`GR## Production Order`** as a copy of order type YBM1.

   Choose transaction `SPRO` and choose the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order Types.

   In the *Maintain Production Order Types: Overview* screen, select the line of order type YBM1 and choose *Copy As*.

   In the *Maintain Production Order Types: Details* screen, overwrite order type YBM1 and the short text of the order type with:

Order Type	Short Text
PO##	GR## Production Order

   Press *Enter* to copy the settings. Finally save your order type. Confirm an information message about the number ranges.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> If you are prompted to specify a Customizing request, you must first create a new request in this exercise. You can then confirm your activities with reference to this request in all further Customizing exercises. Proceed as follows: In the dialog box *Prompt for Customizing request* , choose the symbol *Create Request (F8)*. Then enter GR## in the *Short Description* field and save the entry. On the *Prompt for Customizing request* screen, confirm the newly created request by choosing *Continue (Enter)* .

a) For this exercise step no further information is needed.

Task 2: Define Order-Type-Dependent Parameters

In a second Customizing step, you must define order-type-dependent parameters for your production plants.

1. In the Customizing environment of the back end system, create the order-type-dependent parameters for your order type PO## in plant 1010 by copying the settings for order type YBM1.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order-Type-Dependent Parameters.

   In the *Order Type-Dependent Parameters Overview* screen, select the line of order type YBM1 and plant 1010 choose *Copy As*.

   Overwrite order type YBM1 with your order type:

Order Type
PO##

   Press *Enter* to copy the settings. Finally save your order-type-dependent parameters.

   a) For this exercise step no further information is needed.

Task 3: Create a Production Order with your Order Type

Now you want to test your new order type. You do this in the back end system.

1. Choose transaction `CO01` to create a production order. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Order Type	PO##

   Choose *Enter* and enter the following data in the *Production order Create: Header* screen:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Total Qty	5
Basic Dates / End	Choose any date in the near future.

Choose *Enter* to create the order.

Save the production order.

> Note:
> We will define further Customizing parameters for the order type in the following exercises.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze Master Data Selection

Business Scenario

The selection of the master data for planned orders and production orders is made by the selection of production versions. An MRP controller or production supervisor needs to understand how to automatically select production versions and how to make a manual selection in certain situations.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Maintain Production Versions

As a production engineer, you must be able to maintain production versions.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Versions C223* tile to change the production versions of material T-SSP2##.

   A new tab with the title *Production Version: Mass Processing* will be opened.

   Enter the following data:

Field	Value
Plant	1010
Material	T-SSP2##

   Choose *Continue* or *Enter*.

   Two production versions will be displayed.

   Select both production versions and choose the *Detail view* icon.

   Make the following changes to the production versions in the detail screens:

   Production version 0001

Field	Value
Minimum Lot Size	1
Maximum Lot Size	5

   Choose the *Next Production Version* icon to move to the second production version.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Production version 0002

Field	Value
Minimum Lot Size	6
Maximum Lot Size	10

Choose the *Save Changes and Close Screen* icon to close the detail screens.

In the *Production Version: Mass Processing* screen, choose *Consistency Check*. A log will be displayed. Exit the log and *Save* the production versions.

Close the tab.

Task 2: Check the Automatic Selection of Production Versions

You check the automatic selection of the production versions of material T-SSP2##.

> Note:
> The results of this task are also valid for planned orders.

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	3
Basic Dates / End	choose any date in the near future

   Choose *Enter* to schedule the order.

   In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Prodn Version	

You don't need to save the order. *Close* the tab.

2. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	7
Basic Dates / End	choose any date in the near future

   Choose *Enter* to schedule the order.

   In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

   You don't need to save the order. *Close* the tab.

3. In the *SAP Fiori Launchpad*, execute the *Manage Production Versions C223* tile to change the production versions of material T-SSP2## again.

   A new tab with the title *Production Version: Mass Processing* will be opened.

   Enter the following data:

Field	Value
Plant	1010
Material	T-SSP2##

   Choose *Continue* or *Enter*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Select both production versions and choose the *Detail view* icon.

Make the following changes to the production versions in the detail screens:

Production version 0001

Field	Value
Minimum Lot Size	1
Maximum Lot Size	1000

Choose the *Next Production Version* icon to move to the second production version.

Production version 0002

Field	Value
Minimum Lot Size	1
Maximum Lot Size	1000

Choose the *Save Changes and Close Screen* icon to close the detail screens.

In the *Production Version: Mass Processing* screen, choose *Consistency Check*. A log will be displayed. *Exit* the log and *Save* the production versions.

Close the tab.

4. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	YBM1

> Note:
> Please use order type YBM1 for this exercise. The order is to be released later. This is not yet possible for your order type PO## because the Customizing settings for the availability check are still missing.

Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	7

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Basic Dates / End	choose any date in the near future

Choose *Enter* to schedule the order.

In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

Interpret the result.

Save the order and write down the order number:

>

Close the tab.

Task 3: Check the Manual Selection of Production Versions

Now you check various ways to manually select a production version.

1. If you want to change the production version after the order has been created, you can use function *Read PP Master Data*.

> Note:
> You can also use the *Read PP Master Data* function if the master data has changed and you want to update the production order.

> Note:
> You can also change the production version for a planned order. In this case, no special function is required. The master data is updated automatically when you save the planned order.

In the *SAP Fiori Launchpad*, execute the *Change Production Order* tile to change the production order from the previous task.

A new tab with the title *Production Order Change: Initial Screen* will be opened.

In the initial screen, enter the production order number from the previous task:

Field	Value
Order	Prod. order no. from previous task

Choose *More* → *Functions* → *Read PP Master Data*.

In the *Read PP master data* dialog box, choose the input help (F4) for the field *Production Version*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the *Select Production Version for Material* dialog box, select production version 0002 and click the *Choose* button.

In the *Read PP master data* dialog box, choose *Continue* to close the box.

In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

2. Choose the button *Release Order* to release the production order.

   In the *Release Order* dialog box, choose *Release Order* and ignore the non-availability of material components at the moment.

   Check the status of the order. Status REL *Released* should be set.

   Now read the PP master data again. Choose *More* → *Functions* → *Read PP Master Data*.

   In the *Postread Master Data* dialog box, choose *Cont*.

   In the *Read PP master data* dialog box, choose the input help (F4) for the field *Production Version*.

   In the *Select Production Version for Material* dialog box, select production version 0001 and press the *Choose* button.

   In the *Read PP master data* dialog box, choose *Continue*.

   You get the following information message:

   `Status of released order is reverted to 'Created'.`

   Choose *Continue* to close the message.

   In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

   Check the status of the order. Status CRTD *Created* should be set.

   > Note:
   > If you have already posted confirmations or goods movements, the *Read PP Master Data* function can no longer be executed.

   Save the order and close the tab.

3. If you create a production order manually, you can select a production version before scheduling.

   In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	7
Basic Dates / End	choose any date in the near future

Don't choose Enter. Choose *Production Versions*.

In the *Select Production Version for Material* dialog box, you can now select a production version.

You don't need to save the order. *Close* the tab.

4. You can set in the order-type dependent parameters that a production version is to be selected manually when you create an order manually.

   In the Customizing environment of the backend system, change the order-type-dependent parameters for your order type PO## in plant 1010.

   In the backend system, choose transaction `SPRO` and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order-Type-Dependent Parameters.

   In the *Order Type-Dependent Parameters Overview*, select the line of your order type PO## and plant 1010 choose the *Details* icon.

   Change the following setting:

Production Version
1 Manual selection of production version

   Save your order-type-dependent parameters.

5. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	7
Basic Dates / End	choose any date in the near future

Choose *Enter*.

The *Select Production Version for Material* dialog box is displayed automatically. You can now select a production version.

> Note:
> If only one production version is valid, this production version is automatically selected.

You don't need to save the order. *Close* the tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze Master Data Selection

Business Scenario

The selection of the master data for planned orders and production orders is made by the selection of production versions. An MRP controller or production supervisor needs to understand how to automatically select production versions and how to make a manual selection in certain situations.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Maintain Production Versions

As a production engineer, you must be able to maintain production versions.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Versions C223* tile to change the production versions of material T-SSP2##.

   A new tab with the title *Production Version: Mass Processing* will be opened.

   Enter the following data:

Field	Value
Plant	1010
Material	T-SSP2##

   Choose *Continue* or *Enter*.

   Two production versions will be displayed.

   Select both production versions and choose the *Detail view* icon.

   Make the following changes to the production versions in the detail screens:

   Production version 0001

Field	Value
Minimum Lot Size	1
Maximum Lot Size	5

   Choose the *Next Production Version* icon to move to the second production version.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Production version 0002

Field	Value
Minimum Lot Size	6
Maximum Lot Size	10

Choose the *Save Changes and Close Screen* icon to close the detail screens.

In the *Production Version: Mass Processing* screen, choose *Consistency Check*. A log will be displayed. Exit the log and *Save* the production versions.

Close the tab.

a) For this exercise step no further information is needed.

Task 2: Check the Automatic Selection of Production Versions
You check the automatic selection of the production versions of material T-SSP2##.

> Note:
> The results of this task are also valid for planned orders.

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	3
Basic Dates / End	choose any date in the near future

   Choose *Enter* to schedule the order.

   In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Prodn Version	

You don't need to save the order. *Close* the tab.

a) For order quantity 3, the following production version has been selected:

Field	Value
Prodn Version	0001

2. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	7
Basic Dates / End	choose any date in the near future

   Choose *Enter* to schedule the order.

   In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

   You don't need to save the order. *Close* the tab.

   a) For order quantity 7, the following production version has been selected:

Field	Value
Prodn Version	0002

3. In the *SAP Fiori Launchpad*, execute the *Manage Production Versions C223* tile to change the production versions of material T-SSP2## again.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

A new tab with the title *Production Version: Mass Processing* will be opened.

Enter the following data:

Field	Value
Plant	1010
Material	T-SSP2##

Choose *Continue* or *Enter*.

Select both production versions and choose the *Detail view* icon.

Make the following changes to the production versions in the detail screens:

Production version 0001

Field	Value
Minimum Lot Size	1
Maximum Lot Size	1000

Choose the *Next Production Version* icon to move to the second production version.

Production version 0002

Field	Value
Minimum Lot Size	1
Maximum Lot Size	1000

Choose the *Save Changes and Close Screen* icon to close the detail screens.

In the *Production Version: Mass Processing* screen, choose *Consistency Check*. A log will be displayed. *Exit* the log and *Save* the production versions.

Close the tab.

a) For this exercise step no further information is needed.

4. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	YBM1

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Please use order type YBM1 for this exercise. The order is to be released later. This is not yet possible for your order type PO## because the Customizing settings for the availability check are still missing.

Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	7
Basic Dates / End	choose any date in the near future

Choose *Enter* to schedule the order.

In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

Interpret the result.

Save the order and write down the order number:

>

Close the tab.

a) For order quantity 7, now production version 0001 has been selected:

Field	Value
Prodn Version	0001

If several production versions are valid, the alphanumeric first version will be selected.

When you save the order, the order number is displayed in a message at the bottom of the screen.

Task 3: Check the Manual Selection of Production Versions

Now you check various ways to manually select a production version.

1. If you want to change the production version after the order has been created, you can use function *Read PP Master Data*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> You can also use the *Read PP Master Data* function if the master data has changed and you want to update the production order.

> Note:
> You can also change the production version for a planned order. In this case, no special function is required. The master data is updated automatically when you save the planned order.

In the *SAP Fiori Launchpad*, execute the *Change Production Order* tile to change the production order from the previous task.

A new tab with the title *Production Order Change: Initial Screen* will be opened.

In the initial screen, enter the production order number from the previous task:

Field	Value
Order	Prod. order no. from previous task

Choose *More* → *Functions* → *Read PP Master Data*.

In the *Read PP master data* dialog box, choose the input help (F4) for the field *Production Version*.

In the *Select Production Version for Material* dialog box, select production version 0002 and click the *Choose* button.

In the *Read PP master data* dialog box, choose *Continue* to close the box.

In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

a) The following production version is assigned:

Field	Value
Prodn Version	0002

2. Choose the button *Release Order* to release the production order.

   In the *Release Order* dialog box, choose *Release Order* and ignore the non-availability of material components at the moment.

   Check the status of the order. Status REL *Released* should be set.

   Now read the PP master data again. Choose *More* → *Functions* → *Read PP Master Data*.

   In the *Postread Master Data* dialog box, choose *Cont*.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *Read PP master data* dialog box, choose the input help (F4) for the field *Production Version*.

In the *Select Production Version for Material* dialog box, select production version 0001 and press the *Choose* button.

In the *Read PP master data* dialog box, choose *Continue*.

You get the following information message:

`Status of released order is reverted to 'Created'.`

Choose *Continue* to close the message.

In the *Production order Create: Header* screen, choose the *Master Data* tab and note the number of the production version:

Field	Value
Prodn Version	

Check the status of the order. Status CRTD *Created* should be set.

> Note:
> If you have already posted confirmations or goods movements, the *Read PP Master Data* function can no longer be executed.

Save the order and close the tab.

a) The following production version is assigned:

Field	Value
Prodn Version	0001

3. If you create a production order manually, you can select a production version before scheduling.
   In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Total Qty	7
Basic Dates / End	choose any date in the near future

Don't choose Enter. Choose *Production Versions*.

In the *Select Production Version for Material* dialog box, you can now select a production version.

You don't need to save the order. *Close* the tab.

a) For this exercise step no further information is needed.

4. You can set in the order-type dependent parameters that a production version is to be selected manually when you create an order manually.

   In the Customizing environment of the backend system, change the order-type-dependent parameters for your order type PO## in plant 1010.

   In the backend system, choose transaction `SPRO` and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order-Type-Dependent Parameters.

   In the *Order Type-Dependent Parameters Overview*, select the line of your order type PO## and plant 1010 choose the *Details* icon.

   Change the following setting:

Production Version
1 Manual selection of production version

   Save your order-type-dependent parameters.

   a) For this exercise step no further information is needed.

5. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create another production order for material T-SSP2##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP2##
Production Plant	1010
Order Type	PO##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Total Qty	7
Basic Dates / End	choose any date in the near future

Choose *Enter*.

The *Select Production Version for Material* dialog box is displayed automatically. You can now select a production version.

> Note:
> If only one production version is valid, this production version is automatically selected.

You don't need to save the order. *Close* the tab.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Define an order type and describe the master data selection for production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Scheduling Production Orders

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the scheduling of production orders

Scheduling

Production orders are always scheduled when the order is created. As prerequisite, routings with operations and work centers must be maintained. For the order type, scheduling parameters must be defined in Customizing.

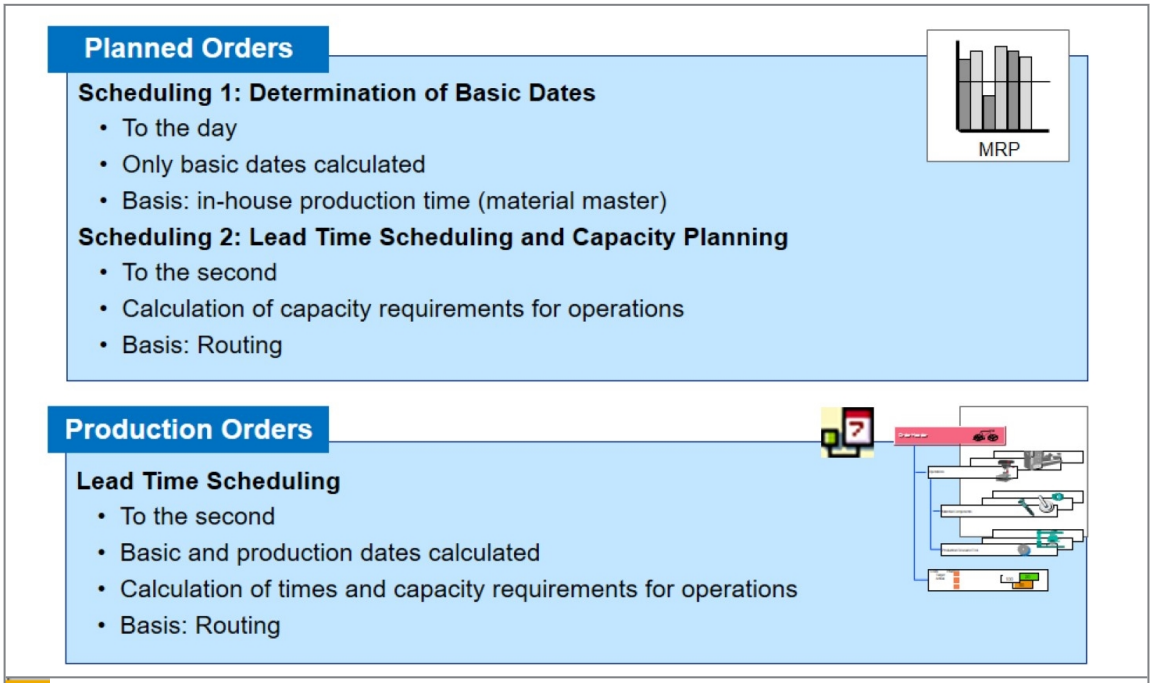

Figure 35: Scheduling in Production Planning

Production planning knows two scheduling methods for planned orders that are used for different purposes and have different results. With scheduling method 1 only the basic dates are calculated on basis of the in-house production time maintained in the material master. With scheduling method 2 lead time scheduling is performed on basis of a routing. Only with lead time scheduling operation-related dates and capacity requirements are calculated.

For production orders, lead time scheduling is always used.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Scheduling Time Elements

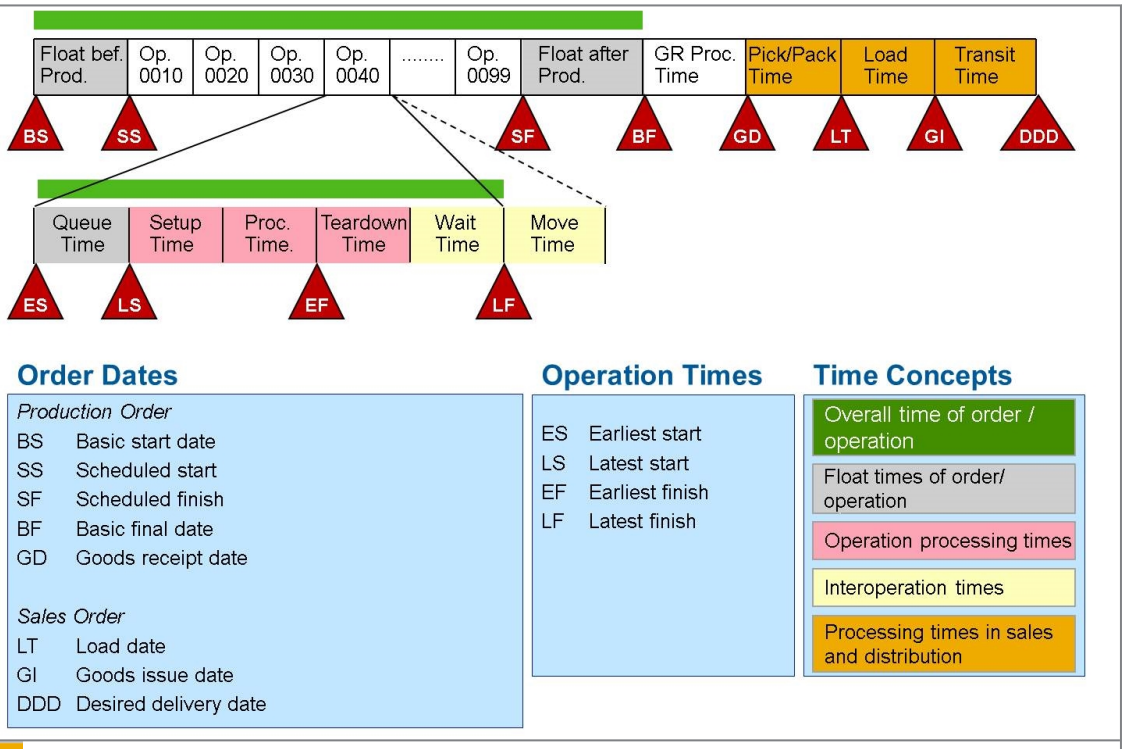

Figure 36: Scheduling Time Elements

The above graphic shows all the possible elements in the total lead time of a production order.

There are two order float times. The float before production is useful in the case of postponement of dates and in capacity planning. The float after production can be used to absorb any delays.

The duration of an operation comprises a maximum of five time elements: Queue time, setup time, processing time, teardown time, and process-specific wait time.

The duration of the move time lies between two operations, but it is assigned to the preceding operation.

If a production order is being used to perform production for a sales order, then further time elements of the sales order will be taken into account to determine the final date of the production order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Calculation of Setup, Processing, and Teardown Times

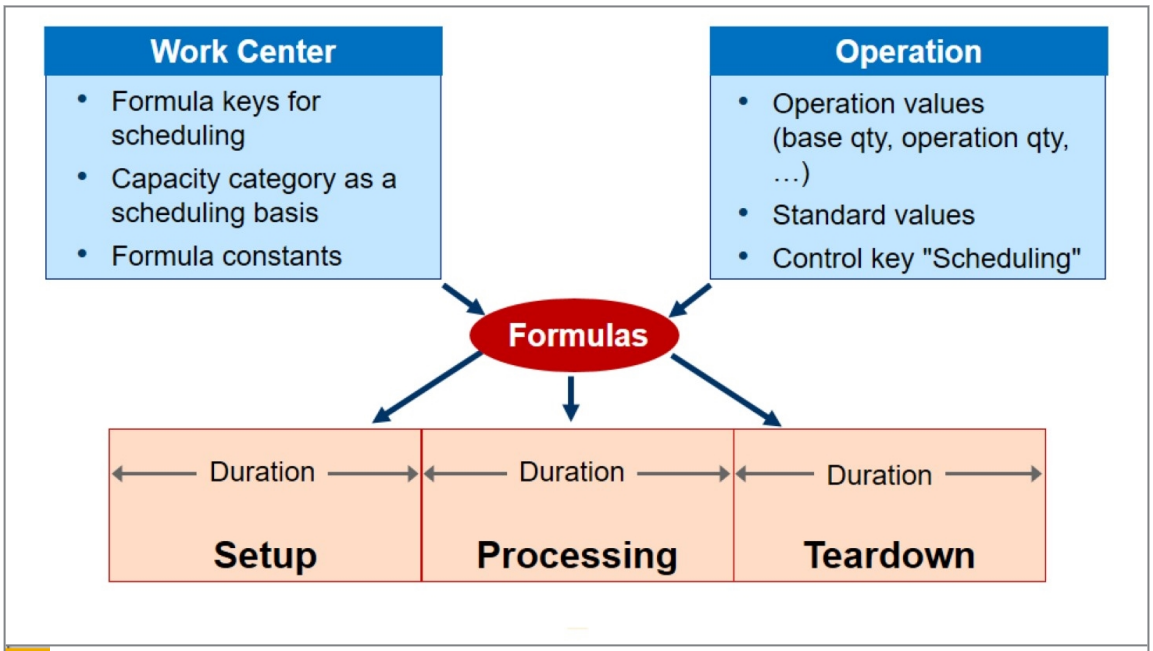

Figure 37: Calculation of Setup, Processing, and Teardown Times

To calculate the durations of the setup, processing, and teardown times, you must define a capacity category to be used as the scheduling basis and formulas in the work center.

The durations are determined based on the standard values and additional formula parameters.

When determining the operation dates, the available capacity with breaks is taken into account.

Calculation of Capacity Requirements

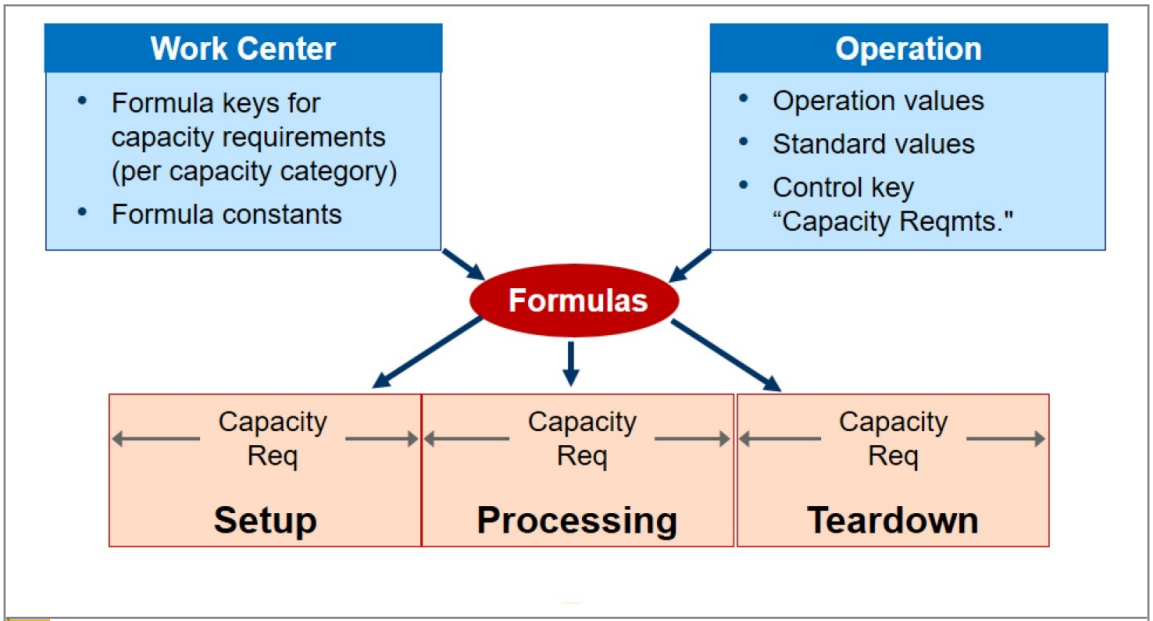

Figure 38: Calculation of Capacity Requirements

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

On the basis of the standard values and other formula parameters, formulas in the work center are used to calculate the capacity requirements (per capacity category) of an operation.

Scheduling Parameters

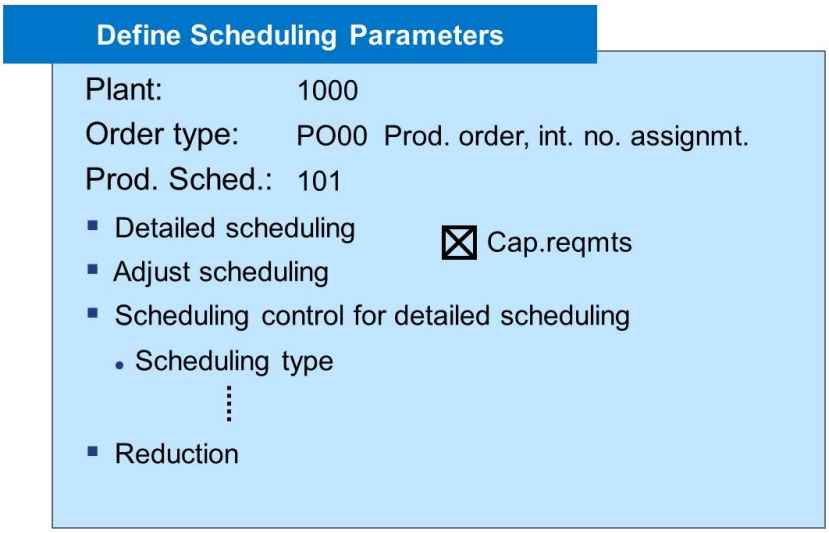

Figure 39: Scheduling Parameters

In the Customizing activity *Define Scheduling Parameters for Production Orders*, you define the parameters that are required for the scheduling production orders per each plant, order type, and production scheduler.

Scheduling Margin Key

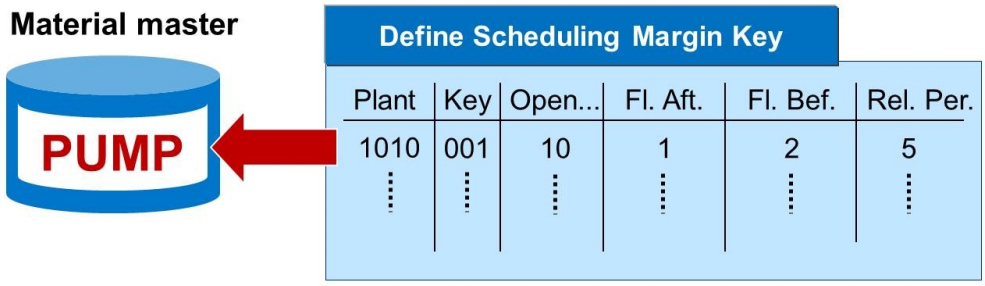

Figure 40: Scheduling Margin Key

In the Customizing activity *Define Scheduling Margin Keys*, you specify time floats for order scheduling as well as the release period for order release. A suitable scheduling margin key is assigned to a material on the MRP view of its material master.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Set Up and Analyze Scheduling

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

In Customizing, you define scheduling parameters for your order type and a scheduling margin key for your product.

You then test different scenarios for production order scheduling.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Define Scheduling Parameters

In the Customizing environment of the back end system, define scheduling parameters for your order type PO## in plant 1010.

1. Choose transaction `SPRO` and select the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Scheduling → Define Scheduling Parameters for Production Orders.

   At the current situation, scheduling for production orders with order type PO## in plant 1010 is controlled by settings related to the following key fields:

Plant	Order Type	PrSch
1010	*	*

   Define special scheduling parameters for your order type PO## by copying these setting.

   In the *Specify scheduling parameters: Overview* screen, select the corresponding line and choose the *Copy As* icon.

   In the *Specify scheduling parameters: Details* screen, overwrite order type * with:

Order Type
PO##

   Choose *Enter* to copy the settings.

   Save your scheduling parameters.

2. In the *Specify scheduling parameters: Overview* screen, select the corresponding line and choose the *Details* icon.

© Copyright. All rights reserved.

Change the following settings:

Field	Value
Scheduling Type	Forwards
Maximum Reduction Level	Do not reduce beyond reduction level 3
L1	30
L2	60
L3	100

Save your scheduling parameters.

3. In the scheduling parameters, the reduction of the floats before and after production is defined.

   Also check the reduction strategy defined on operation level.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Scheduling → Define Reduction Strategies.

   In the *Reduction Strategy: Overview* screen, select the line for strategy 01 in plant 1010 and double-click the *Reduction levels* folder.

   Get an overview of which time elements and functions can be used to reduce the lead times of operations.

   Note the settings in the following table:

R	Red. Queue	Transport	Overlap	Split
1				
2				
3				
4				

> Note:
> Reduction strategy 01 is assigned to the order-type-dependent parameters of your order type PO##.

Task 2: Define a Scheduling Margin Key

In the Customizing environment of the back end system, define a scheduling margin key. Then assign the profile to your product.

1. In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Scheduling → Define Scheduling Margin Key.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *Margins for scheduling: Overview* screen, choose *New Entries* and enter the following data:

Plant	Key	Opening Period	Float After Production	Float Before Production	Release Period
1010	T##	5	1	2	5

Save your scheduling margin key.

2. Assign your scheduling margin key T## to your product T-FSP1##.

   In the back end system, choose transaction `MM02`.

   Enter the material number **`T-FSP1##`** in the initial screen, then choose view *MRP 2* for plant 1010.

   In the *MRP 2* view, assign scheduling margin key **`T##`**.

   Save the material.

Task 3: Schedule a Production Order

You create a production order and check the results of scheduling in various situations.

1. In the back end system, choose transaction `CO01` to create a production order in production plant 1010 for your product T-FSP1##. Use order type **`PO##`**.

   Enter a total quantity of **`1 PC`**.

   Choose the next Monday or the first workday of the next week as the basic start date.

2. Check if the following statements are correct:

   In accordance with the scheduling parameters you have defined in Customizing, scheduling type *Forwards* is proposed.

   According to the settings you have made in the material master record for material T-FSP1##, scheduling margin key T## is proposed.

   In accordance with the scheduling parameters, the *Calculate Capacity Requirements* indicator and the *Schedule Automatically* indicator are set in the *Control* tab.

3. Check in detail the dates and times on header, operation, and component level.

   For the operations, check also the calculated activities and capacity requirements.

4. Now change the basic end date to one workday closer to the present.

   As a result of the change, the status NTUP *Dates are not updated* has been set.

   Choose the *Schedule Order* icon.

   As a result, the order has been scheduled with reduction level 1:

   The float before production was reduced by one day, and according to the reduction strategy, the queue times of the operations were reduced by 50 %.

5. Now change the basic end date to one more workday closer to the present.

   Again, check the status and reschedule the order.

   As a result, the order has been scheduled with reduction level 2:

   The float after production was used up, the queue times were reduced by 100 %, and the transportation times were reduced.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

6. Again, change the basic end date to one workday closer to the present and reschedule the order.

   As a result, the order has been scheduled with reduction level 3:

   The float before production was used up, and the operations overlap if overlapping is defined in the routing.

7. Choose *Order* → *Settings* → *Scheduling* to display the scheduling parameters in the order.

   Set the reduction strategy to *Do not reduce* and schedule the order again.

   > Note:
   > The changes only apply to the order and have no effect on the settings in Customizing.

   As a result, the basic end date has been adjusted according to the setting *Adjust basic dates* in the scheduling parameters.

8. Now choose the scheduling type *Backwards* and schedule the order again.

   Starting from the basic end date, the system schedules the order backward.

   Check the recalculated *Scheduled End* and *Scheduled Start* of the order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Set Up and Analyze Scheduling

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

In Customizing, you define scheduling parameters for your order type and a scheduling margin key for your product.

You then test different scenarios for production order scheduling.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Define Scheduling Parameters

In the Customizing environment of the back end system, define scheduling parameters for your order type PO## in plant 1010.

1. Choose transaction `SPRO` and select the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Scheduling → Define Scheduling Parameters for Production Orders.

   At the current situation, scheduling for production orders with order type PO## in plant 1010 is controlled by settings related to the following key fields:

Plant	Order Type	PrSch
1010	*	*

   Define special scheduling parameters for your order type PO## by copying these setting.

   In the *Specify scheduling parameters: Overview* screen, select the corresponding line and choose the *Copy As* icon.

   In the *Specify scheduling parameters: Details* screen, overwrite order type * with:

Order Type
PO##

   Choose *Enter* to copy the settings.

   Save your scheduling parameters.

   a) For this exercise step no further information is needed.

© Copyright. All rights reserved.

2. In the *Specify scheduling parameters: Overview* screen, select the corresponding line and choose the *Details* icon.

   Change the following settings:

Field	Value
Scheduling Type	Forwards
Maximum Reduction Level	Do not reduce beyond reduction level 3
L1	30
L2	60
L3	100

   Save your scheduling parameters.

   a) For this exercise step no further information is needed.

3. In the scheduling parameters, the reduction of the floats before and after production is defined.

   Also check the reduction strategy defined on operation level.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Scheduling → Define Reduction Strategies.

   In the *Reduction Strategy: Overview* screen, select the line for strategy 01 in plant 1010 and double-click the *Reduction levels* folder.

   Get an overview of which time elements and functions can be used to reduce the lead times of operations.

   Note the settings in the following table:

R	Red. Queue	Transport	Overlap	Split
1				
2				
3				
4				

> Note:
> Reduction strategy 01 is assigned to the order-type-dependent parameters of your order type PO##.

   a) The settings for the reduction strategy are as follows:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

R	Red. Queue	Transport	Overlap	Split
1	50			
2	100	X		
3	100	X	X	
4	100	X	X	X

Task 2: Define a Scheduling Margin Key

In the Customizing environment of the back end system, define a scheduling margin key. Then assign the profile to your product.

1. In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Scheduling → Define Scheduling Margin Key.

   In the *Margins for scheduling: Overview* screen, choose *New Entries* and enter the following data:

Plant	Key	Opening Period	Float After Production	Float Before Production	Release Period
1010	T##	5	1	2	5

   Save your scheduling margin key.

   a) For this exercise step no further information is needed.

2. Assign your scheduling margin key T## to your product T-FSP1##.

   In the back end system, choose transaction `MM02`.

   Enter the material number **`T-FSP1##`** in the initial screen, then choose view *MRP 2* for plant 1010.

   In the *MRP 2* view, assign scheduling margin key **`T##`**.

   Save the material.

   a) For this exercise step no further information is needed.

Task 3: Schedule a Production Order

You create a production order and check the results of scheduling in various situations.

1. In the back end system, choose transaction `CO01` to create a production order in production plant 1010 for your product T-FSP1##. Use order type **`PO##`**.

   Enter a total quantity of **`1 PC`**.

   Choose the next Monday or the first workday of the next week as the basic start date.

   a) For this exercise step no further information is needed.

2. Check if the following statements are correct:

   In accordance with the scheduling parameters you have defined in Customizing, scheduling type *Forwards* is proposed.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

According to the settings you have made in the material master record for material T-FSP1##, scheduling margin key T## is proposed.

In accordance with the scheduling parameters, the *Calculate Capacity Requirements* indicator and the *Schedule Automatically* indicator are set in the *Control* tab.

a) For this exercise step no further information is needed.

3. Check in detail the dates and times on header, operation, and component level.

   For the operations, check also the calculated activities and capacity requirements.

   a) For this exercise step no further information is needed.

4. Now change the basic end date to one workday closer to the present.

   As a result of the change, the status NTUP *Dates are not updated* has been set.

   Choose the *Schedule Order* icon.

   As a result, the order has been scheduled with reduction level 1:

   The float before production was reduced by one day, and according to the reduction strategy, the queue times of the operations were reduced by 50 %.

   a) For this exercise step no further information is needed.

5. Now change the basic end date to one more workday closer to the present.

   Again, check the status and reschedule the order.

   As a result, the order has been scheduled with reduction level 2:

   The float after production was used up, the queue times were reduced by 100 %, and the transportation times were reduced.

   a) For this exercise step no further information is needed.

6. Again, change the basic end date to one workday closer to the present and reschedule the order.

   As a result, the order has been scheduled with reduction level 3:

   The float before production was used up, and the operations overlap if overlapping is defined in the routing.

   a) For this exercise step no further information is needed.

7. Choose *Order* → *Settings* → *Scheduling* to display the scheduling parameters in the order.

   Set the reduction strategy to *Do not reduce* and schedule the order again.

   > Note:
   > The changes only apply to the order and have no effect on the settings in Customizing.

   As a result, the basic end date has been adjusted according to the setting *Adjust basic dates* in the scheduling parameters.

   a) For this exercise step no further information is needed.

8. Now choose the scheduling type *Backwards* and schedule the order again.

   Starting from the basic end date, the system schedules the order backward.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Check the recalculated *Scheduled End* and *Scheduled Start* of the order.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the scheduling of production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Describing the Costing of Production Orders

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the determination of the planned costs of a production order

Costing

The settings for costing production orders are made in Controlling. However, as a production supervisor, you want to be able to track the calculation of the costs.

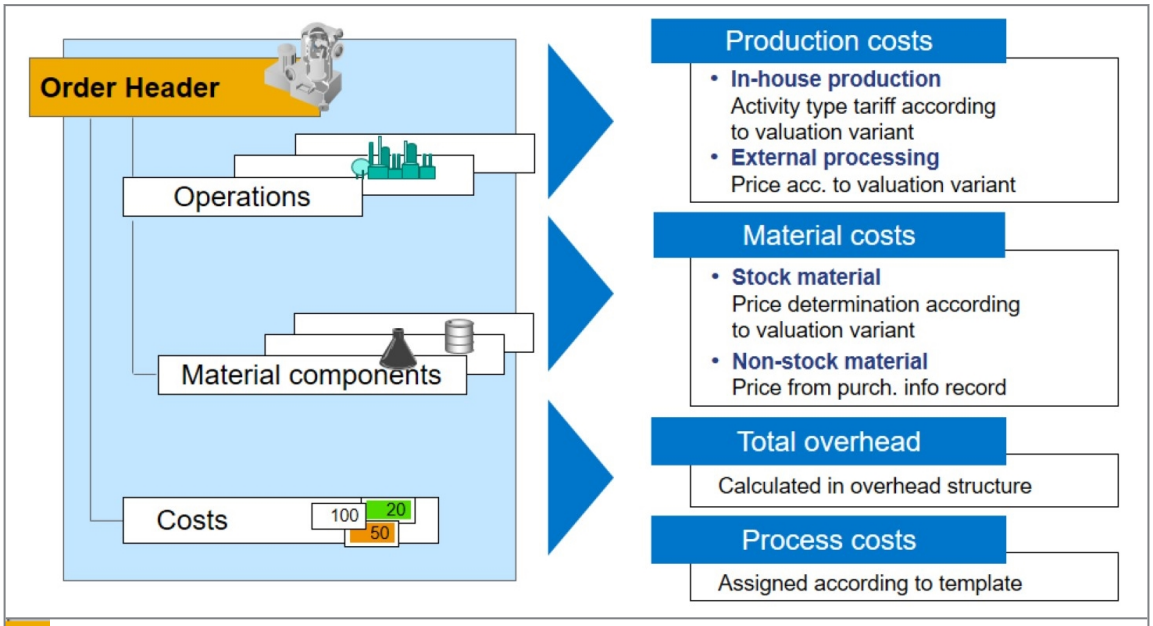

Figure 41: Calculating Planned Costs (I)

If you use order-related Cost Object Controlling, a cost object is managed for each production order. The production costs are documented for each individual production order. Within the order there are different lists to analyze the costs.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Calculating Planned Costs (II)

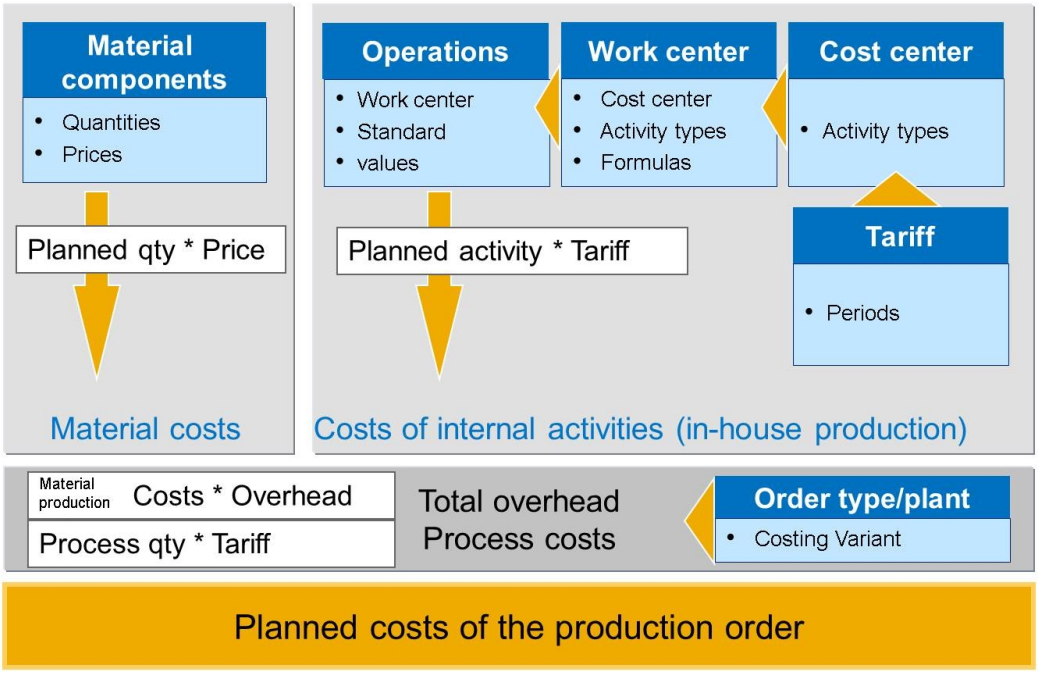

Figure 42: Calculating Planned Costs (II)

The figure describes the calculation of the planned costs.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze the Calculation of the Planned Costs

Business Scenario

The settings for costing production orders are made in Controlling. However, as a production supervisor, you want to be able to track the calculation of the costs.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Display Prices of Materials and Activities

You analyze prices that are used for the costing of production orders.

1. You check and note the price for material component T-RSP1##.

   In the backend system, choose transaction MM03.

   Enter the material number T-RSP1## in the initial screen, then choose view Accounting 1 for plant 1010.

   Note the price of the material:

Per. unit price (per PC)
>

   Exit the material.

2. You check and note the price for the product T-FSP1##.

   In the backend system, choose transaction `MM03`.

   Enter the material number T-FSP1## in the initial screen, then choose view Accounting 1 for plant 1010.

   Note the price of the material:

Standard Price (per PC)
>

   Exit the material.

3. For work center T-BK1## you check and note the assignment of an activity type to a standard value.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> All work centers in our production orders for the production of material T-FSP1## have the same settings .

In the backend system, choose transaction `CR03`.

Enter plant 1010 and work center T-BK1## in the initial screen.

Choose the *Costing* tab and note the following settings:

Field	Value
Controlling Area	
Cost Center	

Alt. Activity Text (=Standard Value)	Activity type
Setup	

Exit the work center.

4. You check and note the price for activity type 3 in cost center 10101301.
   In the backend system, choose transaction `KP26`.

   Set controlling area A000 and enter the following data in the initial screen:

Field	Value
Version	0
From Period	1
To Period	12
Fiscal year	Actual year
Cost Center	10101301
Activity Type	3

   Choose the *Overview Screen* icon.

   Note the price of the activity type:

Variable Price (per H)
>

   Exit the transaction.

Task 2: Analyze the Planned Costs of a Production Order
You create a production order and analyze the planned costs.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

1. In the backend system, choose transaction `CO01` to create a production order in production plant 1010 for your product T-FSP1##. Use order type PO##.

   Enter a total quantity of 1 PC.

   Choose any basic start date in the near future.

   Save the production order and note the order number:

>

2. Choose transaction `CO02` to change the production order.

   Choose *Goto* → *Costs* → *Analysis*.

   In the cost report, assign layout SCM-PP. To do this, choose the *Select Layout* icon.

   Note the cost analysis for the following rows:

Transaction	Origin	Total Plan Costs	Total plan quantity
Goods Issue	1010/T-RSP1##		
Confirmations	10101301/3		
Goods Receipt	1010/T-FSP1##		

   Compare the cost analysis with the prices checked in the previous task.

   Interpret the cost analysis.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze the Calculation of the Planned Costs

Business Scenario

The settings for costing production orders are made in Controlling. However, as a production supervisor, you want to be able to track the calculation of the costs.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Display Prices of Materials and Activities

You analyze prices that are used for the costing of production orders.

1. You check and note the price for material component T-RSP1##.

   In the backend system, choose transaction MM03.

   Enter the material number T-RSP1## in the initial screen, then choose view Accounting 1 for plant 1010.

   Note the price of the material:

Per. unit price (per PC)
>

   Exit the material.

   a) For this exercise step no further information is needed.

2. You check and note the price for the product T-FSP1##.

   In the backend system, choose transaction `MM03`.

   Enter the material number T-FSP1## in the initial screen, then choose view Accounting 1 for plant 1010.

   Note the price of the material:

Standard Price (per PC)
>

   Exit the material.

   a) For this exercise step no further information is needed.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

3. For work center T-BK1## you check and note the assignment of an activity type to a standard value.

> Note:
> All work centers in our production orders for the production of material T-FSP1## have the same settings .

In the backend system, choose transaction `CR03`.

Enter plant 1010 and work center T-BK1## in the initial screen.

Choose the *Costing* tab and note the following settings:

Field	Value
Controlling Area	
Cost Center	

Alt. Activity Text (=Standard Value)	Activity type
Setup	

Exit the work center.

a) You should find the following data:

Field	Value
Controlling Area	A000
Cost Center	10101301

Alt. Activity Text (=Standard Value)	Activity type
Setup	3

4. You check and note the price for activity type 3 in cost center 10101301.
In the backend system, choose transaction `KP26`.

Set controlling area A000 and enter the following data in the initial screen:

Field	Value
Version	0
From Period	1
To Period	12
Fiscal year	Actual year
Cost Center	10101301

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Activity Type	3

Choose the *Overview Screen* icon.

Note the price of the activity type:

Variable Price (per H)
>

Exit the transaction.

a) For this exercise step no further information is needed.

Task 2: Analyze the Planned Costs of a Production Order

You create a production order and analyze the planned costs.

1. In the backend system, choose transaction `CO01` to create a production order in production plant 1010 for your product T-FSP1##. Use order type PO##.

   Enter a total quantity of 1 PC.

   Choose any basic start date in the near future.

   Save the production order and note the order number:

>

   a) For this exercise step no further information is needed.

2. Choose transaction `CO02` to change the production order.

   Choose *Goto* → *Costs* → *Analysis*.

   In the cost report, assign layout SCM-PP. To do this, choose the *Select Layout* icon.

   Note the cost analysis for the following rows:

Transaction	Origin	Total Plan Costs	Total plan quantity
Goods Issue	1010/T-RSP1##		
Confirmations	10101301/3		
Goods Receipt	1010/T-FSP1##		

   Compare the cost analysis with the prices checked in the previous task.

   Interpret the cost analysis.

   a) The system uses the prices maintained in the material master records to determine the debits with regard to the planned goods issues quantities of material components.

      The system uses the prices defined for the activity types and cost centers of the work centers to determine the debits with regard to the activities planned to be confirmed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

The system uses the price maintained in the material master record of the product to determine the credits with regard to the planned goods receipt quantity.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the determination of the planned costs of a production order

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Which of the following statements are correct?

   Choose the correct answers.

   - ☐ A Production orders can be created by planned order conversion.
   - ☐ B Planned order conversion is only possible in background processing.
   - ☐ C Production orders can be created by the conversion of purchase requisitions.
   - ☐ D Production orders can be created for sales orders.
   - ☐ E Production orders cannot be created without material.

2. Which of the following statements are correct?

   Choose the correct answers.

   - ☐ A Production orders can be created without master data.
   - ☐ B The selection of the master data for production orders is made by the selection of production versions.
   - ☐ C The usage of quota arrangements is mandatory if several production versions exist.

3. Which of the following are scheduling time elements of an operation?

   Choose the correct answers.

   - ☐ A Queue time
   - ☐ B Setup time
   - ☐ C Processing time
   - ☐ D Teardown time
   - ☐ E Wait time
   - ☐ F Move time

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. Which of the following statement is correct?

   Choose the correct answer.

   - ☐ A The planned costs for internal activities are calculated from the process costs.
   - ☐ B The planned costs for material components are calculated by: Planned quantity * price.
   - ☐ C The planned costs for internal activities are defined in the material master of the product.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Which of the following statements are correct?

   Choose the correct answers.

   [X] A Production orders can be created by planned order conversion.

   [ ] B Planned order conversion is only possible in background processing.

   [ ] C Production orders can be created by the conversion of purchase requisitions.

   [X] D Production orders can be created for sales orders.

   [ ] E Production orders cannot be created without material.

   Correct. Production orders can be created by planned order conversion and can be created for sales orders.

2. Which of the following statements are correct?

   Choose the correct answers.

   [X] A Production orders can be created without master data.

   [X] B The selection of the master data for production orders is made by the selection of production versions.

   [ ] C The usage of quota arrangements is mandatory if several production versions exist.

   Correct. Production orders can be created without master data. The selection of the master data for production orders is made by the selection of production versions.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

3. Which of the following are scheduling time elements of an operation?

   Choose the correct answers.

   [X] A Queue time

   [X] B Setup time

   [X] C Processing time

   [X] D Teardown time

   [X] E Wait time

   [X] F Move time

   Correct. All the listed options are correct.

4. Which of the following statement is correct?

   Choose the correct answer.

   [ ] A The planned costs for internal activities are calculated from the process costs.

   [X] B The planned costs for material components are calculated by: Planned quantity * price.

   [ ] C The planned costs for internal activities are defined in the material master of the product.

   Correct. The planned costs for material components are calculated by: Planned quantity * price.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 4 Availibility Checks, Capacity Planning, Order Release and Printing

Lesson 1

Performing Availability Checks 180
Exercise 15: Set Up and Perform Material Availability Checks 185

Lesson 2

Discussing Capacity Planning 210
Exercise 16: Use Capacity Evaluation and Capacity Leveling Tools 217

Lesson 3

Releasing Production Orders 234
Exercise 17: Release Production Orders 239
Exercise 18: Define and Test a Production Scheduling Profile 249
Exercise 19: Analyze and Test a User Status Profile 257

Lesson 4

Printing Shop Floor Papers 267
Exercise 20: Print Shop Floor Papers 271

Duplication is prohibited.

Duplication is prohibited.

UNIT OBJECTIVES

- Set up and execute availability checks for production orders
- Describe the principles of capacity planning
- Release production orders, set up production scheduling profiles and describe the functions of status profiles
- Print shop floor papers

© Copyright. All rights reserved.

Performing Availability Checks

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Set up and execute availability checks for production orders

Availability Checks

Before you release a production order, you must ensure that all the resources required for production are available. Production orders provide availability checks for material components, capacities and production resources/tools.

Availability checks for material components ensure that only those orders are released for which the required material quantity is available on the calculated requirements date.

As a member of the project team, you must be able to set up material availability checks in Customizing.

As an MRP controller or production scheduler, you must be able to carry out material availability checks and interpret the results. You have to be able to analyze and process missing parts situations.

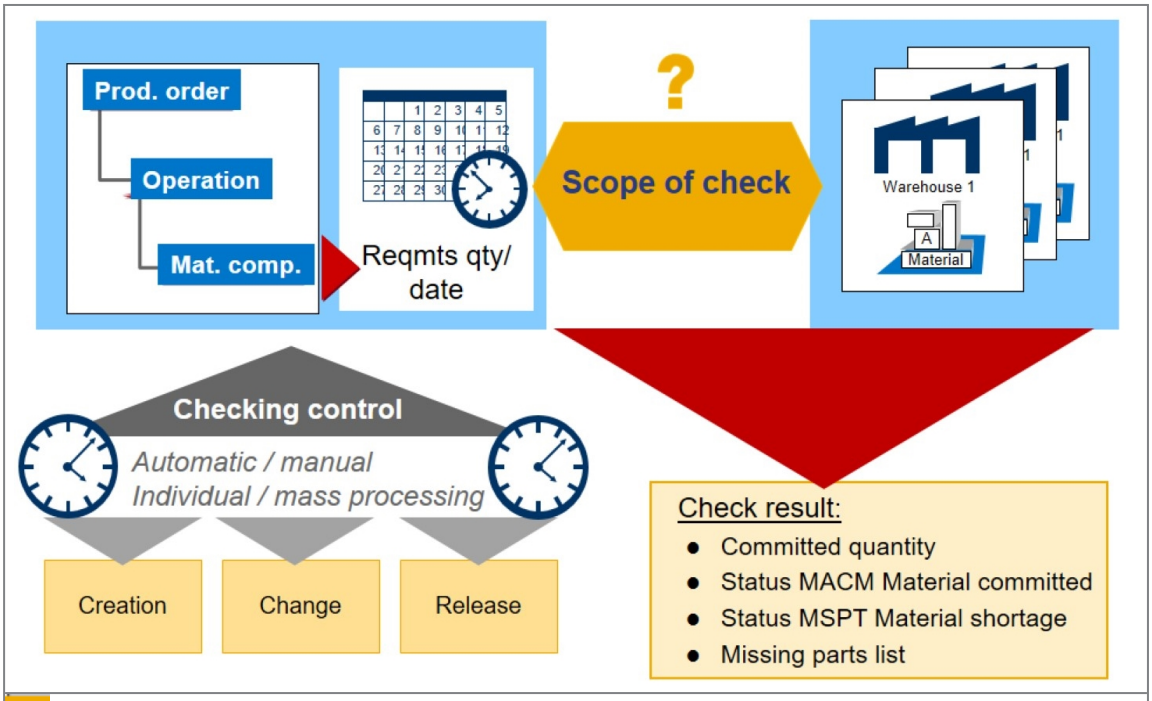

Figure 43: Material Availability Check

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

An availability check can be triggered automatically or manually. In Customizing, you specify for each order type and plant whether an automatic availability check is to be carried out at order creation and/or order release.

A manual check can be carried out at any time. You can check orders individually or in mass processing. Mass processing can be performed in background processing.

All stocks and in-/outward movements to be considered are checked dynamically according to the ATP method (Available-to-Promise). Material quantities, including partial quantities, that are available at the requirements date are committed in the order.

If the total required quantity of a material component is not available at the required date, the system sets the order status MSPT *Material shortage*. In Customizing, you can specify that orders with a material shortage cannot be released. You can display missing parts for the order in the missing parts list. The results of the availability check are recorded in the availability log. A missing parts information system is available.

Availability checks are carried out according to various specific Customizing settings. The scope of check is determined uniquely for each material component per order type and plant.

ATP Method: Example

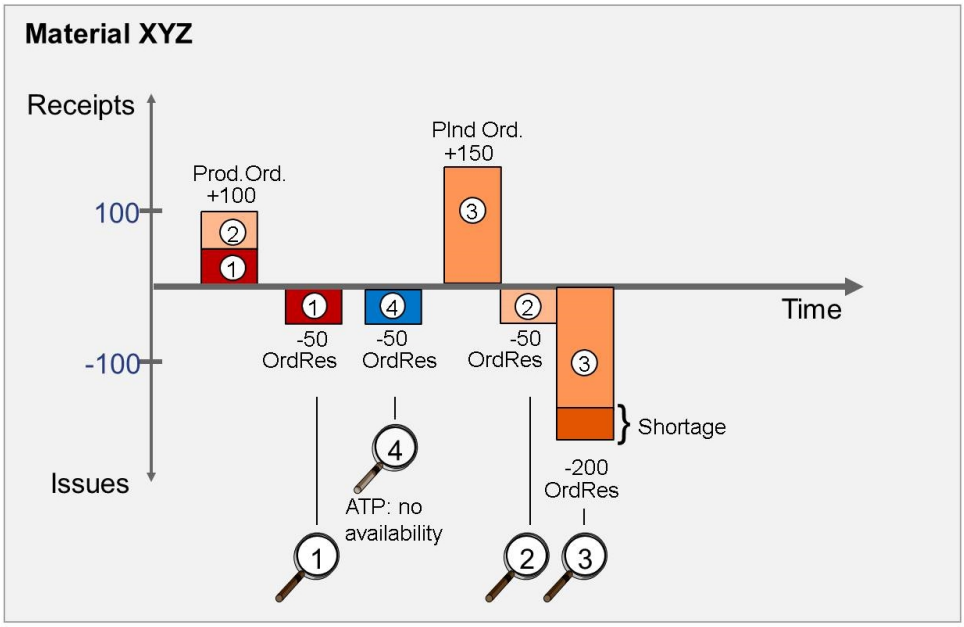

Figure 44: ATP Method: Example

An ATP check can be performed along the entire time axis, but can also be restricted to the replenishment lead time defined in material master.

The MRP controller can use the ATP quantities to determine whether production planning covers all planned goods issues and which quantities of the stock or production plan are still available for other issues.

The graphic illustrates the following scenario:

It shows the planned goods receipts and issues for material XYZ. The system carries out availability checks 1 to 4 for the existing reservations. In the third check, a material shortage is detected as the planned goods receipts do not cover the requirements quantity.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Due to the ATP logic, the fourth check also detects that the material is not available, although the material stock available on the requirements date would cover the requirement. However, the material stock was committed to the other reservations by checks 1 to 3.

Material Availability Check: Customizing

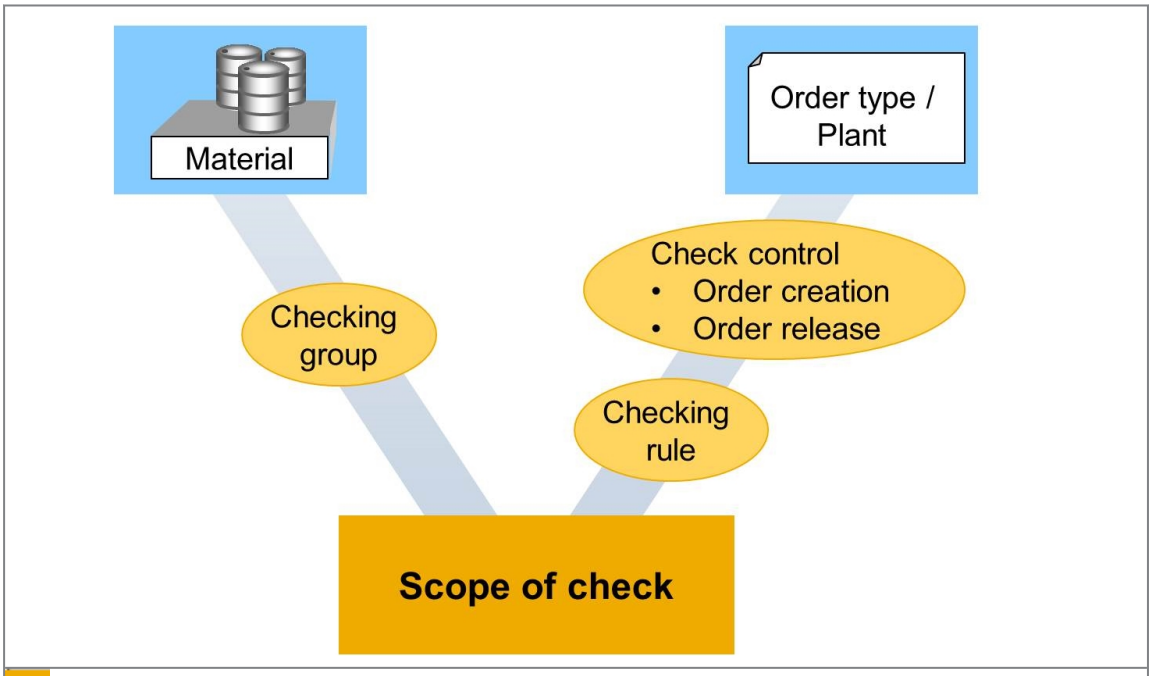

Figure 45: Material Availability Check: Customizing

The following elements control the material availability check:

- You assign a checking group to each material in the material master. It groups materials that are checked according to the same criteria.
- You define checking rules for your various applications, for example for production order management, material requirements planning or sales and distribution.
- In the checking control for production orders, you define for each order type and plant and per status *Created* and *Released*, whether the material availability is to be checked automatically and which checking rule is to be used.
- The checking rule and checking group together define the scope of the availability check. The scope of check defines, for example, which MRP elements and stock categories are taken into account.

