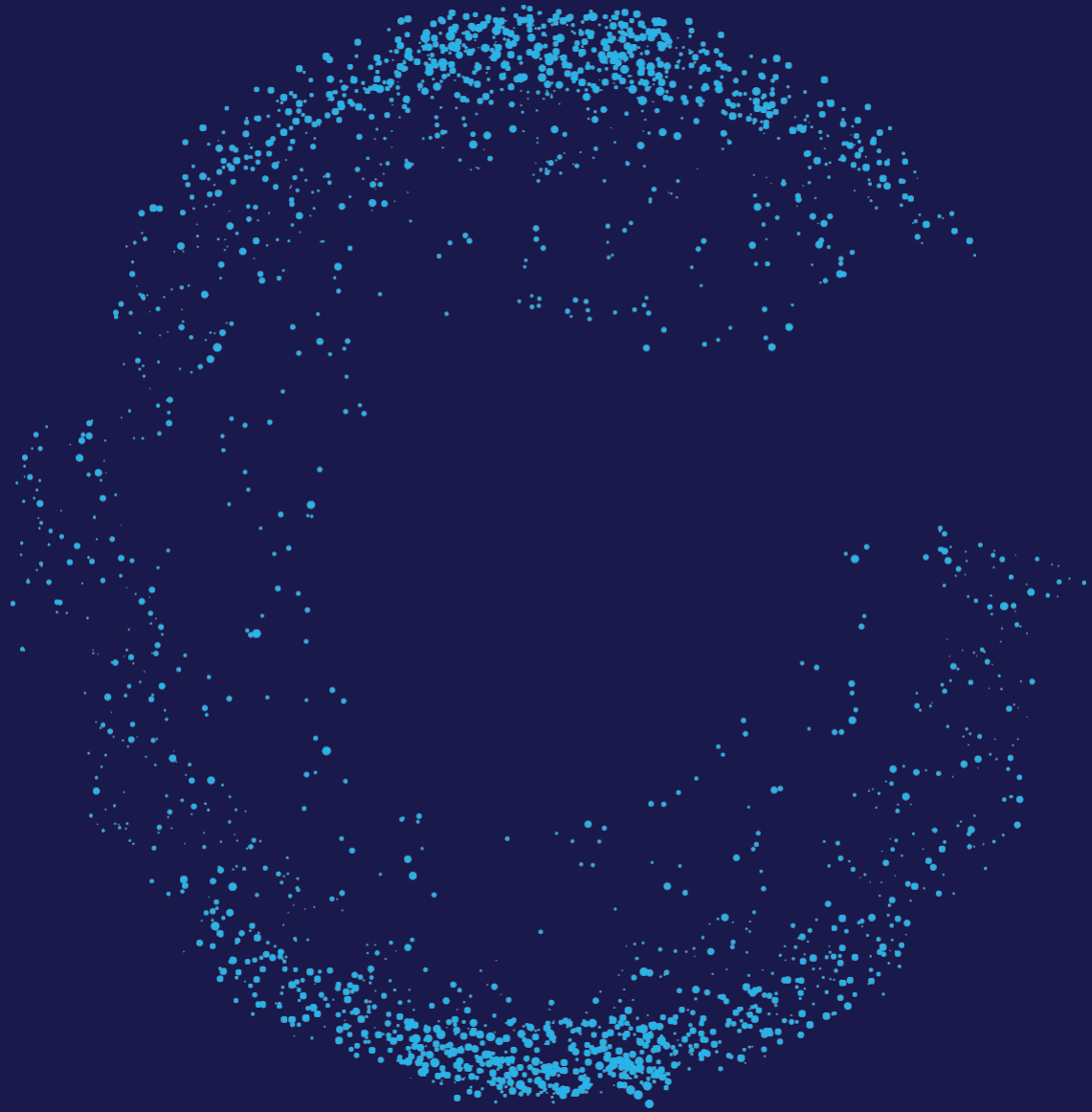


Education Services

Course Catalog



Transportation Management System

About This Catalog

This catalog is your essential guide to Blue Yonder Transportation Management System (TMS) instructor-led training courses. Whether you are a new user or an experienced professional, the courses outlined in this catalog help you gain the knowledge and skills required for the successful adoption and effective use of Blue Yonder TMS.

The catalog provides a structured overview of available courses and their learning objectives, audience, and duration. For assistance or guidance in selecting the required courses, you can contact your Blue Yonder Customer Experience or Education Services team.

