

# TM100

## Processes in Transportation Management

### COURSE OUTLINE

Course Version: 16

Course Duration: 4 Day(s)

# SAP Copyrights and Trademarks

© 2015 SAP SE. 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. The information contained herein may be changed without prior notice.

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

- Microsoft, Windows, Excel, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.
- IBM, DB2, DB2 Universal Database, System i, System i5, System p, System p5, System x, System z, System z10, System z9, z10, z9, iSeries, pSeries, xSeries, zSeries, eServer, z/VM, z/OS, i5/OS, S/390, OS/390, OS/400, AS/400, S/390 Parallel Enterprise Server, PowerVM, Power Architecture, POWER6+, POWER6, POWER5+, POWER5, POWER, OpenPower, PowerPC, BatchPipes, BladeCenter, System Storage, GPFS, HACMP, RETAIN, DB2 Connect, RACF, Redbooks, OS/2, Parallel Sysplex, MVS/ESA, AIX, Intelligent Miner, WebSphere, Netfinity, Tivoli and Informix are trademarks or registered trademarks of IBM Corporation.
- Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.
- Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- Oracle is a registered trademark of Oracle Corporation
- UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.
- Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.
- HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.
- Java is a registered trademark of Sun Microsystems, Inc.
- JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.
- SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP BusinessObjects Explorer, StreamWork, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE in Germany and other countries.
- Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects Software Ltd. Business Objects is an SAP company.
- Sybase and Adaptive Server, iAnywhere, Sybase 365, SQL Anywhere, and other Sybase products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Sybase, Inc. Sybase is an SAP company.

All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

These materials are subject to change without notice. These materials are provided by SAP SE and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group 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.







# Contents

ix **Course Overview**

**1 Unit 1: SAP Transportation Management (TM)**

- 1 Lesson: Evaluating SAP TM
- 1 Lesson: Evaluating the SAP TM System Landscape

**3 Unit 2: SAP TM User Interface**

- 3 Lesson: Identifying NetWeaver Business Client (NWBC) Components
- 3 Lesson: Configuring a Personal Object Worklist (POWL)
- 3 Lesson: Customizing the Screen Layout in SAP TM

**5 Unit 3: SAP TM Master Data**

- 5 Lesson: Identifying the Master Data Requirements for SAP TM
- 5 Lesson: Evaluating the Organizational Structures Used in SAP TM
- 5 Lesson: Defining a Condition
- 5 Lesson: Determining a Freight Incompatibility
- 6 Lesson: Determining a Dangerous Goods Shipping Requirement

**7 Unit 4: Transportation Order Management**

- 7 Lesson: Triggering the Transportation Management Process
- 7 Lesson: Integrating SAP ERP with SAP TM
- 7 Lesson: Managing the Freight Forwarding Process
- 7 Lesson: Booking Capacities

**9 Unit 5: Transportation Planning**

- 9 Lesson: Defining the Transportation Planning Process
- 9 Lesson: Viewing a Freight Unit
- 9 Lesson: Building a Package
- 9 Lesson: Defining a Selection Profile
- 9 Lesson: Determining a Planning Profile
- 10 Lesson: Accessing the Transportation Cockpit
- 10 Lesson: Generating a Transportation Proposal
- 10 Lesson: Creating a Freight Order
- 10 Lesson: Optimizing a Load

**11 Unit 6: Transportation Execution**

11	Lesson: Performing a Carrier Selection
11	Lesson: Tendering a Freight Order
11	Lesson: Triggering Delivery Creation from SAP TM
11	Lesson: Executing Transportation in SAP ERP
11	Lesson: Executing Transportation in SAP Extended Warehouse Management (SAP EWM)
12	Lesson: Generating Outputs
12	Lesson: Monitoring Transportation Events
12	Lesson: Exporting a Freight Order
12	Lesson: Analyzing SAP Transportation Management Performance

**13 Unit 7: Charge Calculation and Freight Settlement**

13	Lesson: Managing Charge Calculation Master Data
13	Lesson: Calculating Supplier Charges in a Freight Order
13	Lesson: Settling Supplier Freight Charges
13	Lesson: Calculating and Settling Customer Charges in an FWO
14	Lesson: Distributing Costs
14	Lesson: Settling Freight Charges in a Group Logistics Company
14	Lesson: Managing a Freight Contract



# Course Overview

## **TARGET AUDIENCE**

This course is intended for the following audiences:

- Application Consultant
- Business Analyst
- Business Process Owner/Team Lead/Power User
- Data Consultant/Manager
- Development Consultant
- Program/Project Manager
- Technology Consultant
- User



## Lesson 1: Evaluating SAP TM

### Lesson Objectives

After completing this lesson, you will be able to:

- List the benefits of SAP Transportation Management
- Identify the scenarios supported for each release of SAP TM
- Explain the components of transportation planning
- Explain the components of transportation execution
- Identify the basic capabilities of SAP Transportation Management

## Lesson 2: Evaluating the SAP TM System Landscape

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain the deployment options related to the SAP TM landscape
- Log on to the SAP system



## **Lesson 1: Identifying NetWeaver Business Client (NWBC) Components**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the NWBC structure
- Navigate in the NWBC