Capacity Availability Check

Capacity requirements can be determined for the activities of a production order. These can be checked against the requirements of other orders with regard to the capacity offered by the work center.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

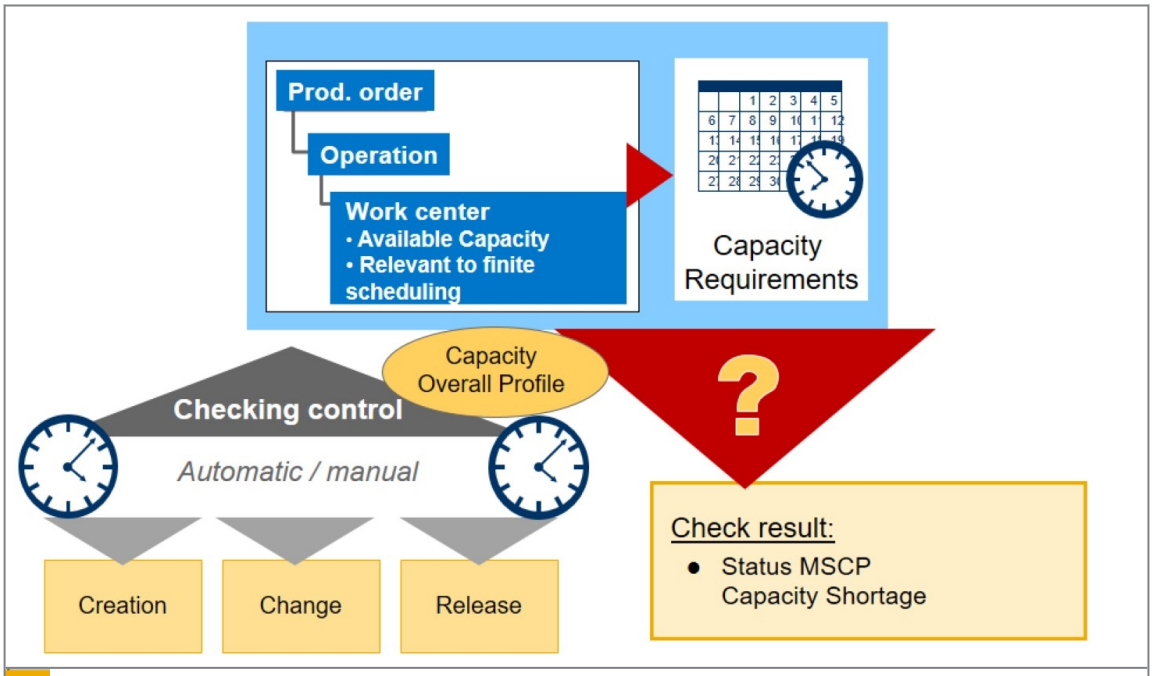

Figure 46: Capacity Availability Check

The indicator *Relevant for finite scheduling* must be set in the work center. In Customizing, an overall profile must be assigned in the checking control.

PRT Availability Check

With the PRT availability check, the statuses of the PRTs can be checked. As long as an PRT is not locked for production, the PRT is considered as available.

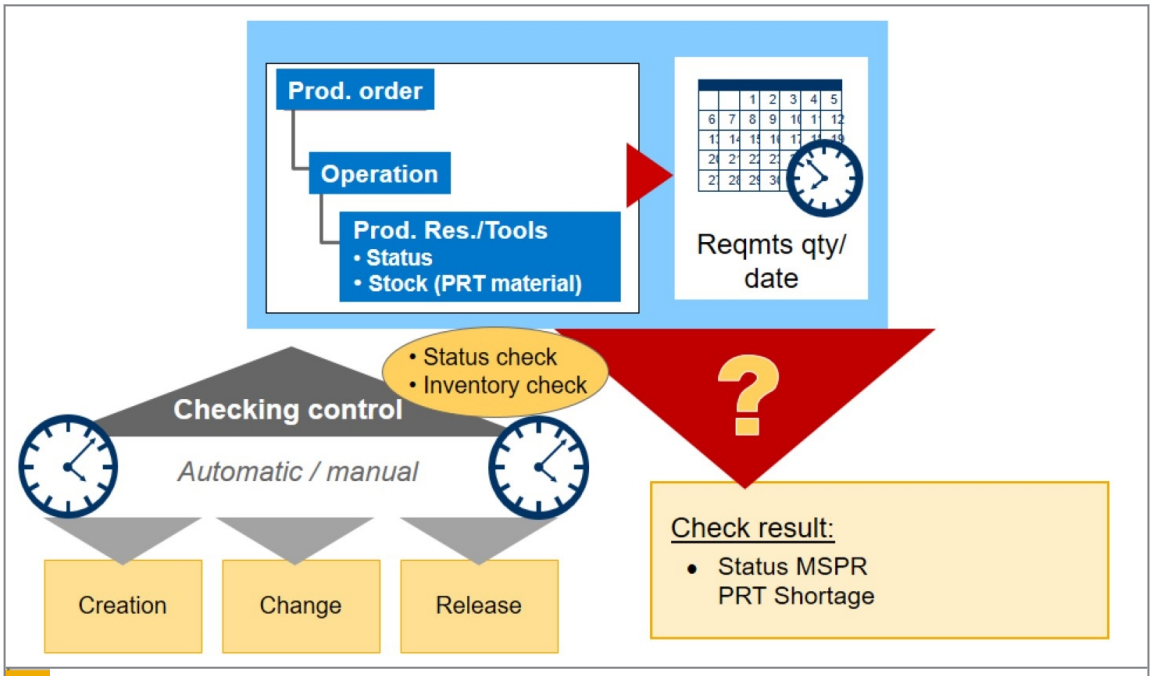

Figure 47: PRT Availability Check

For PRTs that are defined as materials, it is also possible to perform the availability check against the unrestricted stock of the material. In Customizing, you must set up the checking control accordingly.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Set Up and Perform Material Availability Checks

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Availability checks for material components ensure that only those orders for which the required material quantity is available on the calculated requirements date are released.

As a member of the project team, you must be able to set up material availability checks in Customizing.

As an MRP controller or production scheduler, you must be able to carry out material availability checks and interpret the results. You have to be able to analyze and process missing parts situations.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Set Up Material Availability Checks

In the Customizing environment of the back end system, you define the checking control settings for your order type PO## in plant 1010.

1. In the back end system, choose transaction `CO01` to create a production order in production plant 1010 for your product T-FSP1##. Use order type **`PO##`**.

   Enter a total quantity of **`10 PC`**.

   Choose any basic start date in the near future.

   Choose the *Check Material Availability* button.

   Is a material availability check already possible?

   Check the log.

   You don't need to save the order.

2. In the Customizing environment of the back end system, define the checking controls for your order type PO## and for the business functions *1 Check availability during order creation* and *2 Check availability during order release* in plant 1010. To do so, copy the checking controls for order type YBM1.

   Choose transaction `SPRO` and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Availability Check → Define Checking Control.

© Copyright. All rights reserved.

In the *Order Control: Overview* screen, select the line for Plant 1010, Order Type YBM1, and Business Function 1.

Choose the *Copy As* icon.

In the *Order Control: Overview Details* screen, get an overview of the checking control settings.

Note the following settings:

Field	Value
No check	
Material availability / Checking Rule	

Overwrite order type YBM1 with the following:

Order Type
PO##

Choose *Enter* to copy the settings.

3. In the *Order Control: Overview* screen, select the line for Plant 1010, Order Type YBM1, and Business Function 2.

   Choose the *Copy As* icon.

   In the *Order Control: Overview Details* screen, get an overview of the checking control settings.

   Note the following settings:

Field	Value
No check	
Material availability / Checking Rule	
Release material	

   Overwrite order type YBM1 with the following:

Order Type
PO##

   Choose *Enter* to copy the settings.

   Finally, save your checking control settings.

4. All material components are assigned to checking group Y2 in our business scenarios.

   Display the scopes of check for the combinations checking group Y2 / checking rule SO and checking group Y2 / checking rule SP.

   Choose the following menu path:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Production → Shop Floor Control → Operations → Availability Check → Define Scope of Check.

Task 2: Prepare a Test Scenario

You prepare a simple scenario to test the material availability settings.

1. Reject your sales order.

   In the *SAP Fiori Launchpad*, execute the *Manage Sales Orders* tile.

   In the *Manage Sales Orders* screen, enter your customer reference number as follows:

Field	Value
Customer Reference	GR##

   Choose *Go* to select your sales order.

   Select the line of your sales order and choose *Reject All Items*.

   A dialog box will be opened. In the *Reject All Items* dialog box, choose the following reason for rejection:

Field	Value
Reason for rejection	Competitor better

   Choose *OK*.

   In the *Manage Sales Orders* screen, choose *SAP (Navigate to Home Page)* to close the app.

2. Set all production orders for production supervisor P## to technically complete.

   In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

   Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##
Syst. Status	TECO

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Excl.	x

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Technically Complete
Display applicat. toolbar	x
Icon *Technically Complete*	selected

Choose the *More (...)* symbol to find the *Technically Complete* icon.

Choose *Execute*.

In the *Mass Processing – Order Headers* list, select all production orders and choose *Technically Complete*.

Choose *More* → *List* → *Refresh*. The production orders have disappeared.

Finally, close the *mass processing* tab.

3. Start an MRP run for material T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the current situation for material T-FSP1##.

   In the *Find Material* dialog box, enter material number **`T-FSP1##`** and plant **`1010`**.

   In the stock/requirements list, choose *Start MRP Run*.

   As a result, planned orders will be created.

   Choose *SAP (Navigate to Home Page)* to close the app.

4. Convert the next three planned orders to production orders.

   In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	
Planned Orders	x

Enter the following data in the selection area of the initial screen:

Field	Value
Planning Plant	1010

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
MRP Controller	P##

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Convert Planned Order
Display applicat. toolbar	x
Icon *Convert Planned Order*	selected
Order Type	PO##

Choose *Execute*.

Select the next three planned orders and choose the *Convert Planned Order* icon.

Choose *More* → *List* → *Refresh*. The converted planned orders have disappeared.

Finally, close the *mass processing* tab.

5. Check the result of the planned order conversion.

   In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Hint:
   In the app, you can change the area of responsibility in the app settings of your user.

   In the *Mange Production Orders* screen, check the result of the planned order conversion.

   Three production orders for material T-FSP1## with order quantity 30 PC should be displayed.

   Choose *SAP (Navigate to Home Page)* to close the app.

6. Reduce the stock of material component T-RSP1## to 80 PC.

   In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of material component T-RSP1##.

   In the *Stock – Single Material* screen, enter the material number **`T-RSP1##`**.

   Check the stock for storage location 101B. Select this storage location and choose *Manage Stock*.

   In the *Manage Stock* screen, choose the *Unrestricted-Use Stock* button.

   In the *Manage Stock* dialog box, make the following entries:

Field	Value
Stock Change:	Scrapping

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Quantity	Quantity required to reduce the stock to 80 PC
Cost Center	10101301

Post the goods issue.

Choose *SAP (Navigate to Home Page)* to close the app.

Task 3: Perform a First Material Availability Check

You carry out a first material availability check and interpret the results.

1. Analyze the availability of material component T-RSP1##.

   In the back end system, choose transaction `CO09` *Availability Overview*.

   In the initial screen, enter the following data:

Field	Value
Material	T-RSP1##
Plant	1010
Checking Rule	SO

   Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

   Don't close the transaction.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   In the *Mange Production Orders* screen, click in the first line to display the details of the corresponding production order.

   Choose *Edit Order*. The production order will be opened in a new tab.

3. In the production order header, choose the *i (Status)* icon. Has a material availability check already been carried out when the order was created? Note the corresponding status:

>

   Why was the availability check performed or why not?

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. In the production order header, choose the *Material (Check Material Availability)* button.
   Note the status again:

>

   Save the order and close the tab.

5. In the *SAP Fiori Launchpad*, refresh (F5) the *Manage Production Orders* screen and choose *Components*.
   A green bar is displayed in the *Coverage* column. The committed quantities are displayed.

   Navigate *Back* to the *Mange Production Orders* overview.

   Don't close the app.

6. Analyze the availability of material component T-RSP1## again.
   In the back end system, *Refresh* the *Availability Overview*.

   Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

   Don't close the transaction.

Task 4: Perform another Material Availability Check

You carry out another material availability check for the next production order and check and interpret the results.

1. In the *SAP Fiori Launchpad*, in the *Mange Production Orders* Screen, click in second line to display the details of the next production order.
   Choose *Edit Order*. The production order will be opened in a new tab.

2. In the production order header, choose the *Release Order* button to release the order.
   Has a material availability check been carried out when the order was released? Note the corresponding status:

>

   Why was the availability check performed or why not?

   Save the order and close the tab.

3. In the *SAP Fiori Launchpad*, navigate *Back* to the *Mange Production Orders* overview.
   Don't close the app.

4. Analyze the availability of material component T-RSP1## again.
   In the back end system, refresh the *Availability Overview*.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

Don't close the transaction.

Task 5: Perform another Material Availability Check and Analyze Missing Parts
You carry out another material availability check for the last production order. You must analyze and process a missing parts situation.

1. In the *SAP Fiori Launchpad*, in the *Mange Production Orders* Screen, click in third line to display the details of the last production order.

   Choose *Edit Order*. The production order will be opened in a new tab.

2. In the production order header, choose the *Material (Check Material Availability)* button.

   The *Availability Check* dialog box and the following message is displayed:

   Non-Availability of Material for order / Further Processing.

   Choose the *Missing Parts List* button and note the information in the list in the following table:

Material	Requirement quantity	Conf./Allocated qty.
>		

   Go back to the order header.

   Note the corresponding status:

>

   Choose the *Release Order* button.

   The *Release Order* dialog box is displayed. You could choose the *Release Order* button to release the order.

   Why is it possible to release the order?

   Save the order and close the tab.

3. In the *SAP Fiori Launchpad*, refresh (F5) the *Mange Production Orders* screen and choose *Issues*.

   The following issue is displayed: Component Missing: T-RSP1##.

   Choose *Components*.

   For material component T-RSP1##, the bar in the *Coverage* column is partly green and partly red. The committed quantities and the missing quantities are displayed.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Navigate *Back* to the *Mange Production Orders* overview.

The *Component Issue* is displayed for the corresponding production order.

Don't close the app.

4. Analyze the availability of material component T-RSP1## again.
   In the back end system, refresh the *Availability Overview*.

   Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

   Don't close the transaction.

5. Analyze the material shortage in the missing parts information system.
   Don't close the availability overview. Choose *New GUI Window*.

   In the new window, choose transaction `CO24`.

   In the initial screen of the missing parts information system, enter plant **`1010`** and material **`T-RSP1##`**.

   Choose *Execute* and check the information displayed in the list.

   Finally, *Exit* the information system.

6. Check how material availability checks can be performed in mass processing.
   In the second window, choose the corresponding transaction `COHV`.

   Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

   Enter the following data in the selection area of the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Syst. Status	TECO

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Excl.	x

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Material Availability Check
Display applicat. toolbar	x
Icon *Material Availability Check*	selected
Reset Availability Data	x
Scope of Process	ATP check for all materials

Choose *Execute*.

The *Mass Processing – Order Headers* list displays the three orders for which you have performed material availability checks.

The first order has the status MSPT, the other orders have the status MACM.

Select all orders and choose the *Material Availability Check* icon.

Choose *List → Refresh*.

Now the last order has the status MSPT, the other orders have the status MACM.

According to the mass processing settings, the availability checks for all orders were initially reset and then an availability check was carried out again. The orders were processed one after the other according to their sorting.

Finally, exit mass processing.

7. Analyze the availability of material component T-RSP1## again.

   In the first window, refresh the *Availability Overview*.

   Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

   Don't close the transaction.

8. You can also reset the availability data in an individual order.

   In the *SAP Fiori Launchpad*, in the *Mange Production Orders* screen, display the details of a production order and edit the order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the production order, choose *More* → *Functions* → *Availability Check* → *Reset Material*.

Note the corresponding status:

>

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Set Up and Perform Material Availability Checks

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Availability checks for material components ensure that only those orders for which the required material quantity is available on the calculated requirements date are released.

As a member of the project team, you must be able to set up material availability checks in Customizing.

As an MRP controller or production scheduler, you must be able to carry out material availability checks and interpret the results. You have to be able to analyze and process missing parts situations.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Set Up Material Availability Checks

In the Customizing environment of the back end system, you define the checking control settings for your order type PO## in plant 1010.

1. In the back end system, choose transaction `CO01` to create a production order in production plant 1010 for your product T-FSP1##. Use order type **`PO##`**.

   Enter a total quantity of **`10 PC`**.

   Choose any basic start date in the near future.

   Choose the *Check Material Availability* button.

   Is a material availability check already possible?

   Check the log.

   You don't need to save the order.

   a) A material availability check isn't possible yet.

      In the *Availability Check* dialog box, the following message is displayed: `Incorrect Check`.

      Choose *Log* and display the corresponding error message: `Order type PO##, plant 1010: Checking rule missing`.

2. In the Customizing environment of the back end system, define the checking controls for your order type PO## and for the business functions *1 Check availability during order creation* and *2 Check availability during order release* in plant 1010. To do so, copy the checking controls for order type YBM1.

© Copyright. All rights reserved.

Choose transaction `SPRO` and press the *SAP Reference IMG* button.

In the *Display IMG* screen, choose the following menu path:

Production → Shop Floor Control → Operations → Availability Check → Define Checking Control.

In the *Order Control: Overview* screen, select the line for Plant 1010, Order Type YBM1, and Business Function 1.

Choose the *Copy As* icon.

In the *Order Control: Overview Details* screen, get an overview of the checking control settings.

Note the following settings:

Field	Value
No check	
Material availability / Checking Rule	

Overwrite order type YBM1 with the following:

Order Type
PO##

Choose *Enter* to copy the settings.

a) The settings are as follows:

Field	Value
No check	x
Material availability / Checking Rule	SO

3. In the *Order Control: Overview* screen, select the line for Plant 1010, Order Type YBM1, and Business Function 2.

   Choose the *Copy As* icon.

   In the *Order Control: Overview Details* screen, get an overview of the checking control settings.

   Note the following settings:

Field	Value
No check	
Material availability / Checking Rule	
Release material	

Overwrite order type YBM1 with the following:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Order Type
PO##

Choose *Enter* to copy the settings.

Finally, save your checking control settings.

a) The settings are as follows:

Field	Value
No check	
Material availability / Checking Rule	SP
Release material	1 User decides on release if parts are missing

4. All material components are assigned to checking group Y2 in our business scenarios.

   Display the scopes of check for the combinations checking group Y2 / checking rule SO and checking group Y2 / checking rule SP.

   Choose the following menu path:

   Production → Shop Floor Control → Operations → Availability Check → Define Scope of Check.

   a) For this exercise step no further information is needed.

Task 2: Prepare a Test Scenario

You prepare a simple scenario to test the material availability settings.

1. Reject your sales order.

   In the *SAP Fiori Launchpad*, execute the *Manage Sales Orders* tile.

   In the *Manage Sales Orders* screen, enter your customer reference number as follows:

Field	Value
Customer Reference	GR##

Choose *Go* to select your sales order.

Select the line of your sales order and choose *Reject All Items*.

A dialog box will be opened. In the *Reject All Items* dialog box, choose the following reason for rejection:

Field	Value
Reason for rejection	Competitor better

Choose *OK*.

In the *Manage Sales Orders* screen, choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

2. Set all production orders for production supervisor P## to technically complete.

   In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

   Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##
Syst. Status	TECO
Excl.	x

   Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Technically Complete
Display applicat. toolbar	x
Icon *Technically Complete*	selected

   Choose the *More (...)* symbol to find the *Technically Complete* icon.

   Choose *Execute*.

   In the *Mass Processing – Order Headers* list, select all production orders and choose *Technically Complete*.

   Choose *More* → *List* → *Refresh*. The production orders have disappeared.

   Finally, close the *mass processing* tab.

   a) For this exercise step no further information is needed.

3. Start an MRP run for material T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the current situation for material T-FSP1##.

   In the *Find Material* dialog box, enter material number **`T-FSP1##`** and plant **`1010`**.

   In the stock/requirements list, choose *Start MRP Run*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

As a result, planned orders will be created.

Choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

4. Convert the next three planned orders to production orders.
In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	
Planned Orders	x

Enter the following data in the selection area of the initial screen:

Field	Value
Planning Plant	1010
MRP Controller	P##

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Convert Planned Order
Display applicat. toolbar	x
Icon *Convert Planned Order*	selected
Order Type	PO##

Choose *Execute*.

Select the next three planned orders and choose the *Convert Planned Order* icon.

Choose *More* → *List* → *Refresh*. The converted planned orders have disappeared.

Finally, close the *mass processing* tab.

a) For this exercise step no further information is needed.

5. Check the result of the planned order conversion.

In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Hint:
> In the app, you can change the area of responsibility in the app settings of your user.

In the *Mange Production Orders* screen, check the result of the planned order conversion.

Three production orders for material T-FSP1## with order quantity 30 PC should be displayed.

Choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

6. Reduce the stock of material component T-RSP1## to 80 PC.

In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of material component T-RSP1##.

In the *Stock – Single Material* screen, enter the material number **`T-RSP1##`**.

Check the stock for storage location 101B. Select this storage location and choose *Manage Stock*.

In the *Manage Stock* screen, choose the *Unrestricted-Use Stock* button.

In the *Manage Stock* dialog box, make the following entries:

Field	Value
Stock Change:	Scrapping
Quantity	Quantity required to reduce the stock to 80 PC
Cost Center	10101301

Post the goods issue.

Choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

Task 3: Perform a First Material Availability Check

You carry out a first material availability check and interpret the results.

1. Analyze the availability of material component T-RSP1##.

In the back end system, choose transaction `CO09` *Availability Overview*.

In the initial screen, enter the following data:

Field	Value
Material	T-RSP1##
Plant	1010
Checking Rule	SO

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

Don't close the transaction.

a) You should find the following situation:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt	80		80
Requ. Date	OrdRes	30-	0	80
Requ. Date	OrdRes	30-	0	80
Requ. Date	OrdRes	30-	0	80

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   In the *Mange Production Orders* screen, click in the first line to display the details of the corresponding production order.

   Choose *Edit Order*. The production order will be opened in a new tab.

   a) For this exercise step no further information is needed.

3. In the production order header, choose the *i (Status)* icon. Has a material availability check already been carried out when the order was created? Note the corresponding status:

>

   Why was the availability check performed or why not?

   a) The following status is set:

MANC Mat.availability not checked

   According to the Customizing settings in the checking control, availability was not checked when the planned order was converted.

4. In the production order header, choose the *Material (Check Material Availability)* button.

   Note the status again:

>

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Save the order and close the tab.

a) The following status is set:

MACM Material committed

5. In the *SAP Fiori Launchpad*, refresh (F5) the *Manage Production Orders* screen and choose *Components*.

   A green bar is displayed in the *Coverage* column. The committed quantities are displayed.

   Navigate *Back* to the *Mange Production Orders* overview.

   Don't close the app.

   a) For this exercise step no further information is needed.

6. Analyze the availability of material component T-RSP1## again.

   In the back end system, *Refresh* the *Availability Overview*.

   Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

   Don't close the transaction.

   a) You should find the following situation:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt	80		50
Requ. Date	OrdRes	30-	0	50
Requ. Date	OrdRes	30-	0	50
Requ. Date	OrdRes	30-	30	50

Task 4: Perform another Material Availability Check

You carry out another material availability check for the next production order and check and interpret the results.

1. In the *SAP Fiori Launchpad*, in the *Mange Production Orders* Screen, click in second line to display the details of the next production order.

   Choose *Edit Order*. The production order will be opened in a new tab.

   a) For this exercise step no further information is needed.

2. In the production order header, choose the *Release Order* button to release the order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Has a material availability check been carried out when the order was released? Note the corresponding status:

>

Why was the availability check performed or why not?

Save the order and close the tab.

a) The following status is set:

MACM Material committed

According to the Customizing settings in the checking control, availability was automatically checked when the production was released.

3. In the *SAP Fiori Launchpad*, navigate *Back* to the *Mange Production Orders* overview.

   Don't close the app.

   a) For this exercise step no further information is needed.

4. Analyze the availability of material component T-RSP1## again.

   In the back end system, refresh the *Availability Overview*.

   Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

Don't close the transaction.

a) You should find the following situation:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt	80		20
Requ. Date	OrdRes	30-	0	20
Requ. Date	OrdRes	30-	30	20
Requ. Date	OrdRes	30-	30	20

Task 5: Perform another Material Availability Check and Analyze Missing Parts

You carry out another material availability check for the last production order. You must analyze and process a missing parts situation.

1. In the *SAP Fiori Launchpad*, in the *Mange Production Orders* Screen, click in third line to display the details of the last production order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Choose *Edit Order*. The production order will be opened in a new tab.

a) For this exercise step no further information is needed.

2. In the production order header, choose the *Material (Check Material Availability)* button.

   The *Availability Check* dialog box and the following message is displayed:

   Non-Availability of Material for order / Further Processing.

   Choose the *Missing Parts List* button and note the information in the list in the following table:

Material	Requirement quantity	Conf./Allocated qty.
>		

   Go back to the order header.

   Note the corresponding status:

>

   Choose the *Release Order* button.

   The *Release Order* dialog box is displayed. You could choose the *Release Order* button to release the order.

   Why is it possible to release the order?

   Save the order and close the tab.

   a) The following information is displayed in the missing parts list:

Material	Requirement quantity	Conf./Allocated qty.
T-RSP1##	30	20

   The following status is set:

MSPT Material shortage

   According to the Customizing settings in the checking control, a user can decide on release if parts are missing.

3. In the *SAP Fiori Launchpad*, refresh (F5) the *Mange Production Orders* screen and choose *Issues*.

   The following issue is displayed: Component Missing: T-RSP1##.

   Choose *Components*.

   For material component T-RSP1##, the bar in the *Coverage* column is partly green and partly red. The committed quantities and the missing quantities are displayed.

   Navigate *Back* to the *Mange Production Orders* overview.

   The *Component Issue* is displayed for the corresponding production order.

   Don't close the app.

   a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. Analyze the availability of material component T-RSP1## again.
   In the back end system, refresh the *Availability Overview*.
   Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			
	OrdRes			

   Don't close the transaction.

   a) You should find the following situation:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt	80		0
Requ. Date	OrdRes	30-	20	0
Requ. Date	OrdRes	30-	30	0
Requ. Date	OrdRes	30-	30	0

5. Analyze the material shortage in the missing parts information system.
   Don't close the availability overview. Choose *New GUI Window*.
   In the new window, choose transaction `CO24`.
   In the initial screen of the missing parts information system, enter plant **`1010`** and material **`T-RSP1##`**.
   Choose *Execute* and check the information displayed in the list.
   Finally, *Exit* the information system.

   a) For this exercise step no further information is needed.

6. Check how material availability checks can be performed in mass processing.
   In the second window, choose the corresponding transaction `COHV`.
   Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Enter the following data in the selection area of the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Syst. Status	TECO
Excl.	x

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Material Availability Check
Display applicat. toolbar	x
Icon *Material Availability Check*	selected
Reset Availability Data	x
Scope of Process	ATP check for all materials

Choose *Execute*.

The *Mass Processing – Order Headers* list displays the three orders for which you have performed material availability checks.

The first order has the status MSPT, the other orders have the status MACM.

Select all orders and choose the *Material Availability Check* icon.

Choose *List → Refresh*.

Now the last order has the status MSPT, the other orders have the status MACM.

According to the mass processing settings, the availability checks for all orders were initially reset and then an availability check was carried out again. The orders were processed one after the other according to their sorting.

Finally, exit mass processing.

a) For this exercise step no further information is needed.

7. Analyze the availability of material component T-RSP1## again.

In the first window, refresh the *Availability Overview*.

Note the current availability of the material in the following table:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt			
	OrdRes			
	OrdRes			

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
	OrdRes			

Don't close the transaction.

a) You should find the following situation:

Date	MRP element	Rec./reqd qty	Confirmed	Cum. ATP qty
Today	SLocSt	80		0
Requ. Date	OrdRes	30-	30	0
Requ. Date	OrdRes	30-	30	0
Requ. Date	OrdRes	30-	20	0

8. You can also reset the availability data in an individual order.

   In the *SAP Fiori Launchpad*, in the *Mange Production Orders* screen, display the details of a production order and edit the order.

   In the production order, choose *More* → *Functions* → *Availability Check* → *Reset Material*.

   Note the corresponding status:

>

   a) The following status is set:

MANC Mat.availability not checked

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Set up and execute availability checks for production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Discussing Capacity Planning

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the principles of capacity planning

Capacity Planning

As a capacity planner, you are responsible for an optimal capacity utilization of the work centers. The capacity load of the work centers should not be too high or too low in certain periods. Furthermore, the orders should be assigned to the work centers in an optimal sequence.

Various tools for capacity evaluation and capacity leveling are available for this purpose.

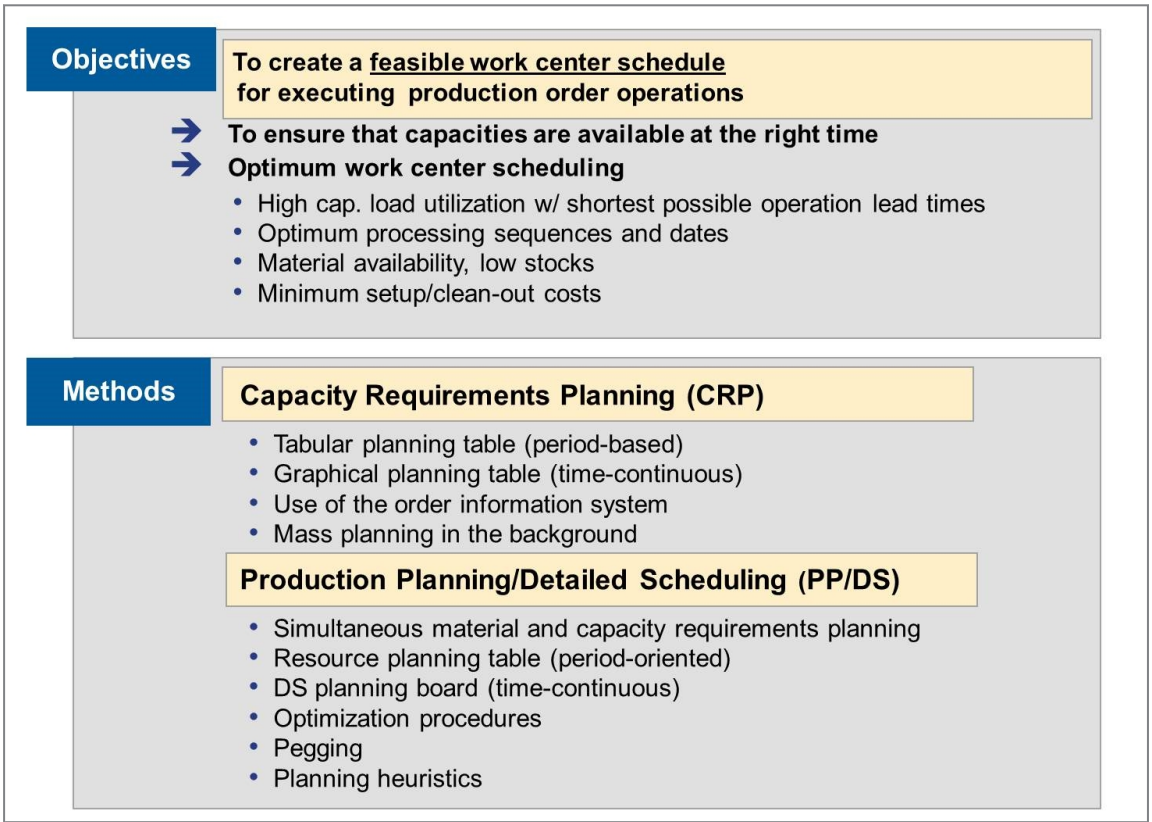

Figure 48: Objectives and Methods of Capacity Planning

Capacity evaluation and leveling can be performed with the tools and methods in Capacity Requirements Planning (CRP) and Production Planning / Detailed Scheduling (PP/DS). PP/DS is part of the Advanced Planning functions and offers you much more functionality than CRP.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In order to be able to use the Advanced Planning functions, special settings have to be made. For example, an indicator for Advanced Planning must be set in the affected materials and work centers to generate corresponding master data in PP/DS.

A prerequisite for the detailed short-term capacity planning of production orders should be a medium-term and long-term capacity requirements planning for planned orders.

You can use the order information system to easily generate a list of the operations per work center.

Basics and Concepts

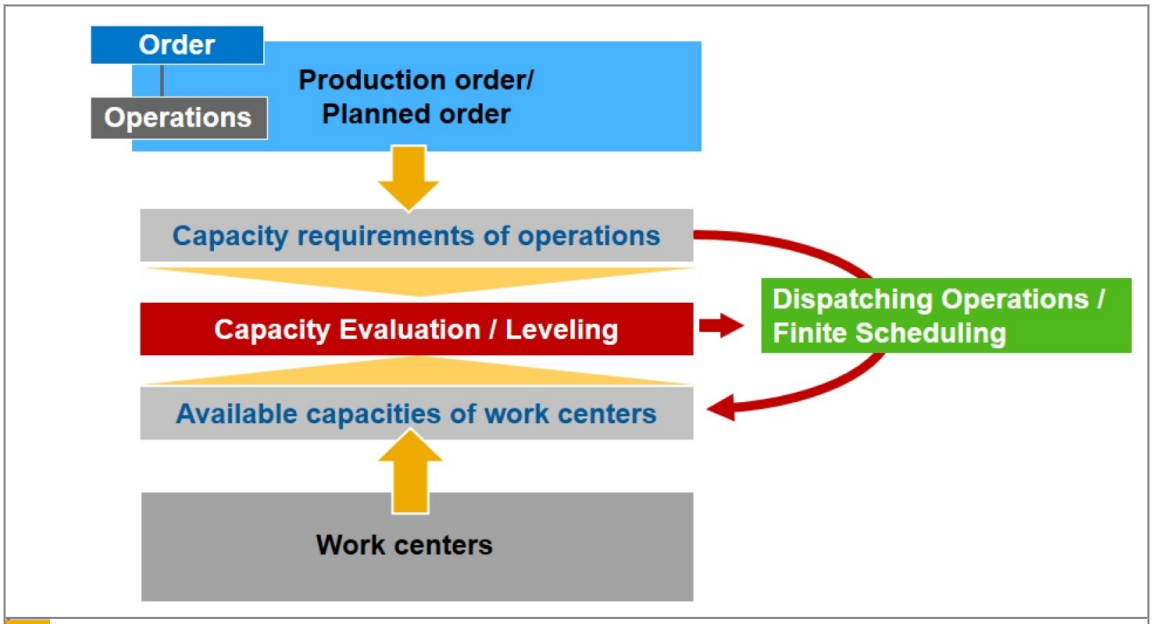

Figure 49: Basics and Concepts

The available capacity describes the availability of a work center with regard to time.

The capacity requirement specifies the time requirement an operation of an order has regarding a work center to be used.

The following activities usually determine the process of capacity planning:

- Definition of available capacities of work centers.
- Calculation of the capacity requirements of operations in orders.
- Capacity evaluation: comparison of available capacities and capacity requirements.
- Capacity leveling: finite scheduling respectively dispatching of operations to work centers, guaranteeing of available capacity for a specific time.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Capacity Planning Tools

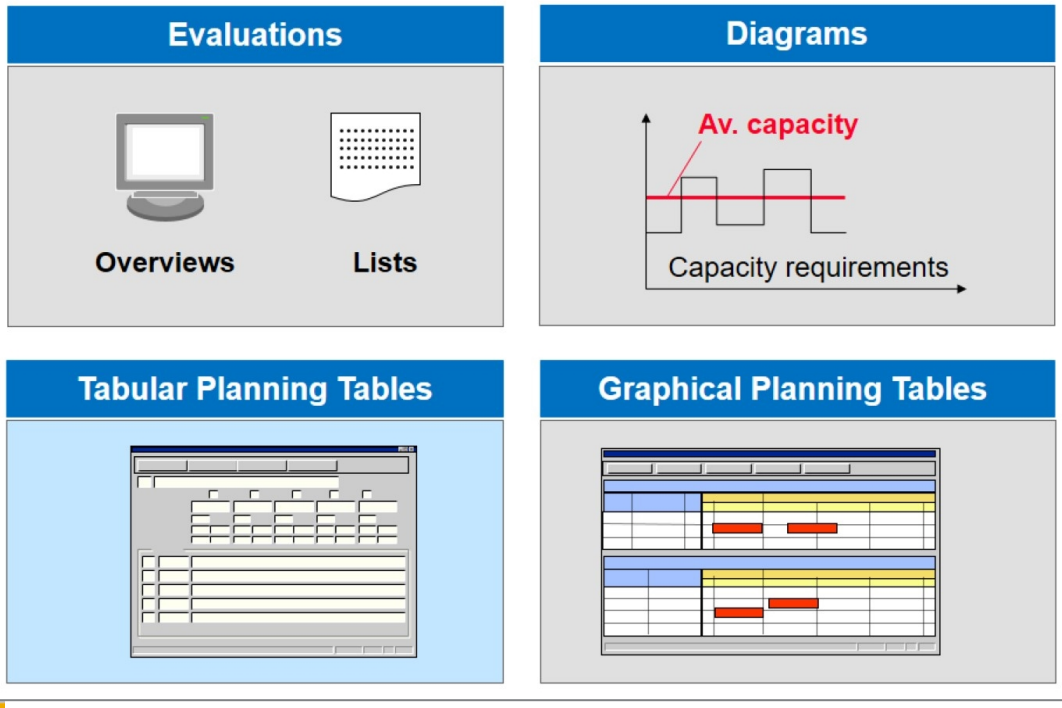

Figure 50: Capacity Planning Tools

Tabular planning tables give you a period-oriented, aggregate information on available capacities, capacity requirements and capacity loads. They can be used interactively and enable you to dispatch operations to available capacities of work centers at selected periods.

Graphical planning tables enable you to carry out time-continuous finite scheduling. They can be used interactively and enable you to dispatch operations to available capacities of work centers at exact points in time.

Depending on your requirements and the tools used, the data can be prepared according to different information and displayed in different charts.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Example of a Graphical Planning Table

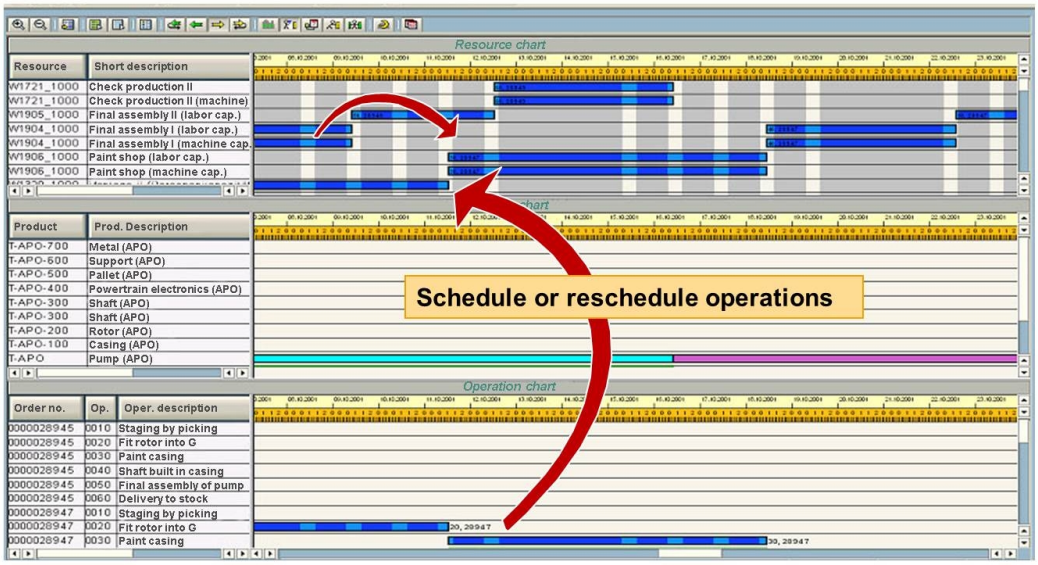

Figure 51: Example of a Graphical Planning Table

Finite scheduling respectively dispatching of operations can only carried out for operations whose work centers have the *Relevant for finite scheduling* indicator. A dispatched operation is given the status DSPT. It can only be rescheduled with finite scheduling. Operations that are not dispatched or whose work centers don't have the *Relevant for finite scheduling* indicator are scheduled infinitively, that is, the capacity requirements of other operations are not taken into account.

Profiles in Capacity Planning

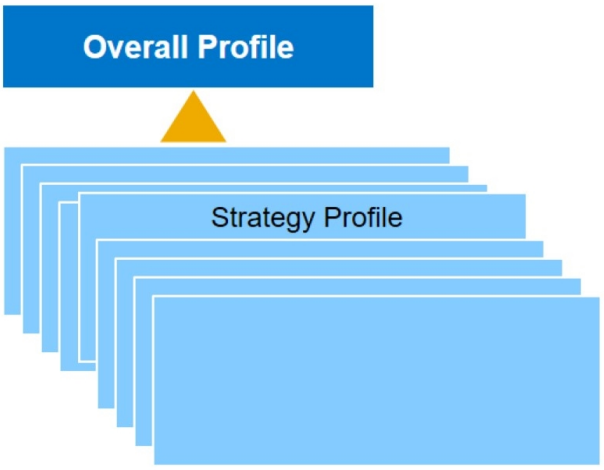

Figure 52: Profiles in Capacity Planning

The capacity planning functions are controlled by profiles. An overall profile comprises several individual profiles. The individual profiles control, for example, the elements of a planning board and the planning period.

The strategy profiles is used to realize various planning scenarios. For example, based on a setup matrix, various strategies for minimizing setup time are available. You can change and adopt the settings of the strategy profile during interactive planning.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Individual Capacities

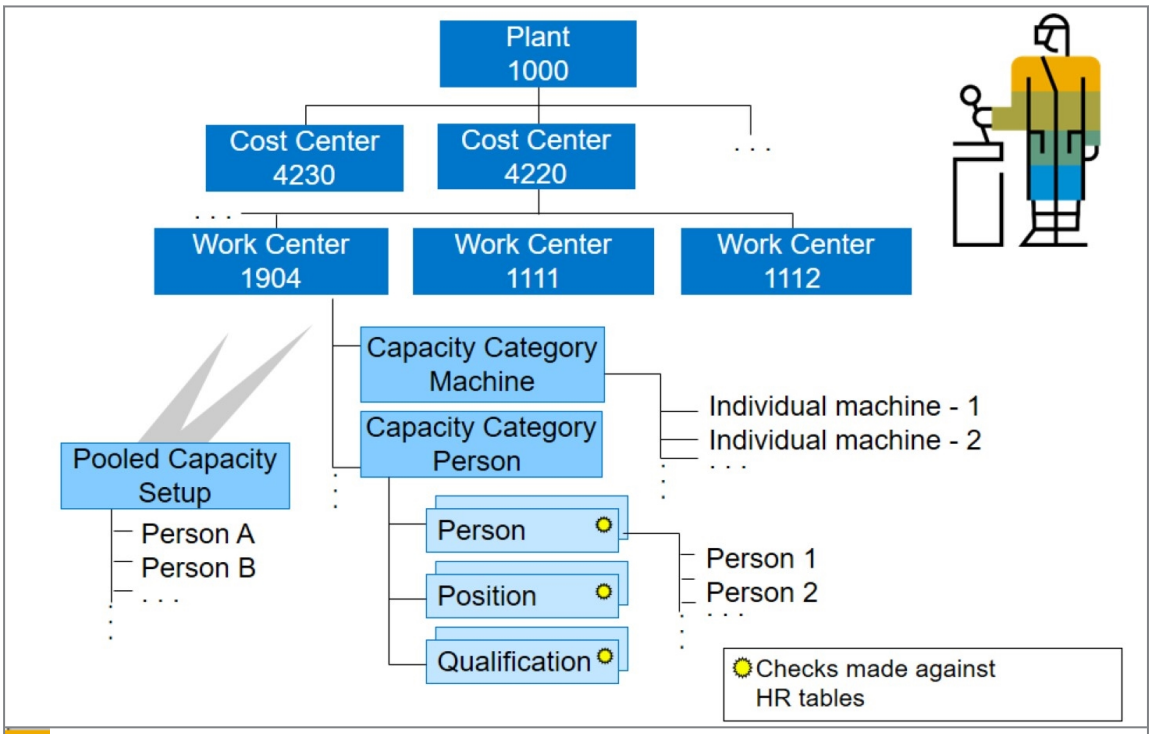

Figure 53: Individual Capacities

Capacities in a work center can be assigned individual capacities. Depending on the capacity category, individual capacities can be machines or persons. Subdividing capacities in this way means that the capacity requirement of an operation can be assigned directly to the relevant machine or person. You can only maintain links to persons if the module Human Resources (HR) has been implemented.

Application criteria include, for example, the splitting of capacity requirements for the purpose of machine loading or shift planning in the short-term planning period.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Capacity Splits

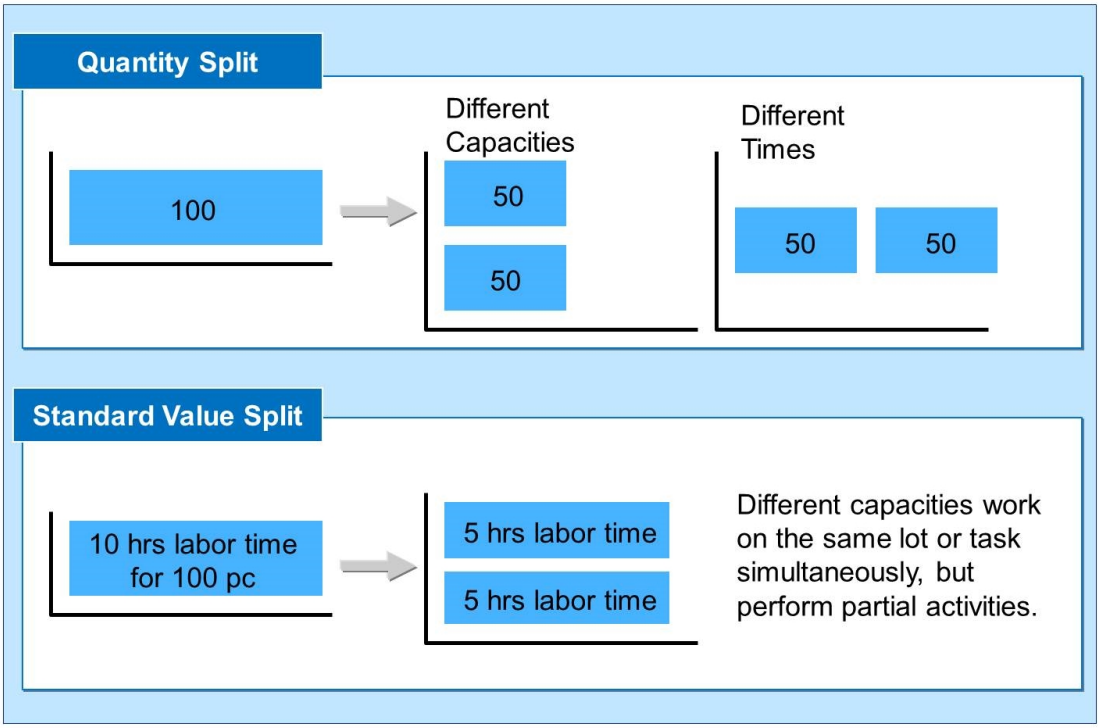

Figure 54: Capacity Splits

Several types of splits are available. You can split the quantity or the standard values of the capacity requirements, or split both, if necessary.

Quantity splits are useful if partial quantities of the order are to be processed simultaneously by several individual capacities or if they are to be processed at different times.

Standard value splits are useful if an operation is divided into two or more partial tasks or work steps that are carried out by different individual capacities simultaneously for the total quantity.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Use Capacity Evaluation and Capacity Leveling Tools

Business Scenario

As a capacity planner, you are responsible for an optimal capacity utilization of the work centers. The capacity load of the work centers should not be too high or too low in certain periods. Furthermore, the orders should be assigned to the work centers in an optimal sequence.

Various tools for capacity evaluation and capacity leveling are available for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Prepare a Test Scenario

You prepare a simple scenario to learn about the basic functions of capacity evaluation and capacity leveling.

1. In the *SAP Fiori Launchpad*, execute the *Change Material* tile to set up the MTS planning strategy *40 Planning with final assembly* for your finished product T-FSP1## *Bike Special*.

   Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *40 Planning with final assembly*.

   Save the material and choose *Exit* to leave the material master maintenance.

2. Change the planned independent requirements for your product T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Maintain PIRs* tile.

   In the *Maintain PIRs* screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
Period Indicator	Weekly (W)

   Choose *Go*.

   Select the listed material T-FSP1## and choose *Edit*.

   In the *Edit PIRs* screen, define the following quantities and change the planned independent requirements as follows:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Period	Draft PIRs
Actual week	0
Actual week +1 week	0
Actual week + 2 weeks	150
Actual week + 3 weeks	0
Actual week + 4 weeks	0
Actual week + 5 weeks	0
Actual week + 6 weeks	0
Actual week + 7 weeks	0
Actual week + 8 weeks	0
Actual week + 9 weeks	0
Actual week + 10 weeks	0

Choose *Save*.

Navigate back to the homepage.

3. Set all production orders for production supervisor P## to technically complete.
In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##
Syst. Status	TECO
Excl.	x

Enter the following data in the mass processing area of the initial screen:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Function	Technically Complete
Display applicat. toolbar	x
Icon *Technically Complete*	selected

Choose *Execute*.

In the *Mass Processing – Order Headers* list, select all production orders and choose *Technically Complete*.

Choose *More* → *List* → *Refresh*. The production orders have disappeared.

Finally, *Close* the mass processing tab.

4. Change the lot sizing procedure of material T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Change Material* tile.

   Enter the material number in the initial screen, then choose view MRP 1 for plant 1010.

   In the MRP 1 view, enter the following data:

Field	Value
Lot Sizing Procedure	FX
Fixed lot size	20

   Save the material and choose *Exit* to leave the material master maintenance.

5. Start an MRP run for material T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the current situation for material T-FSP1##.

   In the *Find Material* dialog box, enter material number T-FSP1## and plant 1010.

   In the stock/requirements list, choose *Start MRP Run*.

   As a result, several planned orders with quantity 20 PC will be created for the independent requirement. All planned orders have been created on the same date.

   Choose *SAP (Navigate to Home Page)* to close the app.

6. Convert the planned orders to production orders.

   In the *SAP Fiori Launchpad*, execute the *Schedule Order Conversion Runs* tile to schedule a planned order conversion run.

   In the *Application Jobs* screen, choose *Create*.

   In the *New Job* screen, enter the following data in three consecutive steps:

Field	Value
Job Template	Convert Planned Order at Opening Date
Job Name	P## Planned Order Conversion

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Start Immediately	X
Recurrence Pattern	Single Run
Planning Plant	1010
MRP Controller	P##
Relative Opening Date	Delete all conditions
Order Type Production Orders	PO##
Order Type for Process Orders	YBM2

Choose *Schedule* to start the conversion run.

In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

Finally choose *SAP (Navigate to Home Page)* to close the app.

7. Check the result of the planned order conversion.

   In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the current situation for material T-FSP1##.

   In the *Find Material* dialog box, enter material number T-FSP1## and plant 1010.

   As a result of the conversion run, the planned orders have been converted to production orders. All production orders have been created on the same date.

   Choose *SAP (Navigate to Home Page)* to close the app.

8. Fill up the stock of material component T-RSP1## to 2000 PC.

   In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of material component T-RSP1##.

   In the *Stock – Single Material* screen, enter the material number T-RSP1##.

   Check the stock for storage location 101B. Select this storage location and choose *Manage Stock*.

   In the *Manage Stock* screen, choose the *Unrestricted-Use Stock* button.

   In the *Manage Stock* dialog box, make the following entries:

Field	Value
Stock Change:	Initial Entry
Quantity	Quantity required to increase the stock to 2000 PC

   Post the goods receipt.

   Choose *SAP (Navigate to Home Page)* to close the app.

Task 2: Perform Capacity Evaluations

As a capacity planner, you analyze the capacity utilization of your work centers.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

1. Check which work centers are assigned to your production orders.

   In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Click in the line of a production order to display the order details.

   Choose *Order Schedule* and note the following data:

Operation	Work Center
>	
>	
>	

   Choose *SAP (Navigate to Home Page)* to close the app.

2. Check the settings for capacity planning in work center T-BK1##.

   In the *SAP Fiori Launchpad*, execute the *Display Work Center* tile.

   A new tab will be opened. Enter plant 1010 and work center T-BK1##.

   In the work center, choose the *Capacities* tab.

   Choose the *Form.* button to display the formulas for calculating the capacity requirements for setup and for processing.

   Double-click capacity category 001.

   Note the following settings:

Field	Value
Capacity Responsible	
Start Time	
End Time	
Length of breaks	
Operating time	
No. Ind. Capacities	
Capacity	
Relevant to Finite Scheduling	

   Is this work center relevant for finite scheduling?

3. Also check the settings for capacity planning in the work centers T-BK2## and T-BK3##.

   Note the following settings:

Field	Value
Capacity Responsible	

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Relevant to Finite Scheduling	

Are these work center relevant for finite scheduling?

4. Analyze the capacity load of the work centers for capacity planner P##.

   In the back-end system, choose transaction CM01.

   Enter the following data in the selection screen:

Field	Value
Work Center	
Capacity Planner Group	P##
Plant	1010

Choose *Enter* to display the *Capacity Planning: Standard Overview*.

The capacity requirements, the available capacities and the capacity load are initially displayed in a weekly period. The period and other settings could be changed interactively.

Analyze the capacity load of your work centers. Are there periods with capacity overloads?

Double-click a line of a period with an overload to display the requirements in detail. You find information on the orders and their capacity requirements within the selected period.

Task 3: Perform Capacity Leveling

As a capacity planner, you perform capacity leveling in the graphical planning table by dispatching operations to work centers.

1. In the backend system, choose transaction CM21.

   Enter the following data in the selection screen:

Field	Value
Work Center	
Plant	1010
Capacity category	
Capacity Responsible Planner	P##

Choose *Continue (F8)* to enter the planning table.

In the upper part of the planning board, the available capacities of the work centers are displayed. In the lower part, the operations of the orders are displayed. The operations were scheduled infinitely when the orders were created. The capacity requirements of other orders had not been taken into account. In the graphical planning table, finite scheduling can be performed by dispatching operations to work centers, thus guaranteeing of available capacities for specific times.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Choose *Strategy* to display the settings of the strategy profile. Check the following settings:

Field	Value
Finite Scheduling	
Plan. direction forwards	

Close the strategy profile.

2. Choose *Settings* → *Scale* → *Daily Period Split*

   Select all operations 0020 for work center T-BK2## and choose the *Dispatch (F5)* icon.

   Interpret the result.

3. Select one of the dispatched operation and choose the *Change Order* button.

   In the production order, choose *Operations* to display the operation overview.

   What new status has been set for the dispatched operation 0020?

>

   What is the impact of this status?

   _____

   _____

   _____

4. Navigate back to the planning table and select an operation 0010 for work center T-BK1## and choose the *Dispatch (F5)* icon.

   The operation cannot be dispatched.

   Choose the *Plan.log.* button to check the planning log and display the error messages.

   Interpret the error message.

   Navigate back to the planning table and choose the *Capacity* button for the selected operation 0010 to display the capacity settings of work center T-BK1##.

   What setting is responsible for the fact that the operation cannot be dispatched?

   Exit the planning table. Don't save the planning table.

> Note:
> Don't save the planning table.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Use Capacity Evaluation and Capacity Leveling Tools

Business Scenario

As a capacity planner, you are responsible for an optimal capacity utilization of the work centers. The capacity load of the work centers should not be too high or too low in certain periods. Furthermore, the orders should be assigned to the work centers in an optimal sequence.

Various tools for capacity evaluation and capacity leveling are available for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Prepare a Test Scenario

You prepare a simple scenario to learn about the basic functions of capacity evaluation and capacity leveling.

1. In the *SAP Fiori Launchpad*, execute the *Change Material* tile to set up the MTS planning strategy *40 Planning with final assembly* for your finished product T-FSP1## *Bike Special*.

   Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *40 Planning with final assembly*.

   Save the material and choose *Exit* to leave the material master maintenance.

   a) For this exercise step no further information is needed.

2. Change the planned independent requirements for your product T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Maintain PIRs* tile.

   In the *Maintain PIRs* screen, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010
Period Indicator	Weekly (W)

   Choose *Go*.

   Select the listed material T-FSP1## and choose *Edit*.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *Edit PIRs* screen, define the following quantities and change the planned independent requirements as follows:

Period	Draft PIRs
Actual week	0
Actual week +1 week	0
Actual week + 2 weeks	150
Actual week + 3 weeks	0
Actual week + 4 weeks	0
Actual week + 5 weeks	0
Actual week + 6 weeks	0
Actual week + 7 weeks	0
Actual week + 8 weeks	0
Actual week + 9 weeks	0
Actual week + 10 weeks	0

Choose *Save*.

Navigate back to the homepage.

a) For this exercise step no further information is needed.

3. Set all production orders for production supervisor P## to technically complete.

In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##
Syst. Status	TECO

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Excl.	x

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Technically Complete
Display applicat. toolbar	x
Icon *Technically Complete*	selected

Choose *Execute*.

In the *Mass Processing – Order Headers* list, select all production orders and choose *Technically Complete*.

Choose *More* → *List* → *Refresh*. The production orders have disappeared.

Finally, *Close* the mass processing tab.

a) For this exercise step no further information is needed.

4. Change the lot sizing procedure of material T-FSP1##.

In the *SAP Fiori Launchpad*, execute the *Change Material* tile.

Enter the material number in the initial screen, then choose view MRP 1 for plant 1010.

In the MRP 1 view, enter the following data:

Field	Value
Lot Sizing Procedure	FX
Fixed lot size	20

Save the material and choose *Exit* to leave the material master maintenance.

a) For this exercise step no further information is needed.

5. Start an MRP run for material T-FSP1##.

In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the current situation for material T-FSP1##.

In the *Find Material* dialog box, enter material number T-FSP1## and plant 1010.

In the stock/requirements list, choose *Start MRP Run*.

As a result, several planned orders with quantity 20 PC will be created for the independent requirement. All planned orders have been created on the same date.

Choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

6. Convert the planned orders to production orders.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the *SAP Fiori Launchpad*, execute the *Schedule Order Conversion Runs* tile to schedule a planned order conversion run.

In the *Application Jobs* screen, choose *Create*.

In the *New Job* screen, enter the following data in three consecutive steps:

Field	Value
Job Template	Convert Planned Order at Opening Date
Job Name	P## Planned Order Conversion
Start Immediately	X
Recurrence Pattern	Single Run
Planning Plant	1010
MRP Controller	P##
Relative Opening Date	Delete all conditions
Order Type Production Orders	PO##
Order Type for Process Orders	YBM2

Choose *Schedule* to start the conversion run.

In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

Finally choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

7. Check the result of the planned order conversion.

   In the *SAP Fiori Launchpad*, execute the *Check Material Coverage* tile to check the current situation for material T-FSP1##.

   In the *Find Material* dialog box, enter material number T-FSP1## and plant 1010.

   As a result of the conversion run, the planned orders have been converted to production orders. All production orders have been created on the same date.

   Choose *SAP (Navigate to Home Page)* to close the app.

   a) For this exercise step no further information is needed.

8. Fill up the stock of material component T-RSP1## to 2000 PC.

   In the *SAP Fiori Launchpad*, execute the *Stock – Single Material* tile to analyze the stock of material component T-RSP1##.

   In the *Stock – Single Material* screen, enter the material number T-RSP1##.

   Check the stock for storage location 101B. Select this storage location and choose *Manage Stock*.

   In the *Manage Stock* screen, choose the *Unrestricted-Use Stock* button.

   In the *Manage Stock* dialog box, make the following entries:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Stock Change:	Initial Entry
Quantity	Quantity required to increase the stock to 2000 PC

Post the goods receipt.

Choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

Task 2: Perform Capacity Evaluations

As a capacity planner, you analyze the capacity utilization of your work centers.

1. Check which work centers are assigned to your production orders.

   In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Click in the line of a production order to display the order details.

   Choose *Order Schedule* and note the following data:

Operation	Work Center
>	
>	
>	

   Choose *SAP (Navigate to Home Page)* to close the app.

   a) The following work centers are assigned:

Operation	Work Center
0010	T-BK1##
0020	T-BK2##
0030	T-BK3##

2. Check the settings for capacity planning in work center T-BK1##.

   In the *SAP Fiori Launchpad*, execute the *Display Work Center* tile.

   A new tab will be opened. Enter plant 1010 and work center T-BK1##.

   In the work center, choose the *Capacities* tab.

   Choose the *Form.* button to display the formulas for calculating the capacity requirements for setup and for processing.

   Double-click capacity category 001.

   Note the following settings:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Capacity Responsible	
Start Time	
End Time	
Length of breaks	
Operating time	
No. Ind. Capacities	
Capacity	
Relevant to Finite Scheduling	

Is this work center relevant for finite scheduling?

a) The settings are as follows:

Field	Value
Capacity Responsible	P##
Start Time	07:00:00
End Time	16:00:00
Length of breaks	01:00:00
Operating time	8,00 H
No. Ind. Capacities	1
Capacity	8,00 H
Relevant to Finite Scheduling	

This work center is not relevant for finite scheduling.