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About Blue Yonder Education Services

Blue Yonder Education Services seeks to improve supply chain excellence by offering innovative, tailored, and cost-effective training solutions. It focuses on transforming training with adaptable, high-quality programs that help you achieve your business goals, deliver industry-leading performance, and drive economic growth. Blue Yonder Education Services' core offerings include:


- Product courses delivered in person or virtually, as instructor-led training
- Public schedule and private course events
- Applied coaching and mentoring services
- Digital subscriptions and online courses
- Certifications
- Skill gap analysis surveys and training need assessments
- Organizational change and end-user training advisory and professional services


Blue Yonder Training Courses

Designed to facilitate effective adoption and utilization of its software solutions, Blue Yonder training courses provide a structured, expert-guided learning experience.

Features and Benefits



 Offer in-person or live virtual classroom training, delivered by a qualified Blue Yonder instructor, with standard or customized courses and hands-on exercises

 Provide comprehensive training on specific Blue Yonder solutions and related business processes

 Ensure learner engagement throughout the training program

 Award learners with badges and certification, when applicable

Blue Yonder TMS Course Catalog—Overview

The Blue Yonder TMS catalog provides comprehensive training courses designed for different audiences in an organization. These courses combine learning concepts with practical exercises that help learners deepen their knowledge of TMS.

Course Name	Learning Objectives	Audience	Duration
Level 1: Foundation			
<p>5295: Transportation Management Solution Foundation</p> <p><i>This training is exclusively available to customers who have purchased the Transportation Management Solution (on Platform and Network) product. It is crafted to specifically address the distinct features and functionalities inherent in this solution. Please confirm your product purchase to ensure compatibility with this training offering.</i></p>	<p>After completing this course, learners will be able to:</p> <ul style="list-style-type: none"> • Define the key features and capabilities of Transportation Management Solution. • Describe the key operations of Transportation Smartbench that help perform various transportation activities. • Monitor data ingress-related messages and egress-related events. • Explain the master data entities of Transportation Management Solution. • Create shipment. • Generate a load and tender it to a carrier. • Identify how carrier network collaboration enables carriers to respond to a tender and update load status. • Manage freight audit and payment. • Describe the process of creating a tariff. • Create delivery schedule. • Create docks and dock commitments. • Explain how the Routing Guide feature helps in optimizing shipments. • Configure the master data entities required for pallet creation and loading. • Familiarize with Logistics Ops Agent, the AI capability of Transportation Management Solution. • Explain how Transportation Management Solution efficiently supports ocean booking and booking revision. 	<p>Transportation Management Solution project team and end users</p>	<p>4 days</p>

<p>5280: Transportation Manager</p> <p><i>This training is available to customers who have purchased the Transportation Manager (On-Prem) product. It is crafted to specifically address the distinct features and functionalities inherent in the on-premise environments. Please confirm your product purchase to ensure compatibility with this training offering.</i></p>	<p>After completing this course, learners will be able to:</p> <ul style="list-style-type: none"> • Define the terms used in Blue Yonder Transportation Manager. • Set up process and components of Transportation Manager. • Navigate through the Web and Smartbench user interfaces. • Create principal entities. • Create shipments. • Build and process loads. • Explain the key features of Transportation Smartbench. • Create a new account payable voucher for confirmed shipment. • Evaluate the effectiveness of different tariff structures on shipment costs. • Configure location constraints and business rules. • Create a delivery schedule. • Configure manual and automatic dock scheduling. • Set up routing guide rules. • Configure pallet types using the Transportation Manager user interface. 	<p>Transportation Manager project team and end users</p>	<p>4 days</p>
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<p>5290: Transportation Modeling</p> <p><i>This training is exclusively available to customers who have purchased the Modeling (Azure) product. It is crafted to specifically address the distinct features and functionalities inherent in Azure cloud environments. Please confirm your product purchase to ensure compatibility with this training offering.</i></p>	<p>After completing this course, learners will be able to:</p> <ul style="list-style-type: none"> • Describe Transportation Modeling and its features. • Navigate through Transportation Modeling user interface, utilizing its functionalities. • Create and optimize starter models. • Define scenarios, verify data, and configure solver options. • Apply location constraints and add business hours, routing, and transit overrides. • Incorporate hubs into models. • Develop a tariff strategy using the access rating tool. • Design delivery schedules to streamline transportation planning. • Evaluate different strategies and parameters to optimize solve results. • Model continuous moves using strategy files and access rating tool. • Explain the functions of different reports generated postoptimization. 	<p>Transportation Modeling Project team and end users</p>	<p>4 days</p>
<p>5262: Transportation Modeler Level 1</p> <p><i>This training is available to customers who have purchased the Modeler (On-Prem) product. It is crafted to specifically address the distinct features and functionalities inherent in the on-premise environments. Please confirm your product purchase to ensure compatibility with this training offering.</i></p>	<p>After completing this course, learners will be able to:</p> <ul style="list-style-type: none"> • Describe Transportation Modeler and its features. • Navigate through Transportation Modeler user interface, utilizing its functionalities. • Create and optimize starter models. • Define scenarios, verify data, and configure solver options. • Apply location constraints and add business hours, routing, and transit overrides. • Incorporate hubs into models. • Develop a tariff strategy using the access rating tool. • Design delivery schedules to streamline transportation planning. • Evaluate different strategies and parameters to optimize solve results. • Model continuous moves using strategy files and access rating tool. • Explain the functions of different reports generated postoptimization. 	<p>Project team and end users of Transportation Modeler</p>	<p>4 days</p>

