

# TM120

## Optimizer Planning and Execution in SAP Transportation Management

### COURSE OUTLINE

Course Version: 18

Course Duration: 5 Day(s)

# SAP Copyrights and Trademarks

© 2019 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 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.

# 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	<i>Example text</i>
Window title	<i>Example text</i>



# Contents

vii **Course Overview**

**1 Unit 1: Optimizer Planning**

- 1 Lesson: Describing Optimizer Planning
- 1 Lesson: Applying Optimizer Planning Settings
- 1 Lesson: Identifying Modal Decision Planning Scenarios
- 1 Lesson: Applying Short-Cut Planning
- 1 Lesson: Creating Pooled Shipments

**3 Unit 2: Optimizer Applications**

- 3 Lesson: Creating a Transportation Proposal
- 3 Lesson: Describing Load Optimization Processes

**5 Unit 3: Advanced Transportation Network**

- 5 Lesson: Creating Schedules
- 5 Lesson: Analyzing the Results of the Path Finder

**7 Unit 4: Transportation Unit Planning**

- 7 Lesson: Creating Passive Vehicle Resources
- 7 Lesson: Planning Transportation Units with Passive Vehicle Resources
- 7 Lesson: Planning Transportation Units with the Optimizer
- 7 Lesson: Planning Transportation with Container Units

**9 Unit 5: Carrier Selection**

- 9 Lesson: Explaining the Carrier Selection Process
- 9 Lesson: Selecting Carriers Based on Costs and Priorities
- 9 Lesson: Using Allocations
- 9 Lesson: Using Business Shares
- 9 Lesson: Improving Carrier Utilization

**11 Unit 6: Freight Tendering**

- 11 Lesson: Explaining the Tendering Process
- 11 Lesson: Configuring the Tendering Plan
- 11 Lesson: Identifying the Tendering Collaboration Scenarios

**13 Unit 7: Freight Orders in Transportation Management**

- 13 Lesson: Creating Freight Orders

<b>15</b>	<b>Unit 8:</b>	<b>Freight Order Setup</b>
15		Lesson: Configuring Freight Order Types
15		Lesson: Configuring Freight Order Type Determination
15		Lesson: Determining Business Partners
<b>17</b>	<b>Unit 9:</b>	<b>Freight Order Integration</b>
17		Lesson: Integrating Freight Orders with Shipments
17		Lesson: Creating Shipments from Freight Orders
17		Lesson: Creating Freight Orders from Shipments
17		Lesson: Communicating Freight Orders to Other Companies
<b>19</b>	<b>Unit 10:</b>	<b>Transportation Event Monitoring</b>
19		Lesson: Monitoring Transportation Events
19		Lesson: Configuring SAP Event Management (SAP TM) for Transportation Visibility
19		Lesson: Handling Events in the Collaboration Portal
<b>21</b>	<b>Unit 11:</b>	<b>Transportation Execution</b>
21		Lesson: Configuring Freight Order Output
21		Lesson: Managing Freight Order Discrepancies
<b>23</b>	<b>Unit 12:</b>	<b>Integration with SAP Extended Warehouse Management</b>
23		Lesson: Integrating SAP EWM based on Shipments
23		Lesson: Integrating SAP EWM Based on Deliveries
23		Lesson: Integrating SAP EWM for Transit Warehousing

# Course Overview

## **TARGET AUDIENCE**

This course is intended for the following audiences:

- Application Consultant
- Business Process Architect
- Business Process Owner/Team Lead/Power User





## Lesson 1: Describing Optimizer Planning

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe optimizer planning

## Lesson 2: Applying Optimizer Planning Settings

### Lesson Objectives

After completing this lesson, you will be able to:

- Create planning cost settings

## Lesson 3: Identifying Modal Decision Planning Scenarios

### Lesson Objectives

After completing this lesson, you will be able to:

- Execute planning to determine the means of transport
- Execute planning to consolidate deliveries
- Execute planning to enforce minimum shipping requirements

## Lesson 4: Applying Short-Cut Planning

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe short-cut planning
- Maintain integration settings for short-cut planning
- Maintain configuration and execute short-cut planning

## Lesson 5: Creating Pooled Shipments

### Lesson Objectives

After completing this lesson, you will be able to:

- Model the transportation network for pooled shipments
- Create pooled freight orders

## Lesson 1: Creating a Transportation Proposal

### Lesson Objectives

After completing this lesson, you will be able to:

- Plan freight orders using transportation proposals

## Lesson 2: Describing Load Optimization Processes

### Lesson Objectives

After completing this lesson, you will be able to:

- Create a vehicle for load optimization
- Create freight units for load optimization
- Maintain load planning settings
- Perform load planning



## Lesson 1: Creating Schedules

### Lesson Objectives

After completing this lesson, you will be able to:

- Create carrier schedules
- Generate departures

## Lesson 2: Analyzing the Results of the Path Finder

### Lesson Objectives

After completing this lesson, you will be able to:

- Use the Path Finder to analyze results



## Lesson 1: Creating Passive Vehicle Resources

### Lesson Objectives

After completing this lesson, you will be able to:

- Create passive vehicle resources
- Analyze transportation units

## Lesson 2: Planning Transportation Units with Passive Vehicle Resources

### Lesson Objectives

After completing this lesson, you will be able to:

- Create transportation units
- Outline transportation unit planning

## Lesson 3: Planning Transportation Units with the Optimizer

### Lesson Objectives

After completing this lesson, you will be able to:

- Apply optimizer settings to passive vehicle resources

## Lesson 4: Planning Transportation with Container Units

### Lesson Objectives

After completing this lesson, you will be able to:

- Create container units





## Lesson 1: Explaining the Carrier Selection Process

### Lesson Objectives

After completing this lesson, you will be able to:

- Execute carrier selection

## Lesson 2: Selecting Carriers Based on Costs and Priorities

### Lesson Objectives

After completing this lesson, you will be able to:

- Define carrier costs
- Configure carrier selection

## Lesson 3: Using Allocations

### Lesson Objectives

After completing this lesson, you will be able to:

- Consider allocations

## Lesson 4: Using Business Shares

### Lesson Objectives

After completing this lesson, you will be able to:

- Perform carrier selection based on business shares

## Lesson 5: Improving Carrier Utilization

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain continuous moves



## Lesson 1: Explaining the Tendering Process

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain tendering types
- Explain the tendering process in SAP TM
- Tender a freight order

## Lesson 2: Configuring the Tendering Plan

### Lesson Objectives

After completing this lesson, you will be able to:

- Configure the settings to enable freight order-based shipments

## Lesson 3: Identifying the Tendering Collaboration Scenarios

### Lesson Objectives

After completing this lesson, you will be able to:

- Determine communication methods with carriers
- Collaborate using the SAP TM collaboration portal



## Lesson 1: Creating Freight Orders

### Lesson Objectives

After completing this lesson, you will be able to:

- List the methods of creating freight orders in SAP TM



## Lesson 1: Configuring Freight Order Types

### Lesson Objectives

After completing this lesson, you will be able to:

- Use freight order types
- Determine organizational units in freight orders automatically
- Create freight order types

## Lesson 2: Configuring Freight Order Type Determination

### Lesson Objectives

After completing this lesson, you will be able to:

- Set up freight order type determination based on the appropriate usage

## Lesson 3: Determining Business Partners

### Lesson Objectives

After completing this lesson, you will be able to:

- Identify the business partner roles assigned to freight orders
- Determine business partners in freight orders





## Lesson 1: Integrating Freight Orders with Shipments

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the integration scenarios between freight orders and shipments

## Lesson 2: Creating Shipments from Freight Orders

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain the business scenarios for freight order-based shipments
- Configure the settings to enable freight order-based shipments

## Lesson 3: Creating Freight Orders from Shipments

### Lesson Objectives

After completing this lesson, you will be able to:

- Create shipment-based freight orders
- Configure settings to enable shipment-based freight orders

## Lesson 4: Communicating Freight Orders to Other Companies

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain the business scenarios for business-to-business communication



## Lesson 1: Monitoring Transportation Events

### Lesson Objectives

After completing this lesson, you will be able to:

- Monitor transportation events with SAP Event Management

## Lesson 2: Configuring SAP Event Management (SAP TM) for Transportation Visibility

### Lesson Objectives

After completing this lesson, you will be able to:

- Configure settings to enable transportation event visibility

## Lesson 3: Handling Events in the Collaboration Portal

### Lesson Objectives

After completing this lesson, you will be able to:

- Handle events in the Collaboration Portal



## Lesson 1: Configuring Freight Order Output

### Lesson Objectives

After completing this lesson, you will be able to:

- Configure settings to enable the printing of documents in the freight order

## Lesson 2: Managing Freight Order Discrepancies

### Lesson Objectives

After completing this lesson, you will be able to:

- Process different types of discrepancies in SAP TM



## Lesson 1: Integrating SAP EWM based on Shipments

### Lesson Objectives

After completing this lesson, you will be able to:

- Execute the freight order-based shipment by using SAP EWM
- Configure settings to enable warehouse integration based on shipments

## Lesson 2: Integrating SAP EWM Based on Deliveries

### Lesson Objectives

After completing this lesson, you will be able to:

- Directly integrate SAP TM into SAP EWM
- Configure settings to enable warehouse integration based on deliveries

## Lesson 3: Integrating SAP EWM for Transit Warehousing

### Lesson Objectives

After completing this lesson, you will be able to:

- Integrate SAP TM into SAP EWM in a Logistic Service Provider scenario
- Configure settings to enable transit warehouse integration