3. Also check the settings for capacity planning in the work centers T-BK2## and T-BK3##. Note the following settings:

Field	Value
Capacity Responsible	
Relevant to Finite Scheduling	

Are these work center relevant for finite scheduling?

a) The settings are as follows:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Capacity Responsible	P##
Relevant to Finite Scheduling	x

These work centers are relevant for finite scheduling.

4. Analyze the capacity load of the work centers for capacity planner P##.

   In the back-end system, choose transaction CM01.

   Enter the following data in the selection screen:

Field	Value
Work Center	
Capacity Planner Group	P##
Plant	1010

   Choose *Enter* to display the *Capacity Planning: Standard Overview*.

   The capacity requirements, the available capacities and the capacity load are initially displayed in a weekly period. The period and other settings could be changed interactively.

   Analyze the capacity load of your work centers. Are there periods with capacity overloads?

   Double-click a line of a period with an overload to display the requirements in detail. You find information on the orders and their capacity requirements within the selected period.

   a) For this exercise step no further information is needed.

Task 3: Perform Capacity Leveling

As a capacity planner, you perform capacity leveling in the graphical planning table by dispatching operations to work centers.

1. In the backend system, choose transaction CM21.

   Enter the following data in the selection screen:

Field	Value
Work Center	
Plant	1010
Capacity category	
Capacity Responsible Planner	P##

   Choose *Continue (F8)* to enter the planning table.

   In the upper part of the planning board, the available capacities of the work centers are displayed. In the lower part, the operations of the orders are displayed. The operations

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

were scheduled infinitely when the orders were created. The capacity requirements of other orders had not been taken into account. In the graphical planning table, finite scheduling can be performed by dispatching operations to work centers, thus guaranteeing of available capacities for specific times.

Choose *Strategy* to display the settings of the strategy profile. Check the following settings:

Field	Value
Finite Scheduling	
Plan. direction forwards	

Close the strategy profile.

a) The settings are as follows:

Field	Value
Finite Scheduling	x
Plan. direction forwards	x

2. Choose *Settings* → *Scale* → *Daily Period Split*

   Select all operations 0020 for work center T-BK2## and choose the *Dispatch (F5)* icon.

   Interpret the result.

   a) The selected operations have been dispatched to work center T-BK2##. Finite scheduling in forward direction was carried out.

      For the other non-dispatched operations, an infinite midpoint scheduling was carried out based on the dispatched operations. The proceeding operations 0010 were scheduled backwards and the subsequent operations 0030 were scheduled forward.

3. Select one of the dispatched operation and choose the *Change Order* button.

   In the production order, choose *Operations* to display the operation overview.

   What new status has been set for the dispatched operation 0020?

>

   What is the impact of this status?

   _____

   _____

   _____

   a) The following status has been set:

DSPT Scheduled

      The dispatched operation is fixed in time. It cannot be moved by infinite scheduling, for example by changing the basic dates of an order and scheduling the order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Rescheduling of this operation is only possible by finite scheduling in the planning table. Infinite scheduling would be only possible again after deallocating the operation.

4. Navigate back to the planning table and select an operation 0010 for work center T-BK1## and choose the *Dispatch (F5)* icon.

   The operation cannot be dispatched.

   Choose the *Plan.log.* button to check the planning log and display the error messages.

   Interpret the error message.

   Navigate back to the planning table and choose the *Capacity* button for the selected operation 0010 to display the capacity settings of work center T-BK1##.

   What setting is responsible for the fact that the operation cannot be dispatched?

   Exit the planning table. Don't save the planning table.

   > Note:
   > Don't save the planning table.

   a) The work center capacity is not valid for finite scheduling.
      The following indicator is not set: Relevant to Finite Scheduling.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the principles of capacity planning

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Unit 4
Lesson 3

Releasing Production Orders

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Release production orders, set up production scheduling profiles and describe the functions of status profiles

Order Release

The order release is the basis for the further processing of the production order. As a production supervisor, you schedule order release runs. You also need to know other alternatives for order release.

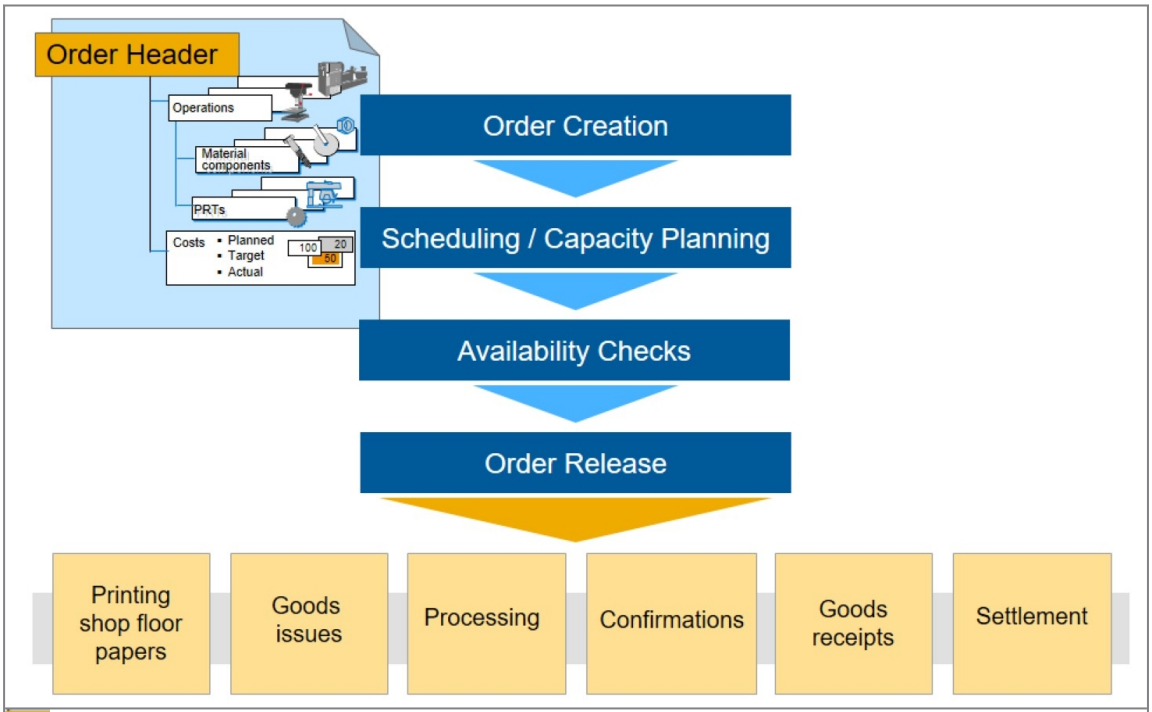

Figure 55: Order Release

Production orders have a status management that controls the possible processing sequence of the individual business processes. When an order is released, a corresponding status is set.

The production order must have status *Released* so that the business processes for production order execution can be performed.

An availability check can be executed automatically at order release.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Order Release Options

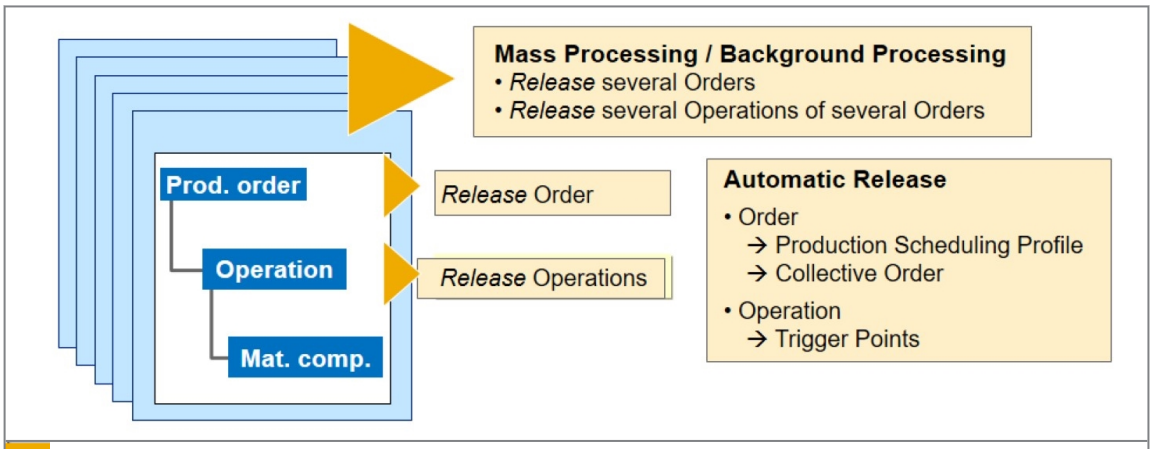

Figure 56: Order Release Options

You can release an individual operation, a whole order or several orders together. There is a corresponding function available for the mass release of operations or orders.

Depending on the application context, production orders and operations can be automatically released.

Status Management

Production orders have a status management that controls the possible processing sequence of the individual business processes. A status can allow a business process, allow it with a warning or disallow it.

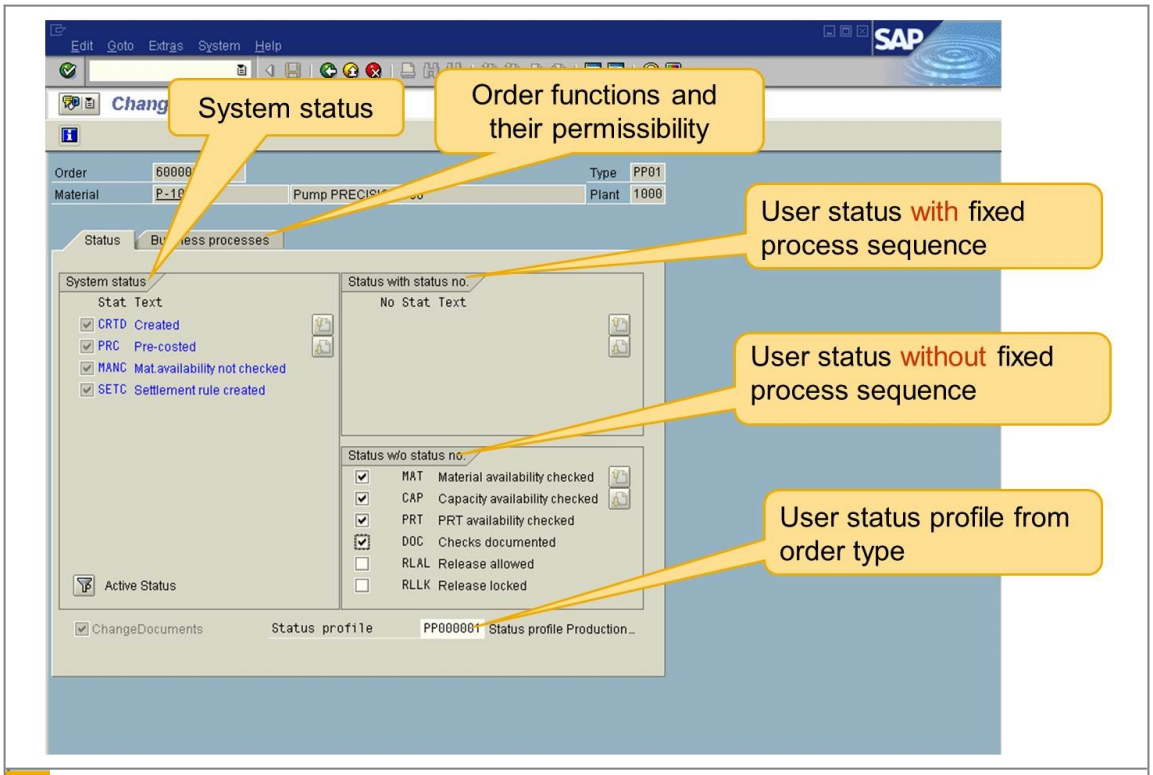

Figure 57: Status Management in the Production Order

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

There are two types of status: System and user status. A system status is set or deleted by a business process. User statuses are used to enhance status management when required in practice. System statuses cannot be set or deleted by a user status. Status changes can be logged.

System Status and User Status

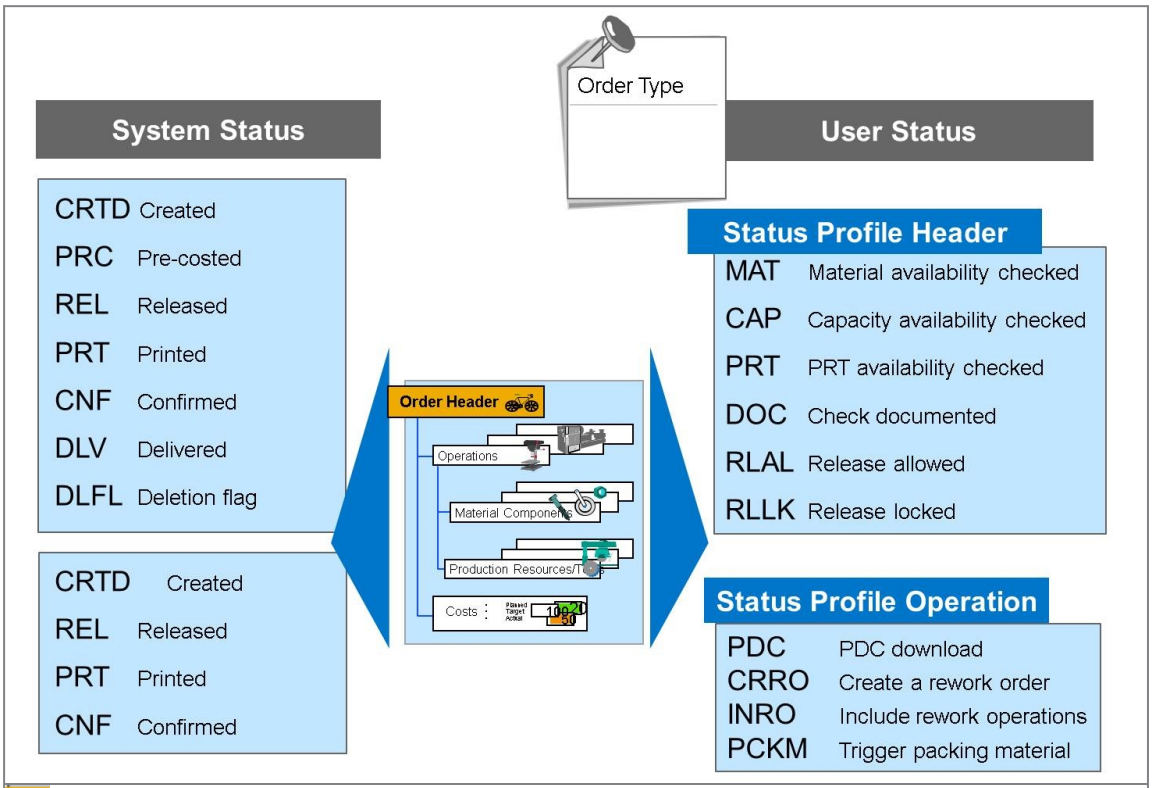

Figure 58: System Status and User Status

User statuses complement status management very effectively. User statuses are defined in user status profiles in Customizing. The user status profiles must be assigned to the corresponding order types. You can assign two status profiles to an order type, one at the order header level and one at the operation level. The individual user statuses can be activated at any time and independently of the system status reached.

Production Scheduling Profile

By using a production scheduling profile, the processing of a production order can be made more effective.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Assignment options

- Production scheduler
- Material master

Production Scheduling Profile

Automatic actions on creation	Release Document links (material, BOM)
Automatic actions on release	Execute printing Schedule order Document links (material, BOM) Create control instruction
Control options on confirmation	Automatic goods receipt No update of excess/short receipt
Additional control options	Confirm partial quantities (availability check) Automatic batch creation and classification Creation of transfer requirements/orders …
Default order types	Make-to-Stock Production Make-to-Order Production Engineer-to-Order Production Without Material

Figure 59: Production Scheduling Profile

A production scheduling profile can either be assigned to a production scheduler in Customizing or to a material master in the Work Scheduling view. In both cases, the result is material-related control.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Release Production Orders

Business Scenario

The order release is the basis for the further processing of the production order. As a production supervisor, you schedule order release runs. You also need to know other alternatives for order release

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Release Individual Operations and Individual Production Orders

As a production supervisor, you need to know how to release individual operations and individual orders.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Several production orders for material T-FSP1## should be displayed.

   What status do the orders have?

Status
>

2. Click in the line of the first production order to display the order details.

   Choose *Order Schedule* and note the status of the operations:

Operation	Status
>	
>	
>	

3. Click in the line of the second operation 0020 to display the operation details.

   Choose *Release* to release the operation.

   A message will be displayed. Is it possible to release the operation? Display the details of the message.

4. Click in the line of the first operation 0010 to display the operation details.

   Choose *Release* to release the operation.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

A message will be displayed. Has the operation been released?

What status does the operation have?

Status
>

5. Navigate back to the overview of the production orders.
   What status does the first orders have?

Status
>

6. Select the first order and choose *Edit*.
   A new tab with the title *Production order Change: Header* will be opened.

   Choose *Operations* to navigate to the operations overview.

   Select operations 0020 and 0030 and choose the *Release operation* icon.

   A message will be displayed. Have the operations been released?

   What status do the operations have?

Status
>

   Save the order and close the tab.

7. *Refresh (F5)* the overview of the production orders.
   What status does the first order have?

Status
>

8. Select the next order with status *Created* and choose *Release*.
   How does the status of the order change?

Status
>

   Finally, choose *SAP (Navigate to Home Page)* to leave the app.

Task 2: Release Production Orders in Mass Processing and in an Order Release Run
As a production supervisor, you use mass processing and schedule order release runs to effectively organize order release.

1. In the *SAP Fiori Launchpad*, execute the *Release Production Orders* tile

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

A new tab with the title *Release Production Orders* will be opened.

Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001

> Note:
> You could also choose the list *Operations* to run mass processing for the release of operations.

Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##

Enter the following data in the mass processing area of the initial screen:

Field	Value
Display applicat. toolbar	x
Icon *Release*	selected

Choose *Execute*.

In the *Mass Processing – Order Headers* list, the production orders for material T-FSP1## with status *Created* will be displayed.

Select the next two orders and choose *Release* icon.

Choose *More* → *List* → *Refresh*. The released production orders have disappeared.

Finally, close the mass processing tab.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Check whether the production orders released in mass processing have the status *Released*.

   Choose *SAP (Navigate to Home Page)* to leave the app.

3. In the *SAP Fiori Launchpad*, execute the *Schedule Order Release Runs* tile to schedule an order release run.

   In the *Application Jobs* screen, choose *Create*.

   In the *New Job* screen, enter the following data in three consecutive steps.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Job Template	Release Order at Scheduled Release Date
Job Name	P## Order Release
Start Immediately	X
Recurrence Pattern	Single Run
Production Plant	1010
Production Supervisor	P##
For all Dates	Delete all conditions

Choose *Schedule* to start the release run.

In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

Finally choose *SAP (Navigate to Home Page)* to close the app.

4. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Check whether the production orders released in the order release run have the status *Released*.

   Choose *SAP (Navigate to Home Page)* to leave the app.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Release Production Orders

Business Scenario

The order release is the basis for the further processing of the production order. As a production supervisor, you schedule order release runs. You also need to know other alternatives for order release

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Release Individual Operations and Individual Production Orders

As a production supervisor, you need to know how to release individual operations and individual orders.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Several production orders for material T-FSP1## should be displayed.

   What status do the orders have?

Status
>

   a) All orders have the following status:

Status
Created

2. Click in the line of the first production order to display the order details.

   Choose *Order Schedule* and note the status of the operations:

Operation	Status
>	
>	
>	

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

a) The operations have the following status:

Operation	Status
0010	Created
0020	Created
0030	Created

3. Click in the line of the second operation 0020 to display the operation details.

   Choose *Release* to release the operation.

   A message will be displayed. Is it possible to release the operation? Display the details of the message.

   a) The operation cannot be released.

      The following error message is displayed: Operation 0020 of order could not be released.

      The following details are displayed: Operation cannot be released (op. 0010, order, sequence 0 is not released)

4. Click in the line of the first operation 0010 to display the operation details.

   Choose *Release* to release the operation.

   A message will be displayed. Has the operation been released?

   What status does the operation have?

Status
>

   a) The operation has been released.

      The following message is displayed: Operation 0010 of order has successfully been released.

Status
Released

5. Navigate back to the overview of the production orders.

   What status does the first orders have?

Status
>

   a) The first order has the following status:

Status
Partially Released

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

6. Select the first order and choose *Edit*.
   A new tab with the title *Production order Change: Header* will be opened.
   Choose *Operations* to navigate to the operations overview.
   Select operations 0020 and 0030 and choose the *Release operation* icon.
   A message will be displayed. Have the operations been released?
   What status do the operations have?

Status
>

   Save the order and close the tab.

   a) The operations have been released.
      The following message is displayed: Release carried out.

Status
REL Released

7. *Refresh (F5)* the overview of the production orders.
   What status does the first order have?

Status
>

   a) The first order has the following status:

Status
Released

8. Select the next order with status *Created* and choose *Release*.
   How does the status of the order change?

Status
>

   Finally, choose *SAP (Navigate to Home Page)* to leave the app.

   a) The order has the following status after order release:

Status
Released

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Task 2: Release Production Orders in Mass Processing and in an Order Release Run
As a production supervisor, you use mass processing and schedule order release runs to effectively organize order release.

1. In the *SAP Fiori Launchpad*, execute the *Release Production Orders* tile

   A new tab with the title *Release Production Orders* will be opened.

   Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000001

> Note:
> You could also choose the list *Operations* to run mass processing for the release of operations.

   Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##

   Enter the following data in the mass processing area of the initial screen:

Field	Value
Display applicat. toolbar	x
Icon *Release*	selected

   Choose *Execute*.

   In the *Mass Processing – Order Headers* list, the production orders for material T-FSP1## with status *Created* will be displayed.

   Select the next two orders and choose *Release* icon.

   Choose *More* → *List* → *Refresh*. The released production orders have disappeared.

   Finally, close the mass processing tab.

   a) For this exercise step no further information is needed.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Check whether the production orders released in mass processing have the status *Released*.

   Choose *SAP (Navigate to Home Page)* to leave the app.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

a) Four production orders should have the status *Released* now.

3. In the *SAP Fiori Launchpad*, execute the *Schedule Order Release Runs* tile to schedule an order release run.

   In the *Application Jobs* screen, choose *Create*.

   In the *New Job* screen, enter the following data in three consecutive steps.

Field	Value
Job Template	Release Order at Scheduled Release Date
Job Name	P## Order Release
Start Immediately	X
Recurrence Pattern	Single Run
Production Plant	1010
Production Supervisor	P##
For all Dates	Delete all conditions

   Choose *Schedule* to start the release run.

   In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

   Finally choose *SAP (Navigate to Home Page)* to close the app.

   a) For this exercise step no further information is needed.

4. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production orders for production supervisor P##.

   Check whether the production orders released in the order release run have the status *Released*.

   Choose *SAP (Navigate to Home Page)* to leave the app.

   a) All production orders should now have the status *Released*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Define and Test a Production Scheduling Profile

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Using a production scheduling profile, the processing of a production order can be made more effective. As a member of the project team or as a production supervisor, you must be able to define production scheduling profiles and to assign them to materials.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Define a Production Scheduling Profile

Define a production scheduling profile and assign it to your product.

1. In the Customizing environment of the backend system, define a production scheduling profile

   Choose transaction SPRO and click the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Define Production Scheduling Profile.

   In the *Production Scheduling Profile: Overview* screen, choose *New Entries*.

   In the *New Entries: Details of Added Entries* screen, enter the following data and define the following settings:

Field	Value
Plant	1010
Prod. Sched. Profile	GR## GR## Auto Rel., Doc., Print

Automatic Actions	
On Creation	
Field	Value
Release	x
Document Links - Material	x

© Copyright. All rights reserved.

Automatic Actions	
On Creation	
Field	Value
Document Links - BOM	x

Automatic Actions	
On Release	
Field	Value
Execute Printing	x
Schedule Order	x

Order Type	
Field	Value
Make-to-Stock Production	PO##
Make-to-Order Production	PO##
Engineer-to-Order Prodn	YBM1
Without Material	YBM1

Save your production scheduling profile.

2. Assign your production scheduling profile to your product T-FSP1##

   In the backend system, choose transaction MM02.

   Enter the material number T-FSP1## in the initial screen, then choose the *Work Scheduling* view for plant 1010.

   In the *Work Scheduling* view, assign scheduling profile GR##.

   Save the material.

Task 2: Test the Production Scheduling Profile

Create a production order for your product to test the settings of the production scheduling profile.

1. In the backend system, choose transaction CO01 to create the production order.

   In the initial screen, enter plant 1010 and material T-FSP1##.

   Don't enter an order type.

> Note:
> Don't enter an order type.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Choose *Enter*. The production order *Create: Header* screen will be displayed.

With reference to which order type will the order be created?

Field	Value
Type	

2. The total quantity of 20 PC was taken from the material master.

   Choose any basic start date in the near future and choose *Enter* to create the order.

   Save the order and note the order number:

>

3. Choose transaction CO02 to display the order again.

   What activities have been carried out automatically on order creation due to the settings in the production scheduling profile?

   In the order header, choose the *i (Status)* icon to check and note the corresponding status:

Status	Text
>	
>	

In the order header, choose the *Documents* button to check whether documents have been linked automatically to the order. Note the documents in the following table:

Document	Origin
>	
>	

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Define and Test a Production Scheduling Profile

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Using a production scheduling profile, the processing of a production order can be made more effective. As a member of the project team or as a production supervisor, you must be able to define production scheduling profiles and to assign them to materials.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Define a Production Scheduling Profile

Define a production scheduling profile and assign it to your product.

1. In the Customizing environment of the backend system, define a production scheduling profile

   Choose transaction SPRO and click the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Define Production Scheduling Profile.

   In the *Production Scheduling Profile: Overview* screen, choose *New Entries*.

   In the *New Entries: Details of Added Entries* screen, enter the following data and define the following settings:

Field	Value
Plant	1010
Prod. Sched. Profile	GR## GR## Auto Rel., Doc., Print

Automatic Actions	
On Creation	
Field	Value
Release	x
Document Links - Material	x

© Copyright. All rights reserved.

Automatic Actions	
On Creation	
Field	Value
Document Links - BOM	x

Automatic Actions	
On Release	
Field	Value
Execute Printing	x
Schedule Order	x

Order Type	
Field	Value
Make-to-Stock Production	PO##
Make-to-Order Production	PO##
Engineer-to-Order Prodn	YBM1
Without Material	YBM1

Save your production scheduling profile.

a) For this exercise step no further information is needed.

2. Assign your production scheduling profile to your product T-FSP1##

   In the backend system, choose transaction MM02.

   Enter the material number T-FSP1## in the initial screen, then choose the *Work Scheduling* view for plant 1010.

   In the *Work Scheduling* view, assign scheduling profile GR##.

   Save the material.

   a) For this exercise step no further information is needed.

Task 2: Test the Production Scheduling Profile

Create a production order for your product to test the settings of the production scheduling profile.

1. In the backend system, choose transaction CO01 to create the production order.

   In the initial screen, enter plant 1010 and material T-FSP1##.

   Don't enter an order type.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't enter an order type.

Choose *Enter*. The production order *Create: Header* screen will be displayed.

With reference to which order type will the order be created?

Field	Value
Type	

a) Due to the corresponding setting in the production scheduling profile, the order will be created with reference to the following order type:

Field	Value
Type	PO##

2. The total quantity of 20 PC was taken from the material master.

   Choose any basic start date in the near future and choose *Enter* to create the order.

   Save the order and note the order number:

>

   a) For this exercise step no further information is needed.

3. Choose transaction CO02 to display the order again.

   What activities have been carried out automatically on order creation due to the settings in the production scheduling profile?

   In the order header, choose the *i (Status)* icon to check and note the corresponding status:

Status	Text
>	
>	

In the order header, choose the *Documents* button to check whether documents have been linked automatically to the order. Note the documents in the following table:

Document	Origin
>	
>	

a) Due to the settings in the production scheduling profile, the following activities have been carried out automatically on order release:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

The order has been released and printed. The documents of the material master and the document items of the BOM have been linked.

Status	Text
REL	Released
PRT	Printed

Document	Origin
T-DSP100	Bill of Material
T-DSP200	Material

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze and Test a User Status Profile

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

The processing of production orders is controlled using statuses. A status allows or forbids the execution of certain business processes. On the other hand, a status may be set or deleted by the execution of a business process.

The system statuses can be complemented by user statuses. Using a user status profile, the processing of a production order can be influenced according to customer requirements.

As a member of the project team or as a production supervisor, you must be able to define user status profiles and to assign them to order types.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Analyze a User Status Profile and Assign it to an Order Type

A user status profile has been defined with the following function: The goods receipt for a production order cannot be posted until the order has been confirmed.

Analyze the user status profile and assign it to your order type.

1. In the Customizing environment of the backend system, analyze the user status profile GRAFTCON.

   Choose transaction SPRO and click the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define status profile

   In the *Change Status: Overview* screen, double-click the status profile GRAFTCON Goods Receipt after Conf. and note the user status in the following table:

Status	Short Text	Init. status
>		
>		

2. Double-click status GRNO and note the settings in the transaction control:

Business Transaction	Influence	Next action
>		

© Copyright. All rights reserved.

3. Double-click status GROK and note the settings in the transaction control:

Business Transaction	Influence	Next action
>		

4. In the Customizing environment of the back-end system, assign the user status profile GRAFTCON to your order type PO##.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order Types.

   In the *Maintain Production Order Types: Overview* screen, select the line of your order type PO## and choose the *Details* icon.

   In the *Maintain Production Order Types: Details* screen, enter the following value:

Field	Value
StatusProfile Header	GRAFTCON

   Save your order type. Confirm an information message about the number ranges.

5. You must define confirmation parameters for your order type in order to be able to post confirmations.

   In the Customizing environment of the backend system, create the confirmation parameters for your order type PO## in plant 1010 by copying the settings for order type YBM1.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Confirmation → Define Confirmation Parameters.

   In the *Parameters for Order Confirmation: Overview*, select the line of order type YBM1 and plant 1010 choose *Copy As*.

   Overwrite order type YBM1 with your order type:

Order Type
PO##

   Press *Enter* to copy the settings. Finally *Save* your confirmation parameters.

Task 2: Test the User Status Profile

Create a production order for your product to test the settings of the user status profile.

1. In the back-end system, choose transaction CO01 to create the production order.

   In the initial screen, enter plant 1010 and material T-FSP1##. You don't need to enter an order type.

   Choose *Enter*. The *production order Create: Header* screen will be displayed.

   Due to the corresponding setting in the production scheduling profile, the order will be created with reference to your order type PO##.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

The total quantity of 20 PC has been taken from the material master.

Choose any basic start date in the near future and choose *Enter* to create the order.

Save the order and note the order number:

>

2. Choose transaction CO03 to display the order again.
   In the order header, choose the *i (Status)* icon to check and note the user status:

Status with Status Number		
X	Status	Text
>		
>		

Interpret the result.

Choose the *Business processes* tab to check, whether goods receipts for the production order are permitted.

Exit the order.

3. Choose transaction MIGO to post the goods receipt for your production order.
   Choose *Goods Receipt* for *Order* and enter the number of your production order.

   A message will be displayed. Is it possible to post a goods receipt for your order?

   Exit the transaction.

4. Choose transaction CO15 to confirm your production order.
   Enter your order number in the initial screen, choose *Enter*, and finally *Save* the confirmation.

5. Choose transaction CO03 to display the order again.
   In the order header, choose the *i (Status)* icon to check and note the user status:

Status with Status Number		
X	Status	Text
>		
>		

Choose the *Business processes* tab to check, whether goods receipts for the production order are permitted.

Interpret the result.

Exit the order.

6. Choose transaction MIGO again to post the goods receipt for your production order.
   Choose *Goods Receipt* for *Order* and enter the number of your production order.

   Set the *OK* flag, *Check* the data, and finally *Post* the goods receipt.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

7. In the Customizing environment of the backend system, undo the assignment of the user status profile GRAFTCON to your order type PO##.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze and Test a User Status Profile

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

The processing of production orders is controlled using statuses. A status allows or forbids the execution of certain business processes. On the other hand, a status may be set or deleted by the execution of a business process.

The system statuses can be complemented by user statuses. Using a user status profile, the processing of a production order can be influenced according to customer requirements.

As a member of the project team or as a production supervisor, you must be able to define user status profiles and to assign them to order types.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Analyze a User Status Profile and Assign it to an Order Type

A user status profile has been defined with the following function: The goods receipt for a production order cannot be posted until the order has been confirmed.

Analyze the user status profile and assign it to your order type.

1. In the Customizing environment of the backend system, analyze the user status profile GRAFTCON.

   Choose transaction SPRO and click the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define status profile

   In the *Change Status: Overview* screen, double-click the status profile GRAFTCON Goods Receipt after Conf. and note the user status in the following table:

Status	Short Text	Init. status
>		
>		

   a) The following status are defined:

Status	Short Text	Init. status
GRNO	No Goods Receipt	x

© Copyright. All rights reserved.

Status	Short Text	Init. status
GROK	Goods Receipt O.K.	

2. Double-click status GRNO and note the settings in the transaction control:

Business Transaction	Influence	Next action
>		

a) The following settings are defined:

Business Transaction	Influence	Next action
Goods receipt for prodn. order	Forbidd.	No action

3. Double-click status GROK and note the settings in the transaction control:

Business Transaction	Influence	Next action
>		

a) The following settings are defined:

Business Transaction	Influence	Next action
Confirm order	No influence	Set

4. In the Customizing environment of the back-end system, assign the user status profile GRAFTCON to your order type PO##.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Order → Define Order Types.

   In the *Maintain Production Order Types: Overview* screen, select the line of your order type PO## and choose the *Details* icon.

   In the *Maintain Production Order Types: Details* screen, enter the following value:

Field	Value
StatusProfile Header	GRAFTCON

   Save your order type. Confirm an information message about the number ranges.

   a) For this exercise step no further information is needed.

5. You must define confirmation parameters for your order type in order to be able to post confirmations.

   In the Customizing environment of the backend system, create the confirmation parameters for your order type PO## in plant 1010 by copying the settings for order type YBM1.

   In the *Display IMG* screen, choose the following menu path:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Production → Shop Floor Control → Operations → Confirmation → Define Confirmation Parameters.

In the *Parameters for Order Confirmation: Overview*, select the line of order type YBM1 and plant 1010 choose *Copy As*.

Overwrite order type YBM1 with your order type:

Order Type
PO##

Press *Enter* to copy the settings. Finally *Save* your confirmation parameters.

a) For this exercise step no further information is needed.

Task 2: Test the User Status Profile

Create a production order for your product to test the settings of the user status profile.

1. In the back-end system, choose transaction CO01 to create the production order.

   In the initial screen, enter plant 1010 and material T-FSP1##. You don't need to enter an order type.

   Choose *Enter*. The *production order Create: Header* screen will be displayed.

   Due to the corresponding setting in the production scheduling profile, the order will be created with reference to your order type PO##.

   The total quantity of 20 PC has been taken from the material master.

   Choose any basic start date in the near future and choose *Enter* to create the order.

   Save the order and note the order number:

>

   a) For this exercise step no further information is needed.

2. Choose transaction CO03 to display the order again.

   In the order header, choose the *i (Status)* icon to check and note the user status:

Status with Status Number		
X	Status	Text
>		
>		

   Interpret the result.

   Choose the *Business processes* tab to check, whether goods receipts for the production order are permitted.

   Exit the order.

   a) Due to the settings in the user status profile, the following user status are available:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Status with Status Number		
X	Status	Text
x	GRNO	No Goods Receipt
	GROK	Goods Receipt O.K.

User status GRNO has been set initially on order creation.

Goods receipts are not permitted for the production order.

3. Choose transaction MIGO to post the goods receipt for your production order.
   Choose *Goods Receipt* for *Order* and enter the number of your production order.

   A message will be displayed. Is it possible to post a goods receipt for your order?

   Exit the transaction.

   a) The following message will be displayed:
      Current order status does not allow goods receipt.

4. Choose transaction CO15 to confirm your production order.
   Enter your order number in the initial screen, choose *Enter*, and finally *Save* the confirmation.

   a) For this exercise step no further information is needed.

5. Choose transaction CO03 to display the order again.
   In the order header, choose the *i (Status)* icon to check and note the user status:

Status with Status Number		
X	Status	Text
>		
>		

Choose the *Business processes* tab to check, whether goods receipts for the production order are permitted.

Interpret the result.

Exit the order.

a) Due to the settings in the user status profile, user status GROK has been set as a result of the confirmation:

Status with Status Number		
X	Status	Text
	GRNO	No Goods Receipt
x	GROK	Goods Receipt O.K.

Goods receipts are permitted now for the production order.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

6. Choose transaction MIGO again to post the goods receipt for your production order.

   Choose *Goods Receipt* for *Order* and enter the number of your production order.

   Set the *OK* flag, *Check* the data, and finally *Post* the goods receipt.

   a) For this exercise step no further information is needed.

7. In the Customizing environment of the backend system, undo the assignment of the user status profile GRAFTCON to your order type PO##.

   a) In the *Display IMG* screen, choose the following menu path:*Production → Shop Floor Control → Master Data → Order → Define Order Types*.

      In the *Maintain Production Order Types: Overview* screen, select the line of your order type PO## and choose the *Details* icon.

      In the *Maintain Production Order Types: Details* screen, undo the assignment of the user status profile GRAFTCON.

      Save your order type. Confirm an information message about the number ranges.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Release production orders, set up production scheduling profiles and describe the functions of status profiles

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Printing Shop Floor Papers

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Print shop floor papers

Printing Shop Floor Papers

After production orders have been released, various employees must be informed. For this purpose, shop floor papers can be printed, e.g. goods issue slips, pick lists, time tickets, confirmation slips, PRT overviews or object lists.

As a member of the project team, you must be able to define the corresponding Customizing and master data settings.

Usually, the shop floor papers are printed by mass processing or background processing. However, as a production supervisor, you may also need to print or reprint individual papers.

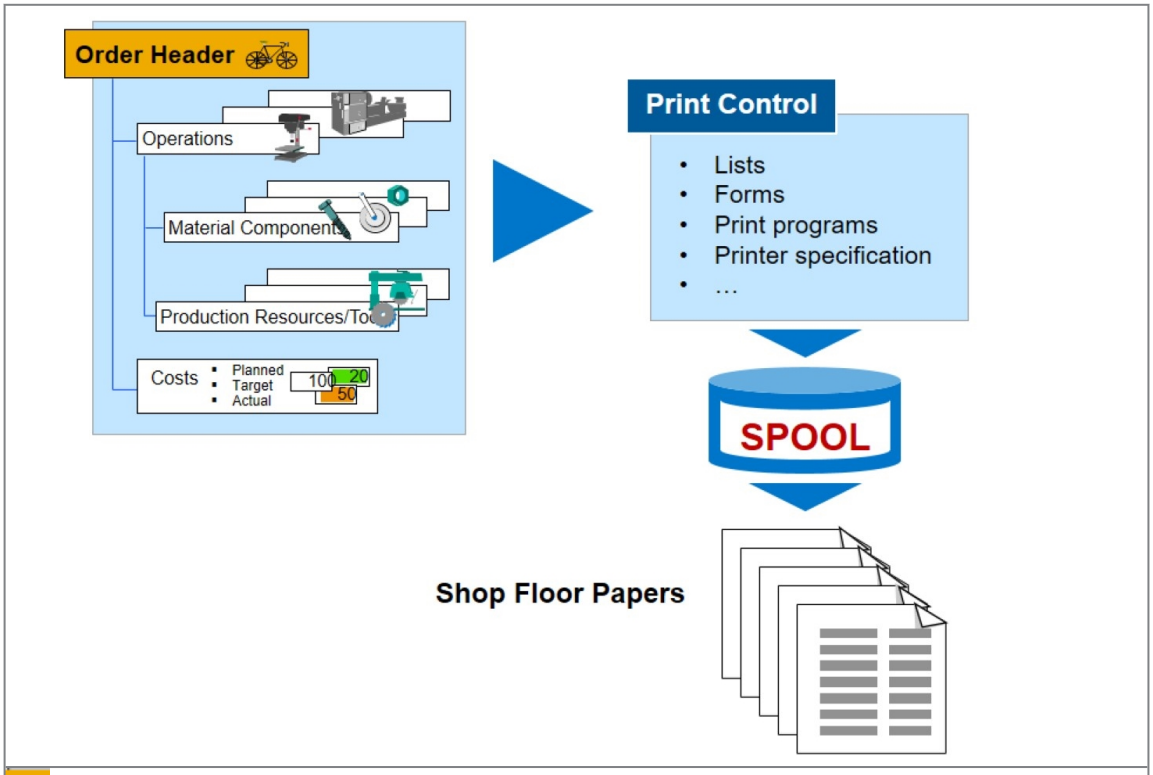

Figure 60: Printing Shop Floor Papers

Shop floor papers can be printed automatically at order release, in the dialog, in mass processing and via background processing.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

As a prerequisite for printing shop floor paper, the print control must be set up in Customizing. Some changes to the settings can still be made upon printing.

Lists, Reports and Forms

	Reports	Forms	
		SAPSCRIPT	PDF
Object list	PSFC_OBJ_LIST	PSFC_PRINT_LAY	☒
Operation control ticket	PSFCOPCT	PSFC_STD_LAYOUT	
Job ticket	PSFCJOBT	PSFC_STD_LAYOUT	
Time ticket	PSFCTIME	PSFC_STD_LAYOUT	
Confirmation slip	PSFCCONF	PSFC_STD_LAYOUT	
Pick list	PSFCPICK	PSFC_STD_LAYOUT	
Goods issue slip	PSFCGISS	PSFC_STD_LAYOUT	
PRT overview	PSFCPRTL	PSFC_STD_LAYOUT	
Kanban ticket	PSFCKANB	PSFC_KANBAN	☒
Document distribution	PSFC_DOCLINK_DIST	DDS_COVER_PLO	☒

Figure 61: Lists, Reports and Forms

Various production order lists can be printed by calling SAPscript or PDF-based forms in print programs.

There are two print modes: Original print and reprint. With original printing, all released operations and the material components and PRTs assigned to them are printed. When the original print of an order has already been partially carried out, the system automatically prints only those objects for the order that have not yet been printed. Reprinting an order reprints all operations that have previously been printed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Printing Operations

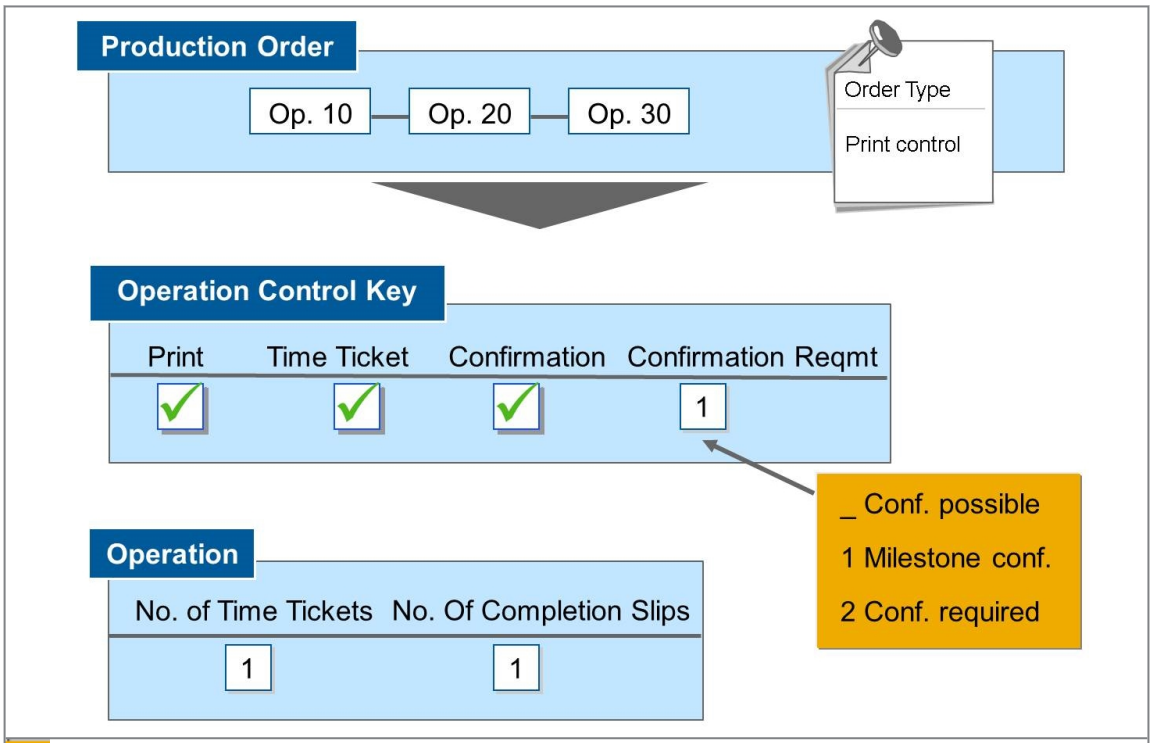

Figure 62: Printing Operations

The operation control key determines the print output of an operation. An operation is only printed if the *Print* indicator has been set in the operation control key.

Time tickets are only printed when the *Print* indicator and the *Print Time Ticket* indicator are set, and when the number of time tickets is greater than 0.

Confirmation slips are only printed when the *Print* indicator and the *Print Confirmation* indicator are set, when the number of completion slips is greater than 0, and when the *Confirmation* setting is “blank”, 1 or 2.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Print Shop Floor Papers

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

After production orders have been released, various employees must be informed. For this purpose, shop floor papers can be printed, for example, goods issue slips, pick lists, time tickets, confirmation slips, PRT overviews or object lists.

As a member of the project team, you must be able to define the corresponding Customizing and master data settings.

Usually, the shop floor papers are printed by mass processing or background processing. However, as a production supervisor, you may also need to print or reprint individual papers.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Analyze the Prerequisites for the Printing of Shop Floor Papers
Analyze the prerequisites for the printing of shop floor papers.

1. In the Customizing environment of the back-end system, analyze the settings for print control.

   Choose transaction SPRO and click the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Define print control.

   Get an overview about the settings in the following views: Names of lists, reference order types, forms, print programs and printer specification.

2. In the backend system, choose transaction CA03 to display the routing for your product T-FSP1##.

   Enter the material number and plant 1010 in the initial screen.

   In the operation overview, display the details of control key YBP1.

   Choose the input help F4 for the control key field, select control key YBP1 and choose *Detailled information*. Note the following settings:

Control key YBP1	
Field	Value
Print Confirmation	
Print Time Tickets	

© Copyright. All rights reserved.

Control key YBP1	
Field	Value
Print	
Confirmations	

In the operation overview, display the details of an operation.

Double-click the number of the operation and note the following settings:

Field	Value
No. of Time Tickets	
No. of Conf. Slips	

Exit the routing.

Task 2: Prepare a Test Scenario

You prepare a test scenario for the printing of shop floor papers.

1. In the Customizing environment of the back-end system, change your production scheduling profile GR##.

   Choose transaction SPRO and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Define Production Scheduling Profile.

   In the *Production Scheduling Profile: Overview* screen, select your profile GR## in plant 1010 and choose the *Details* icon.

   In the *Details* screen, change the following setting:

Field	New Value
Prod. Sched. Profile	GR## GR## Auto Doc.

Automatic Actions	
On Creation	
Field	New Value
Release	

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Automatic Actions	
On Release	
Field	New Value
Execute Printing	

Save your changes.

2. In the backend system, choose transaction SP02 to display the *List of Spool Requests*.

   Select all spool numbers and choose the *Delete* icon. Delete all requests.

   Don't exit the list. Choose the *New GUI Window* icon to open a second window.

> Note:
> Don't exit the list. Choose the *New GUI Window* icon to open a second window.

Task 3: Print and Reprint Shop Floor Papers for an Individual Order

Create a production order, print and reprint shop floor papers and check the corresponding spool requests.

1. In the second GUI window, choose transaction CO01 to create the production order.

   In the initial screen, enter plant 1010 and material T-FSP1##. You don't need to enter an order type.

   Choose *Enter*. The *production order Create: Header* screen will be displayed.

   Due to the corresponding setting in the production scheduling profile, the order will be created with reference to your order type PO##.

   The total quantity of 20 PC has been taken from the material master.

   Choose any basic start date in the near future and choose *Enter* to create the order.

   Navigate to the operation overview.

   Select the first operation and choose the *Release operation* icon to release the operation.

   Navigate to the order header and choose *Functions* → *Print*.

   You get the following message: After the next update the order will be printed.

   Save the order.

2. Choose transaction CO02 to change the production order.

   In the order header, choose the *i (Status)* icon to check whether the order has been printed. Note the corresponding status:

Syst. Status	
Status	Text
>	

   Don't *Exit* the order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't exit the order.

3. In the first window, *Refresh* the *List of Spool Requests*.
   Choose the *SAPscript (OTF)* icon to display some shop floor papers.
   Interpret the result.
4. In the second window, in the production order, choose *Functions* → *Print* again.
   You get the following message: Copies will be printed for order (original lists already printed).
   Save the order.
5. In the first window, *Refresh* the *List of Spool Requests* again.
   Choose the *SAPscript (OTF)* icon to display some of the new shop floor papers.
   Interpret the result.
6. In the second window, choose transaction CO02 to change the production order.
   Navigate to the operation overview.
   Release the second operation.
   Navigate to the order header.
   In the order header, choose the *i (Status)* icon to check whether the print status has been updated. Note the corresponding status:

Syst. Status	
Status	Text
>	

   Choose *Functions* → *Print* again and *Save* the order.
7. In the first window, *Refresh* the *List of Spool Requests* again.
   Choose the *SAPscript (OTF)* icon to display some of the new shop floor papers.
   Interpret the result.
8. In the second window, choose transaction CO02 to change the production order.
   In the order header, choose the *i (Status)* icon to check whether the print status has been updated.
   Note the corresponding status:

Syst. Status	
Status	Text
>	

   Choose *Functions* → *Print* again.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

You get the following message: Copies will be printed for order (original lists already printed).

Save the order.

9. In the first window, *Refresh* the *List of Spool Requests* again.

   Choose the *SAPscript (OTF)* icon to display some of the new shop floor papers.

   Interpret the result.

Task 4: Reprint a Certain Shop Floor Paper

If you want to print or reprint a certain shop floor paper, you can use mass processing.

In our test scenario, you try to reprint the confirmation slip for the second operation of your production order.

1. In the second window, choose transaction CO04N.

   In the *Print Production Orders* screen, enter the following header data:

Field	Value
List	Operations
Layout	000000000001

Enter the following data in the selection area:

Field	Value
Production Order	<Enter the number of your production order>
Work Center	T-BK2##
Plant	1010
Reduced Reading	x

Enter the following data in the mass processing area:

Field	Value
Display applicat. toolbar	x
Icon *Printing of Shop Floor Papers*	selected
Print mode	Reprint
Order Type	PO##
Print list	only select Confirmation slip

Choose *Execute*.

In the *Mass Processing – Operations* list, only the second operation 0020 of your production order will be displayed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Select the operation and choose the *Printing of Shop Floor Papers* icon.

Finally, *Exit* mass processing.

2. In the first window, *Refresh* the *List of Spool Requests* again.
   Choose the *SAPscript (OTF)* icon to display the new shop floor paper.

   Interpret the result.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Print Shop Floor Papers

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

After production orders have been released, various employees must be informed. For this purpose, shop floor papers can be printed, for example, goods issue slips, pick lists, time tickets, confirmation slips, PRT overviews or object lists.

As a member of the project team, you must be able to define the corresponding Customizing and master data settings.

Usually, the shop floor papers are printed by mass processing or background processing. However, as a production supervisor, you may also need to print or reprint individual papers.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Analyze the Prerequisites for the Printing of Shop Floor Papers
Analyze the prerequisites for the printing of shop floor papers.

1. In the Customizing environment of the back-end system, analyze the settings for print control.

   Choose transaction SPRO and click the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Define print control.

   Get an overview about the settings in the following views: Names of lists, reference order types, forms, print programs and printer specification.

   a) For this exercise step no further information is needed.

2. In the backend system, choose transaction CA03 to display the routing for your product T-FSP1##.

   Enter the material number and plant 1010 in the initial screen.

   In the operation overview, display the details of control key YBP1.

   Choose the input help F4 for the control key field, select control key YBP1 and choose *Detailled information*. Note the following settings:

Control key YBP1	
Field	Value
Print Confirmation	
Print Time Tickets	

© Copyright. All rights reserved.

Control key YBP1	
Field	Value
Print	
Confirmations	

In the operation overview, display the details of an operation.

Double-click the number of the operation and note the following settings:

Field	Value
No. of Time Tickets	
No. of Conf. Slips	

Exit the routing.

a) The following settings are defined:

Field	Value
Print Confirmation	x
Print Time Tickets	x
Print	x
Confirmations	2 Confirmation required

Field	Value
No. of Time Tickets	1
No. of Conf. Slips	1

Task 2: Prepare a Test Scenario

You prepare a test scenario for the printing of shop floor papers.

1. In the Customizing environment of the back-end system, change your production scheduling profile GR##.

   Choose transaction SPRO and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Master Data → Define Production Scheduling Profile.

   In the *Production Scheduling Profile: Overview* screen, select your profile GR## in plant 1010 and choose the *Details* icon.

   In the *Details* screen, change the following setting:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	New Value
Prod. Sched. Profile	GR## GR## Auto Doc.

Automatic Actions	
On Creation	
Field	New Value
Release	

Automatic Actions	
On Release	
Field	New Value
Execute Printing	

Save your changes.

a) For this exercise step no further information is needed.

2. In the backend system, choose transaction SP02 to display the *List of Spool Requests*.

   Select all spool numbers and choose the *Delete* icon. Delete all requests.

   Don't exit the list. Choose the *New GUI Window* icon to open a second window.

> Note:
> Don't exit the list. Choose the *New GUI Window* icon to open a second window.

a) For this exercise step no further information is needed.

Task 3: Print and Reprint Shop Floor Papers for an Individual Order

Create a production order, print and reprint shop floor papers and check the corresponding spool requests.

1. In the second GUI window, choose transaction CO01 to create the production order.

   In the initial screen, enter plant 1010 and material T-FSP1##. You don't need to enter an order type.

   Choose *Enter*. The *production order Create: Header* screen will be displayed.

   Due to the corresponding setting in the production scheduling profile, the order will be created with reference to your order type PO##.

   The total quantity of 20 PC has been taken from the material master.

   Choose any basic start date in the near future and choose *Enter* to create the order.

   Navigate to the operation overview.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Select the first operation and choose the *Release operation* icon to release the operation.

Navigate to the order header and choose *Functions* → *Print*.

You get the following message: After the next update the order will be printed.

Save the order.

a) For this exercise step no further information is needed.

2. Choose transaction CO02 to change the production order.

   In the order header, choose the *i (Status)* icon to check whether the order has been printed. Note the corresponding status:

Syst. Status	
Status	Text
>	

Don't *Exit* the order.

> Note:
> Don't exit the order.

a) The following status has been set.

Syst. Status	
Status	Text
PRT	Printed

3. In the first window, *Refresh* the *List of Spool Requests*.

   Choose the *SAPscript (OTF)* icon to display some shop floor papers.

   Interpret the result.

   a) Shop floor papers were printed with reference to the first operation.

4. In the second window, in the production order, choose *Functions* → *Print* again.

   You get the following message: Copies will be printed for order (original lists already printed).

   Save the order.

   a) For this exercise step no further information is needed.

5. In the first window, *Refresh* the *List of Spool Requests* again.

   Choose the *SAPscript (OTF)* icon to display some of the new shop floor papers.

   Interpret the result.

   a) Duplicates of the shop floor papers were printed with reference to the first operation.

6. In the second window, choose transaction CO02 to change the production order.

   Navigate to the operation overview.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Release the second operation.

Navigate to the order header.

In the order header, choose the *i (Status)* icon to check whether the print status has been updated. Note the corresponding status:

Syst. Status	
Status	Text
>	

Choose *Functions* → *Print* again and *Save* the order.

a) The following status has been set.

Syst. Status	
Status	Text
PPRT	Part Printed

7. In the first window, *Refresh* the *List of Spool Requests* again.

   Choose the *SAPscript (OTF)* icon to display some of the new shop floor papers.

   Interpret the result.

   a) Shop floor papers were printed with reference to the second operation.

8. In the second window, choose transaction CO02 to change the production order.

   In the order header, choose the *i (Status)* icon to check whether the print status has been updated.

   Note the corresponding status:

Syst. Status	
Status	Text
>	

Choose *Functions* → *Print* again.

You get the following message: Copies will be printed for order (original lists already printed).

Save the order.

a) The following status has been set.

Syst. Status	
Status	Text
PRT	Printed

9. In the first window, *Refresh* the *List of Spool Requests* again.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Choose the *SAPscript (OTF)* icon to display some of the new shop floor papers.

Interpret the result.

a) Duplicates of the shop floor papers were printed with reference to both the first and the second operation.

Task 4: Reprint a Certain Shop Floor Paper

If you want to print or reprint a certain shop floor paper, you can use mass processing.

In our test scenario, you try to reprint the confirmation slip for the second operation of your production order.

1. In the second window, choose transaction CO04N.

   In the *Print Production Orders* screen, enter the following header data:

Field	Value
List	Operations
Layout	000000000001

Enter the following data in the selection area:

Field	Value
Production Order	<Enter the number of your production order>
Work Center	T-BK2##
Plant	1010
Reduced Reading	x

Enter the following data in the mass processing area:

Field	Value
Display applicat. toolbar	x
Icon *Printing of Shop Floor Papers*	selected
Print mode	Reprint
Order Type	PO##
Print list	only select Confirmation slip

Choose *Execute*.

In the *Mass Processing – Operations* list, only the second operation 0020 of your production order will be displayed.

Select the operation and choose the *Printing of Shop Floor Papers* icon.

Finally, *Exit* mass processing.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

a) For this exercise step no further information is needed.

2. In the first window, *Refresh* the *List of Spool Requests* again.
   Choose the *SAPscript (OTF)* icon to display the new shop floor paper.

   Interpret the result.

   a) The confirmation slip for operation 0020 has been printed as a duplicate.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Print shop floor papers

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Which of the following statements are correct?

   Choose the correct answers.

   - ☐ A A production order cannot be released with status MSPT.
   - ☐ B An availability check can be triggered automatically or manually.
   - ☐ C On Order creation, only the stocks can be checked.
   - ☐ D The scope of check is determined uniquely for each material component per order type and plant.
   - ☐ E You assign a checking rule to each material in the material master.

2. Which of the following statements are correct?

   Choose the correct answers.

   - ☐ A Tabular planning tables enable you to carry out time-continuous finite scheduling.
   - ☐ B An Operation status DSPT is also set as a result of capacity availability checks.
   - ☐ C Capacity evaluation and leveling can be performed with the tools and methods in Capacity Requirements Planning (CRP) and Production Planning / Detailed Scheduling (PP/DS).
   - ☐ D The available capacities are defined in the routings.
   - ☐ E A dispatched operation is given the status DSPT.

3. Which of the following statements are correct?

   Choose the correct answers.

   - ☐ A An availability check can be executed automatically at order release.
   - ☐ B System statuses can be set or deleted by a user status.
   - ☐ C The production order must have status Released so that goods movements and confirmations can be performed.
   - ☐ D Shop floor papers can also be printed with status CRTD.
   - ☐ E A production scheduling profile has to be assigned to work centers.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

4. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A The scheduling margin key determines the print output of an operation.
   - [ ] B There are two print modes: Original print and reprint.
   - [ ] C As a prerequisite for printing shop floor paper, the print control must be set up in Customizing.
   - [ ] D Shop floor papers cannot be printed in the dialog.
   - [ ] E Various production order lists can be printed by calling SAPscript or PDF-based forms in print programs.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A A production order cannot be released with status MSPT.
   - [x] B An availability check can be triggered automatically or manually.
   - [ ] C On Order creation, only the stocks can be checked.
   - [x] D The scope of check is determined uniquely for each material component per order type and plant.
   - [ ] E You assign a checking rule to each material in the material master.

   Correct. An availability check can be triggered automatically or manually. The scope of check is determined uniquely for each material component per order type and plant.

2. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A Tabular planning tables enable you to carry out time-continuous finite scheduling.
   - [ ] B An Operation status DSPT is also set as a result of capacity availability checks.
   - [x] C Capacity evaluation and leveling can be performed with the tools and methods in Capacity Requirements Planning (CRP) and Production Planning / Detailed Scheduling (PP/DS).
   - [ ] D The available capacities are defined in the routings.
   - [x] E A dispatched operation is given the status DSPT.

   Correct. Capacity evaluation and leveling can be performed with the tools and methods in Capacity Requirements Planning (CRP) and Production Planning / Detailed Scheduling (PP/DS). A dispatched operation is given the status DSPT.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

3. Which of the following statements are correct?

   Choose the correct answers.

   - [X] A An availability check can be executed automatically at order release.
   - [ ] B System statuses can be set or deleted by a user status.
   - [X] C The production order must have status Released so that goods movements and confirmations can be performed.
   - [ ] D Shop floor papers can also be printed with status CRTD.
   - [ ] E A production scheduling profile has to be assigned to work centers.

   Correct. An availability check can be executed automatically at order release. The production order must have status Released so that goods movements and confirmations can be performed.

4. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A The scheduling margin key determines the print output of an operation.
   - [X] B There are two print modes: Original print and reprint.
   - [X] C As a prerequisite for printing shop floor paper, the print control must be set up in Customizing.
   - [ ] D Shop floor papers cannot be printed in the dialog.
   - [X] E Various production order lists can be printed by calling SAPscript or PDF-based forms in print programs.