Level 2: Advanced			
5265: Transportation Modeler Level II	After completing this course, learners will be able to:	Project team and end users of Transportation Modeler	3 days
<p><i>This training is available to customers who have purchased the Modeler (On-Prem) product. It is crafted to specifically address the distinct features and functionalities inherent in the on-premise environments. Please confirm your product purchase to ensure compatibility with this training offering.</i></p>	<ul style="list-style-type: none"> • Describe Transportation Modeler’s advanced functions and entities. • Illustrate the advanced modeling techniques. • Configure carrier equipment availability penalties. • Describe how domiciles and equipment types are modeled to reduce cost. • Describe equipment type associations and model tractors and trailers. • Describe and model dock scheduling. • Configure performance-based ratings for optimizing load assignments. • Apply dynamic shipment splitting techniques to improve modeling flexibility. • Utilize containerization and axle balancing to manage capacity. 		



TMS Course Details

5295: Transportation Management Solution Foundation

Course Objectives

After completing this course, learners will be able to:

- Define the key features and capabilities of Transportation Management Solution.
- Describe the key operations of Transportation Smartbench that help perform various transportation activities.
- Monitor data ingress-related messages and egress-related events.
- Explain the master data entities of Transportation Management Solution.
- Create shipment.
- Generate a load and tender it to a carrier.
- Identify how carrier network collaboration enables carriers to respond to a tender and update load status.
- Manage freight audit and payment.
- Describe the process of creating a tariff.
- Create delivery schedule.
- Create docks and dock commitments.
- Explain how the Routing Guide feature helps in optimizing shipments.
- Configure the master data entities required for pallet creation and loading.
- Familiarize with Logistics Ops Agent, the AI capability of Transportation Management Solution.
- Explain how Transportation Management Solution efficiently supports ocean booking and booking revision.

Audience

Transportation Management Solution project team and end users

Prerequisites

No prerequisites are required for this course.

Duration

4 days (in person or virtual)

Training Level

Beginner and intermediate

Lesson Name	Learning Objectives	Duration
01: Overview and Terminologies	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define Blue Yonder's Transportation Management Solution, outlining its core functions and role in optimizing end-to-end transportation operations. • Describe the key features and capabilities of Transportation Management Solution. 	1 hour

	<ul style="list-style-type: none"> • Explain the key terms related to Transportation Management Solution. 	
02: Transportation Manager Web User Interface and User Security	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Identify the key components of the Transportation Manager (TM) Web user interface (UI). ▪ Demonstrate how to log on to the TM Web UI and access the main interaction points for managing shipments and loads. ▪ Utilize search parameters effectively to refine search results and access specific information. ▪ Configure user groups and authorization settings to control module access based on user roles. 	1 hour
03: Transportation Smartbench – Overview	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Define the role of Transportation Smartbench (TSB) in supporting transportation workflows in Transportation Management Solution (TMS). ▪ Describe the key operations of TSB that help perform various transportation activities. 	1 hour
04: Transportation Smartbench – Navigation	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Navigate and use key Transportation Smartbench UI components to access and review transportation data. ▪ Create and manage search groups and saved searches within the Search Panel. ▪ Configure and execute entity and summary searches to retrieve and analyze transportation data. 	2 hours
05: Transportation Smartbench – Results Panel	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Describe the Results panel in Transportation Smartbench and its core functionalities. ▪ Explain how entity views, property views, and map views support detailed review and operational decision-making. ▪ Demonstrate how to create asset assignments using the Transportation Smartbench UI. 	1 hour
06: Managing Transportation Data	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Describe how transportation-related data is ingested through Blue Yonder Platform. ▪ Explain the role of Event Notification server in data egress. ▪ Describe how to monitor data ingress-related messages and egress-related events. ▪ Explain how messages routing work. 	1 hour