## **Lesson 2: Configuring a Personal Object Worklist (POWL)**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the requirements for transportation planning
- Create a query to filter transportation requirements

## **Lesson 3: Customizing the Screen Layout in SAP TM**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the screen layout in TM
- Customize the screen layout in SAP TM



## Lesson 1: Identifying the Master Data Requirements for SAP TM

### Lesson Objectives

After completing this lesson, you will be able to:

- List the master data elements supporting the different activities in TM
- List the master data elements that define the transportation network

## Lesson 2: Evaluating the Organizational Structures Used in SAP TM

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain the purpose of organizational structures
- Control outbound freight using organizational structures
- Control Forwarding Orders (FWOs) using organizational structures
- Evaluate an organization for planning and execution structures
- Create an organizational structure

## Lesson 3: Defining a Condition

### Lesson Objectives

After completing this lesson, you will be able to:

- Determine the conditions used to customize a business process
- Display a condition or restriction

## Lesson 4: Determining a Freight Incompatibility

### Lesson Objectives

After completing this lesson, you will be able to:

- Examine how incompatibilities can be used to control the outcome of business processes
- View incompatibilities

## **Lesson 5: Determining a Dangerous Goods Shipping Requirement**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe dangerous goods in terms of environment, health, and safety regulations
- View a dangerous goods master



## Lesson 1: Triggering the Transportation Management Process

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the transportation processes
- List the different types of transportation order scenarios
- Describe order management documents

## Lesson 2: Integrating SAP ERP with SAP TM

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe SAP ERP logistics integration
- Create a sales order
- Describe the integration of SAP ERP purchase orders
- Explain the process of generating transportation requirements in SAP TM from scheduling agreements in SAP ERP
- Describe the integration of SAP ERP deliveries

## Lesson 3: Managing the Freight Forwarding Process

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the freight forwarding process

## Lesson 4: Booking Capacities

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the ocean freight booking process
- Create an ocean freight booking

- Describe an air freight booking

## Lesson 1: Defining the Transportation Planning Process

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the business process and documentation required for transportation planning

## Lesson 2: Viewing a Freight Unit

### Lesson Objectives

After completing this lesson, you will be able to:

- View a freight unit

## Lesson 3: Building a Package

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe package building

## Lesson 4: Defining a Selection Profile

### Lesson Objectives

After completing this lesson, you will be able to:

- Define the requirements for a selection profile
- Display a selection profile

## Lesson 5: Determining a Planning Profile

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the parameters used to support planning in SAP TM
- Display a planning profile

## **Lesson 6: Accessing the Transportation Cockpit**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Access the transportation cockpit

## **Lesson 7: Generating a Transportation Proposal**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Generate a transportation proposal

## **Lesson 8: Creating a Freight Order**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the freight order and freight order types required for shipping
- Describe visual planning

## **Lesson 9: Optimizing a Load**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe load optimization

## Lesson 1: Performing a Carrier Selection

### Lesson Objectives

After completing this lesson, you will be able to:

- Define the carrier selection process and parameters

## Lesson 2: Tendering a Freight Order

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the order tendering process
- Tender a freight order

## Lesson 3: Triggering Delivery Creation from SAP TM

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the delivery integration process
- Create a delivery

## Lesson 4: Executing Transportation in SAP ERP

### Lesson Objectives

After completing this lesson, you will be able to:

- Integrate a freight order with a shipment
- Create a shipment from a freight order
- Create a freight order from a shipment

## Lesson 5: Executing Transportation in SAP Extended Warehouse Management (SAP EWM)

### Lesson Objectives

After completing this lesson, you will be able to:

- Integrate SAP EWM based on a shipment
- Integrate SAP EWM based on a delivery
- Integrate SAP EWM for transit warehousing

## **Lesson 6: Generating Outputs**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Generate outputs

## **Lesson 7: Monitoring Transportation Events**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- View a freight order event
- Describe visibility scenarios
- Monitor the freight order process

## **Lesson 8: Exporting a Freight Order**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Process an international shipment

## **Lesson 9: Analyzing SAP Transportation Management Performance**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Execute a query
- Execute a Business Context Viewer (BCV) query

## Lesson 1: Managing Charge Calculation Master Data

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe a freight and forwarding agreement in transportation charge management
- Display the elements of a charge calculation sheet
- Describe rate tables in charge management
- Display a scale
- Manage master data

## Lesson 2: Calculating Supplier Charges in a Freight Order

### Lesson Objectives

After completing this lesson, you will be able to:

- Calculate charges in a freight order

## Lesson 3: Settling Supplier Freight Charges

### Lesson Objectives

After completing this lesson, you will be able to:

- Generate a freight settlement document
- Transfer freight charges to SAP ERP
- Settle a charge in the collaboration portal

## Lesson 4: Calculating and Settling Customer Charges in an FWO

### Lesson Objectives

After completing this lesson, you will be able to:

- Identify how charges are calculated for a FWO
- Generate a customer freight invoice
- Settle an internal charge

## **Lesson 5: Distributing Costs**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Distribute costs

## **Lesson 6: Settling Freight Charges in a Group Logistics Company**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe a group logistics company settlement

## **Lesson 7: Managing a Freight Contract**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the process of strategic freight management