   Correct. There are two print modes: Original print and reprint. As a prerequisite for printing shop floor paper, the print control must be set up in Customizing. Various production order lists can be printed by calling SAPscript or PDF-based forms in print programs.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 5 Order Execution

Lesson 1

Performing Material Staging and Goods Issue Postings 290
- Exercise 21: Post Goods Issues with the Goods Movements App and with the Picking List 301
- Exercise 22: Stage Materials with the Pull List 325
- Exercise 23: Post Goods Issues via Backflushing 337
- Exercise 24: Stage Materials with KANBAN 343

Lesson 2

Confirming Production Orders 358
- Exercise 25: Check the Customizing Settings for Confirmations 365
- Exercise 26: Confirm Operations and Production Orders 369

Lesson 3

Posting Goods Receipts 408
- Exercise 27: Post Goods Receipts 413

Duplication is prohibited.

Duplication is prohibited.

UNIT OBJECTIVES

- Describe the options of material staging and post goods issues in different scenarios
- Post confirmations for production orders in different scenarios
- Post goods receipts for production orders

© Copyright. All rights reserved.

Unit 5
Lesson 1

Performing Material Staging and Goods Issue Postings

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the options of material staging and post goods issues in different scenarios

Material Staging and Goods Issue Posting

There are several ways to organize material staging and goods issue postings for production orders.

When an order is created, issue storage locations are determined for the material components. Depending on your requirements, you use a suitable method to provide the required material quantities at the issue storage locations. You then have various options for posting the goods issues for the material components.

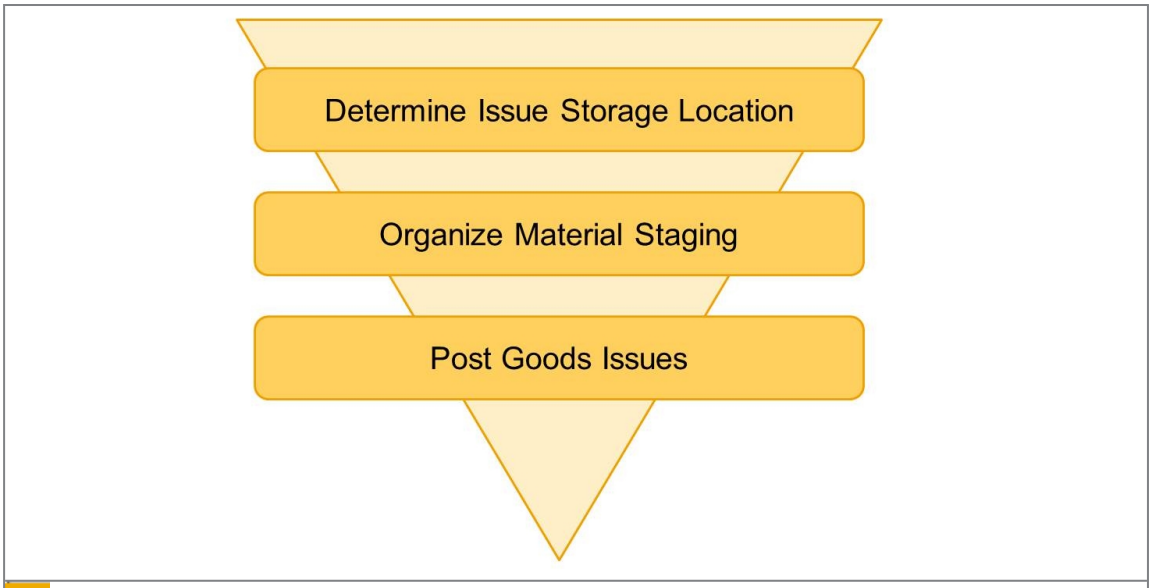

Figure 63: Material Staging and Goods Issue Postings

Determination of the Issue Storage Locations

For each material component in a production order, a default issue storage location can be determined at order creation. This proposal enables automatic goods issue postings.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

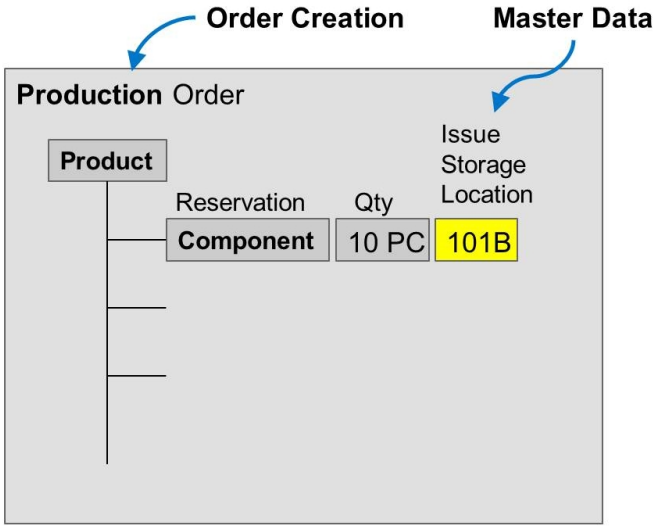

Figure 64: Determination of Issue Storage Location (I)

The figure describes the determination of the issue storage location.

Determination of Issue Storage Location (II)

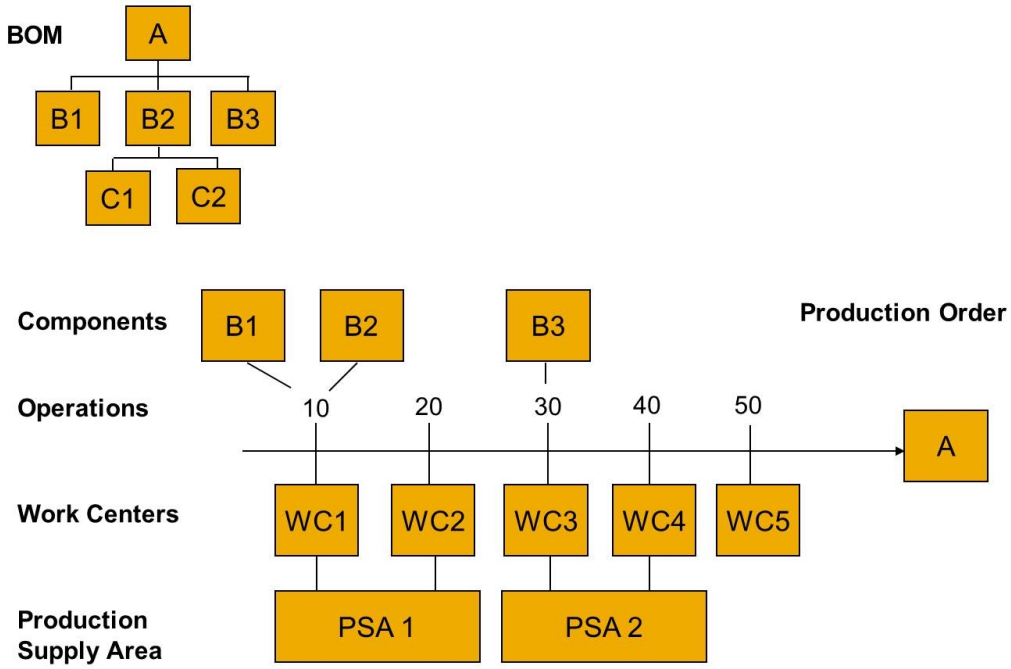

Figure 65: Determination of Issue Storage Location (II)

The figure describes the structure of a production order.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Determination of Issue Storage Location (III)

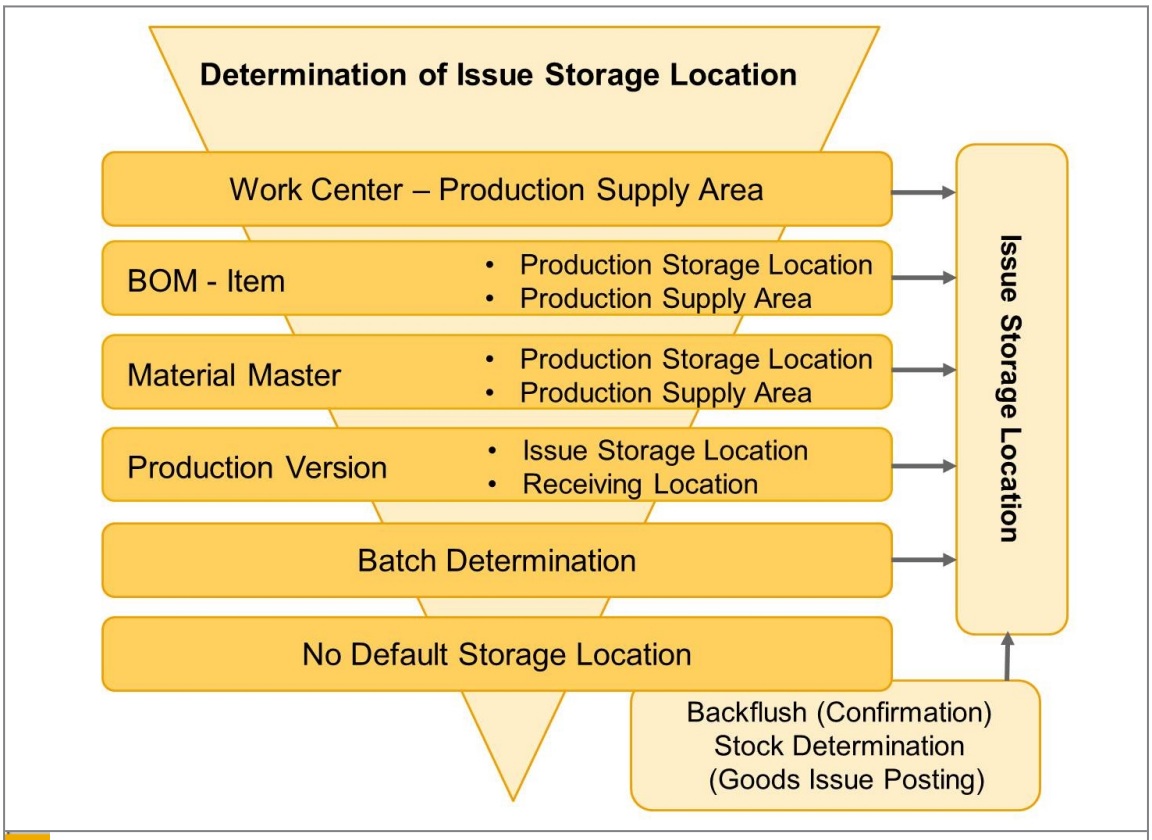

Figure 66: Determination of Issue Storage Location (III)

There are various options for the determination of a default issue storage location, as described in the figure above.

If no storage location was found via the work center, the BOM item, or the material master, the MRP group for the product determines whether the issue storage location can be taken from the production version.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Material Staging

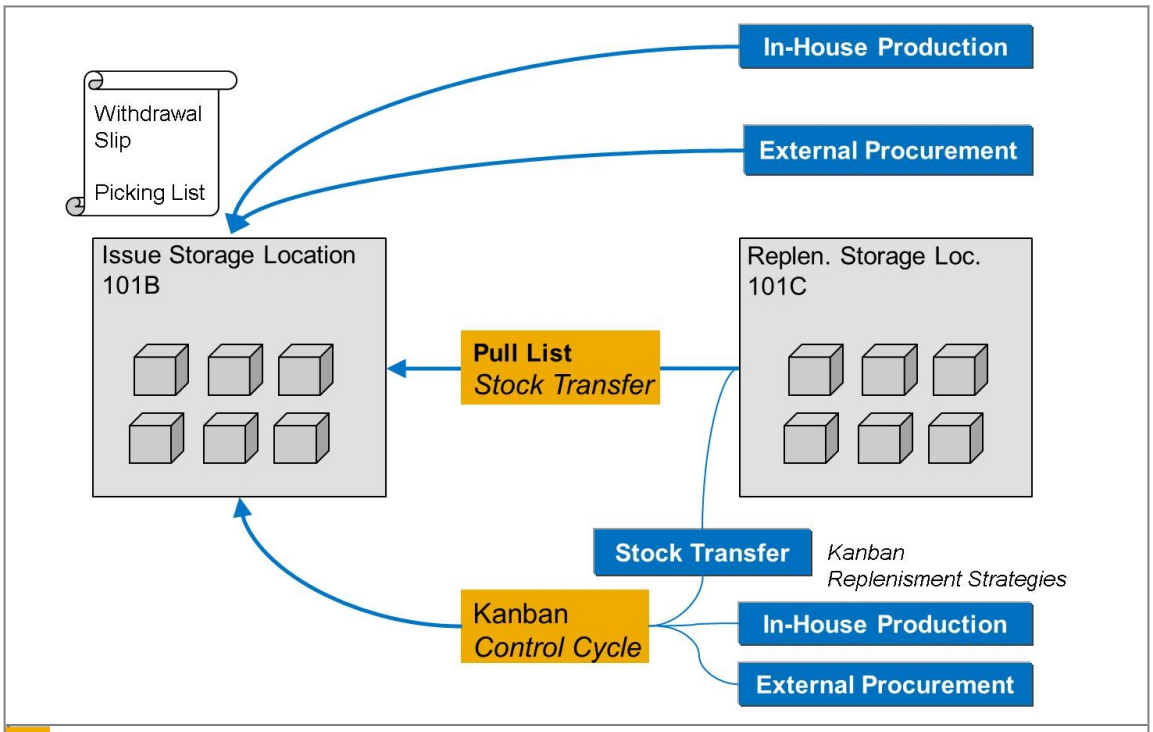

Figure 67: Material Staging

The basis for material withdrawals for production orders can be material withdrawal slips, pull lists, pick lists, work instructions, weighing systems linked via interfaces and similar documents or technologies.

To organize the material staging, S/4HANA provides various procedures that depend on the type of inventory management and warehousing.

Material Withdrawal Slip and Picking List

Material components must be staged for production orders in specific quantities and by specific dates. To do so, you, as employee, go to the proposed warehouse with the material withdrawal slip or the printed picking list and withdraw the material.

As an alternative, the material may be supplied to you automatically or by shipment team. The procedure for material withdrawal postings is, however, the same.

Pull List

You can use an interactive pull list to request and transfer material stock. You can use this function to prepare any stock transfer, create and print a stock transfer list and then carry out the stock transfer.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Kanban

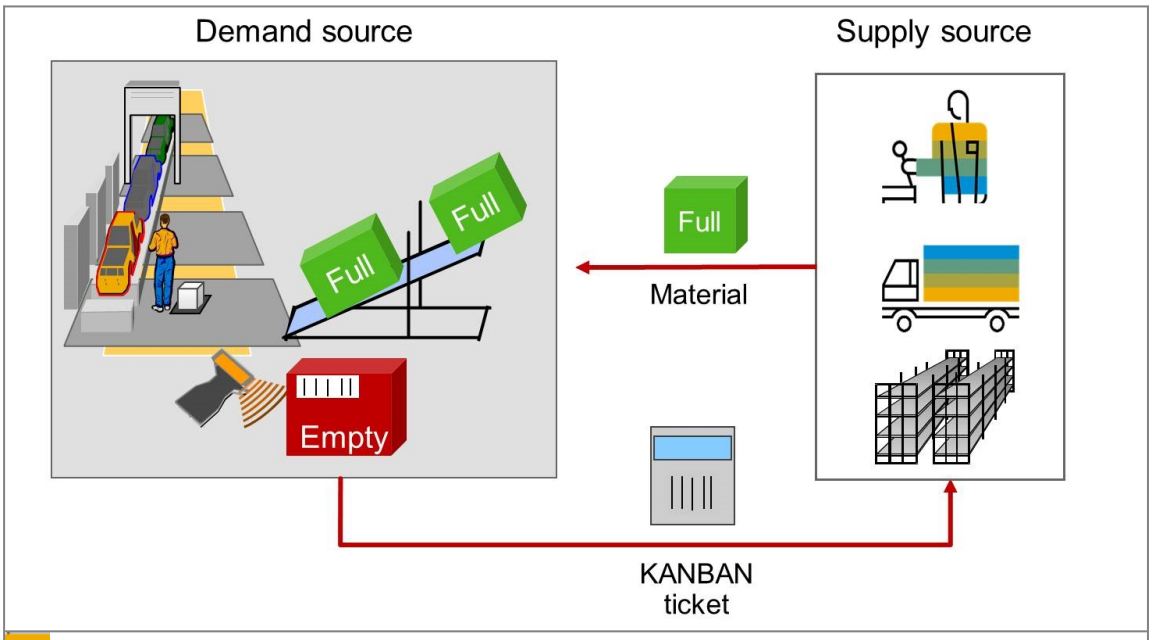

Figure 68: Kanban

In Kanban, the material flow is organized using containers that are kept directly at the appropriate work centers in production. Each contains the quantity of material that work center personnel need for a certain period of time. As soon as a container is emptied by the demand source, replenishment is triggered. The supply source for the required material can be another place in production, an external vendor or a warehouse. The demand source can use material from other containers until the actual container returns to full.

Extended Warehouse Management (EWM)/Warehouse Management (WM)

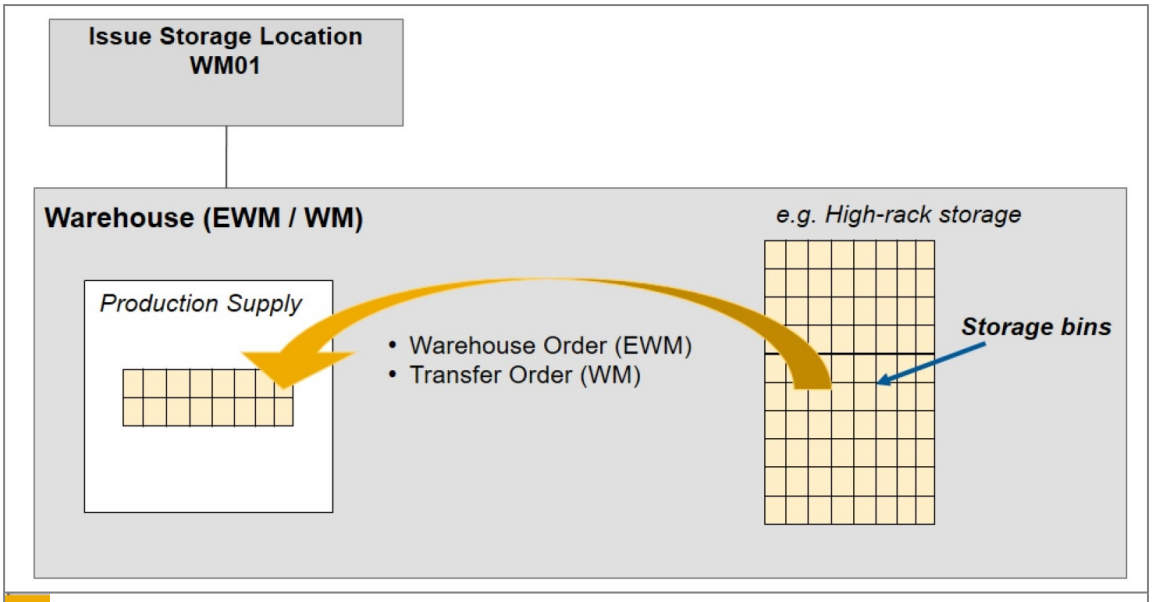

Figure 69: Extended Warehouse Management (EWM) / Warehouse Management (WM)

Material components are staged in storage bins in production based on warehouse orders (EWM) or transfer orders (WM).

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Goods Issue Posting

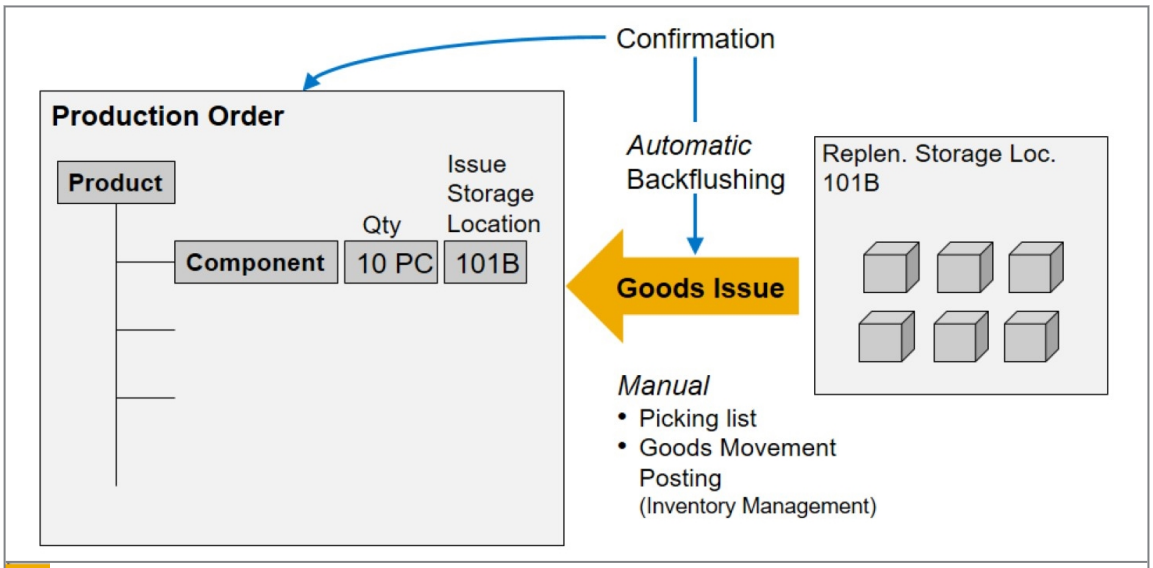

Figure 70: Goods Issue Posting Options

There are various ways to carry out the goods issue postings for production orders.

Picking List

You can use a picking function to prepare and post material withdrawals. You can use this function to create and print a picking list and post the material withdrawals.

Goods Movement in Inventory Management

You can use the Goods Movement app/transaction in inventory management to post the goods issues.

Backflushing

A material component withdrawal can be posted automatically (backflushing), synchronously or asynchronously when an operation or the order is confirmed.

You should always use backflushing when you do not want to stage materials for a specific order. It is assumed that the material is staged and available at the work center.

Typical application areas are flow and assembly lines and the staging of less valuable materials.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Settings for Backflushing

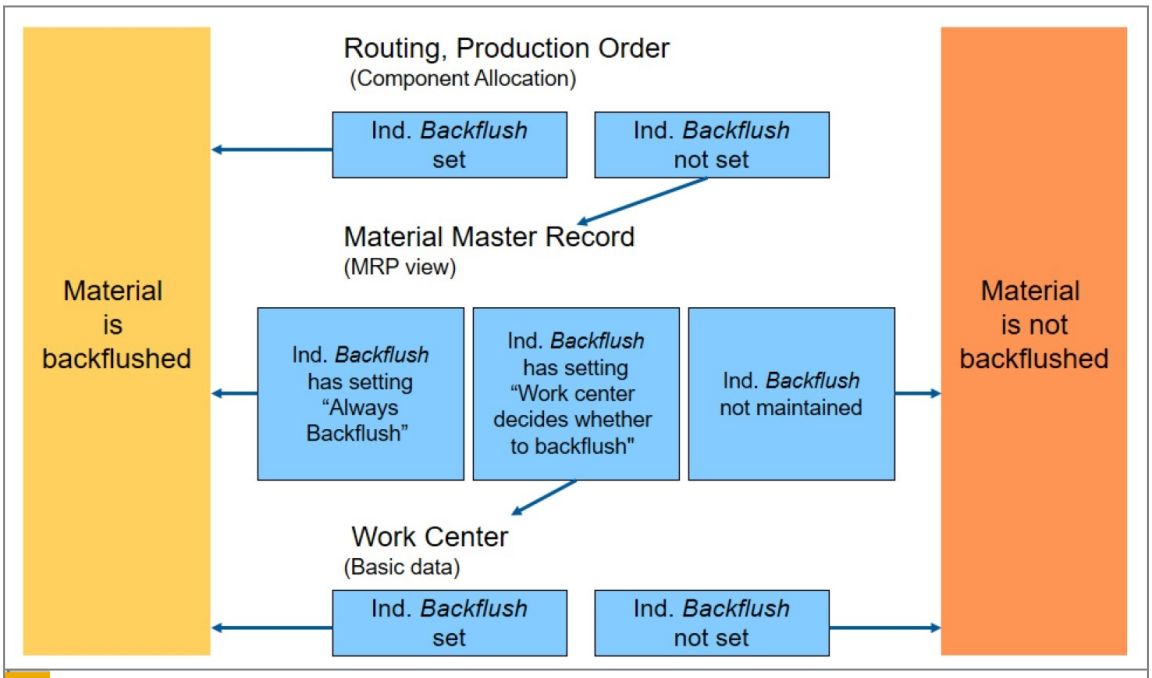

Figure 71: Settings for Backflushing

You can control backflushing in the material master, in the work center or for each BOM component assignment to an operation.

You must rework unsuccessful withdrawal postings (stock = 0).

The stock determination and batch determination functions can be activated when the backflush posting of the material withdrawal is carried out.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Planned and Unplanned Goods Issues

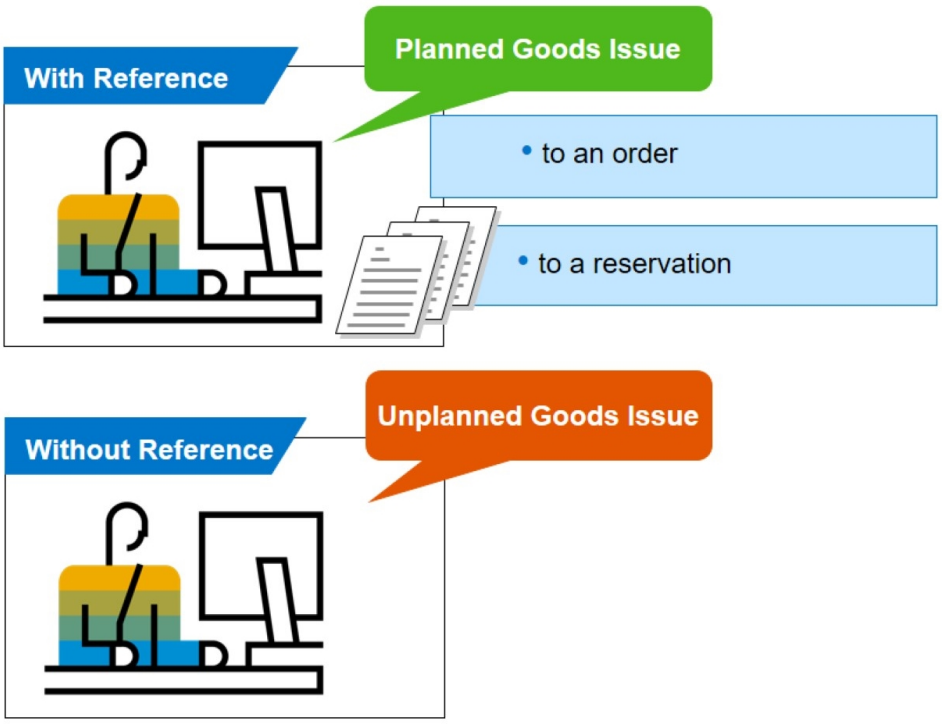

Figure 72: Planned and Unplanned Goods Issues

Planned goods issue postings are made with reference to reservations.

Unplanned material withdrawals cause actual costs in the production order. They are not copied to the component overview of the production order, but can be evaluated in the list of the documented goods movements in the order information system.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Effects of Goods Issue Postings

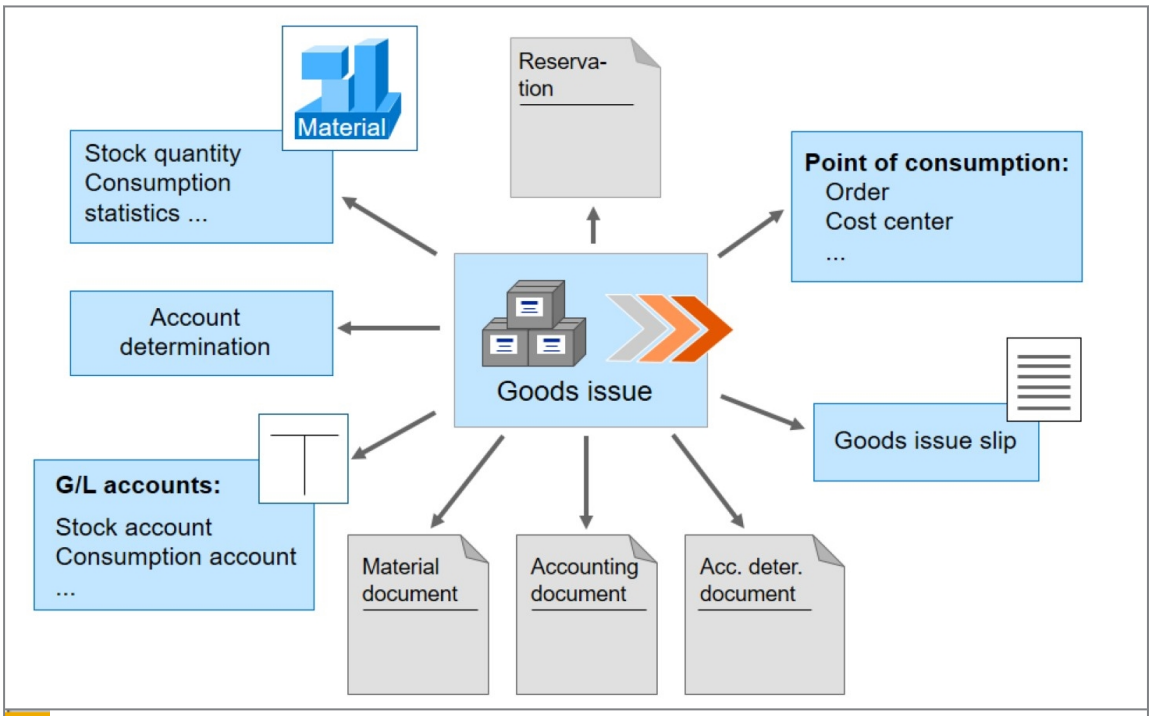

Figure 73: Effects of Goods Issue Postings

Various functions are executed when a goods issue is posted:

- Stock and consumption fields are updated for the storage location.
- Reservations are reduced.
- Actual costs are determined (evaluation) and the order is updated.
- Material, accounting and controlling documents are generated.

  The material document describes the goods movement from the materials management (stock) point of view.

  The accounting document describes the goods movement from the financial accounting point of view.

  The cost accounting documents are used for various cost analysis purposes.
- You can print a goods issue document.

The Goods issue posting is controlled using a movement type (261), to which each posting refers.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Negative Stocks and Postprocessing

Figure 74: Negative Stocks and Postprocessing

If, for organizational reasons, goods issues are posted before the corresponding goods receipts, but the material already physically exists in the storage location, you can choose between the following procedures:

- Postprocess the error records from automatic goods movements
- Allow negative stocks
- Use Stock determination

Negative stocks are possible in inventory management. When you are working with negative stocks, you must make sure that you have no negative stocks on the balance sheet key date and at the time of taking physical inventory. When you run the month end closing program, there must be no negative stocks from the previous month.

You set the indicator determining the permissibility of negative stocks in the material master.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Post Goods Issues with the Goods Movements App and with the Picking List

Business Scenario

In this scenario, we assume that all material components are already available at the issue storage location.

You post goods issues for production orders with the goods movement app and with the picking list.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Post Goods Issues with the Goods Movement App

You post goods issues with the goods movement app in different scenarios and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to check the current situation for your product T-FSP1##.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

   Choose *Continue* or *Enter* and check the current situation. Several production orders are displayed for material T-FSP1##.

   Also check the situation for the material components.

   Choose *Show Overview Tree*, and then choose the *Order Report* icon. Confirm an corresponding information message with *Continue*. In the overview tree, you now can navigate to the stock/requirements lists of the components.

   You find corresponding reservations for the material components T-SSP1##, T-SSP2## and T-RSP1##.

2. Display the stock/requirements list for your product T-FSP1##. Note the number of the first production order in the list:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

>

Display the production order.

Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Display Element* icon.

In the *Production Process Order Display: Header* screen, choose the *Assignment* tab and note the number of the reservation:

>

Choose *Components* to navigate to the component overview.

Double-click the item number of the first component T-SSP1## and note the following detailed information:

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

Finally, navigate back to the stock/requirements list.

3. Display the stock/requirements list for material component T-SSP1##.

Note the current stock and the requirements quantity of the first reservation in the list:

MRP element	Receipt/Reqmt	Available Qty
Stock		
OrdRes		

Display details for the first reservation in the list.

Double-click the first reservation. In the *Additional Data for MRP Element* window, note the following information:

Field	Value	
Reservation		
Requirement qty		
ProdOrder		

Don't close the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the stock/requirements list.

4. In the *SAP Fiori Launchpad*, execute the *Post Goods Movement* tile to post a goods issue for material component T-SSP1## *Frame*.

   A new tab will be opened. Choose *Goods Issue* for *Reservation*, and enter the reservation number and the item number 0001:

Goods Issue	Reservation	Reservation number	0001

   Change the proposed quantity from 20 to 11:

Mat. Short Text	Qty in UnE
Frame	11

   Set the *OK* flag and *Check* and *Post* the goods issue.

   Don't close the *Goods Issue* tab.

> Note:
> Don't close the *Goods Issue* tab.

5. *Refresh* the stock/requirements list for material component T-SSP1##.

   Note the current stock and the requirements quantity of the first reservation in the list:

MRP element	Receipt/Reqmt	Available Qty
Stock		
OrdRes		

   Interpret the result.

6. Display the stock/requirements list for your product T-FSP1##.

   Display the first production order and navigate to the component overview.

   For component T-SSP1##, note the following detailed information:

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

   Navigate back to the component overview.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			

Navigate back to the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

7. In the *Goods Issue* tab, post another goods issue for material component T-SSP1## *Frame*.

   Again, choose *Goods Issue* for *Reservation*, and enter the reservation number and the item number 0001:

Goods Issue	Reservation	Reservation number	0001

   Accept the proposed quantity of 9.

   Set the *OK* flag and *Check* and *Post* the goods issue.

   Don't close the *Goods Issue* tab.

> Note:
> Don't close the *Goods Issue* tab.

8. Display and *Refresh* the stock/requirements list for material component T-SSP1##.

   Interpret the result.

9. Display the stock/requirements list for your product T-FSP1##.

   Display the first production order and navigate to the component overview.

   For component T-SSP1##, note the following detailed information:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

Navigate back to the component overview.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			

Navigate back to the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

10. In the *Goods Issue* tab, try to post another goods issue for material component T-SSP1## *Frame*.

    Again, choose *Goods Issue* for *Reservation*, and enter the reservation number and the item number 0001:

Goods Issue	Reservation	Reservation number	0001

A message will be displayed. Is it possible to post goods issues for the reservation?

11. In the *Goods Issue* tab, choose *More* → *Settings* → *Default Values*.

    Set the *Propose All Items* flag and *Adopt* the setting.

    Now try to post another goods issue for material component T-SSP1## *Frame* again.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Enter a quantity of 1.

Set the *OK* flag and *Check* and *Post* the goods issue.

Don't close the *Goods Issue* tab.

> Note:
> Don't close the *Goods Issue* tab.

12. In the stock/requirements list for your product T-FSP1##, display the first production order and navigate to the component overview.

For component T-SSP1##, note the following detailed information:

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

Navigate back to the component overview.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			
>			

Navigate back to the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the stock/requirements list.

13. Now you would be in the situation that you would have to post an unplanned goods issue to the order. You post a goods receipt for a material that is not entered as a component in the order and for which no reservation exists.

    In the *Goods Issue* tab, enter the following header data:

Goods Issue	Other	GI for order 261

    Then enter the following item:

Mat. Short Text	Qty in UnE	SLoc	Order
T-S1##	1	101B (for plant 1010)	Order number

    Set the *OK* flag and *Check* and *Post* the goods issue.

    Close the *Goods Issue* tab.

14. In the stock/requirements list for your product T-FSP1##, display the first production order.

    Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			
>			
>			

    Navigate back.

    Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-S1##		
	T-SSP2##		

    Finally, navigate back to the stock/requirements list.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Task 2: Post Goods Issues with the Picking List

You post goods issues for production orders using the picking list.

1. In the *SAP Fiori Launchpad*, execute the *Pick Components for Production Orders* tile.

   A new tab will be opened. In the initial screen of the *Picking List*, enter the following data:

Field	Value
Profile	000002
Production order	Number of the production order from the previous task

   Choose *Execute*.

   In the *Order Information System: Detail List of Components* screen, note the components still open:

Order	Material	Requirement quantity	Quantity withdrawn
>			
>			

2. Select the components and choose *Picking*.

   In the *Picking List*, select all components and choose *Post* to post the goods issues.

   Refresh the list. The components should have disappeared.

   Navigate back to the initial screen.

   Don't close the initial screen of the picking list.

> Note:
> Don't close the initial screen of the picking list.

3. In the stock/requirements list for your product T-FSP1##, display the first production order and navigate to the component overview.

   For the components T-SSP2## and T-RSP1, note the following detailed information:

Field	Value T-SSP2##	Value T-RSP1##
Requirement Qty		
Committed Qty		

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value T-SSP2##	Value T-RSP1##
Withdrawal Qty		
Final issue		

Navigate back to the component overview.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			
>			
>			
>			
>			

Navigate back. o the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-S1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

4. In the initial screen of the *Picking List*, enter the following data:

Field	Value
Profile	000002

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Production Supervisor	P##

Choose *Execute*.

In the *Order Information System: Detail List of Components* screen, you find all the components for your production orders that are still open:

Select all components and choose *Picking*.

In the *Picking List*, select all components and choose *Post* to post the goods issues.

Refresh the list. All components should have disappeared.

Finally, close the picking list.

5. Display and *Refresh* the stock/requirements lists for the components T-SSP1##, T-SSP2## and T-RSP1##.

   Describe and interpret the result.

   Finally, close the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Post Goods Issues with the Goods Movements App and with the Picking List

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

In this scenario, we assume that all material components are already available at the issue storage location.

You post goods issues for production orders with the goods movement app and with the picking list.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Post Goods Issues with the Goods Movement App

You post goods issues with the goods movement app in different scenarios and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to check the current situation for your product T-FSP1##.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

   Choose *Continue* or *Enter* and check the current situation. Several production orders are displayed for material T-FSP1##.

   Also check the situation for the material components.

   Choose *Show Overview Tree*, and then choose the *Order Report* icon. Confirm an corresponding information message with *Continue*. In the overview tree, you now can navigate to the stock/requirements lists of the components.

   You find corresponding reservations for the material components T-SSP1##, T-SSP2## and T-RSP1##.

   a) For this exercise step no further information is needed.

2. Display the stock/requirements list for your product T-FSP1##. Note the number of the first production order in the list:

© Copyright. All rights reserved.

>

Display the production order.

Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Display Element* icon.

In the *Production Process Order Display: Header* screen, choose the *Assignment* tab and note the number of the reservation:

>

Choose *Components* to navigate to the component overview.

Double-click the item number of the first component T-SSP1## and note the following detailed information:

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

Finally, navigate back to the stock/requirements list.

a) You should find the following detailed information:

Field	Value
Requirement Qty	20
Committed Qty	20
Withdrawal Qty	0
Final issue	

3. Display the stock/requirements list for material component T-SSP1##.

Note the current stock and the requirements quantity of the first reservation in the list:

MRP element	Receipt/Reqmt	Available Qty
Stock		
OrdRes		

Display details for the first reservation in the list.

Double-click the first reservation. In the *Additional Data for MRP Element* window, note the following information:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value	
Reservation		
Requirement qty		
ProdOrder		

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following situation:

MRP element	Receipt/Reqmt	Available Qty
Stock		Current Stock
OrdRes	20–	Current Stock — 20

Field	Value	
Reservation	Reservation number for the first production order	0001
Requirement qty	20	PC
ProdOrder	<Number of the first production order>	

4. In the *SAP Fiori Launchpad*, execute the *Post Goods Movement* tile to post a goods issue for material component T-SSP1## *Frame*.

   A new tab will be opened. Choose *Goods Issue* for *Reservation*, and enter the reservation number and the item number 0001:

Goods Issue	Reservation	Reservation number	0001

   Change the proposed quantity from 20 to 11:

Mat. Short Text	Qty in UnE
Frame	11

   Set the *OK* flag and *Check* and *Post* the goods issue.

   Don't close the *Goods Issue* tab.

> Note:
> Don't close the *Goods Issue* tab.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

a) For this exercise step no further information is needed.

5. *Refresh* the stock/requirements list for material component T-SSP1##.
Note the current stock and the requirements quantity of the first reservation in the list:

MRP element	Receipt/Reqmt	Available Qty
Stock		
OrdRes		

Interpret the result.

a) You should find the following situation:

MRP element	Receipt/Reqmt	Available Qty
Stock		Current Stock = Previous stock –11
OrdRes	9–	Current Stock – 9

The stock and the requirements quantity were reduced accordingly by the goods issue posting.

6. Display the stock/requirements list for your product T-FSP1##.
Display the first production order and navigate to the component overview.

For component T-SSP1##, note the following detailed information:

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

Navigate back to the component overview.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			

Navigate back to the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Transaction	Origin	Total Actual Costs	Total Actual Qty
	T-SSP1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following information:

Field	Value
Requirement Qty	20
Committed Qty	20
Withdrawal Qty	11
Final issue	

Order	Material	Goods mvmt	Mat. Doc.
Order number	T-SSP1##	1 Planned goods issue	Number of material document

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##	0	0
	T-SSP1##	*Actual costs*	11
	T-SSP2##	0	0

7. In the *Goods Issue* tab, post another goods issue for material component T-SSP1## *Frame*.

   Again, choose *Goods Issue* for *Reservation*, and enter the reservation number and the item number 0001:

Goods Issue	Reservation	Reservation number	0001

Accept the proposed quantity of 9.

Set the *OK* flag and *Check* and *Post* the goods issue.

Don't close the *Goods Issue* tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the *Goods Issue* tab.

a) For this exercise step no further information is needed.

8. Display and *Refresh* the stock/requirements list for material component T-SSP1##.
   Interpret the result.
   a) The reservation has disappeared. The stock was reduced accordingly.

9. Display the stock/requirements list for your product T-FSP1##.
   Display the first production order and navigate to the component overview.

   For component T-SSP1##, note the following detailed information:

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

Navigate back to the component overview.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			

Navigate back to the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the stock/requirements list.

a) You should find the following information:

Field	Value
Requirement Qty	20
Committed Qty	20
Withdrawal Qty	20
Final issue	X

Order	Material	Goods mvmt	Mat. Doc.
Order number	T-SSP1##	1 Planned goods issue	Number of material document
			Number of material document

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##	0	0
	T-SSP1##	*Actual costs*	20
	T-SSP2##	0	0

10. In the *Goods Issue* tab, try to post another goods issue for material component T-SSP1## *Frame*.

    Again, choose *Goods Issue* for *Reservation*, and enter the reservation number and the item number 0001:

Goods Issue	Reservation	Reservation number	0001

    A message will be displayed. Is it possible to post goods issues for the reservation?

    a) The following message will be displayed: **`Document does not contain any selectable items.`** Goods issues cannot be posted.

11. In the *Goods Issue* tab, choose *More* → *Settings* → *Default Values*.

    Set the *Propose All Items* flag and *Adopt* the setting.

    Now try to post another goods issue for material component T-SSP1## *Frame* again.

    Enter a quantity of 1.

    Set the *OK* flag and *Check* and *Post* the goods issue.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Don't close the *Goods Issue* tab.

> Note:
> Don't close the *Goods Issue* tab.

a) For this exercise step no further information is needed.

12. In the stock/requirements list for your product T-FSP1##, display the first production order and navigate to the component overview.

For component T-SSP1##, note the following detailed information:

Field	Value
Requirement Qty	
Committed Qty	
Withdrawal Qty	
Final issue	

Navigate back to the component overview.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			
>			

Navigate back to the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

a) You should find the following information:

Field	Value
Requirement Qty	20
Committed Qty	20
Withdrawal Qty	21
Final issue	X

Order	Material	Goods mvmt	Mat. Doc.
Order number	T-SSP1##	1 Planned goods issue	Number of material document
			Number of material document
			Number of material document

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##	0	0
	T-SSP1##	*Actual costs*	21
	T-SSP2##	0	0

13. Now you would be in the situation that you would have to post an unplanned goods issue to the order. You post a goods receipt for a material that is not entered as a component in the order and for which no reservation exists.

In the *Goods Issue* tab, enter the following header data:

Goods Issue	Other	GI for order 261

Then enter the following item:

Mat. Short Text	Qty in UnE	SLoc	Order
T-S1##	1	101B (for plant 1010)	Order number

Set the *OK* flag and *Check* and *Post* the goods issue.

Close the *Goods Issue* tab.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

14. In the stock/requirements list for your product T-FSP1##, display the first production order.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			
>			
>			

Navigate back.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-S1##		
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following information:

Order	Material	Goods mvmt	Mat. Doc.
Order number	T-SSP1##	1 Planned goods issue	Number of material document
			Number of material document
			Number of material document

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Order	Material	Goods mvmt	Mat. Doc.
	T-S1##	2 Unplanned goods issue	Number of material document

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##	0	0
	T-SSP1##	*Actual costs*	21
	T-S1##	*Actual costs*	1
	T-SSP2##	0	0

Task 2: Post Goods Issues with the Picking List

You post goods issues for production orders using the picking list.

1. In the *SAP Fiori Launchpad*, execute the *Pick Components for Production Orders* tile.

   A new tab will be opened. In the initial screen of the *Picking List*, enter the following data:

Field	Value
Profile	000002
Production order	Number of the production order from the previous task

   Choose *Execute*.

   In the *Order Information System: Detail List of Components* screen, note the components still open:

Order	Material	Requirement quantity	Quantity withdrawn
>			
>			

   a) You should find the following open components for your production order:

Order	Material	Requirement quantity	Quantity withdrawn
Order number	T-RSP1##	20	0
	T-SSP2##	40	0

2. Select the components and choose *Picking*.

   In the *Picking List*, select all components and choose *Post* to post the goods issues.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Refresh the list. The components should have disappeared.

Navigate back to the initial screen.

Don't close the initial screen of the picking list.

> Note:
> Don't close the initial screen of the picking list.

a) For this exercise step no further information is needed.

3. In the stock/requirements list for your product T-FSP1##, display the first production order and navigate to the component overview.

   For the components T-SSP2## and T-RSP1, note the following detailed information:

Field	Value T-SSP2##	Value T-RSP1##
Requirement Qty		
Committed Qty		
Withdrawal Qty		
Final issue		

Navigate back to the component overview.

Choose *More* → *Goto* → *Documented Goods Movements* and note the current information:

Order	Material	Goods mvmt	Mat. Doc.
>			
>			
>			
>			
>			
>			

Navigate back. o the component overview.

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##		
	T-SSP1##		
	T-S1##		

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Transaction	Origin	Total Actual Costs	Total Actual Qty
	T-SSP2##		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following information:

Field	Value T-SSP2##	Value T-RSP1##
Requirement Qty	40	20
Committed Qty	40	20
Withdrawal Qty	40	20
Final issue	X	X

Order	Material	Goods mvmt	Mat. Doc.
Order number	T-RSP1##	1 Planned goods issue	Number of material document
	T-SSP1##		Number of material document
			Number of material document
			Number of material document
	T-SSP2##		Number of material document
	T-S1##	2 Unplanned goods issue	Number of material document

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Issues	T-RSP1##	*Actual costs*	20
	T-SSP1##	*Actual costs*	21
	T-S1##	*Actual costs*	1
	T-SSP2##	*Actual costs*	40

4. In the initial screen of the *Picking List*, enter the following data:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Profile	000002
Production Supervisor	P##

Choose *Execute*.

In the *Order Information System: Detail List of Components* screen, you find all the components for your production orders that are still open:

Select all components and choose *Picking*.

In the *Picking List*, select all components and choose *Post* to post the goods issues.

Refresh the list. All components should have disappeared.

Finally, close the picking list.

a) For this exercise step no further information is needed.

5. Display and *Refresh* the stock/requirements lists for the components T-SSP1##, T-SSP2## and T-RSP1##.

   Describe and interpret the result.

   Finally, close the stock/requirements list.

   a) All reservations have disappeared. The stocks were reduced accordingly.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Stage Materials with the Pull List

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Issue storage locations in production must be regularly supplied with the quantities of material required in a certain period of time. Corresponding stock transfers from replenishment storage locations must be carried out for this purpose.

You can use the pull list to prepare and carry out these stock transfers.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create a Production Order and Check the Availability of the Components
Create a production order for the semi-finished material T-SSP1## and perform a material availability check.

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for your semi-finished product T-SSP1##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP1##
Production Plant	1010
Order Type	PO##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	10
Basic Dates / Start	choose any date in the near future

   Choose *Enter* to create the order.

   Save the order and note the order number:

© Copyright. All rights reserved.

>

Close the tab.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

   In the *Mange Production Orders* screen, only the production order for material T-SSP1## will be displayed.

3. Click in the line of the production order to get more detailed information.

   In the detail screen, choose *Components* and note the following information on the components:

Material	Quantity	Coverage	Requirement Date/Time	Storage Location
>				
>				
>				

4. Choose *Edit Order* to change the production order.

   A new tab with the title *Production order Change: Header* will be opened.

   Choose the *Material (Check Material Availability)* button.

   The *Availability Check* dialog box will be opened, and the following message will be displayed: Non-Availability of Material for order.

   Display the *Missing Parts List*. What materials are missing?

   Exit the list, save the order and close the tab.

5. *Refresh (F5)* the *Mange Production Orders* screen and choose *Issues*.

   The following message is displayed: **`Components Missing: T-RSP5## + 1 More`**.

   Click on the message to display the missing components. Note the missing components:

Material	Quantity	Coverage	Storage Location
>			
>			

   Finally, choose *SAP (Navigate to Home Page)* to close the app.

Task 2: Perform Stock Transfers using the Pull List

For the production order of your semi-finished product T-SSP1##, you have to perform stock transfers for the components T-RSP5## and T-RSP6## from a replenishment storage location to the issue storage location 101B.

The pull list checks the stock situation at the issue storage location, calculates the quantities of missing parts, and creates replenishment elements for these missing parts.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

1. In the *SAP Fiori Launchpad*, execute the *Stock (Single Material)* tile to check the stocks of your material components T-RSP5##, T-RSP6##, and T-SSP3##.

   In the *Stock - Single Material* screen, enter the material numbers in the field *Material*.

   Note the actual situation for each material in the following tables:

   T-RSP5##

Plant	Storage Location	Unrestricted-Use Stock
>		
>		
>		

   T-RSP6##

Plant	Storage Location	Unrestricted-Use Stock
>		
>		
>		

   T-SSP3##

Plant	Storage Location	Unrestricted-Use Stock
>		
>		

   For which materials do you have to post a stock transfer to the issue storage location 101B? Which storage location could be used as replenishment storage location?

   Finally, choose *SAP (Navigate to Home Page)* to close the app.

2. In the *SAP Fiori Launchpad*, execute the *Stage Materials for Production* tile to post stock transfers for the components T-RSP5## and T-RSP6##.

   A new tab will be opened. Enter the following data:

Field	Value
SLoc Level	X
Plant	1010
Selection Horizon for Reqmts	> Requirements date as noted before

   Now choose the *Production/Process Orders* view.

   In the *Components* subscreen, choose the *Multiple selection* icon for the *Material* field.

   In the *Select Single Values* view, enter the following data:

Single Value
T-RSP5##

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Single Value
T-RSP6##

Copy the entries.

Choose the button *Global Settings*. In the *Dialog Control*, enter the following data:

Dialog steps	
Automatic	Create replenishment proposals
Automatic	Execute batch/stock determination

Choose *Continue* to close the *Global Settings*.

In the *Material Staging for Production: Production / Process Order* screen, choose *Execute*.

In the following *Pull List: Storage Location Level* screen, you can check the replenishment proposals. Note the replenishment elements in the following table:

RepElm	Material	Issue stor. location	RepLoc	Quantity staged
>				
>				

Select all lines in the subscreen *Replen. Elements* and choose *Stage*

Save the data and close the tab.

3. In the *SAP Fiori Launchpad*, execute the *Stock (Single Material)* tile to check the result of your stock transfers for the material components T-RSP5## and T-RSP6##.

   Are there stocks in storage location 101B?

   Finally, choose *SAP (Navigate to Home Page)* to close the tab.

Task 3: Check the Availability of the Components

Display your production order for the semi-finished material T-SSP1## and perform a material availability check again.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

   Only the production order for material T-SSP1## will be displayed.

   Note the component issue.

2. Select the order and choose *Edit* to change the production order.

   A new tab with the title *Production order Change: Header* will be opened.

   Choose the *Material (Check Material Availability)* button.

   The following message will be displayed: All checked materials in order are available.

   Save the order and close the tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

3. *Refresh (F5)* the *Mange Production Orders* screen.

   The component issue is no longer displayed.

   Click in the line of the production order to get more detailed information.

   In the detail screen, choose *Components* and note the following information on the components:

Material	Quantity	Coverage	Requirement Date/Time	Storage Location
>				
>				
>				

   Finally, choose *Home* to close the app.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Stage Materials with the Pull List

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Issue storage locations in production must be regularly supplied with the quantities of material required in a certain period of time. Corresponding stock transfers from replenishment storage locations must be carried out for this purpose.

You can use the pull list to prepare and carry out these stock transfers.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create a Production Order and Check the Availability of the Components
Create a production order for the semi-finished material T-SSP1## and perform a material availability check.

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for your semi-finished product T-SSP1##.

   A new tab with the title *Production Order Create: Initial Screen* will be opened.

   Enter the following data in the initial screen:

Field	Value
Material	T-SSP1##
Production Plant	1010
Order Type	PO##

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	10
Basic Dates / Start	choose any date in the near future

   Choose *Enter* to create the order.

   Save the order and note the order number:

© Copyright. All rights reserved.

>

Close the tab.

a) When you save the order, the order number is displayed in a message at the bottom of the screen.

2. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

   In the *Mange Production Orders* screen, only the production order for material T-SSP1## will be displayed.

   a) For this exercise step no further information is needed.

3. Click in the line of the production order to get more detailed information.

   In the detail screen, choose *Components* and note the following information on the components:

Material	Quantity	Coverage	Requirement Date/Time	Storage Location
>				
>				
>				

   a) You find the following information:

Material	Quantity	Coverage	Requirement Date/Time	Storage Location
T-RSP5##	10 PC	10 PC Uncovered	Requ. date	101B
T-RSP6##	10 PC	10 PC Uncovered	Requ. date	101B
T-SSP3##	1000 L	1000 L Uncovered	Requ. date	101B

4. Choose *Edit Order* to change the production order.

   A new tab with the title *Production order Change: Header* will be opened.

   Choose the *Material (Check Material Availability)* button.

   The *Availability Check* dialog box will be opened, and the following message will be displayed: Non-Availability of Material for order.

   Display the *Missing Parts List*. What materials are missing?

   Exit the list, save the order and close the tab.

   a) The material components T-RSP5## and T-RSP6## are missing in storage location 101B.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

5. *Refresh (F5)* the *Mange Production Orders* screen and choose *Issues*.

   The following message is displayed: **`Components Missing: T-RSP5## + 1 More`**.

   Click on the message to display the missing components. Note the missing components:

Material	Quantity	Coverage	Storage Location
>			
>			

   Finally, choose *SAP (Navigate to Home Page)* to close the app.

   a) You find the following missing components:

Material	Quantity	Coverage	Storage Location
T-RSP5##	10 PC	10 PC Uncovered	101B
T-RSP6##	10 PC	10 PC Uncovered	101B

Task 2: Perform Stock Transfers using the Pull List

For the production order of your semi-finished product T-SSP1##, you have to perform stock transfers for the components T-RSP5## and T-RSP6## from a replenishment storage location to the issue storage location 101B.

The pull list checks the stock situation at the issue storage location, calculates the quantities of missing parts, and creates replenishment elements for these missing parts.

1. In the *SAP Fiori Launchpad*, execute the *Stock (Single Material)* tile to check the stocks of your material components T-RSP5##, T-RSP6##, and T-SSP3##.

   In the *Stock - Single Material* screen, enter the material numbers in the field *Material*.

   Note the actual situation for each material in the following tables:

   T-RSP5##

Plant	Storage Location	Unrestricted-Use Stock
>		
>		
>		

   T-RSP6##

Plant	Storage Location	Unrestricted-Use Stock
>		
>		
>		

   T-SSP3##

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Plant	Storage Location	Unrestricted-Use Stock
>		
>		

For which materials do you have to post a stock transfer to the issue storage location 101B? Which storage location could be used as replenishment storage location?

Finally, choose *SAP (Navigate to Home Page)* to close the app.

a) You should find the following stocks:

T-RSP5##

Plant	Storage Location	Unrestricted-Use Stock
1010		100
	101B	0
	101C	100

T-RSP6##

Plant	Storage Location	Unrestricted-Use Stock
1010		100
	101B	0
	101C	100

T-SSP3##

Plant	Storage Location	Unrestricted-Use Stock
1010		100
	101B	100

Stock transfers to issue storage location 101B have to be posted for the materials T-RSP5## and T-RSP6##. Storage location 101C can be used as replenishment storage location.

2. In the *SAP Fiori Launchpad*, execute the *Stage Materials for Production* tile to post stock transfers for the components T-RSP5## and T-RSP6##.

A new tab will be opened. Enter the following data:

Field	Value
SLoc Level	X
Plant	1010
Selection Horizon for Reqmts	> Requirements date as noted before

Now choose the *Production/Process Orders* view.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the *Components* subscreen, choose the *Multiple selection* icon for the *Material* field.

In the *Select Single Values* view, enter the following data:

Single Value
T-RSP5##
T-RSP6##

Copy the entries.

Choose the button *Global Settings*. In the *Dialog Control*, enter the following data:

Dialog steps	
Automatic	Create replenishment proposals
Automatic	Execute batch/stock determination

Choose *Continue* to close the *Global Settings*.

In the *Material Staging for Production: Production / Process Order* screen, choose *Execute*.

In the following *Pull List: Storage Location Level* screen, you can check the replenishment proposals. Note the replenishment elements in the following table:

RepElm	Material	Issue stor. location	RepLoc	Quantity staged
>				
>				

Select all lines in the subscreen *Replen. Elements* and choose *Stage*

Save the data and close the tab.

a) In the pull list, you should find the following replenishment elements.

RepElm	Material	Issue stor. location	RepLoc	Quantity staged
StkTrn	T-RSP5##	101B	101C	10
StkTrn	T-RSP6##	101B	101C	10

3. In the *SAP Fiori Launchpad*, execute the *Stock (Single Material)* tile to check the result of your stock transfers for the material components T-RSP5## and T-RSP6##.

   Are there stocks in storage location 101B?

   Finally, choose *SAP (Navigate to Home Page)* to close the tab.

   a) As a result of the stock transfers with the pull list, there are stocks in storage location 101B.

      You should find the following stocks:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

T-RSP5##

Plant	Storage Location	Unrestricted-Use Stock
1010		100
	101B	10
	101C	90

T-RSP6##

Plant	Storage Location	Unrestricted-Use Stock
1010		100
	101B	10
	101C	90

Task 3: Check the Availability of the Components

Display your production order for the semi-finished material T-SSP1## and perform a material availability check again.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

   Only the production order for material T-SSP1## will be displayed.

   Note the component issue.

   a) For this exercise step no further information is needed.

2. Select the order and choose *Edit* to change the production order.

   A new tab with the title *Production order Change: Header* will be opened.

   Choose the *Material (Check Material Availability)* button.

   The following message will be displayed: All checked materials in order are available.

   Save the order and close the tab.

   a) For this exercise step no further information is needed.

3. *Refresh (F5)* the *Mange Production Orders* screen.

   The component issue is no longer displayed.

   Click in the line of the production order to get more detailed information.

   In the detail screen, choose *Components* and note the following information on the components:

Material	Quantity	Coverage	Requirement Date/Time	Storage Location
>				
>				

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Material	Quantity	Coverage	Requirement Date/Time	Storage Location
>				

Finally, choose *Home* to close the app.

a) You find the following information:

Material	Quantity	Coverage	Requirement Date/Time	Storage Location
T-RSP5##	10 PC	10 PC Committed	Requ. date	101B
T-RSP6##	10 PC	10 PC Committed	Requ. date	101B
T-SSP3##	1000 L	1000 L Committed	Requ. date	101B

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Post Goods Issues via Backflushing

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Often you do not want to stage material components for specific orders, but, for example, use the pull list to regularly supply the issue storage locations with the component quantities required in a certain period of time.

In such cases goods issues can be posted automatically via backflushing when an operation or an order is confirmed.

You can define the settings for backflushing in the material master of a component, in a work center, or in the component allocation view of a routing.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Check the Setting for Backflushing in the Material Masters of the Components
For the orders to produce semi-finished material T-SSP1##, the goods issues for the material components should be posted automatically via backflushing.

Check if the material masters of the components are set appropriately.

1. In the *SAP Fiori Launchpad*, execute the *Display Material* tile to check the setting for backflushing for the material components T-RSP5##, T-RSP6## and T-SSP3##.

   A new tab will be opened. Enter the corresponding material number in the initial screen, then choose view MRP 2 for plant 1010.

   In the MRP 2 view, note the following setting for each material:

Field	Value for T-RSP5##	Value for T-RSP6##	Value for T-SSP3##
Backflush			

Task 2: Post the Goods Issues via Backflushing
First check whether the material components of your production order for material T-SSP1## will be backflushed.

Then carry out a confirmation to trigger the backflushing of the components.

Finally, check the result.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

© Copyright. All rights reserved.

Only the production order for material T-SSP1## will be displayed.

2. Click in the line of the production order to get more detailed information.

   In the detail screen, choose *Components* and note the following information on the components:

Material	Open Quantity	Coverage	Backflush
>			
>			
>			

3. Now choose *Order Schedule* and click in the line of the first operation to navigate to the *Manage Production Operations* view.

   Choose *Release* to release the operation, then choose *Confirm Operation*.

   A new tab with the title *Enter Time Ticket for Production Order* will be opened.

   Choose the *Goods Movements* button to check, whether the material components to be backflushed are assigned to the confirmation.