07: Setting Up Master Data	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Compare the master and transactional data entities. ▪ Explain the master data entities of Transportation Management Solution (TMS). ▪ Identify the APIs to set up master and transactional data through Blue Yonder Platform. ▪ Set up the different master data entities. 	<p>1.5 hour</p>
08: Operational Life Cycle	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Explain the operational life cycle of a shipment from creation to delivery to financial settlement. ▪ Describe the load building workflow of a manifest load. 	<p>1 hour</p>
09: Shipment Creation and Load Building	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Create a shipment. ▪ Generate a load and tender it to a carrier. 	<p>1 hour</p>
10: Carrier Network Collaboration	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Explain how carrier network collaboration enables carriers to collaborate with shippers. ▪ Explain the load tender process flow. ▪ Describe the process flows for exchanging documents, proof of deliveries, and freight bills. ▪ View the real-time status of a load. 	<p>1 hour</p>
11: Managing Freight Audit and Payment	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ List the components of the financial processing module in Transportation Management Solution (TMS). ▪ Explain the difference between Accounts Payable (A/P) vouchers and Accounts Receivable (A/R) vouchers. ▪ Create vouchers, invoices, freight bills, and general ledger mappings. ▪ Make voucher adjustments. ▪ Rectify an incorrect freight bill. 	<p>2.5 hours</p>
12: Tariff Structures	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Identify the main components of a tariff and their functions. ▪ Describe the process of creating a tariff. ▪ Explain how carrier and customer charges differ within a tariff system. 	<p>1 hour</p>

13: Delivery Schedules	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Explain the concept of delivery schedules. ▪ Create a delivery schedule. ▪ Identify the delivery schedule components. ▪ Differentiate between elapsed days, days of week, and fixed date scheduling options. 	<p>1 hour</p>
14: Dock Scheduling – Overview	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Define dock scheduling and explain its significance. ▪ Identify the components of a dock commitment Gantt chart. ▪ Evaluate different strategies for avoiding dock congestion. 	<p>1 hour</p>
15: Working with Dock Schedules	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Identify the different setup options for dock scheduling. ▪ Create a dock and dock commitment. ▪ View a dock commitment. ▪ Explain the location throughput capacity feature. 	<p>1 hour 20 minutes</p>
16: Routing Guide	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Explain the purpose of using Routing Guide. ▪ Describe the core components of a routing rule: Criteria, Restrictions, and Priorities. ▪ Analyze the priority selection logic used to assign carriers. ▪ Utilize Data Upload Utility to upload the Routing Guide rules. 	<p>0.5 hours</p>
17: Palletization	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> ▪ Define Palletization in Transportation Management Solution (TMS). ▪ Explain the benefits and significance of palletization in optimizing shipments. ▪ Identify the key master data entities required for palletization setup. ▪ Configure the master data entities using the TMS Web user interface (UI). ▪ View the palletization results using the three-dimensional (3-D) visualization in Transportation Smartbench. 	<p>1 hour</p>

18: Logistics Ops Agent	After completing this lesson, learners will be able to: <ul style="list-style-type: none">▪ Explain the purpose of Logistics Ops Agent in Transportation Manager.▪ Identify the available Logistics Ops Agent and its core capabilities.▪ Use the Backhaul Opportunity Explorer to identify and act on efficiency opportunities.▪ Use the Unroutable Shipments Analyzer to identify and resolve routing exceptions.	1 hour
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Hands-on Exercises: This course contains hands-on exercises for practicing the tasks covered in the lessons.

Additional Resources: This course includes the additional topic Ocean Booking that can be covered by the trainer based on customer's usage.



5280: Transportation Manager

Course Objectives

After completing this course, learners will be able to:

- Define the terms used in Blue Yonder Transportation Manager.
- Set up process and components of Transportation Manager.
- Navigate through the Web and Smartbench user interfaces.
- Create principal entities.
- Create shipments.
- Build and process loads.
- Explain the key features of Transportation Smartbench.
- Create a new account payable voucher for the confirmed shipment.
- Evaluate the effectiveness of different tariff structures on shipment costs.
- Configure location constraints and business rules.
- Create a delivery schedule.
- Configure manual and automatic dock scheduling.
- Set up routing guide rules.
- Configure pallet types using the Transportation Manager user interface.

Audience

Transportation Manager project team and end users

Prerequisites

No prerequisites are required for this course.