   Are the components T-RSP5##, T-RSP6## and T-SSP3## listed in the *Goods Movement Overview* of the confirmation?

   Post the confirmation.

   The following message should be displayed: Confirmation saved (Goods movements: 3, failed: 0).

   Finally, close the tab.

4. Refresh (F5) the *Manage Production Operations* tab and choose *Components*.

   Note the following information on the components:

Material	Open Quantity	Coverage	Backflush
>			
>			
>			

Finally, choose *Home* to close the app.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Post Goods Issues via Backflushing

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Often you do not want to stage material components for specific orders, but, for example, use the pull list to regularly supply the issue storage locations with the component quantities required in a certain period of time.

In such cases goods issues can be posted automatically via backflushing when an operation or an order is confirmed.

You can define the settings for backflushing in the material master of a component, in a work center, or in the component allocation view of a routing.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Check the Setting for Backflushing in the Material Masters of the Components

For the orders to produce semi-finished material T-SSP1##, the goods issues for the material components should be posted automatically via backflushing.

Check if the material masters of the components are set appropriately.

1. In the *SAP Fiori Launchpad*, execute the *Display Material* tile to check the setting for backflushing for the material components T-RSP5##, T-RSP6## and T-SSP3##.

   A new tab will be opened. Enter the corresponding material number in the initial screen, then choose view MRP 2 for plant 1010.

   In the MRP 2 view, note the following setting for each material:

Field	Value for T-RSP5##	Value for T-RSP6##	Value for T-SSP3##
Backflush			

   a) The setting for the *Backflush* field is as follows.

Field	Value for T-RSP5##	Value for T-RSP6##	Value for T-SSP3##
Backflush	1 Always Back-flush	1 Always Backflush	1 Always Backflush

© Copyright. All rights reserved.

Task 2: Post the Goods Issues via Backflushing

First check whether the material components of your production order for material T-SSP1## will be backflushed.

Then carry out a confirmation to trigger the backflushing of the components.

Finally, check the result.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

   Only the production order for material T-SSP1## will be displayed.

   a) For this exercise step no further information is needed.

2. Click in the line of the production order to get more detailed information.

   In the detail screen, choose *Components* and note the following information on the components:

Material	Open Quantity	Coverage	Backflush
>			
>			
>			

   a) You find the following information:

Material	Open Quantity	Coverage	Backflush
T-RSP5##	10 PC	10 PC Committed	Yes
T-RSP6##	10 PC	10 PC Committed	Yes
T-SSP3##	1000 L	1000 L Committed	Yes

3. Now choose *Order Schedule* and click in the line of the first operation to navigate to the *Manage Production Operations* view.

   Choose *Release* to release the operation, then choose *Confirm Operation*.

   A new tab with the title *Enter Time Ticket for Production Order* will be opened.

   Choose the *Goods Movements* button to check, whether the material components to be backflushed are assigned to the confirmation.

   Are the components T-RSP5##, T-RSP6## and T-SSP3## listed in the *Goods Movement Overview* of the confirmation?

   Post the confirmation.

   The following message should be displayed: Confirmation saved (Goods movements: 3, failed: 0).

   Finally, close the tab.

   a) The components T-RSP5##, T-RSP6## and T-SSP3## should be listed in the *Goods Movement Overview* of the confirmation.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. Refresh (F5) the *Manage Production Operations* tab and choose *Components*.
   Note the following information on the components:

Material	Open Quantity	Coverage	Backflush
>			
>			
>			

   Finally, choose *Home* to close the app.

   a) You find the following information:

Material	Open Quantity	Coverage	Backflash
T-RSP5##	0	10 PC Consumed	Yes
T-RSP6##	0	10 PC Consumed	Yes
T-SSP3##	0	1000 L Consumed	Yes

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Stage Materials with KANBAN

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

You intend to organize material staging more effectively in some areas of production. You decide to use Kanban for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create Master Data for Kanban

You create the master data necessary for Kanban. These are production supply areas and control cycles.

1. With Kanban, material is staged in production supply areas directly in production. Therefore, you have to create production supply areas in the system.

   In the *SAP Fiori Launchpad*, execute the *Production Supply Area* tile to create a production supply area.

   A new tab will be opened. In the *Determine Work Area: Entry* window, enter plant 1010 as work area.

   In the *Change View Supply Area Fast Data Entry: Overview* screen, choose *New Entries* and enter the following data:

Field	Value
Supply Area	PSA##
SLoc	101B
Res	P##
Production Supply Area Name	Production Supply Area ##

   Save your entries and close the tab.

2. The relationships between production supply areas and the supply sources are defined in control cycles. You create a control cycle for the staging of material T-RSP7## *Rim with Spokes* to production supply area PSA##. You define as replenishment strategy a stock transfer from replenishment storage location 101C.

   In the *SAP Fiori Launchpad*, execute the *Manage Kanban Control Cycle* tile to create a control cycle.

   A new tab will be opened. Enter plant 1010 in the *Selection* sub screen, and choose *Edit*.

© Copyright. All rights reserved.

Then choose the *Create Control Cycle* icon.

In the *Create Control Cycle* window, enter the following data:

Field	Value
Classic KANBAN	X
Material	T-RSP7##
Plant	1010
Prodn Supply Area	PSA##

Choose *Continue*.

In the *Kanbans* sub screen, enter the following data:

Field	Value
No. of Containers	5
Container Qty	10

In the *Replenishment Strategy* tab, enter the following data:

Field	Value
Stock transfer	0001
Stor. location	101C

Choose *OK*, then *Save Control Cycle*. Finally, close the tab.

Task 2: Trigger Material Replenishment

Material that is required on a regular basis is kept available in small quantities in production. With Kanban, the replenishment of a material is only triggered when a certain quantity of the material has been consumed. This replenishment is triggered directly by production based on the previously maintained master data.

You trigger the replenishment of material T-RSP7## based on the corresponding control cycle, and you check the results at different times during the Kanban process.

1. Check the actual stock of material T-RSP7##.

   In the *SAP Fiori Launchpad*, execute the *Display Stock Overview* tile to check the actual stock of material T-RSP7##.

   A new tab will be opened. In the initial screen, enter the following data:

Field	Value
Material	T-RSP7##
Plant	1010

   Choose *Execute*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the *Stock Overview: Basic List*, note the current situation:

Plant / Storage Location	Unrestricted use	Reserved
1010		
> 101C		

Don't close the stock overview.

> Note:
> Don't close the stock overview.

2. You can use the Kanban board to monitor and control the replenishment. You control the replenishment process by setting a Kanban to the appropriate status. When the material in a Kanban has been used up, you set the Kanban status to empty which automatically triggers the replenishment process. The source of supply receives the signal to fill up the Kanban. In our business scenario, we use a control cycle with the replenishment strategy *stock transfer with reservations*.

   In the *SAP Fiori Launchpad*, execute the *Display Kanbans: Demand View* tile to display the Kanban board.

   A new tab will be opened. In the initial screen, enter the following data:

Field	Value
Plant	1010
Production Supply Area	PSA##

   Choose *Continue*.

   In the Kanban board, check and note the current situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					
>					
>					
>					

3. Select the line of a Kanban and choose *Set to Empty*.

   Check and note the new situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					
>					

Has the status of the corresponding Kanban been changed?

4. Select the line of the empty Kanban and choose *More* → *Goto* → *Kanban Information* or double-click the empty Kanban.

   In the *Kanban Information* screen, note the following information:

Field	Value
Qty Requested	
Replen. Strategy	
Reservatn	

You can choose *Replenishment* to display the reservation. Then navigate *Back* to the *Kanban Information* screen.

Choose *Continue (Enter)* to close the *Kanban Information* screen.

Don't close the Kanban Board.

> Note:
> Don't close the Kanban Board.

5. Now check the actual stock of material T-RSP7## again.

   In the *Stock Overview* tab, *Refresh* the list and note the current situation:

Plant / Storage Location	Unrestricted use	Reserved	Rcpt reservation
1010			
> 101B			
> 101C			

Don't close the stock overview.

> Note:
> Don't close the stock overview.

6. Find and display the reservation for material T-RSP7## via the reservation list.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *SAP Fiori Launchpad*, execute the *Display Reservation List* tile to display the reservation for material T-RSP7##.

A new tab will be opened. In the initial screen, enter the following data:

Field	Value
Material	T-RSP7##
Plant	1010

Choose *Execute*.

The reservation of your material T-RSP7## is listed.

You can choose *Reservation* to display the reservation.

Finally, close the tab.

7. In the replenishment storage location 101C, a responsible person has filled up the empty container with the requested quantity.

   When you receive the full Kanban at the production supply area, you set the Kanban status to full, which triggers the goods receipt posting for material T-RSP7## into the storage location 101B of the production supply area.

   In the *Kanban Board* tab, select the line of the empty Kanban and choose *Set to Full*.

   Check and note the new situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					
>					
>					
>					

   Has the status of the corresponding Kanban been changed?

8. Select the line of the full Kanban and choose *More* → *Goto* → *Kanban Information* or double-click the full Kanban.

   In the *Kanban Information* screen, note the following information:

Field	Value
Actual Quantity	
GR Quantity	

   Choose *Replenishment* to display the reservation, and note the following information:

Field	Value
Withdrawal QTY	

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Item Completed	

Navigate *Back* to the *Kanban Information* screen.

Choose *Continue (Enter)* to close the *Kanban Information* screen.

Finally, close the *Kanban Board* tab.

9. Finally, display the actual stock of material T-RSP7## again to check the result of the goods receipt posting triggered by the Kanban process.

   In the *Stock Overview* tab, *Refresh* the list and note the current situation:

Plant / Storage Location	Unrestricted use	Reserved
1010		
> 101B		
> 101C		

Describe the result of the goods receipt posting triggered by the Kanban process.

Finally, close the *Stock Overview* tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Stage Materials with KANBAN

Business Scenario

You intend to organize material staging more effectively in some areas of production. You decide to use Kanban for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Create Master Data for Kanban

You create the master data necessary for Kanban. These are production supply areas and control cycles.

1. With Kanban, material is staged in production supply areas directly in production. Therefore, you have to create production supply areas in the system.

   In the *SAP Fiori Launchpad*, execute the *Production Supply Area* tile to create a production supply area.

   A new tab will be opened. In the *Determine Work Area: Entry* window, enter plant 1010 as work area.

   In the *Change View Supply Area Fast Data Entry: Overview* screen, choose *New Entries* and enter the following data:

Field	Value
Supply Area	PSA##
SLoc	101B
Res	P##
Production Supply Area Name	Production Supply Area ##

   Save your entries and close the tab.

   a) For this exercise step no further information is needed.

2. The relationships between production supply areas and the supply sources are defined in control cycles. You create a control cycle for the staging of material T-RSP7## *Rim with Spokes* to production supply area PSA##. You define as replenishment strategy a stock transfer from replenishment storage location 101C.

   In the *SAP Fiori Launchpad*, execute the *Manage Kanban Control Cycle* tile to create a control cycle.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

A new tab will be opened. Enter plant 1010 in the *Selection* sub screen, and choose *Edit*.

Then choose the *Create Control Cycle* icon.

In the *Create Control Cycle* window, enter the following data:

Field	Value
Classic KANBAN	X
Material	T-RSP7##
Plant	1010
Prodn Supply Area	PSA##

Choose *Continue*.

In the *Kanbans* sub screen, enter the following data:

Field	Value
No. of Containers	5
Container Qty	10

In the *Replenishment Strategy* tab, enter the following data:

Field	Value
Stock transfer	0001
Stor. location	101C

Choose *OK*, then *Save Control Cycle*. Finally, close the tab.

a) For this exercise step no further information is needed.

Task 2: Trigger Material Replenishment

Material that is required on a regular basis is kept available in small quantities in production. With Kanban, the replenishment of a material is only triggered when a certain quantity of the material has been consumed. This replenishment is triggered directly by production based on the previously maintained master data.

You trigger the replenishment of material T-RSP7## based on the corresponding control cycle, and you check the results at different times during the Kanban process.

1. Check the actual stock of material T-RSP7##.

   In the *SAP Fiori Launchpad*, execute the *Display Stock Overview* tile to check the actual stock of material T-RSP7##.

   A new tab will be opened. In the initial screen, enter the following data:

Field	Value
Material	T-RSP7##

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Plant	1010

Choose *Execute*.

In the *Stock Overview: Basic List*, note the current situation:

Plant / Storage Location	Unrestricted use	Reserved
1010		
> 101C		

Don't close the stock overview.

> Note:
> Don't close the stock overview.

a) You should find the following situation:

Plant / Storage Location	Unrestricted use	Reserved
1010	2000	
> 101C	2000	

2. You can use the Kanban board to monitor and control the replenishment. You control the replenishment process by setting a Kanban to the appropriate status. When the material in a Kanban has been used up, you set the Kanban status to empty which automatically triggers the replenishment process. The source of supply receives the signal to fill up the Kanban. In our business scenario, we use a control cycle with the replenishment strategy *stock transfer with reservations*.

   In the *SAP Fiori Launchpad*, execute the *Display Kanbans: Demand View* tile to display the Kanban board.

   A new tab will be opened. In the initial screen, enter the following data:

Field	Value
Plant	1010
Production Supply Area	PSA##

Choose *Continue*.

In the Kanban board, check and note the current situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					
>					

a) You should find the following situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
Number	T-RSP7##	PSA##	10	Number	WAIT
			10	Number	WAIT
			10	Number	WAIT
			10	Number	WAIT
			10	Number	WAIT

3. Select the line of a Kanban and choose *Set to Empty*.
   Check and note the new situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					
>					
>					
>					

Has the status of the corresponding Kanban been changed?

a) You should find the following situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
Number	T-RSP7##	PSA##	10	Number	WAIT
			10	Number	WAIT
			10	Number	WAIT
			10	Number	WAIT
			10	Number	EMPTY

b) The corresponding Kanban has the new status **EMPTY**.

4. Select the line of the empty Kanban and choose *More* → *Goto* → *Kanban Information* or double-click the empty Kanban.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *Kanban Information* screen, note the following information:

Field	Value
Qty Requested	
Replen. Strategy	
Reservatn	

You can choose *Replenishment* to display the reservation. Then navigate *Back* to the *Kanban Information* screen.

Choose *Continue (Enter)* to close the *Kanban Information* screen.

Don't close the Kanban Board.

> Note:
> Don't close the Kanban Board.

a) You should find the following information:

Field	Value
Qty Requested	10
Replen. Strategy	Stock transfer with reservation
Reservatn	Reservation number

5. Now check the actual stock of material T-RSP7## again.
   In the *Stock Overview* tab, *Refresh* the list and note the current situation:

Plant / Storage Location	Unrestricted use	Reserved	Rcpt reservation
1010			
> 101B			
> 101C			

Don't close the stock overview.

> Note:
> Don't close the stock overview.

a) You should find the following situation:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Plant / Storage Location	Unrestricted use	Reserved	Rcpt reservation
1010	2000	10	10
> 101B			10
> 101C	2000	10	

6. Find and display the reservation for material T-RSP7## via the reservation list.

   In the *SAP Fiori Launchpad*, execute the *Display Reservation List* tile to display the reservation for material T-RSP7##.

   A new tab will be opened. In the initial screen, enter the following data:

Field	Value
Material	T-RSP7##
Plant	1010

   Choose *Execute*.

   The reservation of your material T-RSP7## is listed.

   You can choose *Reservation* to display the reservation.

   Finally, close the tab.

   a) For this exercise step no further information is needed.

7. In the replenishment storage location 101C, a responsible person has filled up the empty container with the requested quantity.

   When you receive the full Kanban at the production supply area, you set the Kanban status to full, which triggers the goods receipt posting for material T-RSP7## into the storage location 101B of the production supply area.

   In the *Kanban Board* tab, select the line of the empty Kanban and choose *Set to Full*.

   Check and note the new situation:

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
>					
>					
>					
>					
>					

   Has the status of the corresponding Kanban been changed?

   a) You should find the following new situation:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

CntCycle	Material	SupplyArea	Cntnr Qty	Kanban ID	Status
Number	T-RSP7##	PSA##	10	Number	WAIT
			10	Number	WAIT
			10	Number	WAIT
			10	Number	WAIT
			10	Number	FULL

The corresponding Kanban has the new status FULL.

8. Select the line of the full Kanban and choose *More* → *Goto* → *Kanban Information* or double-click the full Kanban.

   In the *Kanban Information* screen, note the following information:

Field	Value
Actual Quantity	
GR Quantity	

   Choose *Replenishment* to display the reservation, and note the following information:

Field	Value
Withdrawal QTY	
Item Completed	

   Navigate *Back* to the *Kanban Information* screen.

   Choose *Continue (Enter)* to close the *Kanban Information* screen.

   Finally, close the *Kanban Board* tab.

   a) You should find the following information:

Field	Value
Actual Quantity	10
GR Quantity	10

Field	Value
Withdrawal QTY	10
Item Completed	X

9. Finally, display the actual stock of material T-RSP7## again to check the result of the goods receipt posting triggered by the Kanban process.

   In the *Stock Overview* tab, *Refresh* the list and note the current situation:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Plant / Storage Location	Unrestricted use	Reserved
1010		
> 101B		
> 101C		

Describe the result of the goods receipt posting triggered by the Kanban process.

Finally, close the *Stock Overview* tab.

a) You should find the following situation:

Plant / Storage Location	Unrestricted use	Reserved
1010	2000	
> 101B	10	
> 101C	1990	

A stock transfer from storage location 101C to storage location 101B has been posted.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Describe the options of material staging and post goods issues in different scenarios

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Unit 5
Lesson 2

Confirming Production Orders

LESSON OBJECTIVES
After completing this lesson, you will be able to:

- Post confirmations for production orders in different scenarios

Confirmations

Confirmations are the premise for progress control and the basis for entering internal activities performed for the order. For this reason, confirmations should be carried out as prompt and efficient as possible.

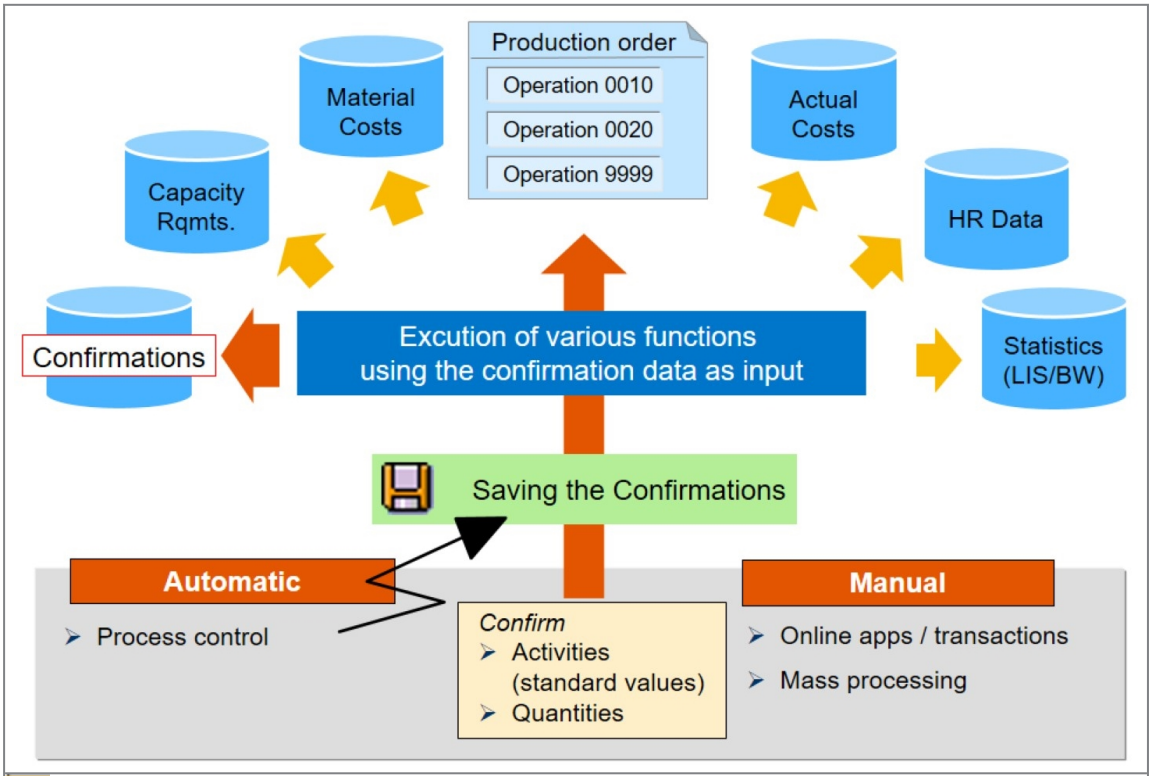

Figure 75: Confirmation - Overview

A confirmation can cause various additional functions to be executed. Confirmations from process control systems are possible using various interfaces.

You can confirm individual operations or entire orders. Due to the different requirements that arise in practice, SAP provides several confirmation apps and transactions. Also, mass processing can also be used to confirm operations and orders.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Confirmation - Options

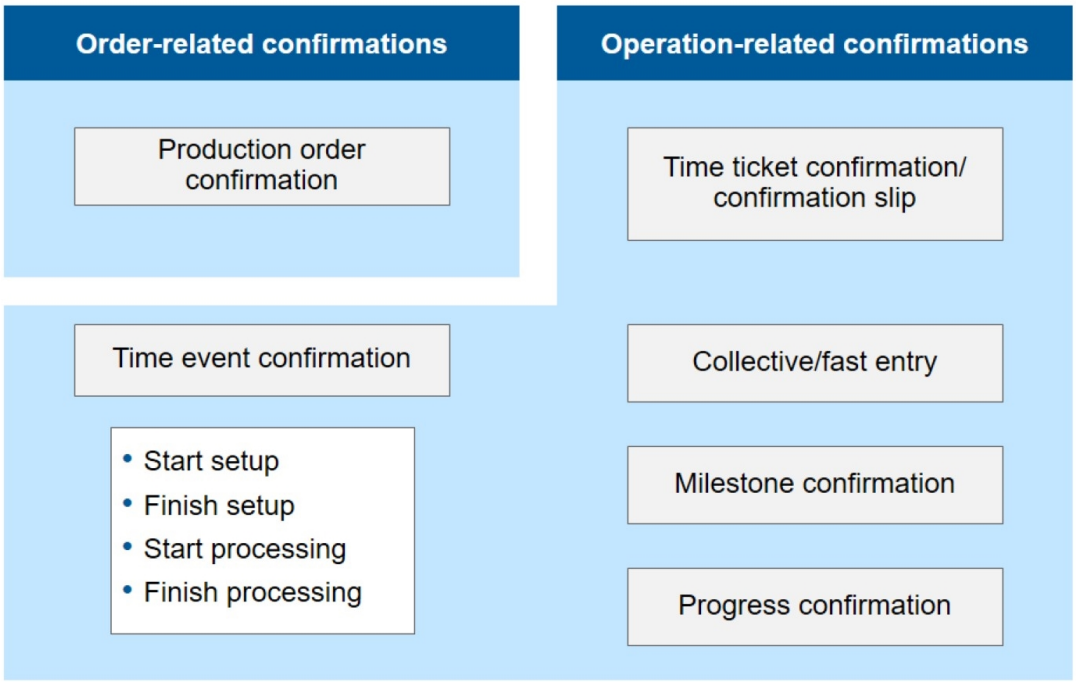

Figure 76: Confirmation - Options

The Order confirmation is a confirmation of the entire order at order header level.

An operation confirmation allows you to confirm an order step by step. Various procedures are available for this type of confirmation.

You can only post an order confirmation if no operation confirmations have already been entered and vice versa.

Each confirmation is entered with a confirmations type (partial confirmation, final confirmation, automatic final confirmation). Corresponding statuses are updated in the operations and in the order header.

A confirmation can trigger automatic goods receipts and backflushing of components. A goods movements overview enables you to correct automatic goods movements or to enter unplanned goods movements.

There are Business Application Interfaces (BAPI) available that can be used to enhance the standard confirmations.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Confirmations – Prerequisites

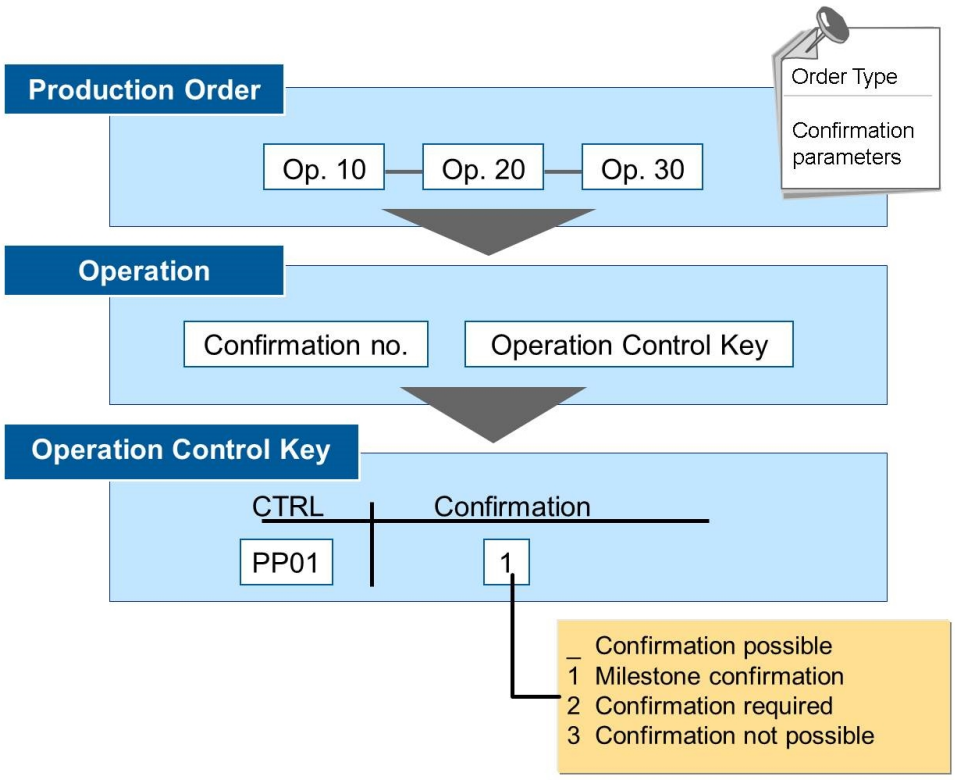

Figure 77: Confirmations – Prerequisites

Confirmations are controlled by confirmation parameters defined in Customizing.

Each operation is automatically given a confirmation number when the order is created. You can then uniquely identify a confirmation without having to enter any further data.

The operation control key defines whether the operation requires a confirmation. An operation can be marked as a milestone. This means that when the milestone operation is confirmed, the operations that precede it are also confirmed with proportional quantities.

An operation that is to be confirmed must be released.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Time Ticket Confirmation

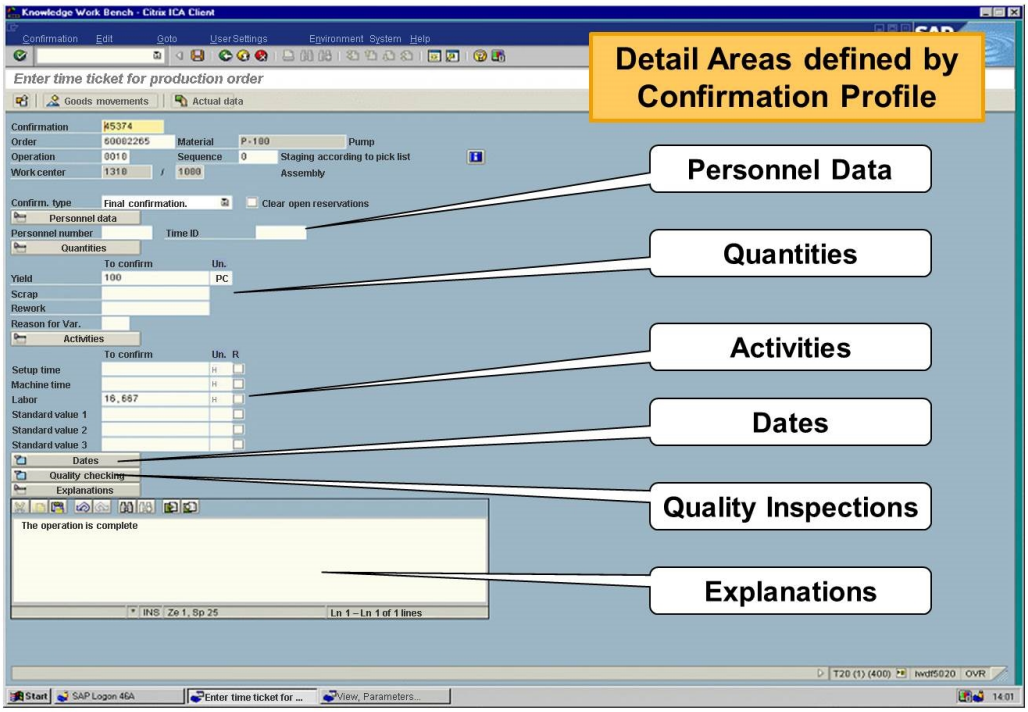

Figure 78: Time Ticket Confirmation

The layout of time ticket confirmations can be individually defined via confirmation profiles. Confirmation profiles are maintained in Customizing and allow the individual assignment of detail areas with predefined field groups. The customer enhancement CONFPP07 allows you to introduce your own fields in up to 3 field groups.

A confirmation profile can be defined as the standard profile or assigned to a user using the parameter CORUPROF.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Effects of a Confirmation

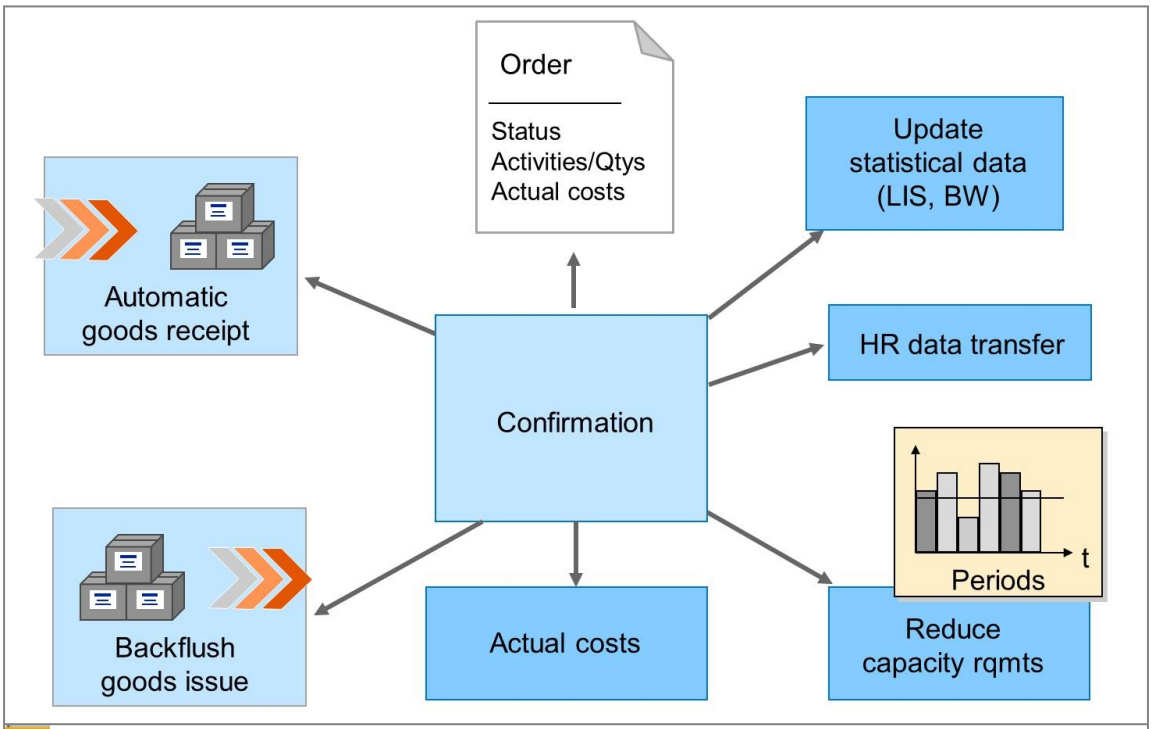

Figure 79: Effects of a Confirmation

Subsequent functions are executed with the confirmations:

- The order and operation statuses are updated.
- The confirmed quantities and activities, dates and times are written to the production order.
- Actual costs are calculated for the production order.
- Automatic goods issues (backflushing) and automatic goods receipt can be posted.
- Capacity reduction is carried for the confirmed operations.
- If a scrap or rework quantity is confirmed, a quality notification can be generated.
- Confirmed actual data can be transferred to the HR module.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Determining the Yield

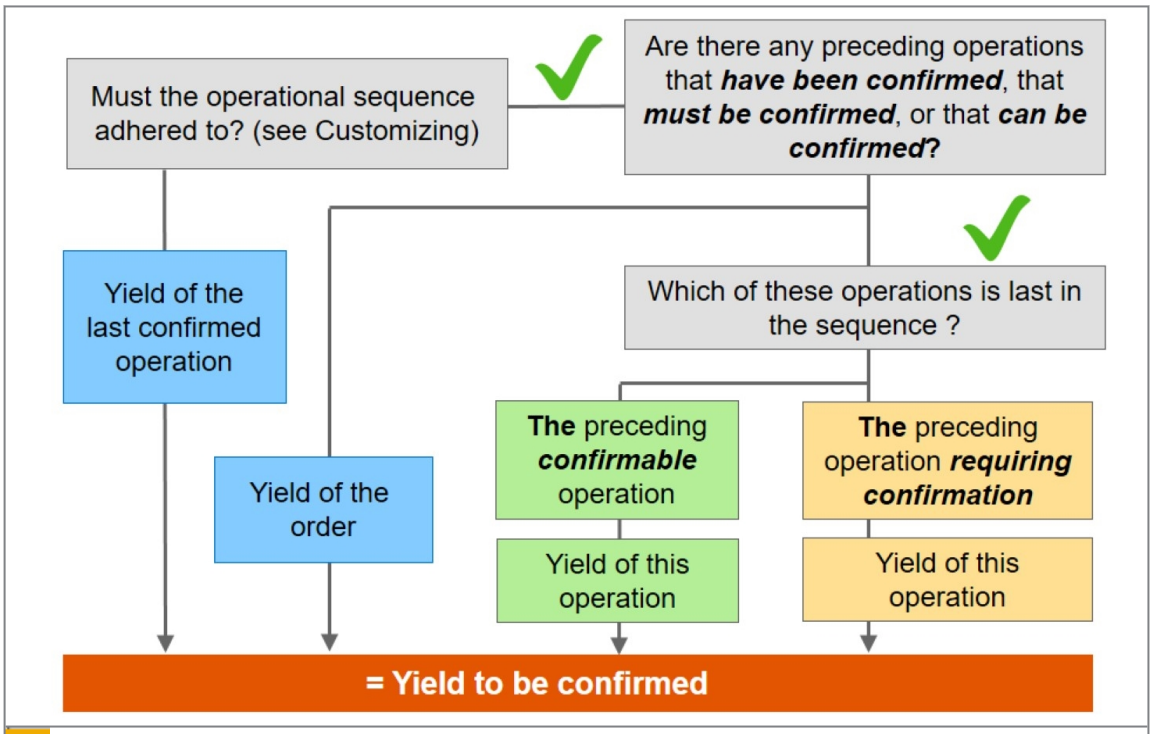

Figure 80: Determining the Yield

In order to facilitate the confirmation, you can allow the system to propose the yield to be confirmed. For this purpose, you must specify in the confirmation parameters in Customizing whether the operational sequence should be adhered to. The system takes several factors into account when determining the yield. Rework operations are subject to special treatment (see documentation).

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Determining the Remaining Capacity Requirements

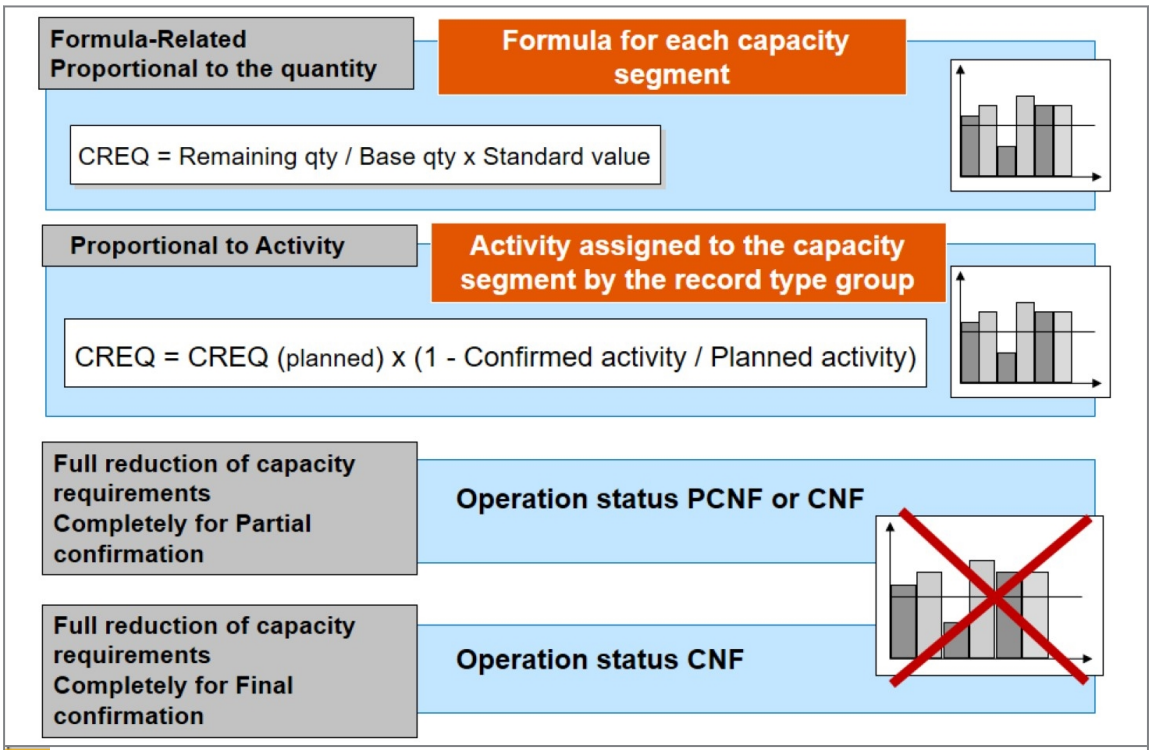

Figure 81: Determining the Remaining Capacity Requirements

The *Control capacity reduction* field is provided in the *Capacities* tab of a work center for each of the three capacity segments (setup, processing, tear down). It controls how, after partial confirmations, the remaining capacity requirement is calculated. It can be set up as shown in the figure above.

For orders that are planned in Advanced Planning, the setting has no effect on the capacity reduction in Advanced Planning.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Check the Customizing Settings for Confirmations

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

In Customizing, you check the confirmation parameters for your order type and a confirmation profile for time ticket confirmations.

> Note:
> To successfully perform this exercise, it is required, that at least Task 1 in the exercise **Analyze and Test a User Status Profile**, is done.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Check the Confirmation Parameters for your Order Type

In the Customizing environment of the back end system, check the confirmation parameters for your order type PO## in plant 1010. You already created these parameters in the exercise: Analyze and Test a User Status Profile, Task 1, step 5.

1. Choose transaction `SPRO` and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Confirmation → Define Conformation Parameters:

   Select the following line:

Plant	Type
1010	PO##

   Choose the *Details* icon to display the confirmation parameters in detail.

   Get an overview of the settings on the various tabs.

   Finally, exit the confirmation parameters.

Task 2: Check a Confirmation Profile for Time Tickets Confirmations

In the Customizing environment of the back end system, check a confirmation profile for time ticket confirmations.

© Copyright. All rights reserved.

1. In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Confirmation → Single Screen Entry → Define Single Screen Entry for Confirming Production Orders.

   In the *Single Screen Entry of Confirmation: Overview* screen, select confirmation profile *YBPR01* and choose the *Details* icon.

   In the *Single Screen Entry of Confirmation: Details* screen, in the tab *Area Selection*, get an overview of the possible entries in the *Header area* field and in the *Area* fields of the *Detail areas*.

   Also, get an overview of the entries in the *Default* tab.

   Choose the *Preview* button to preview the layout for the corresponding time ticket confirmation.

   Finally, exit the single screen entry.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Check the Customizing Settings for Confirmations

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

In Customizing, you check the confirmation parameters for your order type and a confirmation profile for time ticket confirmations.

> Note:
> To successfully perform this exercise, it is required, that at least Task 1 in the exercise **Analyze and Test a User Status Profile**, is done.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Check the Confirmation Parameters for your Order Type

In the Customizing environment of the back end system, check the confirmation parameters for your order type PO## in plant 1010. You already created these parameters in the exercise: Analyze and Test a User Status Profile, Task 1, step 5.

1. Choose transaction `SPRO` and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Confirmation → Define Conformation Parameters:

   Select the following line:

Plant	Type
1010	PO##

   Choose the *Details* icon to display the confirmation parameters in detail.

   Get an overview of the settings on the various tabs.

   Finally, exit the confirmation parameters.

   a) For this exercise step no further information is needed.

Task 2: Check a Confirmation Profile for Time Tickets Confirmations

In the Customizing environment of the back end system, check a confirmation profile for time ticket confirmations.

© Copyright. All rights reserved.

1. In the *Display IMG* screen, choose the following menu path:

   Production → Shop Floor Control → Operations → Confirmation → Single Screen Entry → Define Single Screen Entry for Confirming Production Orders.

   In the *Single Screen Entry of Confirmation: Overview* screen, select confirmation profile *YBPR01* and choose the *Details* icon.

   In the *Single Screen Entry of Confirmation: Details* screen, in the tab *Area Selection*, get an overview of the possible entries in the *Header area* field and in the *Area* fields of the *Detail areas*.

   Also, get an overview of the entries in the *Default* tab.

   Choose the *Preview* button to preview the layout for the corresponding time ticket confirmation.

   Finally, exit the single screen entry.

   a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Confirm Operations and Production Orders

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Confirmations are the premise for progress control and the basis for entering internal activities performed for the order. For this reason, confirmations should be carried out as promptly and efficiently as possible.

You can confirm individual operations or entire orders.

Due to the different requirements that arise in practice, SAP provides several confirmation apps and transactions.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Perform Time Ticket Confirmations

You perform time ticket confirmations for an operation and check the result.

1. First, you must be sure that all production orders have been released for production supervisor P##.

   In the *SAP Fiori Launchpad*, execute the *Schedule Order Release Runs* tile to schedule an order release run.

   In the *Application Jobs* screen, choose *Create*.

   > Hint:
   > You could also copy the job that you executed in a previous exercise.

   In the *New Job* screen, enter the following data in three consecutive steps.

Field	Value
Job Template	Release Order at Scheduled Release Date
Job Name	P## Order Release
Start Immediately	X
Recurrence Pattern	Single Run
Production Plant	1010
Production Supervisor	P##

© Copyright. All rights reserved.

Field	Value
for all Dates	Delete all conditions

Choose *Schedule* to start the release run.

In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

Finally, choose *SAP (Navigate to Home Page)* to close the app.

2. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to check the current situation for your product T-FSP1##.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

   Choose *Continue* or *Enter* and check the current situation. Several production orders are displayed for material T-FSP1##.

3. Note the number of the first production order in the list:

>

   Display the production order.

   Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Display Element* icon.

   Choose *Operations* to navigate to the operation overview.

   Select all operations and double-click the first operation to display the operation details.

   For each operation, note the confirmation number. Use the buttons *Next Operation* and *Previous Operation* to navigate from operation to operation.

Operation	Confirmation
0010	
0020	
0030	

   Choose the input help (F4) for the control key YBP1 of an operation and note the setting for an operation confirmation:

>

   Finally, navigate back to the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

4. In the *SAP Fiori Launchpad*, execute the *Confirm Production Order Operation* tile to perform a time ticket confirmation for the first operation 0010 of your production order.

   A new tab will be opened. Enter the confirmation number of the first operation and choose *Enter*.

   The data to be confirmed will be proposed.

   Change the yield to be confirmed from 20 PC to 11 PC and choose *Enter*.

   The following information will be displayed: Activities are recalculated due to quantity change.

   Choose *Continue* to close the message and *Save* the confirmation.

   Don't close *Time Ticket* tab.

> Note:
> Don't close the *Time Ticket* tab.

5. In the stock/requirements list, display the first production order again.

   In the order header, check the confirmed start date and note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the confirmation status of the first operation:

Status	Text
>	

Display the details of the first operation. Navigate to the *Qties/Activities* tab and note the following data:

Field	Value
Confirmed Yield	
Operation Qty	

Activity	Confirmed	To Be Conf.
Setup		

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Activity	Confirmed	To Be Conf.
Machine		
Labor		

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the following information:

Transaction	Origin	Origin (Text)	Total Actual Costs	Total Actual Qty
Confirmations	10101301/1	Machine		
	10101301/3	Setup		
	10101301/11	Personnel		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

6. In the *Time Ticket* tab perform another time ticket confirmation for the first operation 0010 of your production order.

   Enter the confirmation number of the first operation and choose *Enter*.

   The data still to be confirmed will be proposed.

   Accept the proposed data and *Save* the confirmation.

   Finally, close the*Time Ticket* tab.

7. In the stock/requirements list, display the first production order again.

   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the confirmation status of the first operation:

Status	Text
>	

Display the details of the first operation. Navigate to the *Qties/Activities* tab and note the following data:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Confirmed Yield	
Operation Qty	

Activity	Confirmed	To Be Conf.
Setup		
Machine		
Labor		

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the following information:

Transaction	Origin	Origin (Text)	Total Actual Costs	Total Actual Qty
Confirmations	10101301/1	Machine		
	10101301/3	Setup		
	10101301/11	Personnel		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Task 2: Perform Time Event Confirmations

You perform time event confirmations for an operation and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Create Time Event* tile to perform time event confirmations for the second operation 0020 of your production order.

   A new tab will be opened. In the *Create Time Event* tab, enter the following data:

Field	Value
Start of Setup	x
Confirmation	Confirmation number of second operation

Choose Continue.

In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value for Date	Value for Time
Start of Setup	Yesterday	07:00:00

Save the confirmation.

Don't close the *Time Event* tab.

2. Perform another time event confirmation for the second operation 0020 of your production order.
   In the *Create Time Event* tab, enter the following data:

Field	Value
Finish Setup	x
Confirmation	Confirmation number of second operation

Choose *Continue*.

In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Field	Value for Date	Value for Time
Finish Setup	Yesterday	07:35:00

Save the confirmation.

Don't close the *Time Event* tab.

3. Perform another time event confirmation for the second operation 0020 of your production order.
   In the *Create Time Event* tab, enter the following data:

Field	Value
Start Processing	x
Confirmation	Confirmation number of second operation

Choose *Continue*.

In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Field	Value for Date	Value for Time
Start of Proc.	Yesterday	07:45:00

Save the confirmation.

Don't close the *Time Event* tab.

4. Perform another time event confirmation for the second operation 0020 of your production order.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *Create Time Event* tab, enter the following data:

Field	Value
Finish Processing	x
Confirmation	Confirmation number of second operation

Choose *Continue*.

In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Field	Value for Date	Value for Time
Fin. Processing	Today	10:00:00

Save the confirmation.

Finally, close the *Time Event* tab.

5. In the stock/requirements list, display the first production order again.
   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the confirmation status of the second operation:

Status	Text
>	

Display the details of the second operation. Navigate to the *Confirmed Dates* tab and check the confirmed dates and times.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Task 3: Perform a Confirmation via Collective Entry

You use the collective entry to perform a time ticket confirmation and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Collective Entry of Confirmations* tile to perform a time ticket confirmation for the third operation 0030 of your production order in the collective entry environment.
   A new tab will be opened. In the *Collect Entry: Time Ticket* tab, enter the following data:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Confirmations	
Confirm.	F
Confirmation number of third operation	X

Choose *Enter* and *Save* the confirmation.

Finally, close the *Collective Entry* tab.

2. In the stock/requirements list, display the first production order again.
   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the confirmation status of the third operation:

Status	Text
>	

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Task 4: Perform Milestone Confirmations

You set up and perform milestone confirmations and check the result.

1. In the stock/requirements list, note the number of the second production order in the list:

>

Change the production order.

Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Change Element* icon.

Choose *Operations* to navigate to the operation overview.

Change the control keys of the operations as follows:

Operation	Control Key
0010	PT01
0020	PT01

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Control Key
0030	PT05

Choose the input help (F4) for the control keys and note the settings for an operation confirmation:

Control Key	Confirmation setting
PT01	
PT05	

Save the order and navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

2. In the *SAP Fiori Launchpad*, execute the *Confirm Production Order Operation* tile to perform a time ticket confirmation for your second production order.

   A new tab will be opened. Enter the order number and choose *Enter*.

   The confirmation data for operation 0030 will be proposed.

   Change the yield to be confirmed from 20 PC to 11 PC and choose *Enter*.

   The following information will be displayed: Activities are recalculated due to quantity change.

   Choose *Continue* to close the message and *Save* the confirmation.

   Don't close the *Time Ticket* tab.

> Note:
> Don't close the *Time Ticket* tab.

3. In the stock/requirements list, display the second production order.

   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the both confirmation statuses for each operation:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Confirmation Statuses	Text
0010	> >	
0020	>> >	
0030	>> >	

Also, display and analyze the data in the *Qties/Activities* tab for each operation.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

4. In the *Time Ticket* tab, perform another time ticket confirmation for your second production order.

   Enter the order number and choose *Enter*.

   The data still to be confirmed for operation 0030 will be proposed.

   Accept the proposed data and *Save* the confirmation.

   Finally, close the *Time Ticket* tab.

5. In the stock/requirements list, display the second production order.

   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the two confirmation statuses for each operation:

Operation	Confirmation Statuses	Text
0010	>> >	
0020	>> >	

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Confirmation Statuses	Text
0030	> >	

Also, display and analyze the data in the *Qties/Activities* tab for each operation.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Task 5: Perform Progress Confirmations

You perform progress confirmations and check the result.

1. In the stock/requirements list, note the number of the third production order in the list:

>

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

2. In the *SAP Fiori Launchpad*, execute the *Create confirmation of prod. order* tile to perform progress confirmations for your third production order.

A new tab will be opened. In the initial screen, enter the following data to confirm operation 0030:

Field	Value
Order	Number of your third production order
Activity	0030

Choose *Enter*.

The confirmation data for operation 0030 will be proposed.

Change the yield to be confirmed from 20 PC to 11 PC and choose *Enter*.

The following information will be displayed: Activities are recalculated due to quantity change.

Choose *Continue* to close the message and *Save* the confirmation.

Don't close the *Progress Confirmation* tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the *Progress Confirmation* tab.

3. In the stock/requirements list, display the third production order.
   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the two confirmation statuses for each operation:

Operation	Confirmation Statuses	Text
0010	> >	
0020	>> >	
0030	>> >	

> Note:
> A progress confirmation automatically sets a milestone.

   Also, display and analyze the data in the*Qties/Activities* tab for each operation.

   Finally, navigate back to the stock/requirements list.

   Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

4. In the *Progress Confirmation* tab, perform another progress confirmation for your third production order.
   In the initial screen, enter the following data to confirm operation 0030 again:

Field	Value
Order	Number of your third production order
Activity	0030

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Choose *Enter*.

The data still to be confirmed for operation 0030 will be proposed.

> Note:
> In contrast to all other kinds of confirmations, the current total quantity has always to be entered. The difference between the already confirmed quantity and the entered total quantity will be calculated automatically.

Accept the proposed data and *Save* the confirmation.

Finally, close the *Progress Confirmation* tab.

5. In the stock/requirements list, display the third production order.
   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the two confirmation statuses for each operation:

Operation	Confirmation Statuses	Text
0010	> >	
0020	>> >	
0030	>> >	

Also, display and analyze the data in the *Qties/Activities* tab for each operation.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Task 6: Confirm a Production Order

You confirm a production order and check the result.

1. In the stock/requirements list, note the number of the fourth production order in the list:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

>

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

2. In the *SAP Fiori Launchpad*, execute the *Enter Production order Confirmation* tile to confirm your fourth production order.

   A new tab will be opened. In the initial screen, enter number of your fourth production order.

   Choose *Continue*.

   The yield quantity to be confirmed will be proposed.

   Change the yield quantity from 20 PC to 11 PC and choose *Enter*.

   Save the confirmation.

   Don't close the *Production Order Confirmation* tab.

> Note:
> Don't close the *Production Order Confirmation* tab.

3. In the stock/requirements list, display the fourth production order.

   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the confirmation status for each operation:

Operation	Confirmation Statuses	Text
0010		
0020		
0030		

Also, display and analyze the data in the *Qties/Activities* tab for each operation.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. In the *Production Order Confirmation* tab, perform another confirmation for your fourth production order.

   In the initial screen, enter number of your fourth production order.

   Choose *Continue*.

   The yield quantity still to be confirmed will be proposed.

   Accept the proposed yield quantity and *Save* the confirmation.

   Finally, close the *Production Order Confirmation* tab.

5. In the stock/requirements list, display the fourth production order.

   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the confirmation status for each operation:

Operation	Confirmation Statuses	Text
0010		
0020		
0030		

   Also, display and analyze the data in the *Qties/Activities* tab for each operation.

   Finally, navigate back to the stock/requirements list.

   Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

Task 7: Perform Confirmations via Mass Processing

You confirm production order via mass processing and check the result.

1. Confirm all production orders for your product T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000003 Standard Layout of Confirmation
Production Orders	x

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Planned Orders	

Enter the following data in the selection area of the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Syst. Status	CNF
Excl.	x
and	TECO
Excl.	x

Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Confirmation
Display applicat. toolbar	x
Button *Confirmation*	selected
Confirmation Type	Enter order confirmation
Insert in Error Table	Insert of all non-processed confirmations in error table
Switch Confirmation Fields to Changeable	x
Default Values	Suggest Plan Data

Choose *Execute*.

In the *Mass Processing – Order Headers* list, select all production orders and choose *Confirmation*.

Choose *More* → *List* → *Refresh*. The production orders have disappeared.

Finally, close the mass processing tab.

2. In the stock/requirements list, display any production order.
   In the order header, note the confirmation status:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Status	Text
>	

Finally, close the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Confirm Operations and Production Orders

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

Confirmations are the premise for progress control and the basis for entering internal activities performed for the order. For this reason, confirmations should be carried out as promptly and efficiently as possible.

You can confirm individual operations or entire orders.

Due to the different requirements that arise in practice, SAP provides several confirmation apps and transactions.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Perform Time Ticket Confirmations

You perform time ticket confirmations for an operation and check the result.

1. First, you must be sure that all production orders have been released for production supervisor P##.

   In the *SAP Fiori Launchpad*, execute the *Schedule Order Release Runs* tile to schedule an order release run.

   In the *Application Jobs* screen, choose *Create*.

   > Hint:
   > You could also copy the job that you executed in a previous exercise.

   In the *New Job* screen, enter the following data in three consecutive steps.

Field	Value
Job Template	Release Order at Scheduled Release Date
Job Name	P## Order Release
Start Immediately	X
Recurrence Pattern	Single Run
Production Plant	1010
Production Supervisor	P##

© Copyright. All rights reserved.

Field	Value
for all Dates	Delete all conditions

Choose *Schedule* to start the release run.

In the *Application Jobs* screen, choose *Go* to refresh the screen. Wait until your job has been finished.

Finally, choose *SAP (Navigate to Home Page)* to close the app.

a) For this exercise step no further information is needed.

2. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to check the current situation for your product T-FSP1##.

A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

Choose *Continue* or *Enter* and check the current situation. Several production orders are displayed for material T-FSP1##.

a) For this exercise step no further information is needed.

3. Note the number of the first production order in the list:

>

Display the production order.

Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Display Element* icon.

Choose *Operations* to navigate to the operation overview.

Select all operations and double-click the first operation to display the operation details.

For each operation, note the confirmation number. Use the buttons *Next Operation* and *Previous Operation* to navigate from operation to operation.

Operation	Confirmation
0010	
0020	
0030	

Choose the input help (F4) for the control key YBP1 of an operation and note the setting for an operation confirmation:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

>

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) For the control key YBP1, you should find the following setting for an operation confirmation:

Confirmation required

4. In the *SAP Fiori Launchpad*, execute the *Confirm Production Order Operation* tile to perform a time ticket confirmation for the first operation 0010 of your production order.

   A new tab will be opened. Enter the confirmation number of the first operation and choose *Enter*.

   The data to be confirmed will be proposed.

   Change the yield to be confirmed from 20 PC to 11 PC and choose *Enter*.

   The following information will be displayed: Activities are recalculated due to quantity change.

   Choose *Continue* to close the message and *Save* the confirmation.

   Don't close *Time Ticket* tab.

> Note:
> Don't close the *Time Ticket* tab.

a) For this exercise step no further information is needed.

5. In the stock/requirements list, display the first production order again.

   In the order header, check the confirmed start date and note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the confirmation status of the first operation:

Status	Text
>	

Display the details of the first operation. Navigate to the *Qties/Activities* tab and note the following data:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Confirmed Yield	
Operation Qty	

Activity	Confirmed	To Be Conf.
Setup		
Machine		
Labor		

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the following information:

Transaction	Origin	Origin (Text)	Total Actual Costs	Total Actual Qty
Confirmations	10101301/1	Machine		
	10101301/3	Setup		
	10101301/11	Personnel		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following status and data:

Status	Text
PCNF	Partially confirmed

Field	Value
Confirmed Yield	11 PC
Operation Qty	20 PC

Activity	Confirmed	To Be Conf.
Setup	30 MIN	30 MIN

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Activity	Confirmed	To Be Conf.
Machine	165 MIN	300 MIN
Labor	165 MIN	300 MIN

Transaction	Origin	Origin (Text)	Total Actual Costs	Total Actual Qty
Confirmations	10101301/1	Machine	*Actual costs*	2,750
	10101301/3	Setup	*Actual costs*	0,5
	10101301/11	Personnel	*Actual costs*	2,75

6. In the *Time Ticket* tab perform another time ticket confirmation for the first operation 0010 of your production order.

   Enter the confirmation number of the first operation and choose *Enter*.

   The data still to be confirmed will be proposed.

   Accept the proposed data and *Save* the confirmation.

   Finally, close the*Time Ticket* tab.

   a) For this exercise step no further information is needed.

7. In the stock/requirements list, display the first production order again.

   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the confirmation status of the first operation:

Status	Text
>	

   Display the details of the first operation. Navigate to the *Qties/Activities* tab and note the following data:

Field	Value
Confirmed Yield	
Operation Qty	

Activity	Confirmed	To Be Conf.
Setup		

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Activity	Confirmed	To Be Conf.
Machine		
Labor		

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the following information:

Transaction	Origin	Origin (Text)	Total Actual Costs	Total Actual Qty
Confirmations	10101301/1	Machine		
	10101301/3	Setup		
	10101301/11	Personnel		

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following statuses and data:

Status Header	Text
PCNF	Partially confirmed

Status Operation	Text
CNF	Confirmed

Field	Value
Confirmed Yield	20 PC
Operation Qty	20 PC

Activity	Confirmed	To Be Conf.
Setup	30 MIN	30 MIN
Machine	300 MIN	300 MIN

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Activity	Confirmed	To Be Conf.
Labor	300 MIN	300 MIN

Transaction	Origin	Origin (Text)	Total Actual Costs	Total Actual Qty
Confirmations	10101301/1	Machine	*Actual costs*	5
	10101301/3	Setup	*Actual costs*	0,5
	10101301/11	Personnel	*Actual costs*	5

Task 2: Perform Time Event Confirmations

You perform time event confirmations for an operation and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Create Time Event* tile to perform time event confirmations for the second operation 0020 of your production order.

   A new tab will be opened. In the *Create Time Event* tab, enter the following data:

Field	Value
Start of Setup	x
Confirmation	Confirmation number of second operation

   Choose Continue.

   In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Field	Value for Date	Value for Time
Start of Setup	Yesterday	07:00:00

   Save the confirmation.

   Don't close the *Time Event* tab.

   a) For this exercise step no further information is needed.

2. Perform another time event confirmation for the second operation 0020 of your production order.

   In the *Create Time Event* tab, enter the following data:

Field	Value
Finish Setup	x
Confirmation	Confirmation number of second operation

   Choose *Continue*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Field	Value for Date	Value for Time
Finish Setup	Yesterday	07:35:00

Save the confirmation.

Don't close the *Time Event* tab.

a) For this exercise step no further information is needed.

3. Perform another time event confirmation for the second operation 0020 of your production order.

In the *Create Time Event* tab, enter the following data:

Field	Value
Start Processing	x
Confirmation	Confirmation number of second operation

Choose *Continue*.

In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Field	Value for Date	Value for Time
Start of Proc.	Yesterday	07:45:00

Save the confirmation.

Don't close the *Time Event* tab.

a) For this exercise step no further information is needed.

4. Perform another time event confirmation for the second operation 0020 of your production order.

In the *Create Time Event* tab, enter the following data:

Field	Value
Finish Processing	x
Confirmation	Confirmation number of second operation

Choose *Continue*.

In the *Confirmation of Time Event Enter: Actual Data* screen, enter the following data:

Field	Value for Date	Value for Time
Fin. Processing	Today	10:00:00

Save the confirmation.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Finally, close the *Time Event* tab.

a) For this exercise step no further information is needed.

5. In the stock/requirements list, display the first production order again.

   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the confirmation status of the second operation:

Status	Text
>	

   Display the details of the second operation. Navigate to the *Confirmed Dates* tab and check the confirmed dates and times.

   Finally, navigate back to the stock/requirements list.

   Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following statuses:

Status Header	Text
PCNF	Partially confirmed

Status Operation	Text
CNF	Confirmed

Task 3: Perform a Confirmation via Collective Entry

You use the collective entry to perform a time ticket confirmation and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Collective Entry of Confirmations* tile to perform a time ticket confirmation for the third operation 0030 of your production order in the collective entry environment.

   A new tab will be opened. In the *Collect Entry: Time Ticket* tab, enter the following data:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Confirmations	
Confirm.	F
Confirmation number of third operation	X

Choose *Enter* and *Save* the confirmation.

Finally, close the *Collective Entry* tab.

a) For this exercise step no further information is needed.

2. In the stock/requirements list, display the first production order again.
In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the confirmation status of the third operation:

Status	Text
>	

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following statuses:

Status Header	Text
CNF	Confirmed

Status Operation	Text
CNF	Confirmed

Task 4: Perform Milestone Confirmations

You set up and perform milestone confirmations and check the result.

1. In the stock/requirements list, note the number of the second production order in the list:

>

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Change the production order.

Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Change Element* icon.

Choose *Operations* to navigate to the operation overview.

Change the control keys of the operations as follows:

Operation	Control Key
0010	PT01
0020	PT01
0030	PT05

Choose the input help (F4) for the control keys and note the settings for an operation confirmation:

Control Key	Confirmation setting
PT01	
PT05	

Save the order and navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following confirmation settings:

Control Key	Confirmation setting
PT01	Confirmation possible but not necessary
PT05	Milestone confirmation

2. In the *SAP Fiori Launchpad*, execute the *Confirm Production Order Operation* tile to perform a time ticket confirmation for your second production order.

   A new tab will be opened. Enter the order number and choose *Enter*.

   The confirmation data for operation 0030 will be proposed.

   Change the yield to be confirmed from 20 PC to 11 PC and choose *Enter*.

   The following information will be displayed: Activities are recalculated due to quantity change.

   Choose *Continue* to close the message and *Save* the confirmation.

   Don't close the *Time Ticket* tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the *Time Ticket* tab.

a) For this exercise step no further information is needed.

3. In the stock/requirements list, display the second production order.
   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the both confirmation statuses for each operation:

Operation	Confirmation Statuses	Text
0010	> >	
0020	>> >	
0030	>> >	

Also, display and analyze the data in the *Qties/Activities* tab for each operation.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following statuses:

Status Header	Text
PCNF	Partially confirmed

Operation	Confirmation Statuses	Text
0010	PCNF MILE	Partially confirmed Milestone confirmation

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Confirmation Statuses	Text
0020	PCNF MILE	Partially confirmed Milestone confirmation
0030	PCNF MILE	Partially confirmed Milestone confirmation

4. In the *Time Ticket* tab, perform another time ticket confirmation for your second production order.

   Enter the order number and choose *Enter*.

   The data still to be confirmed for operation 0030 will be proposed.

   Accept the proposed data and *Save* the confirmation.

   Finally, close the *Time Ticket* tab.

   a) For this exercise step no further information is needed.

5. In the stock/requirements list, display the second production order.

   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the two confirmation statuses for each operation:

Operation	Confirmation Statuses	Text
0010	> >	
0020	>> >	
0030	>> >	

   Also, display and analyze the data in the *Qties/Activities* tab for each operation.

   Finally, navigate back to the stock/requirements list.

   Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

   a) You should find the following statuses:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Status Header	Text
CNF	Confirmed

Operation	Confirmation Statuses	Text
0010	CNF MILE	Confirmed Milestone confirmation
0020	CNF MILE	Confirmed Milestone confirmation
0030	CNF MILE	Confirmed Milestone confirmation

Task 5: Perform Progress Confirmations

You perform progress confirmations and check the result.

1. In the stock/requirements list, note the number of the third production order in the list:

>

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) For this exercise step no further information is needed.

2. In the *SAP Fiori Launchpad*, execute the *Create confirmation of prod. order* tile to perform progress confirmations for your third production order.

A new tab will be opened. In the initial screen, enter the following data to confirm operation 0030:

Field	Value
Order	Number of your third production order
Activity	0030

Choose *Enter*.

The confirmation data for operation 0030 will be proposed.

Change the yield to be confirmed from 20 PC to 11 PC and choose *Enter*.

The following information will be displayed: Activities are recalculated due to quantity change.

Choose *Continue* to close the message and *Save* the confirmation.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Don't close the *Progress Confirmation* tab.

> Note:
> Don't close the *Progress Confirmation* tab.

a) For this exercise step no further information is needed.

3. In the stock/requirements list, display the third production order.
   In the order header, note the confirmation status:

Status	Text
>	

Navigate to the operation overview and note the two confirmation statuses for each operation:

Operation	Confirmation Statuses	Text
0010	> >	
0020	>> >	
0030	>> >	

> Note:
> A progress confirmation automatically sets a milestone.

Also, display and analyze the data in the*Qties/Activities* tab for each operation.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following statuses:

Status Header	Text
PCNF	Partially confirmed

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Confirmation Statuses	Text
0010	PCNF PROG	Partially confirmed Progress confirmation (MST)
0020	PCNF PROG	Partially confirmed Progress confirmation (MST)
0030	PCNF PROG	Partially confirmed Progress confirmation (MST)

4. In the *Progress Confirmation* tab, perform another progress confirmation for your third production order.

   In the initial screen, enter the following data to confirm operation 0030 again:

Field	Value
Order	Number of your third production order
Activity	0030

   Choose *Enter*.

   The data still to be confirmed for operation 0030 will be proposed.

> Note:
> In contrast to all other kinds of confirmations, the current total quantity has always to be entered. The difference between the already confirmed quantity and the entered total quantity will be calculated automatically.

   Accept the proposed data and *Save* the confirmation.

   Finally, close the *Progress Confirmation* tab.

   a) For this exercise step no further information is needed.

5. In the stock/requirements list, display the third production order.

   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the two confirmation statuses for each operation:

Operation	Confirmation Statuses	Text
0010	> >	

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Confirmation Statuses	Text
0020	> >	
0030	>> >	

Also, display and analyze the data in the *Qties/Activities* tab for each operation.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You should find the following statuses:

Status Header	Text
CNF	Confirmed

Operation	Confirmation Statuses	Text
0010	CNF PROG	Confirmed Progress confirmation (MST)
0020	CNF PROG	Confirmed Progress confirmation (MST)
0030	CNF PROG	Confirmed Progress confirmation MST)

Duplication is prohibited.

Duplication is prohibited.

Task 6: Confirm a Production Order

You confirm a production order and check the result.

1. In the stock/requirements list, note the number of the fourth production order in the list:

>

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) For this exercise step no further information is needed.

© Copyright. All rights reserved.

2. In the *SAP Fiori Launchpad*, execute the *Enter Production order Confirmation* tile to confirm your fourth production order.

   A new tab will be opened. In the initial screen, enter number of your fourth production order.

   Choose *Continue*.

   The yield quantity to be confirmed will be proposed.

   Change the yield quantity from 20 PC to 11 PC and choose *Enter*.

   Save the confirmation.

   Don't close the *Production Order Confirmation* tab.

   > Note:
   > Don't close the *Production Order Confirmation* tab.

   a) For this exercise step no further information is needed.

3. In the stock/requirements list, display the fourth production order.

   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the confirmation status for each operation:

Operation	Confirmation Statuses	Text
0010		
0020		
0030		

   Also, display and analyze the data in the *Qties/Activities* tab for each operation.

   Finally, navigate back to the stock/requirements list.

   Don't close the stock/requirements list.

   > Note:
   > Don't close the stock/requirements list.

   a) You should find the following statuses:

Status Header	Text
PCNF	Partially confirmed

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Confirmation Statuses	Text
0010	PCNF	Partially confirmed
0020	PCNF	Partially confirmed
0030	PCNF	Partially confirmed

4. In the *Production Order Confirmation* tab, perform another confirmation for your fourth production order.

   In the initial screen, enter number of your fourth production order.

   Choose *Continue*.

   The yield quantity still to be confirmed will be proposed.

   Accept the proposed yield quantity and *Save* the confirmation.

   Finally, close the *Production Order Confirmation* tab.

   a) For this exercise step no further information is needed.

5. In the stock/requirements list, display the fourth production order.

   In the order header, note the confirmation status:

Status	Text
>	

   Navigate to the operation overview and note the confirmation status for each operation:

Operation	Confirmation Statuses	Text
0010		
0020		
0030		

   Also, display and analyze the data in the *Qties/Activities* tab for each operation.

   Finally, navigate back to the stock/requirements list.

   Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

   a) You should find the following statuses:

Status Header	Text
CNF	Confirmed

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Confirmation Statuses	Text
0010	CNF	Confirmed
0020	CNF	Confirmed
0030	CNF	Confirmed

Task 7: Perform Confirmations via Mass Processing

You confirm production order via mass processing and check the result.

1. Confirm all production orders for your product T-FSP1##.

   In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   A new tab will be opened. Enter the following data in the header of the initial screen:

Field	Value
List	Order Headers
Layout	000000000003 Standard Layout of Confirmation
Production Orders	x
Planned Orders	

   Enter the following data in the selection area of the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Syst. Status	CNF
Excl.	x
and	TECO
Excl.	x

   Enter the following data in the mass processing area of the initial screen:

Field	Value
Function	Confirmation
Display applicat. toolbar	x
Button *Confirmation*	selected
Confirmation Type	Enter order confirmation

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Insert in Error Table	Insert of all non-processed confirmations in error table
Switch Confirmation Fields to Changeable	x
Default Values	Suggest Plan Data

Choose *Execute*.

In the *Mass Processing – Order Headers* list, select all production orders and choose *Confirmation*.

Choose *More* → *List* → *Refresh*. The production orders have disappeared.

Finally, close the mass processing tab.

a) For this exercise step no further information is needed.

2. In the stock/requirements list, display any production order.
In the order header, note the confirmation status:

Status	Text
>	

Finally, close the stock/requirements list.

a) You should find the following status for all production orders:

Status Header	Text
CNF	Confirmed

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Post confirmations for production orders in different scenarios

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Posting Goods Receipts

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Post goods receipts for production orders

Goods Receipts

When material has been produced, a goods receipt has to be posted for the production order.

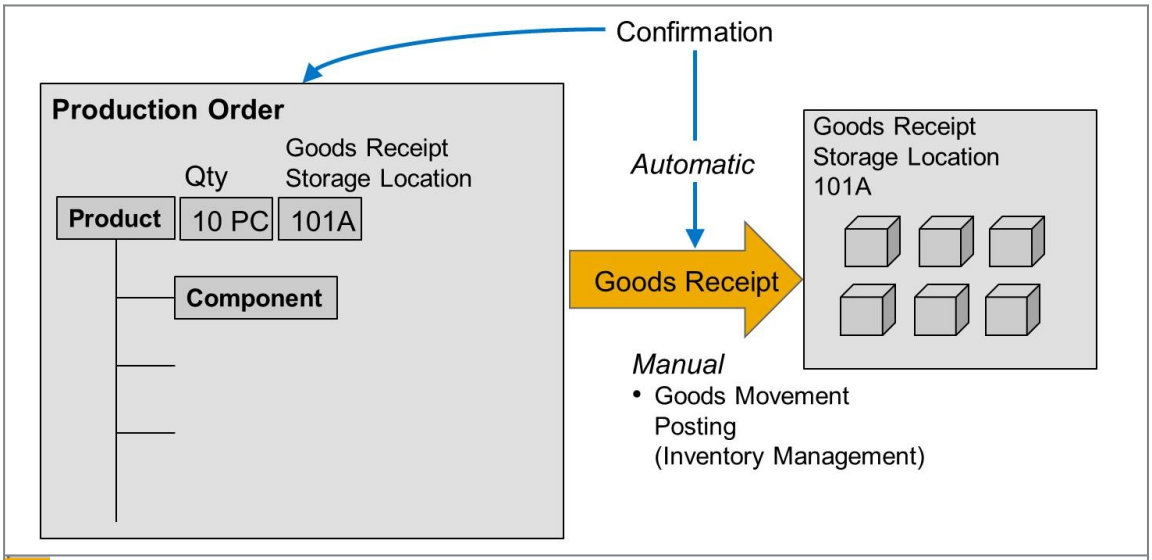

Figure 82: Goods Receipt Options

Goods receipt from production can be posted either manually or automatically when the order is confirmed.

The automatic goods receipt can be set either via the control key of an operation or via the production control profile in the material master of the product. In the last case, the goods receipt is posted with the confirmation of the last operation.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Control Parameters for Goods Receipt

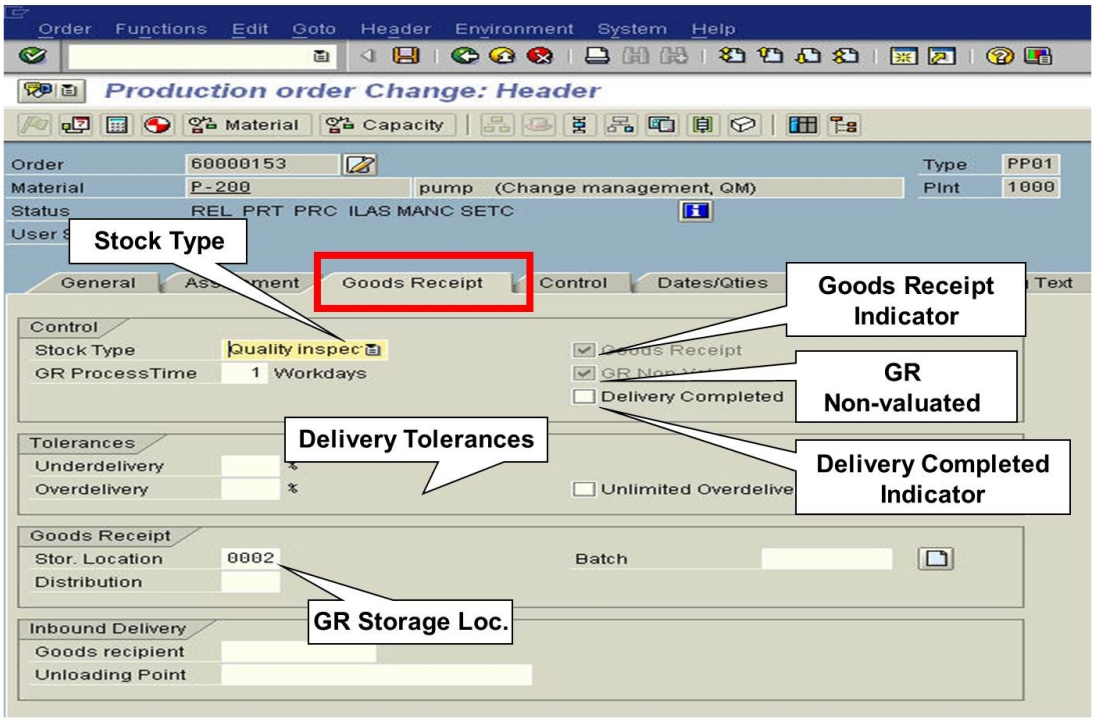

Figure 83: Control Parameters for Goods Receipt

The Goods Receipt indicator defines, whether a goods receipt can be posted after production is complete.

The proposal for the storage location of the goods receipt comes from the Work Scheduling view of material master.

The setting for the Stock Type defines the stock to which receipts from production are to be posted. This can be the unrestricted-use stock, the blocked stock or the stock in quality inspection. The stock type can be set in the Work Scheduling view of the material master, in the production order or when the goods receipt is posted.

The GR Non-Valuated indicator controls whether a valuated or non-valuated goods receipt should be made. This indicator depends on the material type of the product and the account assignment of the production order.

The Delivery Completed indicator specifies whether an order is considered as closed from the point of view of goods receipt. This means that no further goods receipt will be expected for this order. The open quantity is zero. This indicator can be set explicitly in the order. If 100% of the planned order quantity is delivered, the system can automatically set the indicator. This has to be activated in Customizing for inventory management.

When the Delivery Completed indicator is set, you can still post goods receipts for remaining quantities. However, they do not change the open order quantity.

If you post a reversal for an order with the Delivery Completed indicator set and you expect a further goods receipt, you must delete the Delivery Completed indicator.

The proposals for checking delivery tolerances originate from the Work Scheduling view of the material master.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Underdelivery and Overdelivery

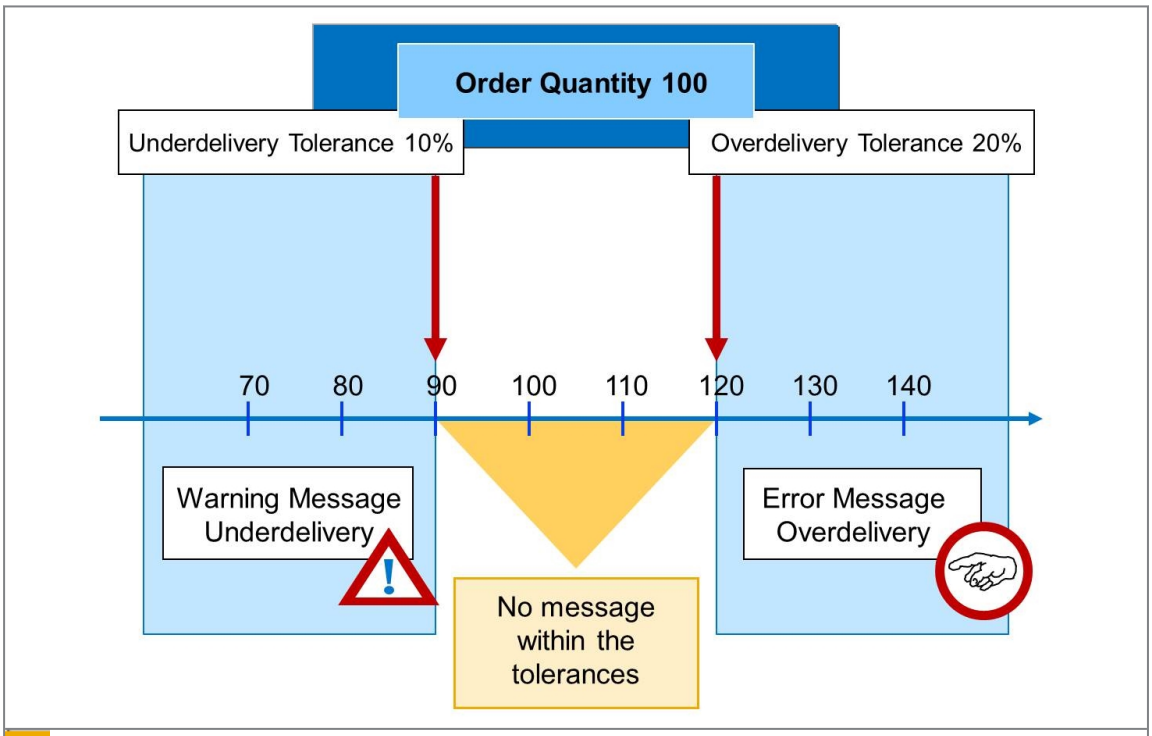

Figure 84: Underdelivery and Overdelivery

When posting a goods receipt for a production order, the system proposes the open order quantity. You can change this quantity if necessary.

The goods receipt quantity is compared with the open order quantity, and the system checks whether underdelivery or overdelivery will occur.

Underdeliveries are permitted. It is also possible to set a percentage underdelivery tolerance. A goods receipt quantity that is less than the order quantity minus the underdelivery tolerance is regarded as a partial delivery and is accepted by the system with a warning message.

Overdeliveries are not permitted, unless a percentage overdelivery tolerance is specified or the overdelivery tolerance is deactivated via the Unlimited Overdelivery indicator.

Depending on the delivered quantity of a goods receipt posting, the production order acquires the status PDLV Partially Delivered or DLV Delivered.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Effects of a Goods Receipt Posting

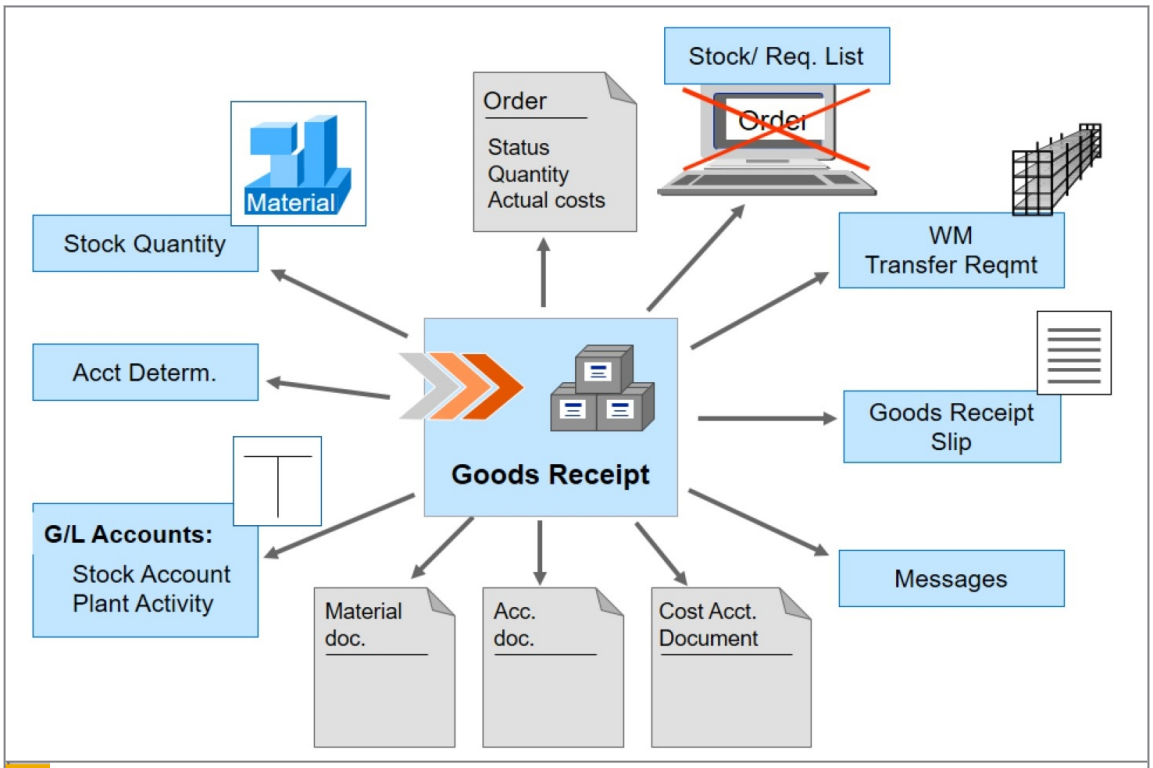

Figure 85: Effects of a Goods Receipt Posting

The following functions are executed when a goods receipt is posted:

- The warehouse stock is increased.
- The order status is updated.
- The delivered quantity is updated in the order.
- Actual costs are determined (evaluation) and credited to the order.
- The production order is deleted in the stock/requirements list and in the product view.
- Material, accounting and controlling documents are generated.
- The goods receipt is evaluated.
- The plant activity is updated.
- You can print a goods receipt document.

The GR posting is controlled using a movement type (101), to which each posting refers.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Post Goods Receipts

Business Scenario

Goods receipts for production orders can be posted manually using the goods movement app or automatically triggered by confirmations.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Post Goods Receipts with the Goods Movement App

You post goods receipts with the goods movement app and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to check the current situation for your product T-FSP1##.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

   Choose *Continue* or *Enter* and check the current situation. Several production orders are displayed for material T-FSP1##.

2. Note the number of the first production order in the list:

>

   Note the current stock and the receipt quantity of the first production order:

MRP element	Receipt/Reqmt	Available Qty
Stock		
PrdOrd		

   Display the first production order.

   Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Display Element* icon.

   In the *General* tab of the order header, note the following information:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Total Qty	
Delivered	

In the *Goods Receipt* tab of the order header, note the following settings:

Field	Value
Stock Type	
GR Proc. TIme	
Goods Receipt	
Delivery Completed	
Underdelivery	
Overdelivery	
Unlimited Overdelivery	
Stor. Loc.	

> Note:
> The default values for the stock type *Quality inspection*, for the goods receipt processing duration, for the delivery tolerances, and for the goods receipt storage location are maintained in the material master of your product T-FSP1##.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

3. In the *SAP Fiori Launchpad*, execute the *Post Goods Movements* tile to post the goods receipt for your first production order.

   A new tab will be opened. Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Change the proposed goods receipt quantity from 20 PC to 11 PC.

   Set the *OK* flag and choose *Check*.

   The following message will be displayed: **`Deficit of OR Order quantity 9 PC`**.

   Choose *Continue (Enter)* to confirm the message and *Post* the goods receipt.

   Don't close the *Goods Receipt* tab.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the *Goods Receipt* tab.

4. *Refresh* the stock/requirements list and note the current stock and the receipt quantity of the first production order again:

MRP element	Receipt/Reqmt	Available Qty
Stock		
PrdOrd		

Interpret the result.

Display the first production order.

In the *General* tab of the order header, note the following information:

Field	Value
Total Qty	
Delivered	

In the *Goods Receipt* tab of the order header, note the following setting:

Field	Value
Delivery Completed	

Note the delivery status of the order:

Status	Text
>	

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##		

Choose *More* → *Goto* → *Documented Goods Movements* and analyze the current information.

Is the goods receipt documented?

What is the corresponding goods movement indicator?

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't close the stock/requirements list.

5. In the *Goods Receipt* tab, post another goods receipt for your first production order.
   Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Accept the proposed goods receipt quantity of 9 PC.

   Set the *OK* flag, choose *Check* and *Post* the goods receipt.

   Don't close the *Goods Receipt* tab.

> Note:
> Don't close the *Goods Receipt* tab.

6. *Refresh* the stock/requirements list and interpret the result.
   Finally, close the stock/requirements list.
7. In the *SAP Fiori Launchpad*, execute the *Change Production Order* tile to display your first production order.
   A new tab will be opened. Enter the number of your first production order in the initial screen and choose *Continue*.

   In the *General* tab of the order header, note the following information:

Field	Value
Total Qty	
Delivered	

In the *Goods Receipt* tab of the order header, note the following information:

Field	Value
Delivery Completed	

Note the delivery status of the order:

Status	Text
>	

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##		

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Choose *More* → *Goto* → *Documented Goods Movements* and analyze the current information.

Finally, navigate back to the initial screen.

Don't close the *Production Order Change: Initial Screen*.

> Note:
> Don't close the *Production Order Change: Initial Screen*.

8. In the *Goods Receipt* tab, try to post another goods receipt for your first production order.

   Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Enter a goods receipt quantity of 1 PC.

   Set the *OK* flag, and choose *Check*.

   The following error message will be displayed: **`OR Order quantity exceeded by 1 PC`**.

   Choose *Continue (Enter)* to confirm the message.

   Delete the *OK* flag, then *Delete* the goods receipt line.

   Don't close the *Goods Receipt* tab.

> Note:
> Don't close the *Goods Receipt* tab.

9. In the *Production Order Change: Initial Screen*, enter the number of your first production order and choose *Continue*.

   In the *Goods Receipt* tab of the order header, define the following setting:

Field	Value
Unlimited Overdelivery	x

   Save the production order.

   Don't close the *Production Order Change: Initial Screen* screen.

> Note:
> Don't close the *Production Order Change: Initial Screen* screen.

10. In the *Goods Receipt* tab, try to post another goods receipt for your first production order.

    Choose *Goods Receipt* for *Order*, and enter the number of your production order.

    Enter a goods receipt quantity of 1 PC.

    Set the *OK* flag, and choose *Check*.

    Finally, *Post* the goods receipt and close the tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

11. In the *Production Order Change: Initial Screen*, enter the number of your first production and choose *Continue*.

    In the *General* tab of the order header, note the following information:

Field	Value
Total Qty	
Delivered	

    Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##		

    Choose *More* → *Goto* → *Documented Goods Movements* and analyze the updated information.

    Finally, close the tab.

Task 2: Post an Automatic Goods Receipt

Post a goods receipt automatically triggered by a confirmation.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

   Only the production order for material T-SSP1## will be displayed.

   Note the status of the order:

Status
>

2. Select the order and choose *Edit*.

   The order will be opened in a new tab.

   Navigate to the operations overview.

   Choose the input help (F4) for the control key YBP3 of the last operation 0020 and note the setting of the following indicator:

Indicator	Setting
Automatic Goods Receipt	

   Finally, close the tab.

3. Click in the line of the production order to get more detailed information.

   In the detail screen, choose *Order Information* and note the following information:

Field	Value
Confirmed Yield	

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
GR Quantity	

Choose *Order Schedule* to display the operations.

Note the status of the following operations:

Operation	Status
0010	T - B K 4 # #
0020	T - B K 5 # #

4. Click in the line of operation 0020 with work center T-BK5## to navigate to the *Manage Production Operations* view.

   Choose *Confirm Operation*.

   A new tab will be opened. In the Enter *Time Ticket for Production Order* tab, change the proposed yield to be confirmed from 10 PC to 6 PC.

   Choose *Goods Movements* and note the information in the goods movement overview:

Material	Quantity	Movement Type
>		

   Interpret the information.

   Finally, *Post* the conformation and close the tab.

5. *Refresh (F5)* the *Manage Production Operations* view.

   Choose *Order Schedule* to display the operations.

   Note the status of the following operations:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Status
0010	T - B K 4 # #
0020	T - B K 5 # #

6. Navigate back to the *Manage Production Orders* view.

   Note the current status of the order:

Status
>

   Choose *Order Information* and note the following information:

Field	Value
Confirmed Yield	
GR Quantity	

7. Choose *Order Schedule* and click in the line of operation 0020 with work center T-BK5## to navigate to the *Manage Production Operations* view again.

   Choose *Confirm Operation*.

   A new tab will be opened. In the *Enter Time Ticket for Production Order* tab, accept the open yield to be confirmed of 4 PC.

   Choose *Goods Movements* and note the information in the goods movement overview:

Material	Quantity	Movement Type
>		

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Interpret the information.

Finally, *Post* the conformation and close the tab.

8. *Refresh (F5)* the *Manage Production Operations* view.
   Choose *Order Schedule* to display the operations.
   Note the status of the following operations:

Operation	Status
0010	T - B K 4 # #
0020	T - B K 5 # #

9. Navigate back to the *Manage Production Orders* view.
   Note the current status of the order:

Status
>

Choose *Order Information* and note the following information:

Field	Value
Confirmed Yield	
GR Quantity	

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Post Goods Receipts

Business Scenario

Goods receipts for production orders can be posted manually using the goods movement app or automatically triggered by confirmations.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Post Goods Receipts with the Goods Movement App

You post goods receipts with the goods movement app and check the result.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Stock / Requirements List* tile to check the current situation for your product T-FSP1##.

   A new tab will be opened. Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Plant	1010

   Choose *Continue* or *Enter* and check the current situation. Several production orders are displayed for material T-FSP1##.

   a) For this exercise step no further information is needed.

2. Note the number of the first production order in the list:

>

   Note the current stock and the receipt quantity of the first production order:

MRP element	Receipt/Reqmt	Available Qty
Stock		
PrdOrd		

   Display the first production order.

   Double-click the order number. In the *Additional Data for MRP Element* window, choose the *Display Element* icon.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the *General* tab of the order header, note the following information:

Field	Value
Total Qty	
Delivered	

In the *Goods Receipt* tab of the order header, note the following settings:

Field	Value
Stock Type	
GR Proc. TIme	
Goods Receipt	
Delivery Completed	
Underdelivery	
Overdelivery	
Unlimited Overdelivery	
Stor. Loc.	

Note:
The default values for the stock type *Quality inspection*, for the goods receipt processing duration, for the delivery tolerances, and for the goods receipt storage location are maintained in the material master of your product T-FSP1##.

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

Note:
Don't close the stock/requirements list.

a) You will find the following current situation in the stock/requirements list:

MRP element	Receipt/Reqmt	Available Qty
Stock		Current stock
PrdOrd	20	Current stock + 20

You will find the following information in the *General* tab of the order header.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Total Qty	20
Delivered	0

You will find the following settings in the *Goods Receipt* tab of the order header.

Field	Value
Stock Type	Unrestricted use
GR Proc. Time	0
Goods Receipt	x
Delivery Completed	
Underdelivery	0
Overdelivery	0
Unlimited Overdelivery	
Stor. Loc.	101A

3. In the *SAP Fiori Launchpad*, execute the *Post Goods Movements* tile to post the goods receipt for your first production order.

   A new tab will be opened. Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Change the proposed goods receipt quantity from 20 PC to 11 PC.

   Set the *OK* flag and choose *Check*.

   The following message will be displayed: **`Deficit of OR Order quantity 9 PC`**.

   Choose *Continue (Enter)* to confirm the message and *Post* the goods receipt.

   Don't close the *Goods Receipt* tab.

   > Note:
   > Don't close the *Goods Receipt* tab.

   a) For this exercise step no further information is needed.

4. *Refresh* the stock/requirements list and note the current stock and the receipt quantity of the first production order again:

MRP element	Receipt/Reqmt	Available Qty
Stock		
PrdOrd		

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Interpret the result.

Display the first production order.

In the *General* tab of the order header, note the following information:

Field	Value
Total Qty	
Delivered	

In the *Goods Receipt* tab of the order header, note the following setting:

Field	Value
Delivery Completed	

Note the delivery status of the order:

Status	Text
>	

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##		

Choose *More* → *Goto* → *Documented Goods Movements* and analyze the current information.

Is the goods receipt documented?

What is the corresponding goods movement indicator?

Finally, navigate back to the stock/requirements list.

Don't close the stock/requirements list.

> Note:
> Don't close the stock/requirements list.

a) You will find the following current situation in the stock/requirements list:

MRP element	Receipt/Reqmt	Available Qty
Stock		Current stock = Previous stock + 11
PrdOrd	9	Current stock + 9

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

The stock has been increased and the receipt quantity has been reduced accordingly by the goods receipt posting.

You will find the following information in the *General* tab of the order header.

Field	Value
Total Qty	20
Delivered	11

You will find the following setting in the *Goods Receipt* tab of the order header.

Field	Value
Delivery Completed	

You will find the following delivery status:

Status	Text
PDLV	Partially delivered

You will find the following situation in the costs analysis:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##	*Actual costs*	11–

In the *Documented Goods Movements*, the goods receipt is documented with goods movement indicator 4 *Goods receipt for production order*.

5. In the *Goods Receipt* tab, post another goods receipt for your first production order.

   Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Accept the proposed goods receipt quantity of 9 PC.

   Set the *OK* flag, choose *Check* and *Post* the goods receipt.

   Don't close the *Goods Receipt* tab.

   Note:
   Don't close the *Goods Receipt* tab.

   a) For this exercise step no further information is needed.

6. *Refresh* the stock/requirements list and interpret the result.

   Finally, close the stock/requirements list.

   a) The stock has been increased accordingly by the goods receipt posting. The production order has been disappeared.

7. In the *SAP Fiori Launchpad*, execute the *Change Production Order* tile to display your first production order.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

A new tab will be opened. Enter the number of your first production order in the initial screen and choose *Continue*.

In the *General* tab of the order header, note the following information:

Field	Value
Total Qty	
Delivered	

In the *Goods Receipt* tab of the order header, note the following information:

Field	Value
Delivery Completed	

Note the delivery status of the order:

Status	Text
>	

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##		

Choose *More* → *Goto* → *Documented Goods Movements* and analyze the current information.

Finally, navigate back to the initial screen.

Don't close the *Production Order Change: Initial Screen*.

> Note:
> Don't close the *Production Order Change: Initial Screen*.

a) You will find the following information in the *General* tab of the order header.

Field	Value
Total Qty	20
Delivered	20

You will find the following setting in the *Goods Receipt* tab of the order header.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Delivery Completed	X

You will find the following delivery status:

Status	Text
DLV	Delivered

You will find the following situation in the costs analysis:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##	*Actual costs*	20–

8. In the *Goods Receipt* tab, try to post another goods receipt for your first production order.
   Choose *Goods Receipt* for *Order*, and enter the number of your production order.

   Enter a goods receipt quantity of 1 PC.

   Set the *OK* flag, and choose *Check*.

   The following error message will be displayed: **`OR Order quantity exceeded by 1 PC`**.

   Choose *Continue (Enter)* to confirm the message.

   Delete the *OK* flag, then *Delete* the goods receipt line.

   Don't close the *Goods Receipt* tab.

   > Note:
   > Don't close the *Goods Receipt* tab.

   a) For this exercise step no further information is needed.

9. In the *Production Order Change: Initial Screen*, enter the number of your first production order and choose *Continue*.
   In the *Goods Receipt* tab of the order header, define the following setting:

Field	Value
Unlimited Overdelivery	x

   Save the production order.

   Don't close the *Production Order Change: Initial Screen* screen.

   > Note:
   > Don't close the *Production Order Change: Initial Screen* screen.

   a) For this exercise step no further information is needed.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

10. In the *Goods Receipt* tab, try to post another goods receipt for your first production order.

    Choose *Goods Receipt* for *Order*, and enter the number of your production order.

    Enter a goods receipt quantity of 1 PC.

    Set the *OK* flag, and choose *Check*.

    Finally, *Post* the goods receipt and close the tab.

    a) For this exercise step no further information is needed.

11. In the *Production Order Change: Initial Screen*, enter the number of your first production and choose *Continue*.

    In the *General* tab of the order header, note the following information:

Field	Value
Total Qty	
Delivered	

Choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and note the current information:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##		

Choose *More* → *Goto* → *Documented Goods Movements* and analyze the updated information.

Finally, close the tab.

a) You will find the following information in the *General* tab of the order header.

Field	Value
Total Qty	20
Delivered	21

You will find the following situation in the costs analysis:

Transaction	Origin	Total Actual Costs	Total Actual Qty
Goods Receipt	T-FSP1##	*Actual costs*	21–

Task 2: Post an Automatic Goods Receipt

Post a goods receipt automatically triggered by a confirmation.

1. In the *SAP Fiori Launchpad*, execute the *Manage Production Orders* tile to display the production order for your semi-finished material T-SSP1##.

   Enter the material number in the header of the list and choose *Go*.

   Only the production order for material T-SSP1## will be displayed.

   Note the status of the order:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Status
>

a) You should find the following status:

Status
Partially Confirmed

2. Select the order and choose *Edit*.
   The order will be opened in a new tab.

   Navigate to the operations overview.

   Choose the input help (F4) for the control key YBP3 of the last operation 0020 and note the setting of the following indicator:

Indicator	Setting
Automatic Goods Receipt	

   Finally, close the tab.

   a) You will find the following setting:

Indicator	Setting
Automatic Goods Receipt	X

3. Click in the line of the production order to get more detailed information.
   In the detail screen, choose *Order Information* and note the following information:

Field	Value
Confirmed Yield	
GR Quantity	

   Choose *Order Schedule* to display the operations.

   Note the status of the following operations:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Status
0010	T - B K 4 # #
0020	T - B K 5 # #

a) You should find the following information:

Field	Value
Confirmed Yield	0 PC
GR Quantity	0 PC

b) You should find the following statuses:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Status
0010	Confirmed - B K 4 # #
0020	Released - B K 5 # #

4. Click in the line of operation 0020 with work center T-BK5## to navigate to the *Manage Production Operations* view.

   Choose *Confirm Operation*.

   A new tab will be opened. In the Enter *Time Ticket for Production Order* tab, change the proposed yield to be confirmed from 10 PC to 6 PC.

   Choose *Goods Movements* and note the information in the goods movement overview:

Material	Quantity	Movement Type
>		

   Interpret the information.

   Finally, *Post* the conformation and close the tab.

   a) You will find the following information in the goods movement overview:

Material	Quantity	Movement Type
T-SSP1##	6 PC	101

   b) For material T-SSP1##, an automatic goods receipt with a partial quantity of 6 PC will be posted when the confirmation is saved.

5. *Refresh (F5)* the *Manage Production Operations* view.

   Choose *Order Schedule* to display the operations.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Note the status of the following operations:

Operation	Status
0010	T - B K 4 # #
0020	T - B K 5 # #

a) You should find the following statuses:

Operation	Status
0010	Confirmed - B K 4 # #

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Status
0020	Partially Confirmed - B K 5 # #

6. Navigate back to the *Manage Production Orders* view.
   Note the current status of the order:

Status
>

   Choose *Order Information* and note the following information:

Field	Value
Confirmed Yield	
GR Quantity	

   a) You should find the following status:

Status
Partially Delivered

   b) You should find the following information:

Field	Value
Confirmed Yield	6 PC
GR Quantity	6 PC

7. Choose *Order Schedule* and click in the line of operation 0020 with work center T-BK5## to navigate to the *Manage Production Operations* view again.

   Choose *Confirm Operation*.

   A new tab will be opened. In the *Enter Time Ticket for Production Order* tab, accept the open yield to be confirmed of 4 PC.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Choose *Goods Movements* and note the information in the goods movement overview:

Material	Quantity	Movement Type
>		

Interpret the information.

Finally, *Post* the conformation and close the tab.

a) You will find the following information in the goods movement overview:

Material	Quantity	Movement Type
T-SSP1##	4 PC	101

b) For material T-SSP1##, an automatic goods receipt with the open quantity of 4 PC will be posted when the confirmation is saved.

8. *Refresh (F5)* the *Manage Production Operations* view.

Choose *Order Schedule* to display the operations.

Note the status of the following operations:

Operation	Status
0010	T - B K 4 # #
0020	T - B K 5 # #

a) You should find the following statuses:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Operation	Status
0010	Confirmed - B K 4 # #
0020	Confirmed - B K 5 # #

9. Navigate back to the *Manage Production Orders* view.
   Note the current status of the order:

Status
>

   Choose *Order Information* and note the following information:

Field	Value
Confirmed Yield	
GR Quantity	

   a) You should find the following status:

Status
Delivered

   b) You should find the following information:

Field	Value
Confirmed Yield	10 PC

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
GR Quantity	10 PC

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Post goods receipts for production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A The issue storage location can be defined in the material master.
   - [ ] B For materials to be backflushed, no issue storage location can be determined.
   - [ ] C You can use the picking list to transfer material stock.
   - [ ] D With EWM, material components are staged in storage bins in production based on warehouse orders.
   - [ ] E You can control backflushing in the material master.

2. Which of the following are options to perform confirmations?

   Choose the correct answers.

   - [ ] A Production order confirmation
   - [ ] B Time event confirmation
   - [ ] C Time ticket confirmations
   - [ ] D Collective entry
   - [ ] E Milestone confirmation
   - [ ] F Progress confirmation

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

3. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A Goods receipt from production can only be posted manually when the order is confirmed.
   - [ ] B The automatic goods receipt can be set either via the control key of an operation or via the production control profile in the material master of the product.
   - [ ] C The proposal for the storage location of the goods receipt comes from the production scheduling profile.
   - [ ] D When the Delivery Completed indicator is set, you cannot post goods receipts for remaining quantities.
   - [ ] E The proposals for checking delivery tolerances originate from the Work Scheduling view of the material master.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Which of the following statements are correct?

   Choose the correct answers.

   [X] A The issue storage location can be defined in the material master.

   [ ] B For materials to be backflushed, no issue storage location can be determined.

   [ ] C You can use the picking list to transfer material stock.

   [X] D With EWM, material components are staged in storage bins in production based on warehouse orders.

   [X] E You can control backflushing in the material master.

   Correct. The issue storage location can be defined in the material master and you can control backflushing in the material master are the correct statements.

2. Which of the following are options to perform confirmations?

   Choose the correct answers.

   [X] A Production order confirmation

   [X] B Time event confirmation

   [X] C Time ticket confirmations

   [X] D Collective entry

   [X] E Milestone confirmation

   [X] F Progress confirmation

   Correct. All the listed options are correct.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

3. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A Goods receipt from production can only be posted manually when the order is confirmed.
   - [x] B The automatic goods receipt can be set either via the control key of an operation or via the production control profile in the material master of the product.
   - [ ] C The proposal for the storage location of the goods receipt comes from the production scheduling profile.
   - [ ] D When the Delivery Completed indicator is set, you cannot post goods receipts for remaining quantities.
   - [x] E The proposals for checking delivery tolerances originate from the Work Scheduling view of the material master.

   Correct. The automatic goods receipt can be set either via the control key of an operation or via the production control profile in the material master of the product. The proposals for checking delivery tolerances originate from the Work Scheduling view of the material master.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 6 Order Settlement, Archiving, and Deletion

Lesson 1

Performing Order Settlement 444
Exercise 28: Settle a Production Order 449

Lesson 2

Archiving and Deleting Production Orders 458
Exercise 29: Archive and Delete a Production Order 461

UNIT OBJECTIVES

- Settle a Production Order
- Archive and delete a Production Order

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Unit 6
Lesson 1

Performing Order Settlement

LESSON OBJECTIVES
After completing this lesson, you will be able to:

- Settle a Production Order

Order Settlement

After the goods receipt for a material has been posted, any existing actual costs (debits) must be handled so that the production order can be deleted at a later stage.

Crediting the production order is a task performed internally by the controlling department in your company. It is performed using the Settlement function.

This function is usually executed monthly in a background program. As a production supervisor, you do not have to complete any activities here. You only need to know that the function must be executed before orders can be deleted.

The manner in which a production order is credited and debited depends on the variant of cost object controlling (COC) selected in Controlling. This can be carried out on an:

- order-related or
- product-related basis.

Order-Related COC

The use of the order-related COC is beneficial in the following cases:

- Flexible production environment.
- Flexible product range.
- Cost management of individual production lots.
- Cost controlling for each order.
- High setup costs.
- Manufacture of co-products.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Cost Debit / Credit (Order-Related COC)

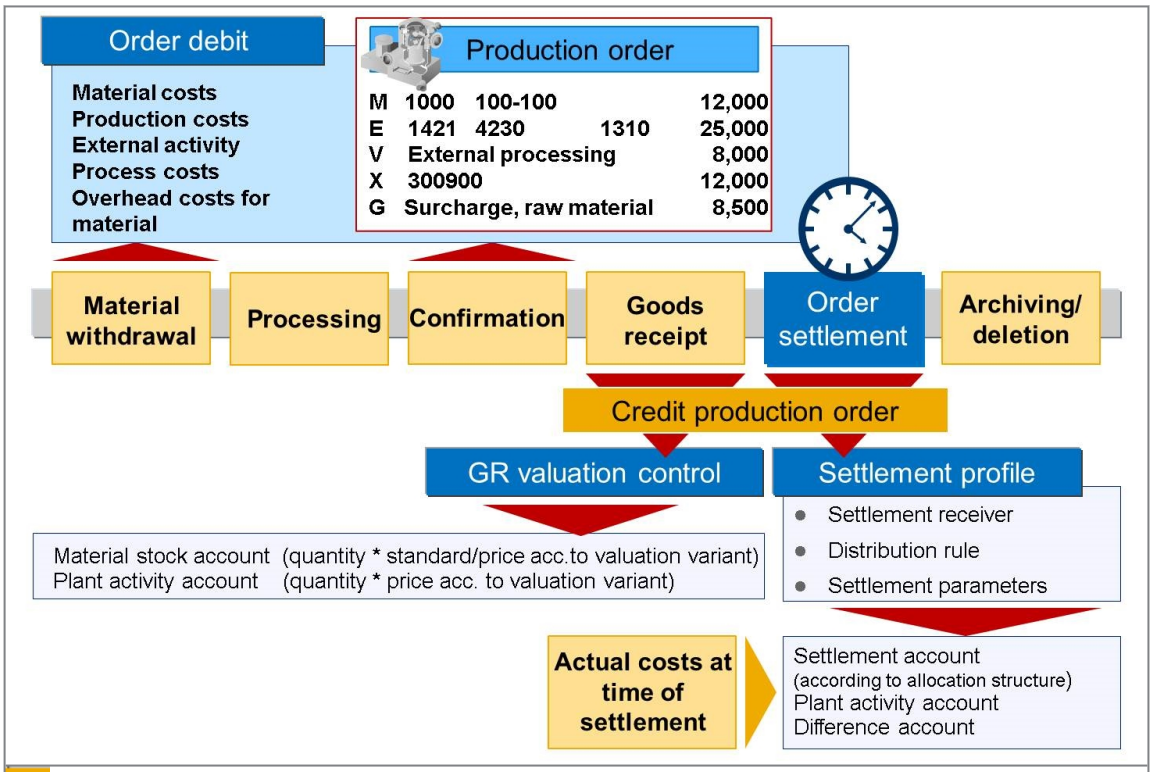

Figure 86: Cost Debit / Credit (Order-Related COC)

Order settlement is performed to credit the order. Settlement is usually periodic. It is controlled using a settlement profile.

You must credit orders according to cost element. Cost element allocation between the debit cost element (production order) and the credit cost element (cost receiver) is performed using an allocation structure.

Differences are either posted to the price difference account (expenditure /revenue) or cause the allocation price to be corrected.

For in-house production of materials, it is generally best to use standard price control.

Product-Related COC

It makes sense to use product-related COC for the following:

- Make-to-stock production.
- Repetitive manufacturing and mass manufacturing.
- Sales order controlling only in Profitability Analysis.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

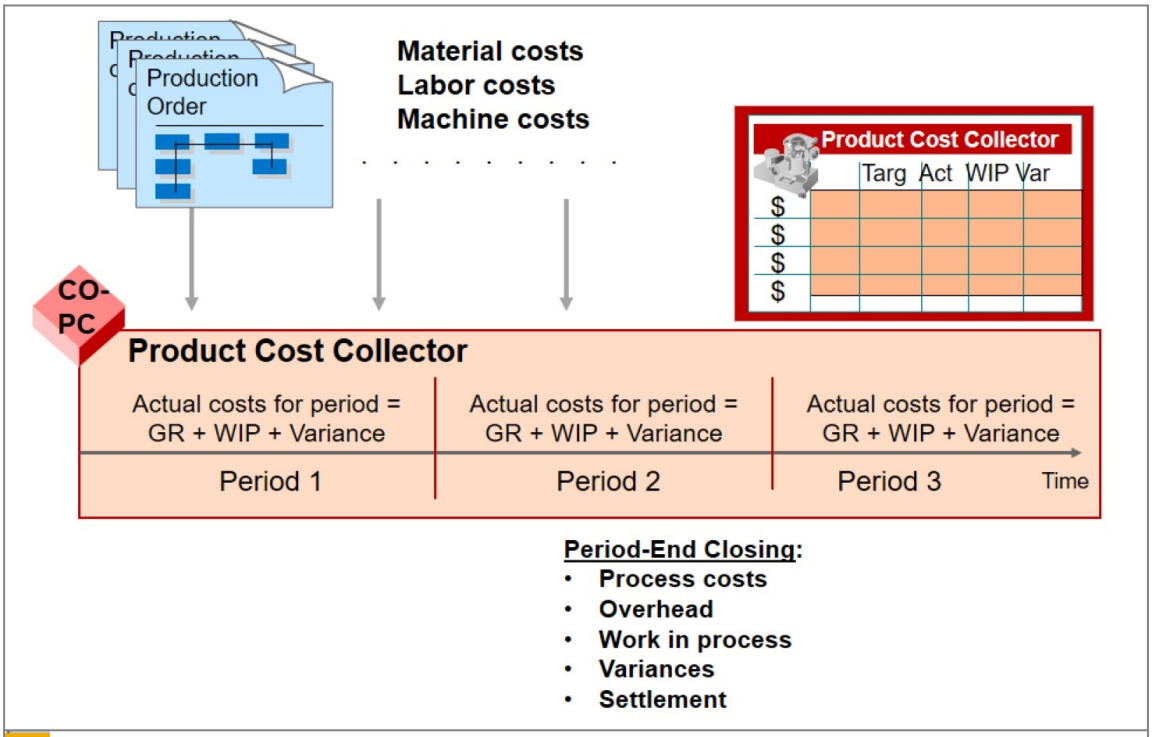

Figure 87: Product-Related COC

In product-related COC, all costs are debited and credited to a product costs collector.

Individual production orders do not have cost segments or settlement rules.

All functions in production and materials management that are relevant to costs (material withdrawal, confirmation, goods receipts) are executed on the basis of the production order.

All Controlling functions (process cost allocation, overhead allocation, WIP and variance calculation, settlement) are carried out at the end of the period on the basis of the product costs collector.

The current costs for a period comprise values for:

- The material quantities delivered for the period according to the valuation control of the goods receipt.
- The unfinished products (WIP) according to the status of the operations confirmed.
- Variances (such as scrap).

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Cost Debit / Credit (Product-Related COC)

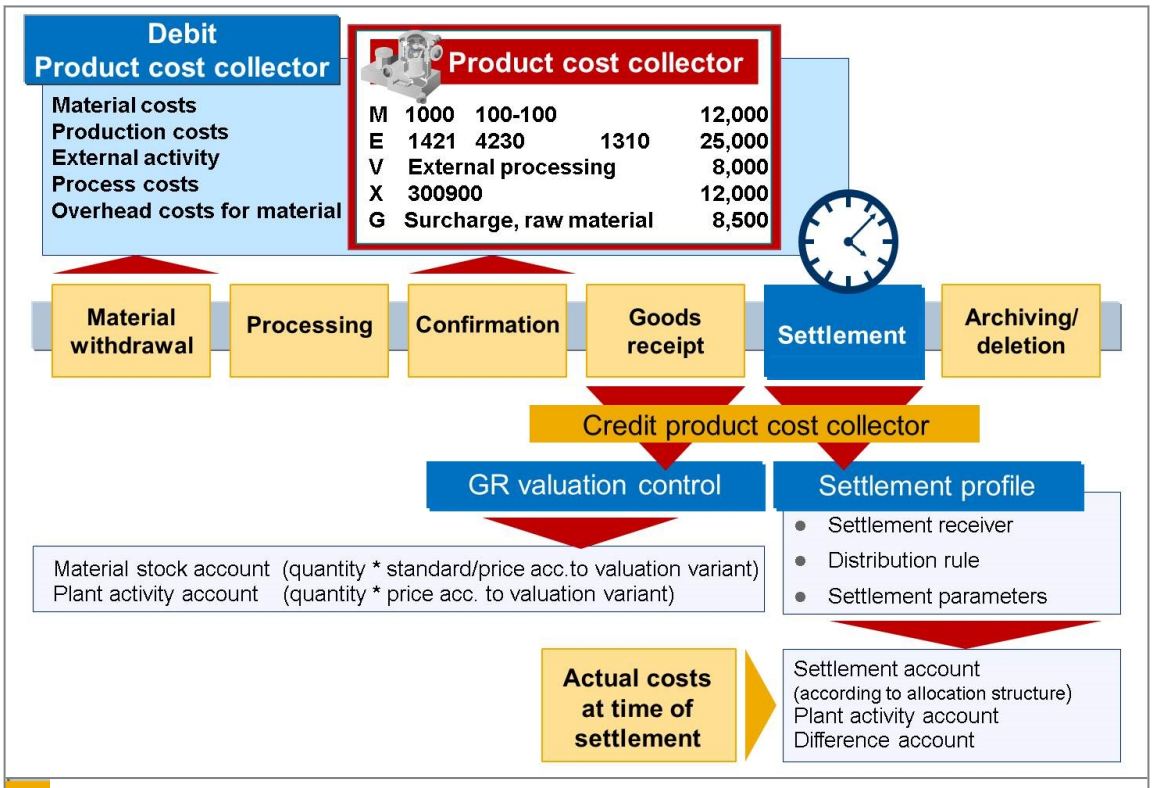

Figure 88: Cost Debit / Credit (Product-Related COC)

Settlement is period-oriented based on the costs of the product cost collector. In this case, there is no order settlement for the individual production order, the production order does not have a settlement rule.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Settle a Production Order

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

An order is debited by goods issues and by confirmations and credited by goods receipts. After a production order has been delivered, the remaining actual costs must be settled. The order must have a zero balance so that it can be archived and deleted in a subsequent step.

> Note:
> In this exercise, when a value or an object name includes ##, replace ## with the number that your instructor assigned to you.

Task 1: Find Production Orders with Status DLV Delivered

Use the production order information system to find the production orders with status DLV for your production supervisor P## in plant 1010.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Production / Planned Orders* tile to call the production order information system.

   The production order information system will be opened in a new tab. Enter the data from the table below in the header of the initial screen.

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##
Syst. Status	DLV
Excl.	
and	TECO

© Copyright. All rights reserved.

Field	Value
Excl.	x

Choose *Execute*.

In the *Order Info System – Order Headers* list, at least two production orders for material **T-FSP1##** and one production order for material **T-SSP1##** should be listed.

Don't leave the *Order Info System – Order Headers* list.

> Note:
> Don't leave the *Order Info System – Order Headers* list.

Task 2: Settle a Production Order

1. Settle one of your production orders with status DLV.

   In the *Order Info System – Order Headers* list, note the number of the first production order:

>

   Select this order and choose the *Display Object* icon to display the production order.

   In the order, choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and check the information in the costs analysis.

   The order was debited by goods issues and by confirmations and credited by goods receipts. Are there any remaining actual costs to be settled? Note these costs:

>

   In the order, choose *More* → *Goto* → *Costs* → *Balance* and note the cost balance:

>

2. In the order, choose *More* → *Header* → *Settlement Rule* and note the following information:

Cat	Settlement Receiver	%	Settlement Type
>			

   Navigate back to the *Order Info System – Order Headers* list.

   Don't leave the *Order Info System – Order Headers* list.

   > Note:
   > Don't leave the *Order Info System – Order Headers* list.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

3. In the *SAP Fiori Launchpad*, execute the *Run Variance Calculation* tile to calculate the variances for your production order.

   A new tab will be opened.

   Set controlling area A000 and choose *Continue*.

   In the initial screen, enter the following data:

Field	Value
Order	Number of the first production order in the order information system
Period	Actual period (January = 001, February = 002, ...)
Fiscal year	Actual year
All Tgt Cost Vsns	x
Select Target Cost Vsns	
Test Run	
Detail list	x

   Choose *Execute*.

   Finally, close the tab.

4. In the *SAP Fiori Launchpad*, execute the *Run Actual Settlement* tile to settle your production order.

   A new tab will be opened.

   In the initial screen, enter the following data.

Field	Value
Order	Number of the first production order in the order information system
Settlement Period	Actual period (January = 001, February = 002, ...)
Fiscal year	Actual year
Test Run	

   Choose *Execute*.

   The settlement result will be displayed in the *Actual Settlement: Order Basic list*.

   Choose *Detail lists* to get more detailed information.

   Finally, close the tab.

5. In the *Order Info System – Order Headers* list, display the first production order.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

In the order, choose *More* → *Goto* → *Costs* → *Analysis* and check the information in the costs analysis.

Are there any remaining actual costs? Has the order been settled?

In the order, choose *More* → *Goto* → *Costs* → *Balance*, assign the layout SCM-PP, and note the cost balance:

>

Finally, close the tab.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Settle a Production Order

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

An order is debited by goods issues and by confirmations and credited by goods receipts. After a production order has been delivered, the remaining actual costs must be settled. The order must have a zero balance so that it can be archived and deleted in a subsequent step.

> Note:
> In this exercise, when a value or an object name includes ##, replace ## with the number that your instructor assigned to you.

Task 1: Find Production Orders with Status DLV Delivered

Use the production order information system to find the production orders with status DLV for your production supervisor P## in plant 1010.

1. In the *SAP Fiori Launchpad*, execute the *Monitor Production / Planned Orders* tile to call the production order information system.

   The production order information system will be opened in a new tab. Enter the data from the table below in the header of the initial screen.

Field	Value
List	Order Headers
Layout	000000000001
Production Orders	x
Planned Orders	

Enter the following data in the selection area of the initial screen:

Field	Value
Production Plant	1010
Production Supervisor	P##
Syst. Status	DLV
Excl.	
and	TECO

© Copyright. All rights reserved.

Field	Value
Excl.	x

Choose *Execute*.

In the *Order Info System – Order Headers* list, at least two production orders for material **T-FSP1##** and one production order for material **T-SSP1##** should be listed.

Don't leave the *Order Info System – Order Headers* list.

> Note:
> Don't leave the *Order Info System – Order Headers* list.

a) For this exercise step no further information is needed.

Task 2: Settle a Production Order

1. Settle one of your production orders with status DLV.

   In the *Order Info System – Order Headers* list, note the number of the first production order:

>

   Select this order and choose the *Display Object* icon to display the production order.

   In the order, choose *More* → *Goto* → *Costs* → *Analysis*, assign the layout SCM-PP, and check the information in the costs analysis.

   The order was debited by goods issues and by confirmations and credited by goods receipts. Are there any remaining actual costs to be settled? Note these costs:

>

   In the order, choose *More* → *Goto* → *Costs* → *Balance* and note the cost balance:

>

   a) There are remaining actual costs in the cost analysis. They correspond to the reported cost balance.

2. In the order, choose *More* → *Header* → *Settlement Rule* and note the following information:

Cat	Settlement Receiver	%	Settlement Type
>			

   Navigate back to the *Order Info System – Order Headers* list.

   Don't leave the *Order Info System – Order Headers* list.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

> Note:
> Don't leave the *Order Info System – Order Headers* list.

a) You find the following settlement rule:

Cat	Settlement Receiver	%	Settlement Type
MAT	T-FSP1##	100	FUL

3. In the *SAP Fiori Launchpad*, execute the *Run Variance Calculation* tile to calculate the variances for your production order.

   A new tab will be opened.

   Set controlling area A000 and choose *Continue*.

   In the initial screen, enter the following data:

Field	Value
Order	Number of the first production order in the order information system
Period	Actual period (January = 001, February = 002, ...)
Fiscal year	Actual year
All Tgt Cost Vsns	x
Select Target Cost Vsns	
Test Run	
Detail list	x

   Choose *Execute*.

   Finally, close the tab.

   a) For this exercise step no further information is needed.

4. In the *SAP Fiori Launchpad*, execute the *Run Actual Settlement* tile to settle your production order.

   A new tab will be opened.

   In the initial screen, enter the following data.

Field	Value
Order	Number of the first production order in the order information system
Settlement Period	Actual period (January = 001, February = 002, ...)

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Fiscal year	Actual year
Test Run	

Choose *Execute*.

The settlement result will be displayed in the *Actual Settlement: Order Basic list*.

Choose *Detail lists* to get more detailed information.

Finally, close the tab.

a) For this exercise step no further information is needed.

5. In the *Order Info System – Order Headers* list, display the first production order.

In the order, choose *More* → *Goto* → *Costs* → *Analysis* and check the information in the costs analysis.

Are there any remaining actual costs? Has the order been settled?

In the order, choose *More* → *Goto* → *Costs* → *Balance*, assign the layout SCM-PP, and note the cost balance:

>

Finally, close the tab.

a) There are no remaining actual costs in the cost analysis. The order has been settled.

b) The cost balance is as follows:

0,00

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Settle a Production Order

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Unit 6
Lesson 2

Archiving and Deleting Production Orders

LESSON OBJECTIVES
After completing this lesson, you will be able to:

- Archive and delete a Production Order

Archiving and Deletion

Production orders have an extensive data structure and thus occupy a large amount of database resources. Therefore, production orders should be archived and deleted after a predetermined period of time has elapsed.

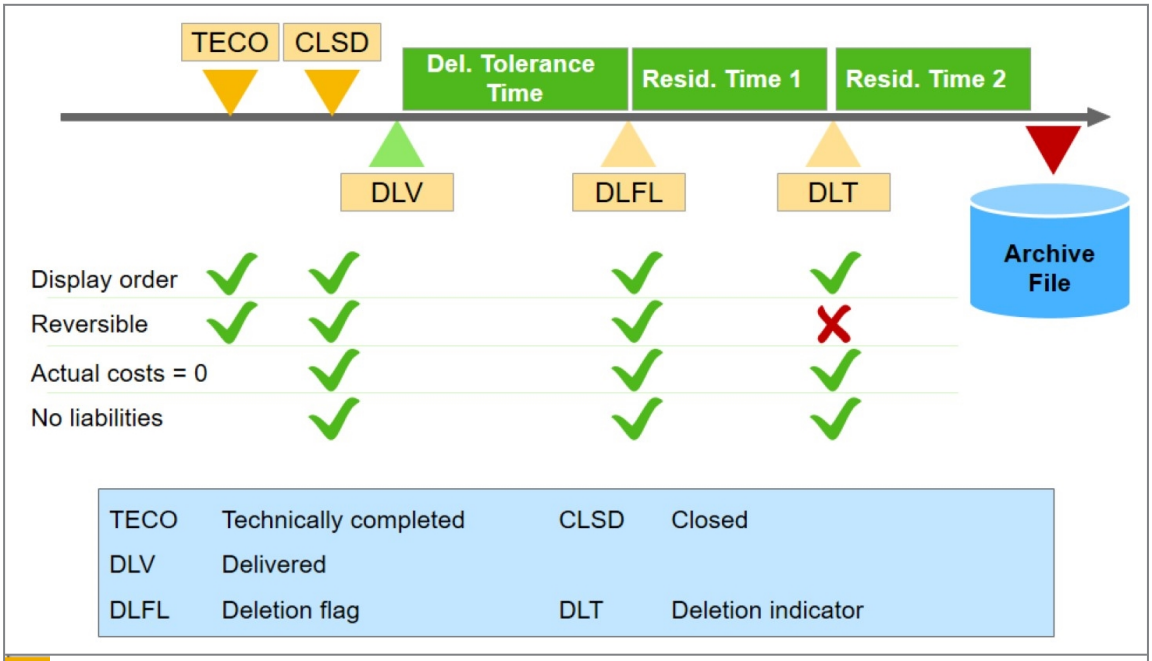

Figure 89: Archiving and Deletion (I)

An order is archived and physically deleted after a number of conditions have been checked and residence times taken into account. The residence times are defined in the corresponding order types in Customizing.

Production orders can be archived and deleted if they have the status Deletion Indicator (DLT). The status Deletion Flag (DLFL) must be set before. Prerequisites to set the deletion flag are: The order is delivered or technically completed, there are no payables and function requests for confirmations, the cost balance = 0.

Conditions and Functions of Statuses

These are the conditions required for the following statuses:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

CLSD:

The order is released or technically completed, there are no payables and function requests for confirmations, and the cost balance = 0.

DLFL:

The order is delivered or technically completed, there are no payables and function requests from confirmations, and the cost balance = 0.

DLT:

The order is flagged for deletion and the residence time 1 has expired.

The following statuses allow the following functions:

TECO:

Confirmations, goods movements.

CLSD:

Set the deletion flag

DLFL:

Set the deletion indicator

DLT:

Archive and delete

Production orders are deleted in Advanced Planning, if they have the status Technically Completed (TECO) or Deletion Flag (DLFL).

Archiving and Deletion (II)

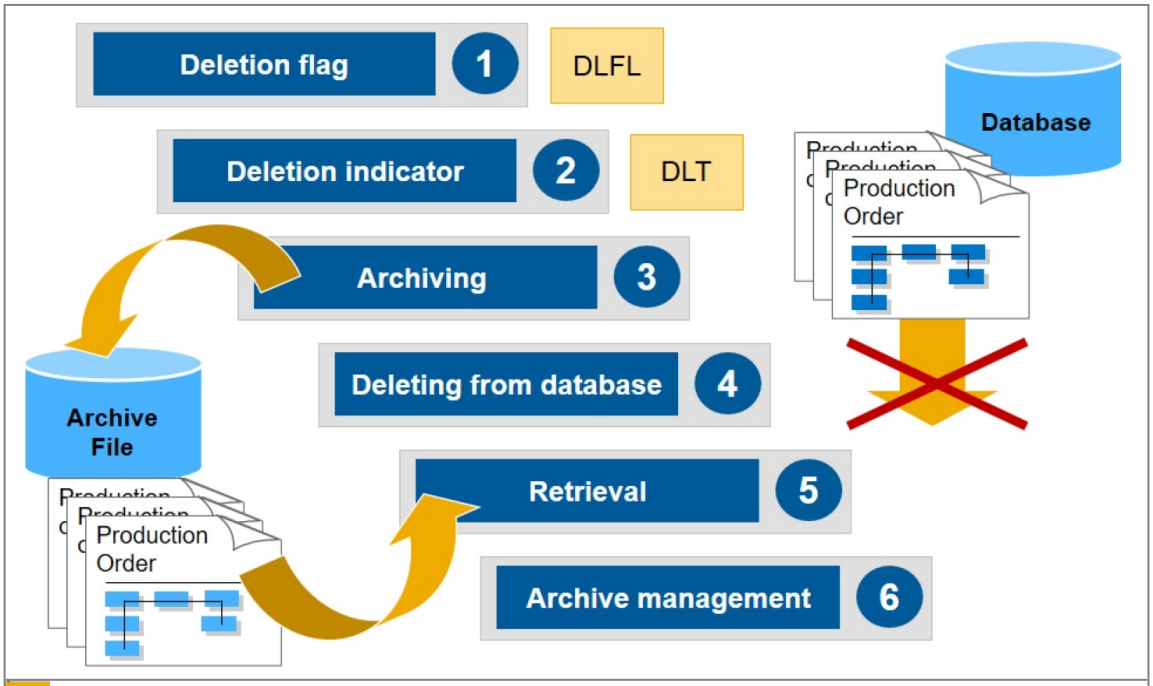

Figure 90: Archiving and Deletion (II)

The deletion and archiving functions for the production order use the central archiving tools of S/4HANA. This enables you to use various different archiving systems.

The deletion and archiving of orders is carried out in stages. You can choose individual deletion or mass deletion.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

A retrieval function is available for displaying orders that have already been physically deleted and archived.

In archive management, you can manage and display an index list of the archived production orders.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Archive and Delete a Production Order

Business Scenario

Production orders that have been settled can be archived and deleted to keep the volume of data contained in the database small. An administrator starts monthly background jobs for this purpose.

> Note:
> In this exercise, when a value or an object name includes ##, replace ## with the number that your instructor assigned to you.

Task 1: Set the Deletion Flag and the Deletion Indicator

You want to archive and delete the production order that you settled in the previous exercise. The archiving and deletion of orders is carried out in stages. First set the deletion flag and the deletion indicator.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Deletion flag / deletion indictor* to open the *Archive Administration: Preprocessing* window.

   Define the following variant:

Variant
GR##_FLAG_IND

   and choose the *Edit* button.

   In the *Variants: Change Screen Assignment* select *For All Selection Screens* and choose *Continue*.

   In the *Edit Variants* screen, enter the following data:

Field	Value
Order	Number of the production order that you settled in the previous exercise
Delivery Date Overrun	
Set Deletion Flag	x
Set Deletion Indicator	x

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Production Mode	x

Choose *Back (F3)* and confirm the question in the subsequent dialog box with *Yes*.

In the *Variant Attributes* screen, enter the following description:

Description
GR## Deletion flag / indicator

Save the variant and navigate back to the *Archive Administration: Preprocessing* window.

Choose the *Start Date* button. In the corresponding dialog box, set the start time **`Immediate`** and *Save* the start time.

Choose the *Spool Parameters* button. In the corresponding dialog box, assign output device LP01 and choose *Continue* to close the dialog box.

Finally, choose the *Execute (F8)* icon to start the job.

2. In the backend system, choose transaction `CO02`. and try to change your production order.
   Enter the order number in the initial screen and choose *Enter*.

   The following information will be displayed: **`Order already deleted. Do you want to display the order?`**.

   Choose *Yes* to display the order.

   Note the corresponding statuses set by the background job:

Status	Text
>	
>	

Task 2: Archive the Production Order

After the deletion indicator has been set, you can archive the production order.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Archiving* to open the *Archive Administration: Create Archive Files* window.

   Define the following variant:

Variant
GR##_ARCH

   and choose the *Edit* button.

   In the *Variants: Change Screen Assignment* select *For All Selection Screens* and choose *Continue*.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the *Edit Variants* screen, enter the following data:

Field	Value
Order	Number of the production order that you settled in the previous exercise
Production Mode	x

Choose *Back (F3)* and confirm the question in the subsequent dialog box with *Yes*.

In the *Variant Attributes* screen, enter the following Description:

Description
GR## Archiving

Save the variant and navigate back to the *Archive Administration: Create Archive Files* window.

Choose the *Start Date* button. In the corresponding dialog box, set the start time **`Immediate`** and *Save* the start time.

Choose the *Spool Parameters* button. In the corresponding dialog box, assign output device LP01 and choose *Continue* to close the dialog box.

Finally, choose the *Execute (F8)* icon to start the job.

Duplication is prohibited.

Duplication is prohibited.

Task 3: Delete the Production Order

After the production order has been archived, you can delete it in the S/4 HANA database.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Delete* to open the *Archive Administration: Execute Delete Program* window.

   Choose the *Archive Selection* button.

   In the *Archive Administration* dialog box, choose *Change layout* and add *Started by* to the displayed columns.

   Now select the archiving object for your user and choose *Continue*.

2. In the *Archive Administration: Execute Delete Program* window, choose the *Start Date* button. In the corresponding dialog box, set the start time **`Immediate`** and *Save* the start time.

   Choose the *Spool Parameters* button. In the corresponding dialog box, assign output device LP01 and choose *Continue* to close the dialog box.

   Finally, choose the *Execute (F8)* icon to start the job.

3. In the backend system, choose transaction `CO02` and try to change your production order.

   Enter the order number in the initial screen and choose *Enter*.

   The following error message will be displayed: **`Order not found`** .

Task 4: Display the Archived Production Order

After the production order has been deleted, you can use the retrieval function to read the order data from the archive.

© Copyright. All rights reserved.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Retrieval* to open the *Production Order Reorg: Display Archive Data* window.

   Enter your production supervisor P## as selection criteria and choose *Execute (F8)*.

   The data of the archived production order will be displayed in the object overview of the order information system.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Archive and Delete a Production Order

Business Scenario

Production orders that have been settled can be archived and deleted to keep the volume of data contained in the database small. An administrator starts monthly background jobs for this purpose.

> Note:
> In this exercise, when a value or an object name includes ##, replace ## with the number that your instructor assigned to you.

Task 1: Set the Deletion Flag and the Deletion Indicator

You want to archive and delete the production order that you settled in the previous exercise. The archiving and deletion of orders is carried out in stages. First set the deletion flag and the deletion indicator.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Deletion flag / deletion indictor* to open the *Archive Administration: Preprocessing* window.

   Define the following variant:

Variant
GR##_FLAG_IND

   and choose the *Edit* button.

   In the *Variants: Change Screen Assignment* select *For All Selection Screens* and choose *Continue*.

   In the *Edit Variants* screen, enter the following data:

Field	Value
Order	Number of the production order that you settled in the previous exercise
Delivery Date Overrun	
Set Deletion Flag	x
Set Deletion Indicator	x

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Production Mode	x

Choose *Back (F3)* and confirm the question in the subsequent dialog box with *Yes*.

In the *Variant Attributes* screen, enter the following description:

Description
GR## Deletion flag / indicator

Save the variant and navigate back to the *Archive Administration: Preprocessing* window.

Choose the *Start Date* button. In the corresponding dialog box, set the start time **`Immediate`** and *Save* the start time.

Choose the *Spool Parameters* button. In the corresponding dialog box, assign output device LP01 and choose *Continue* to close the dialog box.

Finally, choose the *Execute (F8)* icon to start the job.

a) For this exercise step no further information is needed.

2. In the backend system, choose transaction `CO02`. and try to change your production order.

   Enter the order number in the initial screen and choose *Enter*.

   The following information will be displayed: **`Order already deleted. Do you want to display the order?`**.

   Choose *Yes* to display the order.

   Note the corresponding statuses set by the background job:

Status	Text
>	
>	

a) The following status are set:

Status	Text
DLT	Deletion Indicator
DLFL	Deletion Flag

Task 2: Archive the Production Order

After the deletion indicator has been set, you can archive the production order.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Archiving* to open the *Archive Administration: Create Archive Files* window.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Define the following variant:

Variant
GR##_ARCH

and choose the *Edit* button.

In the *Variants: Change Screen Assignment* select *For All Selection Screens* and choose *Continue*.

In the *Edit Variants* screen, enter the following data:

Field	Value
Order	Number of the production order that you settled in the previous exercise
Production Mode	x

Choose *Back (F3)* and confirm the question in the subsequent dialog box with *Yes*.

In the *Variant Attributes* screen, enter the following Description:

Description
GR## Archiving

Save the variant and navigate back to the *Archive Administration: Create Archive Files* window.

Choose the *Start Date* button. In the corresponding dialog box, set the start time **`Immediate`** and *Save* the start time.

Choose the *Spool Parameters* button. In the corresponding dialog box, assign output device LP01 and choose *Continue* to close the dialog box.

Finally, choose the *Execute (F8)* icon to start the job.

a) For this exercise step no further information is needed.

Task 3: Delete the Production Order

After the production order has been archived, you can delete it in the S/4 HANA database.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Delete* to open the *Archive Administration: Execute Delete Program* window.

   Choose the *Archive Selection* button.

   In the *Archive Administration* dialog box, choose *Change layout* and add *Started by* to the displayed columns.

   Now select the archiving object for your user and choose *Continue*.

   a) For this exercise step no further information is needed.

2. In the *Archive Administration: Execute Delete Program* window, choose the *Start Date* button. In the corresponding dialog box, set the start time **`Immediate`** and *Save* the start time.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Choose the *Spool Parameters* button. In the corresponding dialog box, assign output device LP01 and choose *Continue* to close the dialog box.

Finally, choose the *Execute (F8)* icon to start the job.

a) For this exercise step no further information is needed.

3. In the backend system, choose transaction `CO02` and try to change your production order.

   Enter the order number in the initial screen and choose *Enter*.

   The following error message will be displayed: **`Order not found`** .

   a) For this exercise step no further information is needed.

Task 4: Display the Archived Production Order

After the production order has been deleted, you can use the retrieval function to read the order data from the archive.

1. In the backend system, choose transaction `CO78` to open the *Archiving of Production Orders* environment.

   Choose *Retrieval* to open the *Production Order Reorg: Display Archive Data* window.

   Enter your production supervisor P## as selection criteria and choose *Execute (F8)*.

   The data of the archived production order will be displayed in the object overview of the order information system.

   a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Archive and delete a Production Order

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Order-related COC and product-related COC are the available variants of cost object controlling (COC).

   Determine whether this statement is true or false.

   ☐ True

   ☐ False

2. Which of the following statements are correct?

   Choose the correct answers.

   ☐ A The deletion and archiving of orders can only be carried out in mass processing.

   ☐ B The order must be delivered or technically completed in order to set the deletion flag.

   ☐ C Prerequisites to set the deletion flag are: There are no payables and function requests for confirmations, the cost balance = 0.

   ☐ D The order must have status CLSD in order to set the deletion flag.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Order-related COC and product-related COC are the available variants of cost object controlling (COC).

   Determine whether this statement is true or false.

   [X] True

   [ ] False

   Correct. Order-related COC and product-related COC are the available variant of cost object controlling (COC).

2. Which of the following statements are correct?

   Choose the correct answers.

   [ ] A The deletion and archiving of orders can only be carried out in mass processing.

   [X] B The order must be delivered or technically completed in order to set the deletion flag.

   [X] C Prerequisites to set the deletion flag are: There are no payables and function requests for confirmations, the cost balance = 0.

   [ ] D The order must have status CLSD in order to set the deletion flag.

   Correct. The order must be delivered or technically completed in order to set the deletion flag. Prerequisites to set the deletion flag are: There are no payables and function requests for confirmations, the cost balance = 0.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 7 Information Systems, Mass Processing, and Automation

Lesson 1

Outlining Informations Systems and Reporting 474
Exercise 30: Analyze Production Data with the Order Information System 477

Lesson 2

Outlining Mass Processing and Automation 480
Exercise 31: Get an Overview of the Mass Processing Functions 485
Exercise 32: Execute a Trigger Point 487

Lesson 3

Outlining the Data Exchange with the Process Control Level 495

Duplication is prohibited.

Duplication is prohibited.

UNIT OBJECTIVES

- Provide an overview of important information systems in the production order environment
- Provide an overview of automation and mass processing functions for production orders
- Describe options for data exchange with the process control level

© Copyright. All rights reserved.

Unit 7
Lesson 1

Outlining Informations Systems and Reporting

LESSON OBJECTIVES
After completing this lesson, you will be able to:

- Provide an overview of important information systems in the production order environment

Information Systems

Production supervisors constantly require information about the status and progress of individual or several production orders. They need to know, for example, to which orders delays are expected, what the current pool of orders and the capacity utilization at the work centers are and where missing parts situations have occurred.

There are flexible evaluation options and several information systems for production orders. They differ in the way they use the order database as well as in the results they can show.

Information Systems for Order, Operation and Work Center Monitoring are:

- Monitor Production / Planned Orders = Order Information System `COOIS`
- Manage Production Orders
- Manage Production Operations
- Manage Work Center Queue
- Monitor Order Progress = Order Progress Report `CO46`
- Missing Parts Information System `CO24`
- Capacity Evaluations and Capacity Planning Tables
- Shift Notes *SHN1/2/3/4/5*
- Shift Reports *SHR1/2/3/4*

Information Systems for Production Performance Monitoring are:

- Excess Component Consumption
- Production Execution Duration
- Scrap Reason By Work Center
- Material Scrap Maximum Deviation
- Operation Scrap By Work Center

Information Systems for Batch Management are:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

- Batch Information Cockpit *BMBC*
- Batch Where-Used-List
- WIP-Batches

Other Information Systems are:

- Controlling Reports
- Business Information Warehouse

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Analyze Production Data with the Order Information System

Business Scenario

As a production supervisor, you constantly require information about the status and progress of individual or several production orders. For this purpose, you use the order information system.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Use the Order Information System

Use the order information system to analyze various data related to your production orders.

1. In the *SAP Fiori Launchpad* , execute the *Monitor Production / Planned Order* tile to open the order information system.

   First, get an overview of the selectable lists and the various selection options.

   Then carry out any evaluations for different lists and with different selection parameters.

   For example, evaluate the documented goods movements, the automatic goods movements, the order headers, the components, the operations, and the confirmations for your production supervisor P## in plant 1010.

   Display the data also in the object overview.

2. Save your selection settings as variants, and change the layout in the list reports.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Analyze Production Data with the Order Information System

Business Scenario

As a production supervisor, you constantly require information about the status and progress of individual or several production orders. For this purpose, you use the order information system.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Use the Order Information System

Use the order information system to analyze various data related to your production orders.

1. In the *SAP Fiori Launchpad* , execute the *Monitor Production / Planned Order* tile to open the order information system.

   First, get an overview of the selectable lists and the various selection options.

   Then carry out any evaluations for different lists and with different selection parameters.

   For example, evaluate the documented goods movements, the automatic goods movements, the order headers, the components, the operations, and the confirmations for your production supervisor P## in plant 1010.

   Display the data also in the object overview.

   a) On the *Production Order Information System* screen, choose the required list and enter required selection parameters.

      Then choose *Execute* to display the corresponding list report.

2. Save your selection settings as variants, and change the layout in the list reports.

   a) On the *Production Order Information System* screen, choose *Save as Variant ...* to save your selection settings.

      Enter a variant name and a description and *Save* the variant.

   b) In a list report, you can change the layout as follows:

      Choose the > *(Standard ALV Functions On)* symbol, and then choose the *Change Layout ...* option for the *layout* symbol.

      In the *Change Layout* window, you can select the required fields and define sort and filter criteria. Then you can choose the *Adopt (Enter)* symbol to apply your changes or *Save As* to save your changes as your own layout.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Provide an overview of important information systems in the production order environment

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Outlining Mass Processing and Automation

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Provide an overview of automation and mass processing functions for production orders

Mass Processing and Automation

It will often happen that you need to process several production orders or planned orders automatically or at the same time. Automation options and a mass processing function are available for this reason.

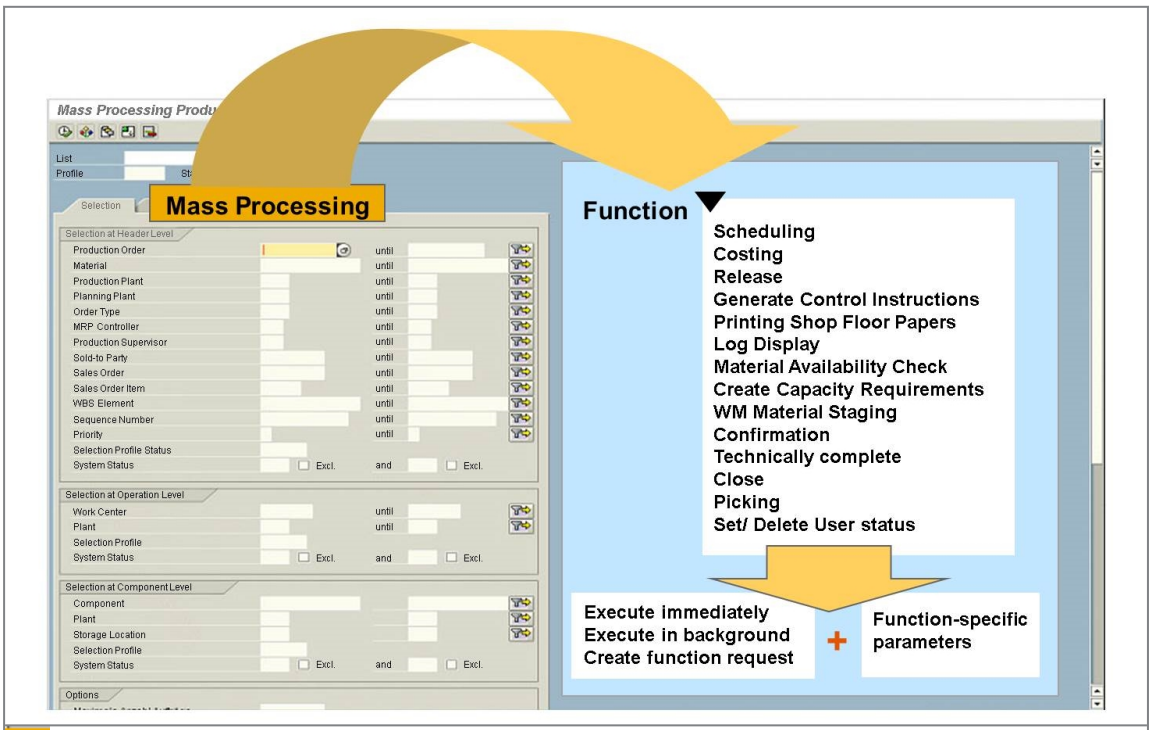

Figure 91: Mass Processing

Mass processing works quickly and without dialog. The advantages of mass processing are:

- Execution online or in the background.
- Separation into “function request” and “execution”.
- Parallel processing.
- Enhanced selection criteria.
- Customizable display (field selection).

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

- Enhanced functionality for some activities (release, scheduling, availability checks, ...).
- Application log for background processing.

You can start mass processing with the options *Execute function immediately*, *Create Function Request*, or *Execute function in the background*.

Automation and Background Processing

Furthermore, S/4HANA offers a number of automation options for rationalizing and saving time in order management, realized by background jobs and special settings in the master data and in Customizing.

Process to be automated	Time	Control data
Create prod. order as assembly order	Create sales order	Planning strategy 82
Creation prod. order for rework	Confirmation (set status)	Trigger points
Schedule order	Release production order	Production scheduling profile
	Changes to production order	Sch. parameters for order type
Availability check	Create/release production order	Checking control for order type
Release production order	Create production order	Production scheduling profile
Release operations	Confirmation (set status)	Trigger points
Print	Release production order	Production scheduling profile
WM request (transfer rqmt./order)	Release production order	Production scheduling profile
Post goods issue (backflush)	Confirmation	Material master, work center or routing (component allocation)
Confirm operations	Milestone confirmation	Operation control key
Post goods receipt	Confirmation	Production scheduling profile
		Operation control key
Variable automation (e.g. workflow, insert operations)	Confirmation (set status)	Trigger points
Multi-level collective orders	Create production order	Special procurement 52

Figure 92: Automation

The figure gives an overview of automation options.

Programs for Background Processing

Programs for Background Processing are:

- Mass Processing
- Planned Order Conversion
- Capacity Leveling
- Order Release
- Printing
- Archiving and Deletion
- Download/Upload to/from Process Control

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Collective Orders

Collective orders are the only option for multilevel, collective management of production orders for an entire finished product. A number of functions can be used on several levels (across orders) for many orders.

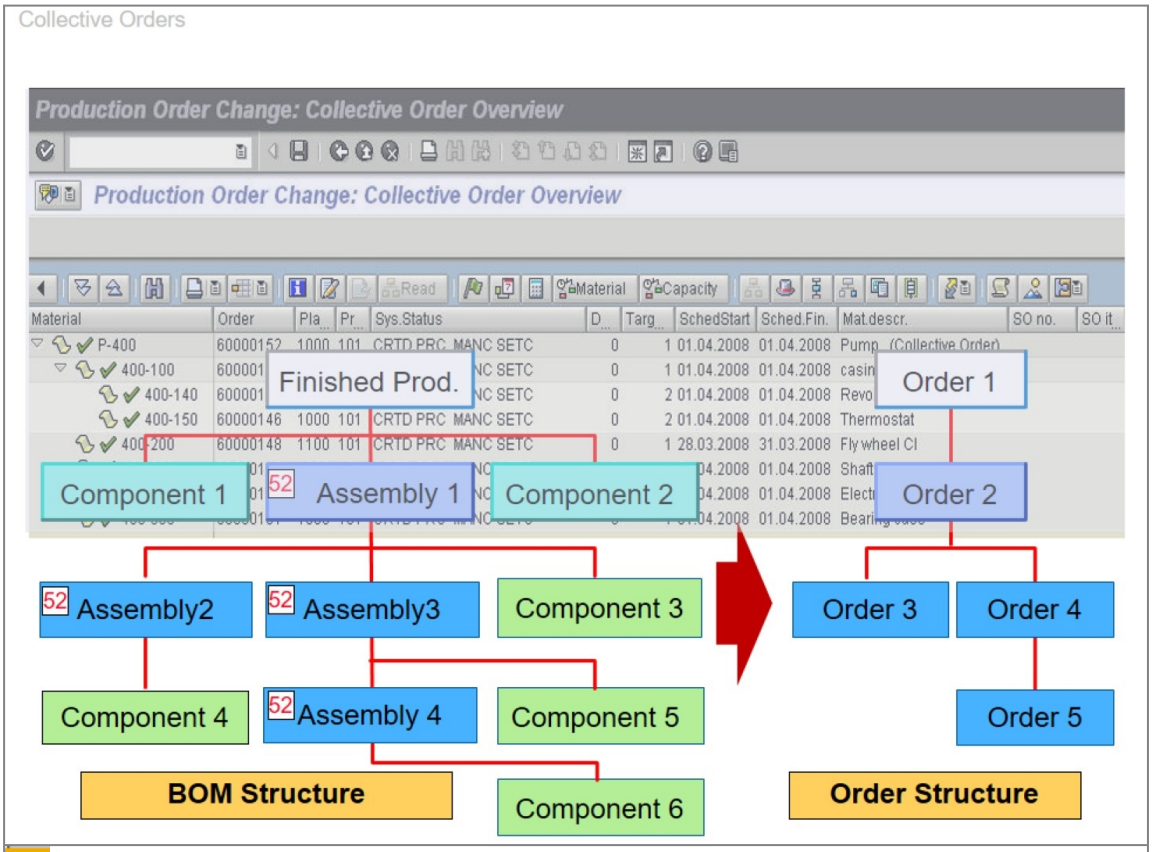

Figure 93: Collective Orders

For each BOM component whose material master has a special procurement key 52 *Direct production/collective order*, a separate sub-order is created.

Advantages of Collective Orders are:

- Less effort required for planning, managing and maintaining orders.
- Automatic goods movements between the individual levels of a collective order possible.
- Business functions that can be executed for collective orders:
  - Date and quantity changes
  - Availability checks
  - Order release
  - Confirmations
- Graphical display of the collective order:
  - High transparency of complex order structures

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

- Clear overview of the relationship between orders
- Access to all individual orders of the collective order

Trigger Points

If you want to use functions that can be automated at operation level, you can use trigger points for this.

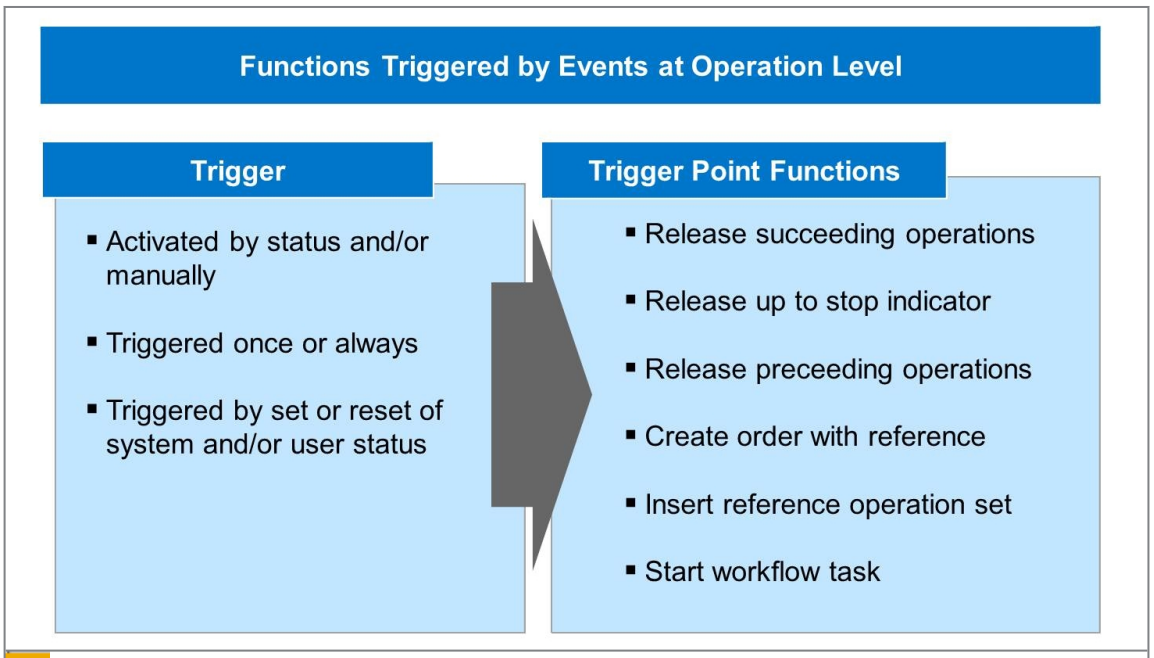

Figure 94: Trigger Points

The figure describes trigger point functions.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Get an Overview of the Mass Processing Functions

Business Scenario

As a production scheduler, you often have to process several production orders or planned orders automatically or simultaneously. Mass processing functions are available for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Get an Overview of the Functions and Options for Mass Processing

Get an overview of the various functions, options and settings for mass processing of production and planned orders.

1. In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   First, get an overview of the selectable lists and the various selection options and selection parameters.

   Then, depending on the selected list and the settings for the *Production Order* and the *Planned Order* flags, get an overview of the available mass processing functions, options and settings.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Get an Overview of the Mass Processing Functions

Business Scenario

As a production scheduler, you often have to process several production orders or planned orders automatically or simultaneously. Mass processing functions are available for this purpose.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Get an Overview of the Functions and Options for Mass Processing

Get an overview of the various functions, options and settings for mass processing of production and planned orders.

1. In the *SAP Fiori Launchpad*, execute the *Mass Processing Production Orders* tile.

   First, get an overview of the selectable lists and the various selection options and selection parameters.

   Then, depending on the selected list and the settings for the *Production Order* and the *Planned Order* flags, get an overview of the available mass processing functions, options and settings.

   a) On the *Selection* tab of the *Mass Processing Production Orders* screen, choose various lists and different settings for the *Production Order* and the *Planned Order* flags.

      On the *Mass Processing* tab, check the available mass processing functions dependent on the selected list and settings. Choose different mass processing functions and check the available options and settings for these functions.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Execute a Trigger Point

Business Scenario

You want to automate some functions at operation level. You use trigger points for this purpose. As a prerequisite, you must maintain the corresponding settings in the routings and in Customizing.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Check the Settings for a Trigger Point

In your routing for material T-FSP1## you defined a trigger point for the automatic insertion of a reference operation set in the case of rework. Check the corresponding settings.

1. In the *SAP Fiori Launchpad*, execute the *Display Routing* tile to display the routing for material T-FSP1## in plant 1010.
2. In the *Operation Overview* screen, select operation 0030 and navigate to the *Trigger Point Overview*.

   Write down the Trigger Point assigned to operation 0030 into the following table:

Description	Functions
>	

3. Select the Trigger Point and navigate to the *Trigger Point Details*.

   Write down the settings for the activated trigger point function in the following table:

Function	Function description	Syst.Sts	User sts	Change	Activa
X					

4. Display the parameters for the activated trigger function.

   After what operation shall the reference operation set be inserted? Write down the corresponding setting in the following table:

Field	Value
After operation	

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Task 2: Check the Settings for a Reason for Variance

In Customizing, you defined a Reason for Variance to set an operation user status with the confirmation of an operation. This user status allows to trigger a trigger point. Check the corresponding settings.

1. In the Customizing environment of the backend system, open the Customizing activity *Define Reason for Variances* and display the User Status assigned to the Reason of Variance with the description **`Rework`**.

   Write down the status in the following table:

Field	Value
User status	

Task 3: Execute the Trigger Point

You create a production order for material T-FSP1## and confirm the operations. When confirming operation 0030, you enter a rework quantity and the reason for variance *Rework* to execute the corresponding trigger point. Finally, you check the result.

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for material T-FSP1## in plant 1010 with order type YBM1.

   Choose an order quantity of 5 PC and any end date.

   Release and save the order and write down the order number.

   Order number: _____

2. In the *SAP Fiori Launchpad*, execute the *Confirm Production Order Operation* tile to perform time ticket confirmations for the operations of your production order.

   Save the confirmations for operation 0010 and 0020 without changing the proposed data.

   For operation 0030, change the yield to be confirmed from 5 to 4 PC, enter a rework quantity of 1 PC and the reason for variance REWO *Rework*.

   What information will be displayed when you save the confirmation for operation 0030?

   _____

3. A rework operation has been inserted in the production order.

   In the *Enter Time Ticket for Production Order* screen, enter the production order number again.

   The data for the confirmation of the rework operation will be proposed.

   Save the confirmation.

4. In the *SAP Fiori Launchpad*, execute the *Change Production Order* tile to display the data of your production order.

   Check the data in the Operation Overview.

   Has the rework operation been inserted in the operation overview?

   _____

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Execute a Trigger Point

Business Scenario

You want to automate some functions at operation level. You use trigger points for this purpose. As a prerequisite, you must maintain the corresponding settings in the routings and in Customizing.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Check the Settings for a Trigger Point

In your routing for material T-FSP1## you defined a trigger point for the automatic insertion of a reference operation set in the case of rework. Check the corresponding settings.

1. In the *SAP Fiori Launchpad*, execute the *Display Routing* tile to display the routing for material T-FSP1## in plant 1010.
   a) In the *Display Routing: Initial Screen*, enter the following data:

Field	Value
Material	T-FSP1##
Plant	1010

2. In the *Operation Overview* screen, select operation 0030 and navigate to the *Trigger Point Overview*.
   Write down the Trigger Point assigned to operation 0030 into the following table:

Description	Functions
>	

   a) Choose *More* → *Goto* → *Trigger point overview*.
   You should find the following Trigger Point:

Description	Functions
Rework	X

3. Select the Trigger Point and navigate to the *Trigger Point Details*.
   Write down the settings for the activated trigger point function in the following table:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Function	Function description	Syst.Sts	User sts	Change	Activa
X					

a) Choose *More* → *Details* → *Trigger point*.

Function	Function description	Syst. Sts	User sts	Change	Activa
X	Insert reference operation set		REWO	+	

4. Display the parameters for the activated trigger function.

   After what operation shall the reference operation set be inserted? Write down the corresponding setting in the following table:

Field	Value
After operation	

a) Choose the *Parameters* button.

   The reference operation set shall be inserted after operation 0030:

Field	Value
After operation	0030

Task 2: Check the Settings for a Reason for Variance

In Customizing, you defined a Reason for Variance to set an operation user status with the confirmation of an operation. This user status allows to trigger a trigger point. Check the corresponding settings.

1. In the Customizing environment of the backend system, open the Customizing activity *Define Reason for Variances* and display the User Status assigned to the Reason of Variance with the description **`Rework`**.

   Write down the status in the following table:

Field	Value
User status	

a) Choose transaction SPRO and press the *SAP Reference IMG* button.

   In the *Display IMG* screen, choose the following menu path:

   Production → *Shop Floor Control* → *Operations* → *Confirmation* → *Define Reasons for Variance*.

   In the *Reason for variance: Overview* screen, select the Reason for Variance with the description **`Rework`** in plant 1010 and double-click on the folder *User Status*.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

The following user status should be assigned:

Field	Value
User status	REWO

Task 3: Execute the Trigger Point

You create a production order for material T-FSP1## and confirm the operations. When confirming operation 0030, you enter a rework quantity and the reason for variance *Rework* to execute the corresponding trigger point. Finally, you check the result.

1. In the *SAP Fiori Launchpad*, execute the *Create Production Order* tile to create a production order for material T-FSP1## in plant 1010 with order type YBM1.

   Choose an order quantity of 5 PC and any end date.

   Release and save the order and write down the order number.

   Order number: _____

   a) Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010
Order Type	YBM1

   Choose *Continue* and enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	5
Basic Dates / End	choose any date in the near future

   Choose *Release Order* to create and release the order.

   Finally, choose *Save* to save the order. The order number will be displayed.

2. In the *SAP Fiori Launchpad*, execute the *Confirm Production Order Operation* tile to perform time ticket confirmations for the operations of your production order.

   Save the confirmations for operation 0010 and 0020 without changing the proposed data.

   For operation 0030, change the yield to be confirmed from 5 to 4 PC, enter a rework quantity of 1 PC and the reason for variance REWO *Rework*.

   What information will be displayed when you save the confirmation for operation 0030?

   _____

   a) In the *Enter Time Ticket for Production Order* screen, select your confirmations via the order and the operation number.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

b) When you save operation 0030, the *Trigger Point Function* window is displayed. You get the information that a reference operation set will be inserted in the production order.

3. A rework operation has been inserted in the production order.

   In the *Enter Time Ticket for Production Order* screen, enter the production order number again.

   The data for the confirmation of the rework operation will be proposed.

   Save the confirmation.

   a) No further information is needed for this exercise step.

4. In the *SAP Fiori Launchpad*, execute the *Change Production Order* tile to display the data of your production order.

   Check the data in the Operation Overview.

   Has the rework operation been inserted in the operation overview?

   _____

   a) The rework operation has been inserted after operation 0030.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Provide an overview of automation and mass processing functions for production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Outlining the Data Exchange with the Process Control Level

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe options for data exchange with the process control level

Data Exchange with the Process Control Level

For external processing of production orders, various options are available for data exchange with the process control level.

The PP-PDC (Plant Data Collection) interface allows data exchange between the SAP S/4HANA system and standard plant data collection (PDC) systems. Released operations of production orders can be downloaded to the PDC system and time ticket or time event confirmations can be uploaded to SAP S/4HANA.

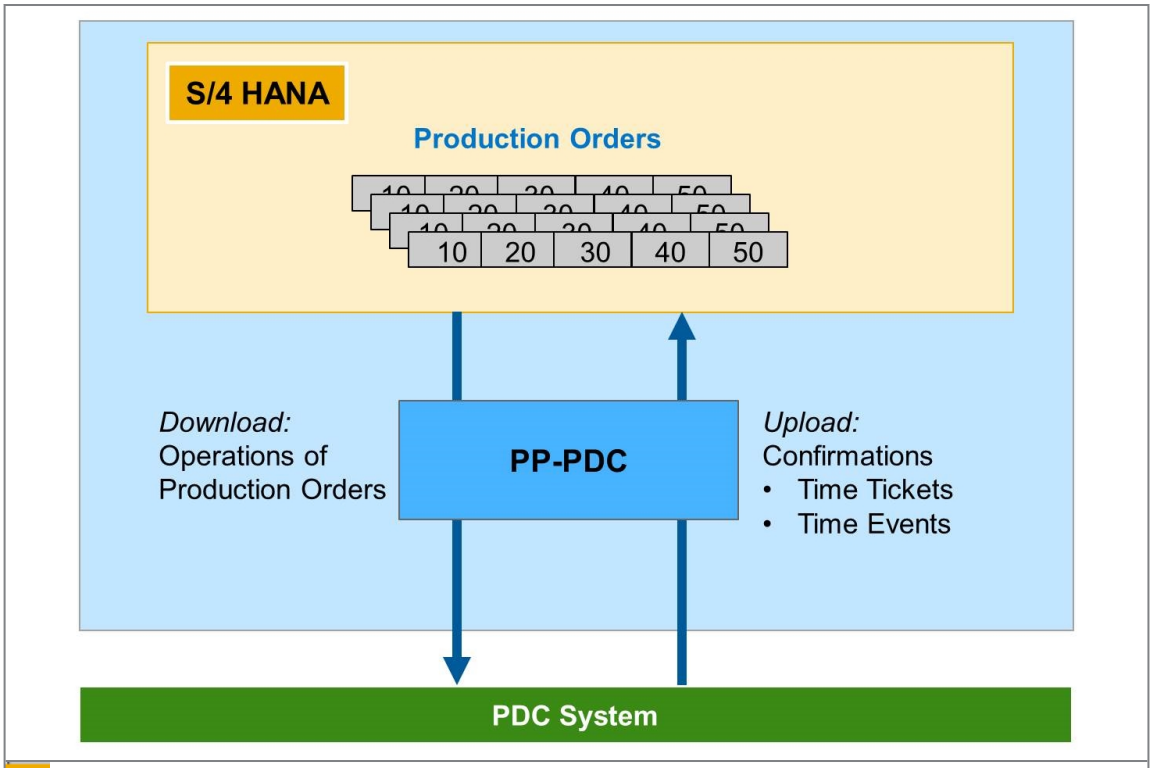

Figure 95: PDC Interface

As prerequisite for using the interface, you must configure the connection to the subsystem in Customizing. The subsystem must then be assigned to the work centers to be connected. Furthermore, the *PDC Active* indicator must be set for the order type.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

PI-PCS Interface and Work Instructions

Process integration via work instructions and/or the PI-PCS interface enables flexible data exchange with the process control level. It can be used in fully automated, partially automated, and manually operated production lines and work centers.

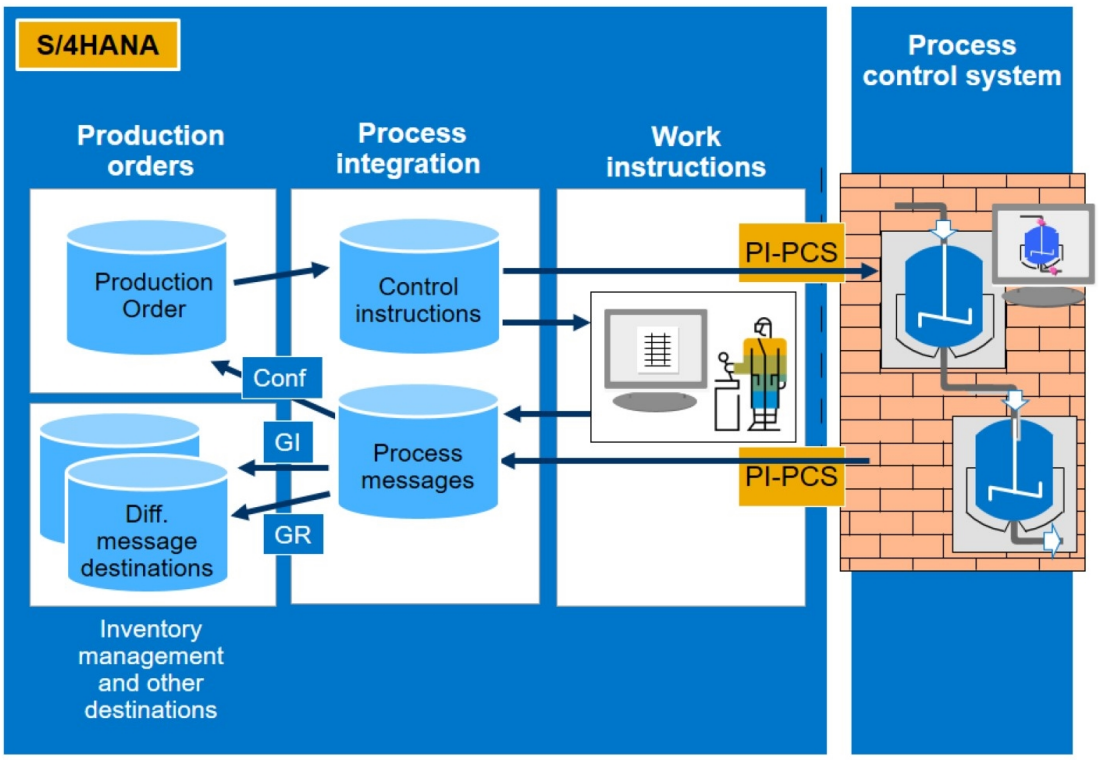

Figure 96: PI-PCS Interface and Work Instructions

Process integration comprises the following functions:

- Sending control instructions with process instructions from released production orders to the corresponding machine operators or process control systems. Process instructions define in detail the process steps to be executed and the process data to be reported with process messages.
- For manual data entry: converting the control instructions into work instructions in the S/4HANA system so that machine operators can display this data on the screen and record actual values, such as confirmation and goods movements data.
- Receiving, checking, and sending process messages with actual process data from the process control system or the work instructions.

Data exchanged with process control systems is realized via the PI-PCS interface.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

XSteps

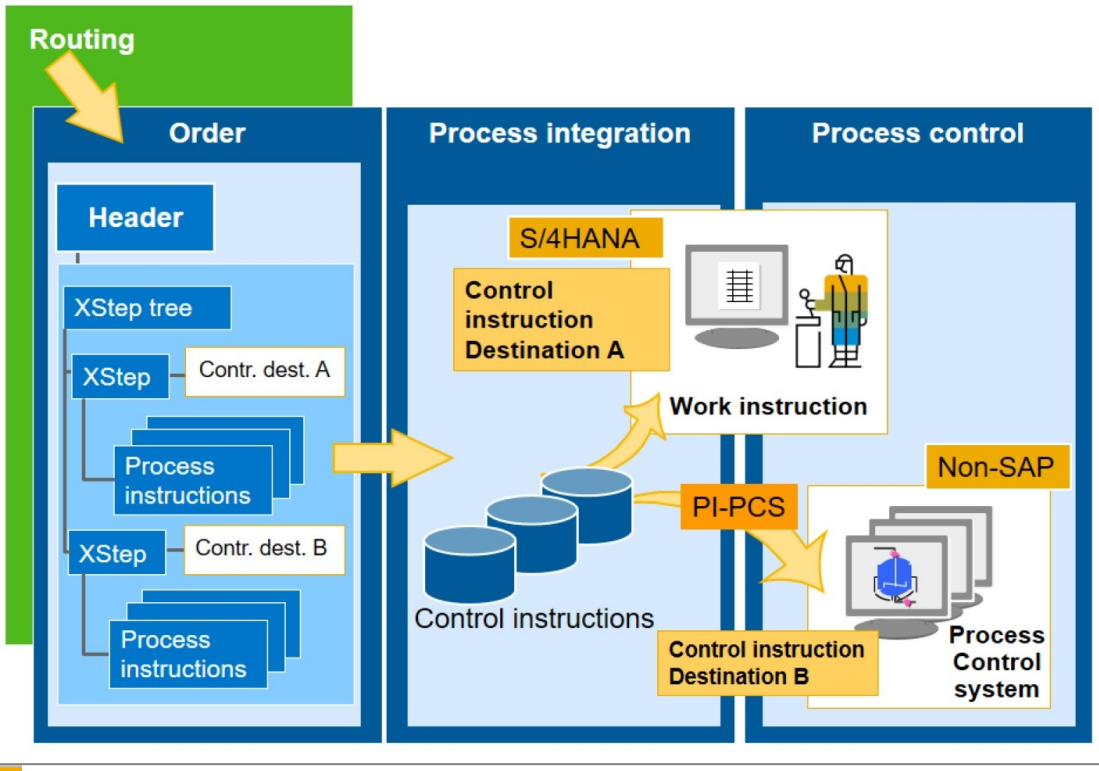

Figure 97: XSteps

With XSteps, you define the process instructions that are to be converted into work instructions or send to process control systems. You define the XSteps for your production orders in XStep trees in the routings. When maintaining the XSteps, you can define references to the Standard XStep Repository. This considerably reduces the effort required to maintain data.

SAP PCo, SAP MII and SAP ME

SAP PCo

With SAP Plant Connectivity (PCo), SAP provides a software component that enables the exchange of data between an SAP system and the industry-specific standard data sources of different manufacturers, for example, process control systems, plant historian systems, and SPC systems.

With PCo, you can receive tags and events from the connected source systems in production either automatically or upon request and forward them to the connected SAP systems.

The Plant Connectivity component has the following advantages:

- PCo can be configured quickly. No additional developments of your own are necessary in order to connect source systems in production.
- PCo can communicate with different software systems on the shop floor.
- A PCo system can be configured for one or more locations.

The Plant Connectivity component supports the following processes:

Notification Process

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

The notification process enables you to monitor production facilities and record any sudden, undesired events (such as rule violations or changes in measurement readings) and report them to a destination system.

Query Process

This process enables you to query specific source system tags from a destination system (such as SAP MII). This data can then be displayed on a dashboard, for example.

Source and Destination Systems

Source Systems:

Using agents, PCo supports all current software interfaces to be able to receive data from the source systems. An agent is a .NET DLL assembly component that can establish the connection between the data source and PCo.

Destination Systems:

PCo can send the received data to the following destination systems:

- SAP Manufacturing Integration and Intelligence (SAP MII).
- SAP Manufacturing Execution (SAP ME).
- SAP S/4HANA, SAP EWM, SAP ERP.

Further details on SAP PCo, SAP MII and SAP ME

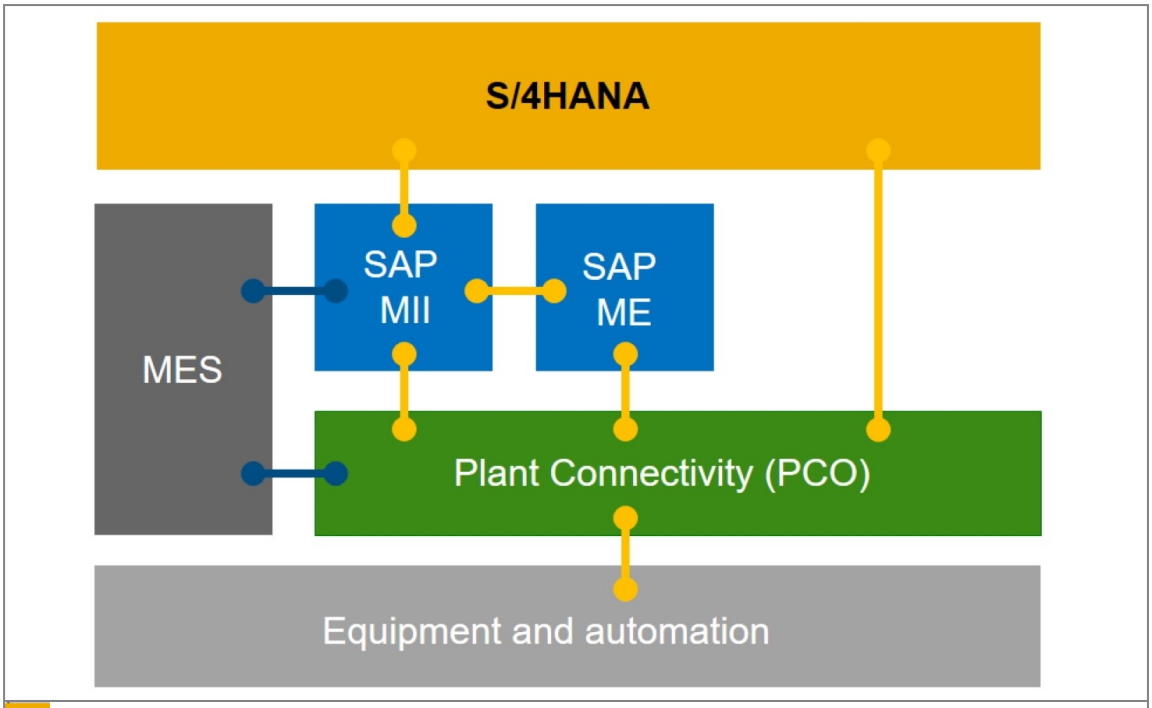

Figure 98: SAP PCo, SAP MII and SAP ME

The figure, SAP PCo, SAP MII and SAP ME, provides an overview of the integration of the Plant Connectivity system in the system landscape.

SAP MII

SAP Manufacturing Integration and Intelligence (SAP MII) enables you to integrate your plant and enterprise systems and display integrated data to your employees. You can use SAP MII to view, measure, and compare the performance of plants and assets with different

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

automation system infrastructures. SAP MII reduces the cost of synchronizing plant and enterprise business processes by using the following:

- Plant system connectors.
- Business logic services.
- Integration scenarios.

SAP MII is integrated with SAP Plant Connectivity (PCo) which allows you to create and configure notifications directly in SAP MII and publish the notifications to SAP Plant Connectivity (SAP PCo) systems. SAP PCo connects to the data source and handles the published notifications. Once notifications are published and activated in PCo, you can pause and resume them individually from SAP MII without stopping the whole agent instance.

The benefits of creating notifications in SAP MII are as follows:

- Notifications are managed and maintained centrally for multiple PCo installations.
- Notifications are modified, paused, and resumed in SAP MII.
- Notifications are enriched with the business context available in SAP MII PIC.
- Notifications are modified even when agent instance is running.

SAP ME

SAP Manufacturing Execution (SAP ME) is a powerful, enterprise-level, scalable, manufacturing business solution that enables global manufacturers to manage and control manufacturing and shop floor operations. It provides a multi-faceted set of features that integrates business systems to the shop floor, allowing for complete component and material-level visibility for single and global installations.

SAP ME ensures that product is designed and built right the first time, collecting data from multiple sources and integrating data systems with shop floor activities to create one comprehensive production record.

The result is an aggregate record of the entire product history, stored and available for effective key decision-making and for meeting compliance requirements.

Manufacturers who implement SAP ME as part of their integrated manufacturing operations can do the following:

- Provide users with real-time visibility across entire enterprise.
- Access to real-time manufacturing data to make quick and informed decisions.
- Accurately track and manage WIP to ensure right products are being made at right time.
- Optimize plant performance and profitability.
- Improve quality and reduce variation through corrective action processes that prevent escape of defective product.

LESSON SUMMARY

You should now be able to:

- Describe options for data exchange with the process control level

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Which information systems are available for order, operation and work center monitoring?

_____

_____

_____

2. Which of the following are information systems for Batch Management?

   Choose the correct answers.

   - [ ] A Batch Information Cockpit BMBC
   - [ ] B Batch Where-Used-List
   - [ ] C Excess Component Consumption
   - [ ] D WIP-Batches

3. Which of the following statements are correct?

   Choose the correct answers.

   - [ ] A Assembly orders can be created with planning strategy 82.
   - [ ] B Availability checks can be automatically triggered by confirmations.
   - [ ] C Production orders for rework can automatically be created via trigger points.
   - [ ] D Capacity levelling cannot be performed by background processing.
   - [ ] E Collective orders are created via trigger points.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. Which of the following options are available for external processing of production orders via data exchange with the process control level?

   Choose the correct answers.

   - ☐ A PP-PDC Interface
   - ☐ B PI-PCS Interface and Work Instruction
   - ☐ C SAP PCo
   - ☐ D SAP MII
   - ☐ E SAP ME

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Which information systems are available for order, operation and work center monitoring?

   Order Information System, Manage Production Orders app, Manage Production Operations app, Manage Work Center Queue app, Order Progress Report, Missing Parts Information System, Capacity evaluations and capacity planning tables, Shift Notes, Shift Reports.

2. Which of the following are information systems for Batch Management?

   Choose the correct answers.

   - [X] A Batch Information Cockpit BMBC
   - [X] B Batch Where-Used-List
   - [ ] C Excess Component Consumption
   - [X] D WIP-Batches

   Correct. Batch Information Cockpit BMBC, Batch Where-Used-List, and WIP-Batches are the information systems for Batch Management.

3. Which of the following statements are correct?

   Choose the correct answers.

   - [X] A Assembly orders can be created with planning strategy 82.
   - [ ] B Availability checks can be automatically triggered by confirmations.
   - [X] C Production orders for rework can automatically be created via trigger points.
   - [ ] D Capacity levelling cannot be performed by background processing.
   - [ ] E Collective orders are created via trigger points.

   Correct. Assembly orders can be created with planning strategy 82. Production orders for rework can automatically be created via trigger points.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

4. Which of the following options are available for external processing of production orders via data exchange with the process control level?

   Choose the correct answers.

   [X] A PP-PDC Interface

   [X] B PI-PCS Interface and Work Instruction

   [X] C SAP PCo

   [X] D SAP MII

   [X] E SAP ME

   Correct. All of the listed options are correct.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

UNIT 8 Further and Advanced Functions

Lesson 1

Performing Order Splits 506
Exercise 33: Split Production Orders 511

Lesson 2

Creating Shift Notes and Shift Reports 527
Exercise 34: Create Shift Notes and Shift Reports 535

UNIT OBJECTIVES

- Split production orders
- Create shift notes and shift reports

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Unit 8
Lesson 1

Performing Order Splits

LESSON OBJECTIVES
After completing this lesson, you will be able to:

- Split production orders

Order Split

At your production plants, you use production orders. You need to react more flexibly to unforeseen events in production, changed customer requirements, or changes in the priorities of production orders. Therefore, you decide to use the features of the order split function.

Order split enables you to split an existing production order for which processing may have already begun into two separate production orders. These production orders are then executed separately from a logistics perspective.

Splitting production orders often reflects the logistical reality on the shop floor better and ensures a greater transparency of the entire process in PP, MM, SD and CO. Regarding CO, the costs are distributed fairly between parent and child order.

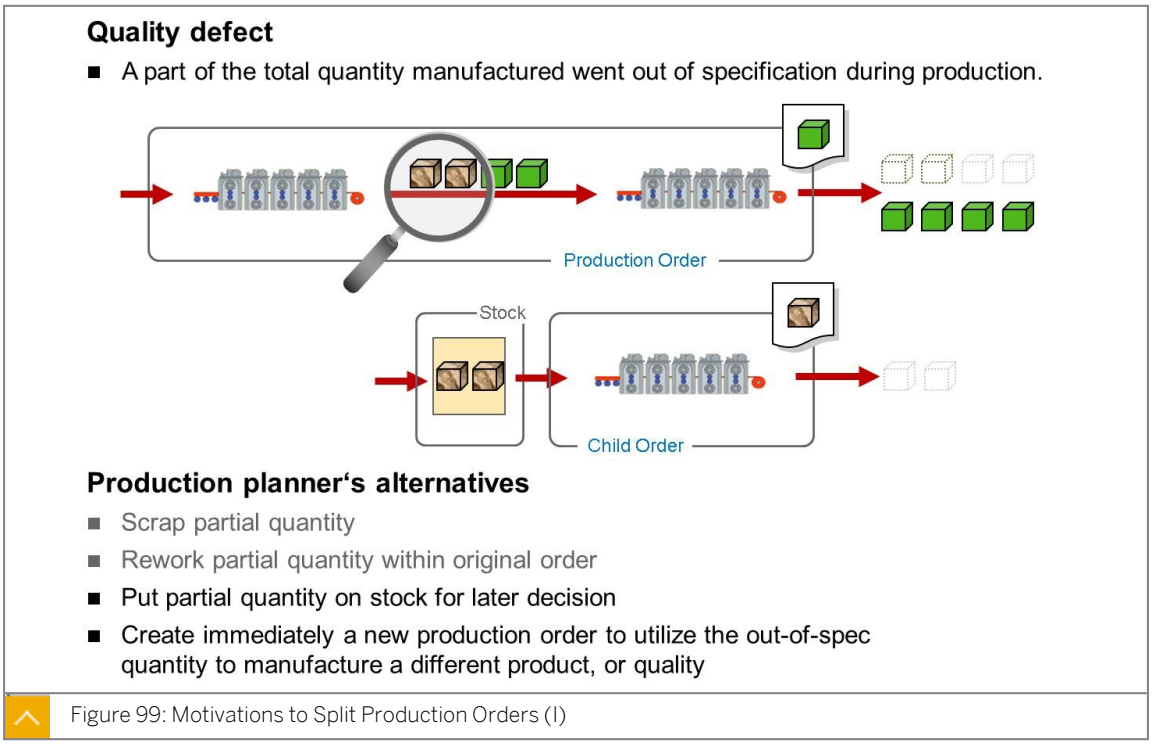

Figure 99: Motivations to Split Production Orders (I)

The figure describes motivations to split production orders.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Motivations to Split Production Orders (II)

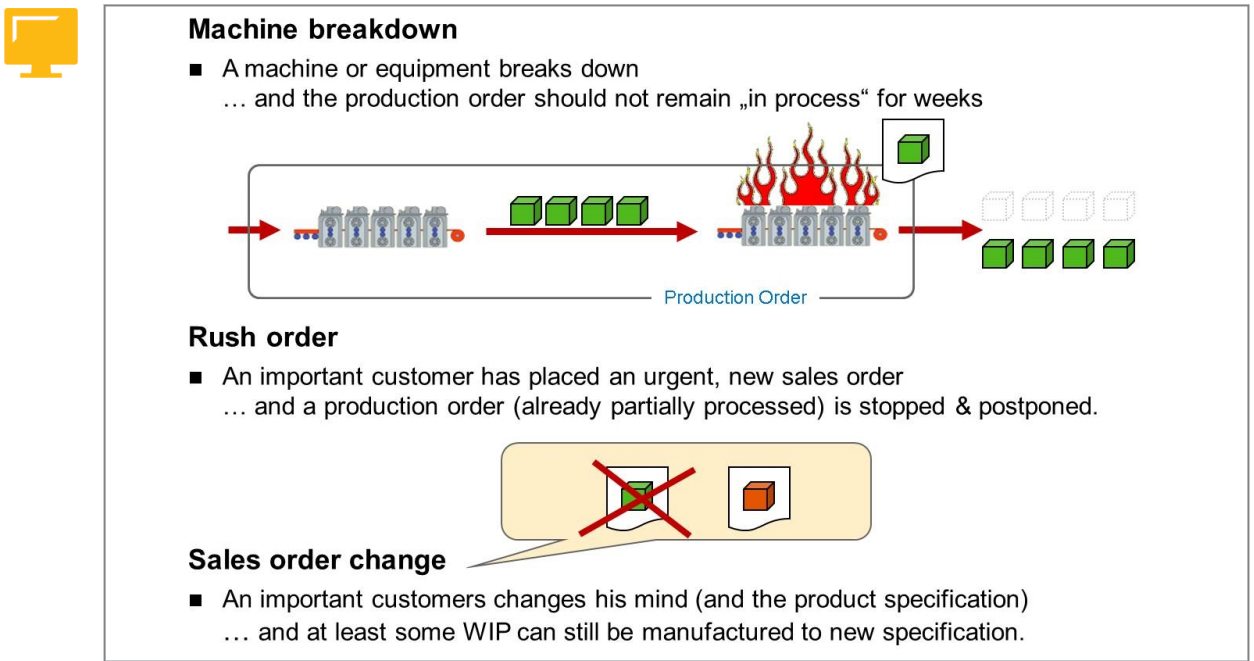

Figure 100: Motivations to Split Production Orders (II)

Reasons for Order Split

You might want to perform an order split for the following reasons:

- When a partial lot of a production order has to be handled differently than the rest due to quality reasons, you can create a separate order to do this.
- If capacity bottlenecks occur, the portion of the order quantity that is required immediately can be processed separately.
- The material availability can only be confirmed for part of the order quantity. You split the order to create an order with full material availability.
- If the required date for a partial quantity of the finished material has changed, this portion can be split off in a different order.
- If a production order cannot be completed on time, you can split the order to reduce the order quantity. The reduced order quantity then requires less time to produce.
- If a production facility suffers an outage, either production has to be interrupted or it may be possible to continue using another facility. Because partial confirmation has already occurred with regard to the operation affected, it is not possible simply to swap the resource in the order. The order split enables the resource to be swapped in the child order.
- If part of the processed quantity does not satisfy the quality requirements of the order, order split enables this partial quantity to be processed further in another order (e.g. for a sales order with lower quality requirements).

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Split Methods

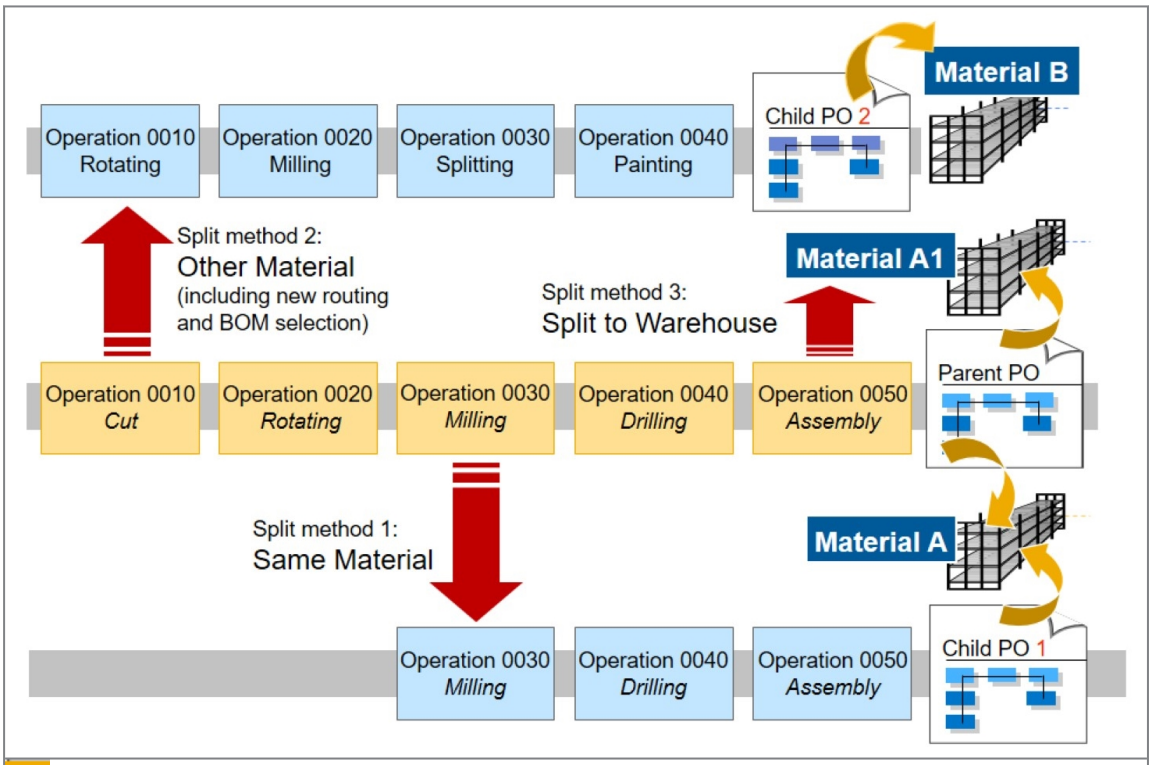

Figure 101: Split Methods

Different split methods are available to react flexibly to the current split situation. In the case of an order split, you can specify the same material for parent and child order. Alternatively, you can specify a different material for the child order than for the parent order. Or you can place the material that is split off directly in storage.

Steps in Creating an Order Split

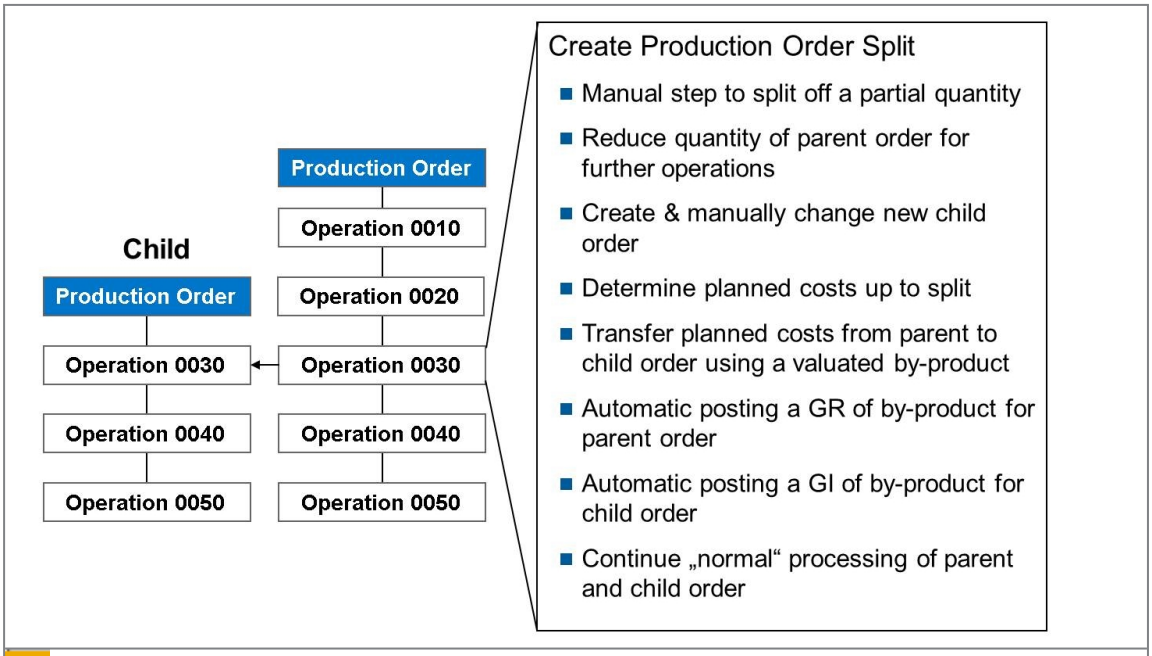

Figure 102: Steps in Creating an Order Split

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Prerequisites

An order split is allowed with the following system status:

- Header status: Partially released, released, partially confirmed
- Operation status of the split operation and all successors: Released, partially confirmed

To be able to apportion the costs between the parent and child order, at the time of the split you must specify a by-product to which the planned costs of the parent order are transferred proportionally to the child order up to the split operation. The by-product must be a material that is subject to batch management and individually valuated.

Order Split — Functions, Confirmation, and Restrictions

When you split an order, you split off part of the order quantity (split quantity) of a production order (parent order) as of a certain operation of the standard sequence (split operation). The quantity that is split off is produced in a separate production order (child order). In the process, the operations from the split operation onwards are copied from the parent order to the child order, along with the assigned material components. The system automatically recalculates all the quantities affected by the order split, as well as dates at header, operation, and component level.

The following functions are provided:

Dates

The parent order is rescheduled after the order split. The child order is scheduled in accordance with the specified scheduling data.

Order type

The order type from the parent order is proposed for the child order. You can give the child order a different order type if necessary.

Costs

The planned costs are passed on proportionally to the child order via a batch-managed, individually valuated by-product.

Multi-level order split

Orders (including child orders) can be split several times. The dependencies can be seen in the split hierarchy.

Split hierarchy

The split hierarchy displays the dependencies between the parent and child orders in an overview tree. During order maintenance, the split hierarchy and the selected order from the split hierarchy are displayed. You can navigate to any order in the split hierarchy (tree structure).

The split hierarchy provides some standard functions: Managing display variants, expanding and collapsing subhierarchies, and printing.

Inspection lots

Order processing with QM integration is supported together with the order split. After order release, a separate inspection lot is created for the child order, just like for the parent order, and planned inspection characteristics are copied to the order.

WIP Batches

In the case of the split method "Split with Same Material", you can transfer batches from the parent order to the child order or use them as suggested quantities for the order split.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Confirmation

Orders that are part of a split hierarchy can only be confirmed through operation confirmations – that is, confirmations for the order header are not supported. Operations in a parent order that lie before the split operation cannot automatically be confirmed through milestone confirmation or progress confirmation. Manual confirmations must be entered for these operations.

Restrictions

The following restrictions apply to the order split:

- You cannot read master data for the orders in a split hierarchy.
- Orders in a collective order cannot be split.
- You cannot perform confirmations at order header level.
- The batch where-used list is not updated during order split. However, the linkages for batch usage between the parent and child orders are written implicitly via the posting of the goods movements for the by-product.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Split Production Orders

Business Scenario

You create a production order to produce a finished product. During production you have to split this order several times for different reasons (capacity shortage, important sales order, quality out of range).

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Change the Planning Strategy

For this exercise you have to change the planning strategy of material T-FSP1## to *Make-to-oder production*.

1. In the backend system, choose transaction MM02 to set up the MTO planning strategy *20 Make-to-oder production* for your finished product T-FSP1## *Bike Special*.

   Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *20 Make-to-oder production*.

   Save the material.

Task 2: Create a Production Order

Create and release a production order.

1. In the backend system, choose transaction CO01 to create a production order for material T-FSP1## in plant 1010 with order type YBM1.

   Choose an order quantity of 20 PC and any end date.

   Release and save your production order and write down the order number.

   Order number: _____

Task 3: Split the Production Order

Because of capacity shortage you can only produce half of the quantity. Split your production order. Create a child order to produce the other half of the quantity one week later.

1. Choose transaction CO02 to change your production order.

   Navigate to the operation overview and select the first operation 0010.

   Choose *Functions* → *Split Order*.

   In the *Order Split* screen, enter the following data:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Split Method	Split with Same Material
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	10 PC
Scheduling of Child Order /Basic End Date	One week later than proposed

Choose the *Split Order* button and save the order.

> Note:
> The by-product is handled in batches, and the automatically assigned batch is individually valuated with the planned costs up to the split operation and proportional to the split quantity.

Task 4: Analyze the Parent Order

Analyze the result of the order split for the parent order.

1. Choose transaction CO02 to display your production order.

   Your parent order and your child order are displayed in a Split Hierarchy in the order header.

   The parent order has an expected yield deviation of 10 PC corresponding to the split quantity:

Field	Value
Short/Expc. Rcpt	10-

   The parent order has the new status SPLT *Split* in the order header and in the split operation.

2. Navigate to the operation overview of the parent order.

   The operation quantities are reduced by the split quantity to 10 PC for each operation.

3. Navigate to the component overview of the parent order.

   The required quantities are proportionally reduced with respect to the split quantity.

   The by-product batch is assigned with the negative split quantity and movement type 531 (goods receipt for by-product, see details for by-product).

Task 5: Analyze the Child Order

Analyze the result of the order split for the child order.

1. Double-click your child order in the Split Hierarchy.

   The child order has a total quantity corresponding to the split quantity.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Total Qty	10

The child order has the new status CSPL *Created by splitting* in the order header.

Furthermore, the child order has the status CRTD *Created*. It is not released.

2. Navigate to the operation overview of the child order.
   The operation quantities correspond to the split quantity.
3. Navigate to the component overview of the child order.
   The by-product batch is assigned with the split quantity, the *backflush* indicator and movement type 261 (automatic goods issue for by-product during the later confirmation of the operation, see details for by-product).

Task 6: Create a Sales Order

Create a sales order for your product.

1. Choose transaction VA01 to create a sales order.
   Enter the following data in the initial screen:

Field	Value
Order Type	OR
Sales Organization	1010
Distribution Channel	10
Division	00

On the *Create Standard Order: Overview* screen, enter the following header data:

Field	Value
Sold-to-Party	10100001
Ship-to.Party	10100001
Cust. Reference	GR##
Req. Deliv.Date	In approx. 3 weeks

On the *Create Standard Order: Overview* screen, enter the following item data:

Field	Value
Material	T-FSP1##
Order Quantity	1 PC

Save your sales order and write down the order number.

Sales order number: _____

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Task 7: Execute Confirmations and Split the Parent Order Again

Now you start the execution and confirmation of your parent order. During production, you have to split your parent order again A part of the quantity has to be assigned to your sales order in another child order.

1. Choose transaction CO11N to perform a time ticket confirmation for operation 0010 and enter the following data:

Field	Value
Order	Number of parent order
Operation	0010
Confirm.type	Automatic final confirmation

   Check and accept the proposed Yield of 10 PC and the proposed Activities.

   Save the confirmation.

2. Perform another time ticket confirmation with the following data:

Field	Value
Order	Number of parent order
Operation	0020
Confirm.type	Automatic final confirmation

   Change the proposed Yield from of 10 PC to 9 PC.

   Save the confirmation.

3. Choose transaction CO02 to change your parent production order.
   Navigate to the operation overview and select the second operation 0020.

   Choose *Functions → Split Order*

   In the *Order Split* screen, enter the following data:

Field	Value
Split Method	Split with Same Material
Order Parameters Child Order / Sales Order / SO Item	Sales order number / 10
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	1 PC
Scheduling of Child Order /Basic End Date	e.g. two weeks later than proposed

   Choose the *Split Order* button.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

The following message is displayed: **`Child order is created for another sales order`**.

Press *Enter* to confirm the message.

In the *Selection of Start Operation for Child Order* dialog box, check and accept the proposed operation 0020.

Save your production order.

4. Choose transaction CO02 again to analyze the result of the order split for the parent order and the new child order.

5. Finally, choose transaction CO11N again to perform the final time ticket confirmation for operation 0020.
   Enter the following data:

Field	Value
Order	Number of parent order
Operation	0020
Confirm.type	Automatic final confirmation

Accept the proposed Yield of 0 PC.

Save the confirmation.

Task 8: Execute Confirmations and Split the Parent Order Again

You continue the execution and confirmation of your parent production order. You have to split your parent order again, because for a part of the quantity the quality is out of range. You split this quantity to a child order for the production of another material.

1. Choose transaction CO11N to perform a time ticket confirmation for operation 0030.
   Enter the following data:

Field	Value
Order	Number of parent order
Operation	0030
Confirm.type	Automatic final confirmation

Change the proposed Yield from of 9 PC to 7 PC.

Save the confirmation.

2. Choose transaction CO02 to change your parent production order.
   Navigate to the operation overview and select the third operation 0030.

   Choose *Functions* → *Split Order*.

   In the *Order Split* screen, enter the following data:

Field	Value
Split Method	Split with Other Material

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Order Parameters Child Order / Material	T-FSP130
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	1 PC
Scheduling of Child Order /Basic End Date	e.g. accept proposed date

Choose the *Split Order* button.

In the *Selection of Start Operation for Child Order* dialog box, change the proposal for the start operation. Select operation 0030.

Save your production order.

3. Again, choose transaction CO02 to analyze the result of the order split for the parent order and the new child order.

Task 9: Split the Parent Order Again

You continue the execution of your parent production order. You split your parent order again, because for a part of the quantity the quality is out of range again. You split this quantity to the warehouse for a later decision how to use it.

1. Choose transaction CO02 to change your parent production order.

   Navigate to the operation overview and select the third operation 0030.

   Choose *Functions* → *Split Order*.

   In the *Order Split* screen, enter the following data:

Field	Value
Split Method	Split to Warehouse
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	1 PC

   Choose the *Split Order* button.

   Save your production order.

2. Choose transaction CO02 to analyze the result of the order split.

   No new child order was created in that split scenario.

   A goods receipt for the by-product batch was posted directly to stock (movement type 531). In the Split Hierarchy in the order header you can see the corresponding material document number.

   Double click the material document number to get details.

3. Finally, choose transaction CO11N again to perform the final time ticket confirmation for operation 0030.

   Enter the following data:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Order	Number of parent order
Operation	0030
Confirm.type	Automatic final confirmation

Accept the proposed Yield of 0 PC.

Save the confirmation.

Task 10: Perform further Analysis on the Order Split

You can perform further analysis and activities related to your order split scenario.

1. Choose transaction MMBE and analyze the stock overview for your by-product T-TRANS-##.
2. Release your first child order.

   Then confirm the first operation to backflush the corresponding by-product batch.

   Finally, check the stock overview for the by-product again.
3. Split your first child order and check the result in the Split Hierarchy.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Split Production Orders

Business Scenario

You create a production order to produce a finished product. During production you have to split this order several times for different reasons (capacity shortage, important sales order, quality out of range).

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Change the Planning Strategy

For this exercise you have to change the planning strategy of material T-FSP1## to *Make-to-oder production*.

1. In the backend system, choose transaction MM02 to set up the MTO planning strategy *20 Make-to-oder production* for your finished product T-FSP1## *Bike Special*.

   Enter the material number in the initial screen, then choose view MRP 3 for plant 1010.

   In the MRP 3 view, assign strategy group *20 Make-to-oder production*.

   Save the material.

   a) For this exercise step no further information is needed.

Task 2: Create a Production Order

Create and release a production order.

1. In the backend system, choose transaction CO01 to create a production order for material T-FSP1## in plant 1010 with order type YBM1.

   Choose an order quantity of 20 PC and any end date.

   Release and save your production order and write down the order number.

   Order number: _____

   a) Enter the following data in the initial screen:

Field	Value
Material	T-FSP1##
Production Plant	1010

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Order Type	YBM1

Enter the following data in the *Production order Create: Header* screen:

Field	Value
Total Qty	20
Basic Dates / End	choose any date in the near future

Choose *Release Order* to create and release the order.

Finally, choose *Save* to save the order. The order number will be displayed.

Task 3: Split the Production Order

Because of capacity shortage you can only produce half of the quantity. Split your production order. Create a child order to produce the other half of the quantity one week later.

1. Choose transaction CO02 to change your production order.

   Navigate to the operation overview and select the first operation 0010.

   Choose *Functions* → *Split Order*.

   In the *Order Split* screen, enter the following data:

Field	Value
Split Method	Split with Same Material
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	10 PC
Scheduling of Child Order /Basic End Date	One week later than proposed

   Choose the *Split Order* button and save the order.

   Note:
   The by-product is handled in batches, and the automatically assigned batch is individually valuated with the planned costs up to the split operation and proportional to the split quantity.

   a) For this exercise step no further information is needed.

Task 4: Analyze the Parent Order

Analyze the result of the order split for the parent order.

1. Choose transaction CO02 to display your production order.

   Your parent order and your child order are displayed in a Split Hierarchy in the order header.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

The parent order has an expected yield deviation of 10 PC corresponding to the split quantity:

Field	Value
Short/Expc. Rcpt	10-

The parent order has the new status SPLT *Split* in the order header and in the split operation.

a) For this exercise step no further information is needed.

2. Navigate to the operation overview of the parent order.

   The operation quantities are reduced by the split quantity to 10 PC for each operation.

   a) For this exercise step no further information is needed.

3. Navigate to the component overview of the parent order.

   The required quantities are proportionally reduced with respect to the split quantity.

   The by-product batch is assigned with the negative split quantity and movement type 531 (goods receipt for by-product, see details for by-product).

   a) For this exercise step no further information is needed.

Task 5: Analyze the Child Order

Analyze the result of the order split for the child order.

1. Double-click your child order in the Split Hierarchy.

   The child order has a total quantity corresponding to the split quantity.

Field	Value
Total Qty	10

The child order has the new status CSPL *Created by splitting* in the order header.

Furthermore, the child order has the status CRTD *Created*. It is not released.

a) For this exercise step no further information is needed.

2. Navigate to the operation overview of the child order.

   The operation quantities correspond to the split quantity.

   a) For this exercise step no further information is needed.

3. Navigate to the component overview of the child order.

   The by-product batch is assigned with the split quantity, the *backflush* indicator and movement type 261 (automatic goods issue for by-product during the later confirmation of the operation, see details for by-product).

   a) For this exercise step no further information is needed.

Task 6: Create a Sales Order

Create a sales order for your product.

1. Choose transaction VA01 to create a sales order.

   Enter the following data in the initial screen:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Order Type	OR
Sales Organization	1010
Distribution Channel	10
Division	00

On the *Create Standard Order: Overview* screen, enter the following header data:

Field	Value
Sold-to-Party	10100001
Ship-to.Party	10100001
Cust. Reference	GR##
Req. Deliv.Date	In approx. 3 weeks

On the *Create Standard Order: Overview* screen, enter the following item data:

Field	Value
Material	T-FSP1##
Order Quantity	1 PC

Save your sales order and write down the order number.

Sales order number: _____

a) For this exercise step no further information is needed.

Task 7: Execute Confirmations and Split the Parent Order Again

Now you start the execution and confirmation of your parent order. During production, you have to split your parent order again A part of the quantity has to be assigned to your sales order in another child order.

1. Choose transaction CO11N to perform a time ticket confirmation for operation 0010 and enter the following data:

Field	Value
Order	Number of parent order
Operation	0010
Confirm.type	Automatic final confirmation

Check and accept the proposed Yield of 10 PC and the proposed Activities.

Save the confirmation.

a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

2. Perform another time ticket confirmation with the following data:

Field	Value
Order	Number of parent order
Operation	0020
Confirm.type	Automatic final confirmation

Change the proposed Yield from of 10 PC to 9 PC.

Save the confirmation.

a) For this exercise step no further information is needed.

3. Choose transaction CO02 to change your parent production order.

Navigate to the operation overview and select the second operation 0020.

Choose *Functions → Split Order*

In the *Order Split* screen, enter the following data:

Field	Value
Split Method	Split with Same Material
Order Parameters Child Order / Sales Order / SO Item	Sales order number / 10
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	1 PC
Scheduling of Child Order /Basic End Date	e.g. two weeks later than proposed

Choose the *Split Order* button.

The following message is displayed: **`Child order is created for another sales order`**.

Press *Enter* to confirm the message.

In the *Selection of Start Operation for Child Order* dialog box, check and accept the proposed operation 0020.

Save your production order.

a) For this exercise step no further information is needed.

4. Choose transaction CO02 again to analyze the result of the order split for the parent order and the new child order.

a) For this exercise step no further information is needed.

5. Finally, choose transaction CO11N again to perform the final time ticket confirmation for operation 0020.

Enter the following data:

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Order	Number of parent order
Operation	0020
Confirm.type	Automatic final confirmation

Accept the proposed Yield of 0 PC.

Save the confirmation.

a) For this exercise step no further information is needed.

Task 8: Execute Confirmations and Split the Parent Order Again

You continue the execution and confirmation of your parent production order. You have to split your parent order again, because for a part of the quantity the quality is out of range. You split this quantity to a child order for the production of another material.

1. Choose transaction CO11N to perform a time ticket confirmation for operation 0030. Enter the following data:

Field	Value
Order	Number of parent order
Operation	0030
Confirm.type	Automatic final confirmation

Change the proposed Yield from of 9 PC to 7 PC.

Save the confirmation.

a) For this exercise step no further information is needed.

2. Choose transaction CO02 to change your parent production order.
Navigate to the operation overview and select the third operation 0030.

Choose *Functions* → *Split Order*.

In the *Order Split* screen, enter the following data:

Field	Value
Split Method	Split with Other Material
Order Parameters Child Order / Material	T-FSP130
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	1 PC
Scheduling of Child Order /Basic End Date	e.g. accept proposed date

Choose the *Split Order* button.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

In the *Selection of Start Operation for Child Order* dialog box, change the proposal for the start operation. Select operation 0030.

Save your production order.

a) For this exercise step no further information is needed.

3. Again, choose transaction CO02 to analyze the result of the order split for the parent order and the new child order.

   a) For this exercise step no further information is needed.

Task 9: Split the Parent Order Again

You continue the execution of your parent production order. You split your parent order again, because for a part of the quantity the quality is out of range again. You split this quantity to the warehouse for a later decision how to use it.

1. Choose transaction CO02 to change your parent production order.

   Navigate to the operation overview and select the third operation 0030.

   Choose *Functions → Split Order*.

   In the *Order Split* screen, enter the following data:

Field	Value
Split Method	Split to Warehouse
Material for Cost Transfer / By Product	T-TRANS-##
Split Quantity	1 PC

   Choose the *Split Order* button.

   Save your production order.

   a) For this exercise step no further information is needed.

2. Choose transaction CO02 to analyze the result of the order split.

   No new child order was created in that split scenario.

   A goods receipt for the by-product batch was posted directly to stock (movement type 531). In the Split Hierarchy in the order header you can see the corresponding material document number.

   Double click the material document number to get details.

   a) For this exercise step no further information is needed.

3. Finally, choose transaction CO11N again to perform the final time ticket confirmation for operation 0030.

   Enter the following data:

Field	Value
Order	Number of parent order
Operation	0030

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Confirm.type	Automatic final confirmation

Accept the proposed Yield of 0 PC.

Save the confirmation.

a) For this exercise step no further information is needed.

Task 10: Perform further Analysis on the Order Split

You can perform further analysis and activities related to your order split scenario.

1. Choose transaction MMBE and analyze the stock overview for your by-product T-TRANS-##.

   a) For this exercise step no further information is needed.

2. Release your first child order.

   Then confirm the first operation to backflush the corresponding by-product batch.

   Finally, check the stock overview for the by-product again.

   a) For this exercise step no further information is needed.

3. Split your first child order and check the result in the Split Hierarchy.

   a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Split production orders

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Creating Shift Notes and Shift Reports

LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Create shift notes and shift reports

Shift Notes and Shift Reports

As a production supervisor, you have to document all important information and events pertinent to or occurring within a shift. Therefore, you decide to use shift notes and shift reports.

Shift notes and shift reports are two separate means of documenting special occurrences within a shift with reference to a work center or a work center hierarchy.

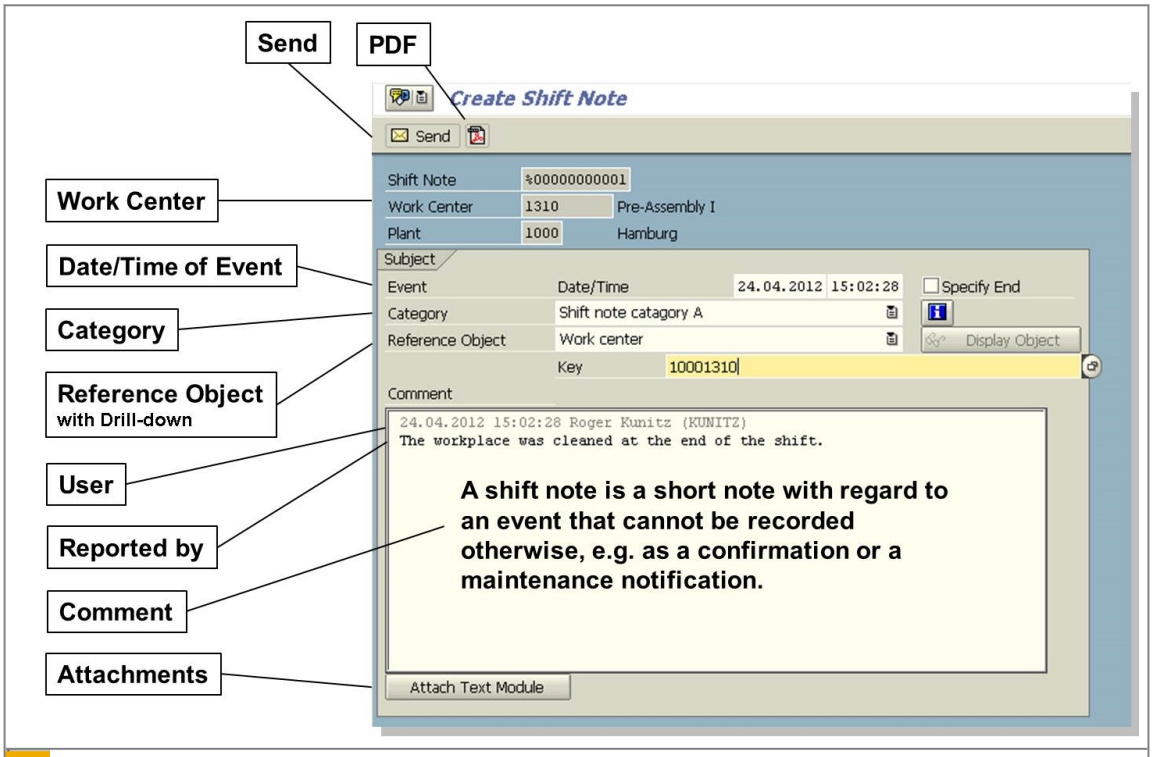

Figure 103: Shift Note

You use the shift note in order to enter times and comments for an event that cannot be entered elsewhere in the system. You can enter the exact point in time (timespot) at or the period during which the event occurred in the shift note. You always create a shift note with reference to a work center or work center hierarchy.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Components of Shift Note

If you have made the appropriate settings in Customizing, the shift note comprises the following:

Number of shift note

Data on work center

Event

You can specify whether you want to enter times for an event. In doing so, you can choose whether you want to enter the exact point in time (timespot) or, in the case of longer-lasting events, the time period (duration).

Category

You can subdivide your shift notes into categories. In Customizing, you can enter a code group with a corresponding catalog. In the shift note, the short texts of the codes belonging to the code group are then offered as input help for the Category field.

Reference object

You can then enter shift notes with reference to certain objects such as production orders and maintenance notifications.

Long text

You enter comments in this area. You can use standard text modules to simplify the entry process. In doing so, you can specify standard texts with reference to a business object. These standard texts are then immediately suggested when you enter a shift note.

Attachments

In the Attachments area, you can add various documents such as Word documents or Excel files as attachments.

Frequently, shift notes are entered centrally in the system by a certain individual. As a rule, this is not the person who reported the event. For this reason, it makes sense for the individual who enters the shift note to record the name of the person who actually reported the event.

The following functions are available for shift notes:

- Creation and Processing of Shift Notes
- Adding and Removing Attachments
- List Processing of Shift Notes
- Sending Shift Notes
- Print Shift Notes
- Creation of a PDF

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Shift Note List

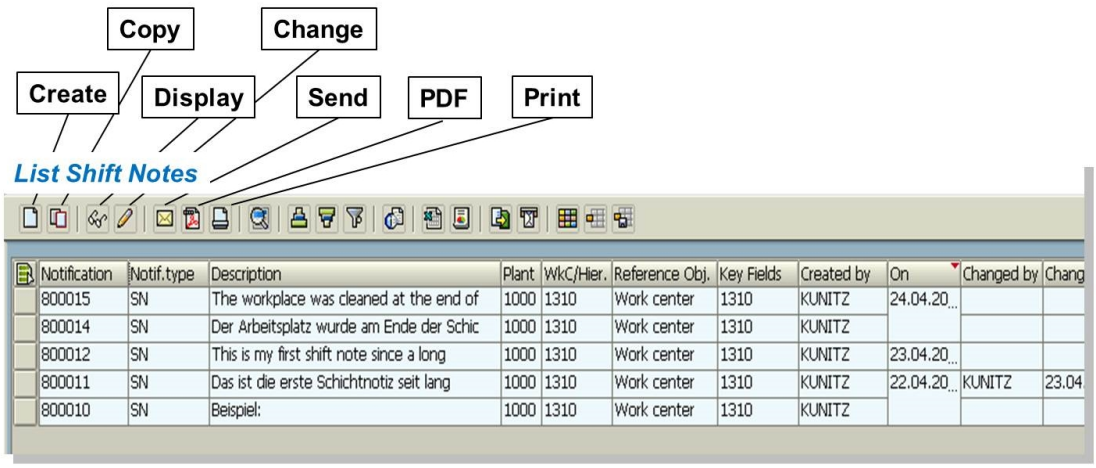

Figure 104: Shift Note List

You can use the List Processing function to search for shift notes using detailed selection criteria. The system then displays the shift notes in list form. The list of shift notes provides all the key processing functions for shift notes.

Shift Note Cockpit

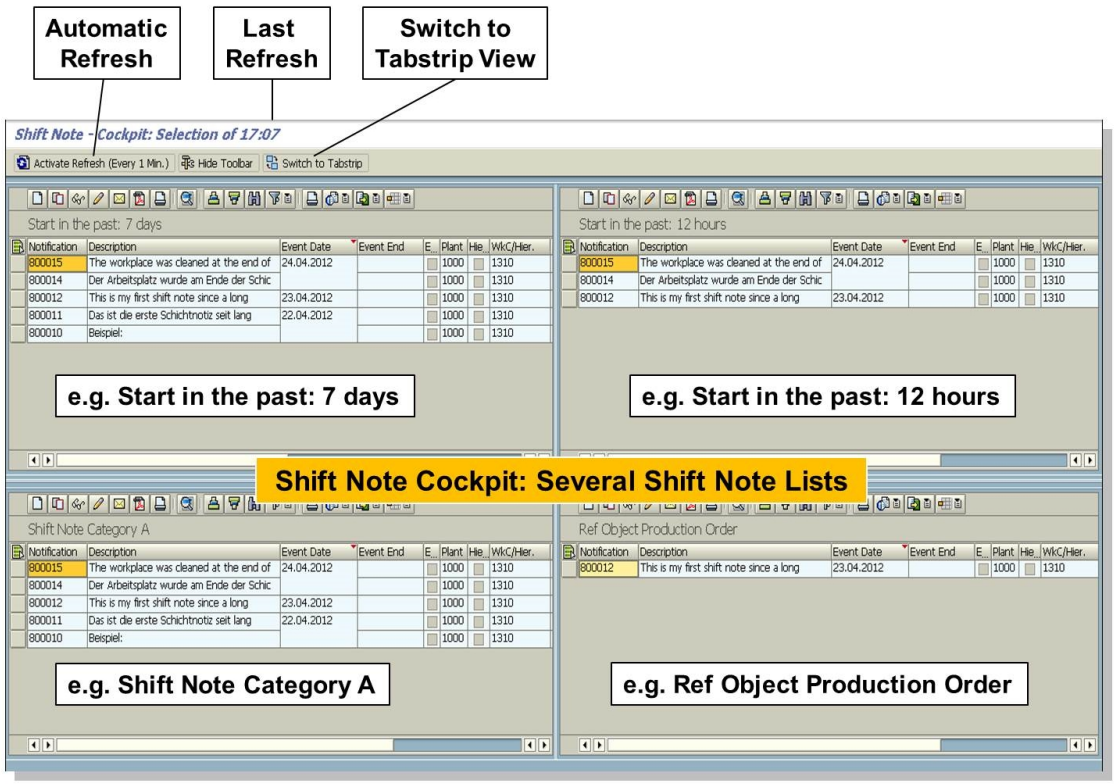

Figure 105: Shift Note Cockpit

With the Shift Note Cockpit, you can simultaneously display several lists of shift notes, in the form of either a tab strip or overview lists. In this way, you can monitor the shift notes of

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

several work centers at the same time, for example. In addition, you can create new shift notes directly in the cockpit and process the shift notes displayed.

Shift Report

Shift Report

PDF document containing a collection of all important information on a work center or hierarchy within a defined period of time.

- Cover page
- Shift notes
- Production-relevant data
- Maintenance-relevant data
- Quality-relevant data
- Graphics
- Customer specific data

Defined period of time

- Shift
- Selected period of time

The shift report can be signed via an digital signature by one / several persons.

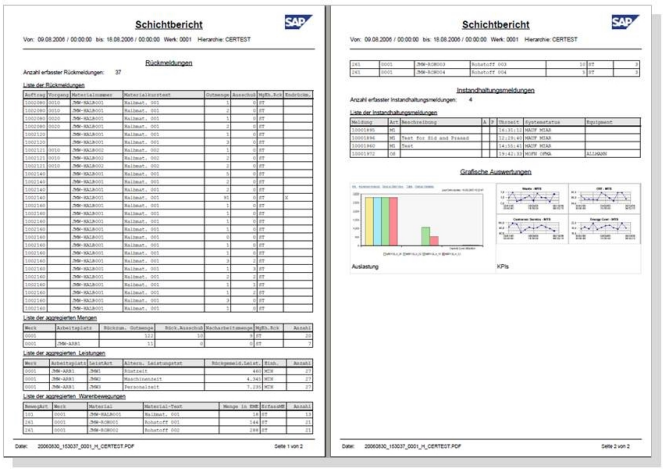

Figure 106: Shift Report

A shift report is a PDF document that is created manually by the production supervisor after completion of data entry for the preceding shift. You cannot change the shift report.

he shift report serves to collect all the important information on a work center or work center hierarchy in a shift. The shift report thus facilitates shift handover.

Shift Report — Sections

The shift report can consist of the following sections:

Cover page

The cover page contains the header data on the shift report (such as plant, work center, shift, and period of entry).

List of shift notes

This section contains a list of all shift notes that were created during the evaluation period of the shift report. In addition, you can group the shift notes in the shift report according to various criteria, such as plant and creator. See also: Grouping of Shift Notes in Shift Report.

Confirmations

List of confirmations

This section contains a list of all confirmations that were created during the entry period of the shift report.

List of aggregated quantities

In this section, the confirmed yields (good quantities), scrap, and rework is displayed in cumulated form.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

List of aggregated activities

In this section, the confirmed production activities are displayed in cumulated form.

List of goods movements

In this section, all goods movements posted for the confirmations are shown in cumulated form.

Maintenance notifications

This section contains a list of all maintenance notifications that were created during the evaluation period of the shift report.

Quality notifications

This section contains a list of all quality notifications that were created during the evaluation period of the shift report.

Customer's own data

You can define a separate section in the shift report in which you can display your own texts and tables.

Graphical evaluations

You can integrate graphics into shift reports.

Shift Reports — Functions

The following functions are available for the processing of shift reports:

Create Shift Reports

You create a shift report with reference to a work center or work center hierarchy.

List shift reports

You can list shift reports for different selection conditions.

Sign shift report

If you are using the digital signature, you can check the shift report and then sign it.

Discard shift report

If you want to delete a shift report, you must call it up in change mode and then choose the *Discard* function key. The shift report is then rendered invalid and has the status **`Discarded`**. You can now create a new report for the shift.

If the shift report is also subject to the digital signature procedure, you must also sign it as part of the discarding process.

Send shift reports

You can send shift reports to various internal and external recipients.

Standard functions of the PDF forms, such as:

- Print shift report
- Send shift report via e-mail

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Shift Report Preview

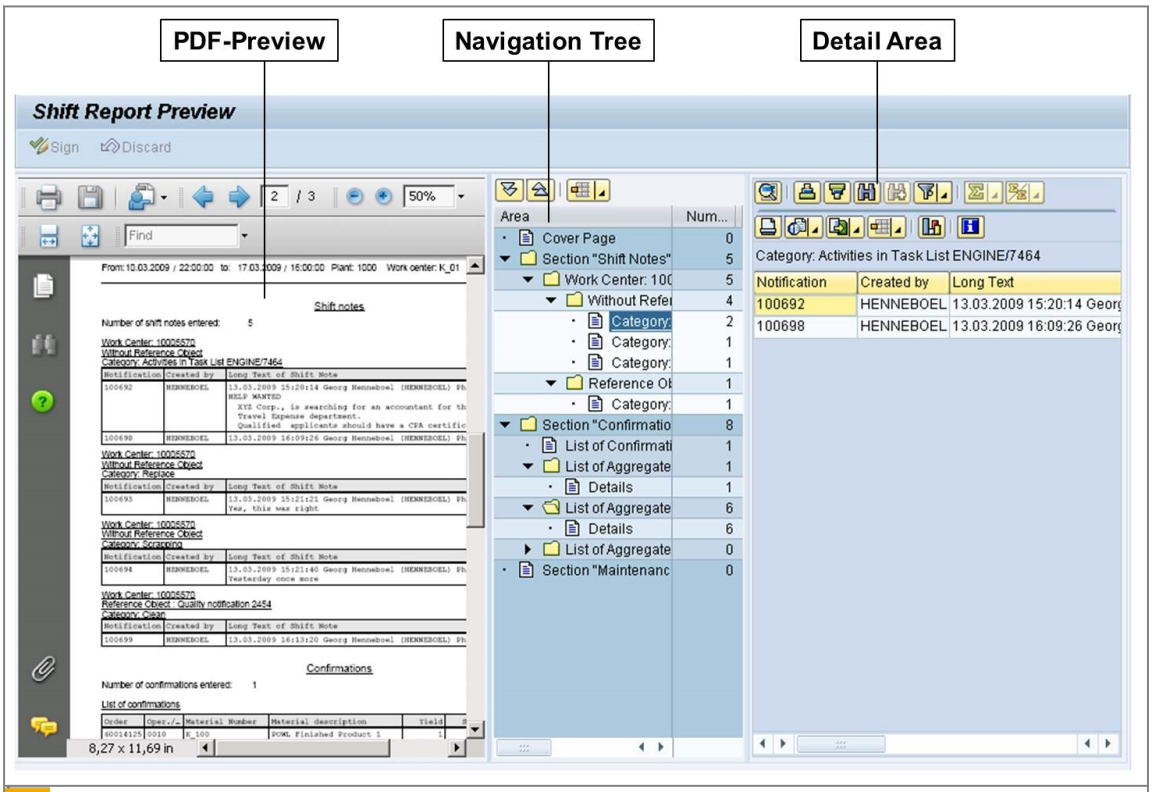

Figure 107: Shift Report Preview

Before you generate a shift report, you can display a preview of it.

The preview consists of three columns:

Shift report in the form of a PDF

In the left-hand area of the screen, the system displays the shift report in the form of a PDF document.

Navigation tree

In the middle part of the screen, the system displays the navigation tree of the shift report. In the navigation tree, all sections of the shift report are shown hierarchically, starting with the cover page.

Detail area

The right-hand area of the screen shows the details pertaining to the objects of the navigation tree. Starting from the navigation tree, you can display further information on the individual objects by double-clicking on them. These details are displayed in the detail area in the form of a table. If you select an object in the table and choose the *Display* button, the system jumps to the display transaction for the object and displays the selected object.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Shift Report List

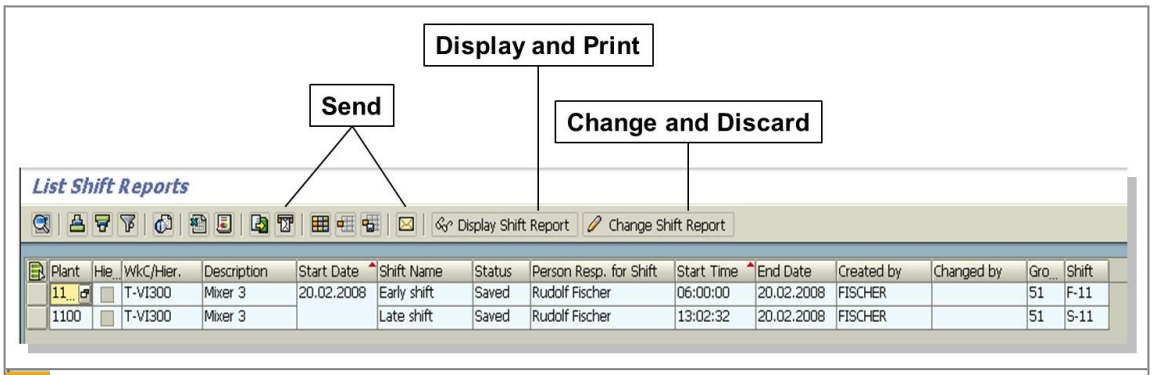

Figure 108: Shift Report List

You can use the List Processing function to search for shift reports using detailed selection criteria. The system then displays the shift reports in list form.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create Shift Notes and Shift Reports

Business Scenario

As a production supervisor, you have to document all important information and events pertinent to or occurring within a shift. Therefore, you decide to use shift notes and shift reports.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Display the Settings for Shift Notes and Shift Reports in a Work Center

You want to be able to create shift notes and shift reports for special work centers. Therefore, you assigned shift note types and shift report types to these work centers.

1. Choose transaction CR02 to display work center T-BK1## in plant 1010.
   Write down the assigned shift note type and shift report type:

Field	Value
Shift Note Type	
Shift Report Type	

Task 2: Create Shift Notes

You have to create shift notes during your daily work to document important events occurring within your shift.

1. Choose transaction SHN1 to create a shift note for work center T-BK1##.
2. In the comment field, an example long text is automatically inserted.
   This text is assigned to the shift note type in Customizing.

   Also, the user information and the creation time have been automatically assigned.
3. Report the start and the end of the event.
   Set the *Specify End* indicator and enter the following dates and times:

Start Date	Start Time	End Date	End Time
today	08:00:00	today	09:00:00

4. Assign the following shift note category:

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Category
Shift note category A

A long text has been assigned to this category in Customizing. Choose the *Information* button to copy this text to the shift note comment.

5. Assign the following reference object:

Field	Value
Reference Object	Production Order
Production Order	Enter any existing order number

Another long text is automatically inserted in the comment field. This text has been assigned to the reference object in Customizing.

Choose the *Display Object* button to display the production order.

6. Enter your own comment manually in the comment field.

   With the button *Attach Text Module* you could insert pre-defined standard texts.

7. Choose the *Send* button to send a link to the shift note as e-mail.

   The shift note will be sent when you save the shift note.

8. Choose the *Display as PDF* button to display your shift note as PDF.

   The PDF will be displayed when you save the shift note.

   Save your shift note.

9. In the *Create Document and Send* dialog box, choose e.g. the following recipient:

Recipient	Type
S4225-## (your user)	SAP Logon Name

Press the *Send ...* button.

A link to your shift note will be send to your workplace (transaction SBWP). Your shift note will also be displayed as PDF.

10. Create more shift notes for your work center T-BK1##. The one for which you created a shift note earlier in the exercise.

    Assign e.g. other categories and other reference objects.

Task 3: List your Shift Notes

You use the List Processing to create various shift note lists for different selection criteria. You define variants to make the use of the List Processing more effective.

1. Choose transaction SHN4 to display the selection screens for the List Processing of shift notes.

   Three different selection screens are available: Basic Search, Advanced Search, Comprehensive Search.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Get an overview of the selection criteria available in the three different selection screens.

Use all three selection screens to create your own shift note lists for different selection criteria.

In a shift note list, note the available functions (create, copy, display, change, send, PDF, print).

2. Go to the Advanced Search and define the following search criteria:

Field	Value
Work Center	T-BK1##
Start in the Past	8 Days

Choose *Goto* → *Variants* → *Save As Variant ...* to save your selection criteria as variant:

Field	Value
Variant Name	WC T-BK1##
Description	Variant for work cent. T-BK1##

Save your variant.

Choose *Goto* → *Variants* → *Define Start Variant ...* to define your variant as user specific start variant:

Field	Value
User-Specific Variant	WC T-BK1##

3. Leave the List Processing and enter it again.

   The selection screen for Advanced Search and your own selection criteria are automatically set.

Task 4: Use the Shift Note Cockpit

You use the Shift Note Cockpit to supervise up to 6 different shift note lists at the same time.

1. Choose transaction SHN5 to display the selection screen of the Shift Note Cockpit.

   You can assign up to 6 different shift note list variants to be displayed in the cockpit.

   Theses shift note lists can be displayed in tabs or in one single overview screen.

   You can define a time interval for an automatic refresh of the shift note lists.

2. When you enter the selection screen of the cockpit, some list variants are already assigned. This assignment is defined in a standard variant for the Shift Note Cockpit.

   Additionally, assign your own shift note list variant WC T-BK1##.

   Choose *Goto* → *Variants for Shift Note Cockpit* → *Save As Variant ...* to save your settings as a new Shift Note Cockpit variant:

Field	Value
Variant Name	GR## COCKPIT

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Field	Value
Description	GR## Shift Note Cockpit

Save your variant.

Choose *Goto → Variants for Shift Note Cockpit → Define Start Variant ...* to define your variant as user specific start variant:

Field	Value
User-Specific Variant	GR## COCKPIT

3. Leave the Shift Note Cockpit and enter it again.
   Your list variants are automatically set.
4. Now choose *Execute* to display the selected shift note lists in the Shift Note Cockpit.
   Display the shift note lists in Tabs and in the Overview.

Task 5: Create Shift Reports

At the end of your shift you create shift reports for your work centers. This shift reports contain e.g. shift notes, confirmations, aggregated quantities and activities, and goods movements.

1. Choose transaction SHR1 to create a shift report for your work center T-BK1##.
   The current shift may be proposed, but choose a different evaluation period so that all activities of the current week will be included:

Field	Value
Start Date	Last Monday
Start Time	08:00:00
End Date	Today
End Time	Current Time

   Choose *Settings for Preview* to check the corresponding preview settings.

   Choose *Preview* to create a preview of your shift report.

   In the preview, analyze the information that is available in the different sections of the navigation tree. View the lists for the different sections and navigate into some of the listed objects (e.g. shift notes, confirmations).
2. Choose the *Generate Shift Report* button to generate your shift report.
   Save your shift report.

   Finally, *Sign* your shift report with your SAP user ID and your SAP password.
3. Some information has changed or has since been updated. *Discard* your shift report. You have to confirm this activity with your digital signature.
4. After you have discarded your shift report, you can generate, save and sign a new shift report for the same evaluation period.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

Task 6: List your Shift Reports

You use the List Processing to create various shift report lists for different selection criteria.

1. Choose transaction SHR4 to display the selection screen for the List Processing of shift reports.

   Get an overview of the available selection criteria.

   Create your own shift report lists for different selection criteria. For example, create a list regarding your work center T-BK1##.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Create Shift Notes and Shift Reports

Duplication is prohibited.

Duplication is prohibited.

Business Scenario

As a production supervisor, you have to document all important information and events pertinent to or occurring within a shift. Therefore, you decide to use shift notes and shift reports.

> Note:
> In this exercise, when a value or object name contains ##, replace ## by the number, your trainer assigned to you.

Task 1: Display the Settings for Shift Notes and Shift Reports in a Work Center

You want to be able to create shift notes and shift reports for special work centers. Therefore, you assigned shift note types and shift report types to these work centers.

1. Choose transaction CR02 to display work center T-BK1## in plant 1010.
   Write down the assigned shift note type and shift report type:

Field	Value
Shift Note Type	
Shift Report Type	

   a) The following shift note type and shift report type should be assigned:

Field	Value
Shift Note Type	SN
Shift Report Type	S4M_001

> Note:
> Shift note types and shift report types have to be defined in Customizing.

Task 2: Create Shift Notes

You have to create shift notes during your daily work to document important events occurring within your shift.

1. Choose transaction SHN1 to create a shift note for work center T-BK1##.

© Copyright. All rights reserved.

a) No further information is needed for this exercise step.

2. In the comment field, an example long text is automatically inserted.
   This text is assigned to the shift note type in Customizing.

   Also, the user information and the creation time have been automatically assigned.

   a) No further information is needed for this exercise step.

3. Report the start and the end of the event.
   Set the *Specify End* indicator and enter the following dates and times:

Start Date	Start Time	End Date	End Time
today	08:00:00	today	09:00:00

   a) For this exercise step no further information is needed.

4. Assign the following shift note category:

Category
Shift note category A

   A long text has been assigned to this category in Customizing. Choose the *Information* button to copy this text to the shift note comment.

   a) For this exercise step no further information is needed.

5. Assign the following reference object:

Field	Value
Reference Object	Production Order
Production Order	Enter any existing order number

   Another long text is automatically inserted in the comment field. This text has been assigned to the reference object in Customizing.

   Choose the *Display Object* button to display the production order.

   a) For this exercise step no further information is needed.

6. Enter your own comment manually in the comment field.
   With the button *Attach Text Module* you could insert pre-defined standard texts.

   a) For this exercise step no further information is needed.

7. Choose the *Send* button to send a link to the shift note as e-mail.
   The shift note will be sent when you save the shift note.

   a) For this exercise step no further information is needed.

8. Choose the *Display as PDF* button to display your shift note as PDF.
   The PDF will be displayed when you save the shift note.

   Save your shift note.

   a) For this exercise step no further information is needed.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

9. In the *Create Document and Send* dialog box, choose e.g. the following recipient:

Recipient	Type
S4225-## (your user)	SAP Logon Name

Press the *Send ...* button.

A link to your shift note will be send to your workplace (transaction SBWP). Your shift note will also be displayed as PDF.

a) For this exercise step no further information is needed.

10. Create more shift notes for your work center T-BK1##. The one for which you created a shift note earlier in the exercise.

Assign e.g. other categories and other reference objects.

a) No further information is needed for this exercise step.

Task 3: List your Shift Notes

You use the List Processing to create various shift note lists for different selection criteria. You define variants to make the use of the List Processing more effective.

1. Choose transaction SHN4 to display the selection screens for the List Processing of shift notes.

Three different selection screens are available: Basic Search, Advanced Search, Comprehensive Search.

Get an overview of the selection criteria available in the three different selection screens.

Use all three selection screens to create your own shift note lists for different selection criteria.

In a shift note list, note the available functions (create, copy, display, change, send, PDF, print).

a) For this exercise step no further information is needed.

2. Go to the Advanced Search and define the following search criteria:

Field	Value
Work Center	T-BK1##
Start in the Past	8 Days

Choose *Goto → Variants → Save As Variant ...* to save your selection criteria as variant:

Field	Value
Variant Name	WC T-BK1##
Description	Variant for work cent. T-BK1##

Save your variant.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Choose *Goto → Variants → Define Start Variant ...* to define your variant as user specific start variant:

Field	Value
User-Specific Variant	WC T-BK1##

a) For this exercise step no further information is needed.

3. Leave the List Processing and enter it again.
   The selection screen for Advanced Search and your own selection criteria are automatically set.
   a) For this exercise step no further information is needed.

Task 4: Use the Shift Note Cockpit

You use the Shift Note Cockpit to supervise up to 6 different shift note lists at the same time.

1. Choose transaction SHN5 to display the selection screen of the Shift Note Cockpit.
   You can assign up to 6 different shift note list variants to be displayed in the cockpit.
   Theses shift note lists can be displayed in tabs or in one single overview screen.
   You can define a time interval for an automatic refresh of the shift note lists.
   a) No further information is needed for this exercise step.
2. When you enter the selection screen of the cockpit, some list variants are already assigned. This assignment is defined in a standard variant for the Shift Note Cockpit.
   Additionally, assign your own shift note list variant WC T-BK1##.
   Choose *Goto → Variants for Shift Note Cockpit → Save As Variant ...* to save your settings as a new Shift Note Cockpit variant:

Field	Value
Variant Name	GR## COCKPIT
Description	GR## Shift Note Cockpit

   Save your variant.
   Choose *Goto → Variants for Shift Note Cockpit → Define Start Variant ...* to define your variant as user specific start variant:

Field	Value
User-Specific Variant	GR## COCKPIT

   a) For this exercise step no further information is needed.
3. Leave the Shift Note Cockpit and enter it again.
   Your list variants are automatically set.
   a) For this exercise step no further information is needed.
4. Now choose *Execute* to display the selected shift note lists in the Shift Note Cockpit.
   Display the shift note lists in Tabs and in the Overview.

Duplication is prohibited.
Duplication is prohibited.

© Copyright. All rights reserved.

a) For this exercise step no further information is needed.

Task 5: Create Shift Reports

At the end of your shift you create shift reports for your work centers. This shift reports contain e.g. shift notes, confirmations, aggregated quantities and activities, and goods movements.

1. Choose transaction SHR1 to create a shift report for your work center T-BK1##.

   The current shift may be proposed, but choose a different evaluation period so that all activities of the current week will be included:

Field	Value
Start Date	Last Monday
Start Time	08:00:00
End Date	Today
End Time	Current Time

   Choose *Settings for Preview* to check the corresponding preview settings.

   Choose *Preview* to create a preview of your shift report.

   In the preview, analyze the information that is available in the different sections of the navigation tree. View the lists for the different sections and navigate into some of the listed objects (e.g. shift notes, confirmations).

   a) For this exercise step no further information is needed.

2. Choose the *Generate Shift Report* button to generate your shift report.

   Save your shift report.

   Finally, *Sign* your shift report with your SAP user ID and your SAP password.

   a) For this exercise step no further information is needed.

3. Some information has changed or has since been updated. *Discard* your shift report. You have to confirm this activity with your digital signature.

   a) For this exercise step no further information is needed.

4. After you have discarded your shift report, you can generate, save and sign a new shift report for the same evaluation period.

   a) For this exercise step no further information is needed.

Task 6: List your Shift Reports

You use the List Processing to create various shift report lists for different selection criteria.

1. Choose transaction SHR4 to display the selection screen for the List Processing of shift reports.

   Get an overview of the available selection criteria.

   Create your own shift report lists for different selection criteria. For example, create a list regarding your work center T-BK1##.

   a) For this exercise step no further information is needed.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

LESSON SUMMARY

You should now be able to:

- Create shift notes and shift reports

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment

1. Split with same material, split with other material, split to warehouses are the split methods available for order splits.

   Determine whether this statement is true or false.

   ☐ True

   ☐ False

2. Which of the following statements are correct?

   Choose the correct answers.

   ☐ A Shift notes and shift reports are two separate means of documenting special occurrences within a shift with reference to a sales order.

   ☐ B You use the shift note in order to enter times and comments for an event that cannot be entered elsewhere in the system.

   ☐ C A shift report is a PDF document that is created automatically by the background processing.

   ☐ D The shift report serves to collect all the important information on a work center or work center hierarchy in a shift.

   ☐ E Shift reports can be changed at any times.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.

Learning Assessment - Answers

1. Split with same material, split with other material, split to warehouses are the split methods available for order splits.

   Determine whether this statement is true or false.

   [X] True

   [ ] False

   Correct. Split with same material, split with other material, split to warehouses are the split methods available for order splits.

2. Which of the following statements are correct?

   Choose the correct answers.

   [ ] A Shift notes and shift reports are two separate means of documenting special occurrences within a shift with reference to a sales order.

   [X] B You use the shift note in order to enter times and comments for an event that cannot be entered elsewhere in the system.

   [ ] C A shift report is a PDF document that is created automatically by the background processing.

   [X] D The shift report serves to collect all the important information on a work center or work center hierarchy in a shift.

   [ ] E Shift reports can be changed at any times.

   Correct. You use the shift note in order to enter times and comments for an event that cannot be entered elsewhere in the system. The shift report serves to collect all the important information on a work center or work center hierarchy in a shift.

Duplication is prohibited.

Duplication is prohibited.

© Copyright. All rights reserved.