Duration

4 days (in person or virtual)

Training Level

Beginner and intermediate

Lesson Name	Learning Objectives	Duration
01: Overview and Terminology	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Describe the significance of Transportation Manager. • Define the key terms used in Transportation Manager. 	1 hour

02: Workflows	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Identify the workflows involved in Transportation Manager. • Describe the setup process and components of the Transportation Manager system. • Explain the functionality of different Transportation Manager modules. • Describe the configuration of master data within the System Setup module. 	<p>1.5 hours</p>
03: Navigation	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Identify the main components of the Transportation Manager user interface. • Navigate through various Transportation Manager modules. • Customize the user interface settings for personalized user experience. • Utilize wildcard and search exclusion characters to optimize search operations. 	<p>1.5 hours</p>
04: User Security	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Outline the process for creating Transportation Manager users and user groups. • Explain how Transportation Manager supports user authorization and security settings. • Apply user group configurations for appropriate module access for different user types. 	<p>1 hour</p>
05: Entities	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe entities. • Define the key entities involved in the Transportation Manager system setup, such as customers, carriers, and tariffs. 	<p>1 hour</p>
06: Setting Up Entities	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the process and sequence of setting up entities. • Demonstrate how to create an item and set its attributes. 	<p>1.5 hours</p>
07: Operational Life Cycle	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the operational life cycle of Transportation Manager and its significance. • Assess the impact of different operational modules on the transportation workflow. • Utilize various modules in Transportation Manager to optimize load efficiency. 	<p>1.5 hours</p>

08: Shipment Processing and Load Building	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Create shipments using the Shipment Processing module. • Manually build a load plan in the Load Build module. • Identify the best carrier using rate shop. 	<p>1.5 hours</p>
09: Load Processing and Load Confirmation	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Execute the load processing steps. • Explain the steps required for tendering a load. • Describe how carrier sequential tendering helps automate the tendering process. • Confirm a load. • Describe how shipments and loads can be tracked. 	<p>1.5 hours</p>
10: Transportation Smartbench	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe the key features of Transportation Smartbench. • Perform routine operational life-cycle tasks using Transportation Smartbench. • Describe the functions of job server and how it helps with automation. 	<p>1.5 hours</p>
11: Transportation Smartbench: Navigation	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Navigate within Transportation Smartbench. • Customize entity grid layouts to meet user-specific needs. • Handle errors in the entity views. • Configure and execute summary type searches for load, trip, and booking attributes. 	<p>1.5 hours</p>
12: Transportation Smartbench: Results Panel	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain summary, entity, map, and other results panel views. • Create new asset assignments and manage their life cycle. • Create a map layout based on user-specific needs. 	<p>1.5 hours</p>
13: Tariff Structures	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Identify the main components of a tariff and their functions. • Describe the process of creating a tariff. • Explain how carrier and customer charges differ within a tariff system. 	<p>1 hour</p>

14: Creating Tariff Structures	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Calculate tariff charges based on provided distance or weight using rate codes. • Create a tariff and add services, conditions, and rate codes. • Formulate a tariff for a specific carrier. • Compare different types of tariffs and discuss their attributes. • Interpret the significance of zones and lanes in tariff calculations. 	<p>1.5 hours</p>
15: Financials	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • List the components of the Financials module in the Transportation Manager system. • Explain the difference between Accounts Payable (A/P) vouchers and Accounts Receivable (A/R) vouchers. 	<p>1 hour</p>
16: Financials: Creating Vouchers	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Manually create a new A/P voucher for confirmed shipment. • Differentiate between the audit and autopay modes for invoice processing. • Generate a freight bill. • Automate the generation of batch A/P vouchers. 	<p>1.5 hours</p>
17: Delivery Schedules	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the concept of delivery schedules. • Create a delivery schedule. • Set up a timetable entry for a delivery schedule specifying arrival and departure points. • Differentiate between elapsed days, days of week, and fixed date scheduling options. • Assign a delivery schedule to a tariff and examine its impacts on shipping operations. • Adjust a delivery schedule itinerary. 	<p>2 hours</p>
18: Introduction to Dock Scheduling	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define dock scheduling and explain its significance. • Identify and label the components of a dock commitment Gantt chart. • Evaluate different strategies for avoiding dock congestion. 	<p>1 hour</p>

19: Dock Scheduling	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Illustrate the process of manual and automatic dock scheduling. • Set up location throughput groups to manage dock capacity. • Create and view dock commitments. • Configure a dock schedule in Transportation Smartbench. • Analyze how different equipment and commodity types can affect dock scheduling. 	<p>1.5 hours</p>
20: Day in the Life	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain a day in the life of a transportation planner. • Upload carriers using the data upload capability. • Upload shipments using the data upload capability. • Optimize shipment and analyze results. • Plan and tender a load in Smartbench. • Confirm a load. 	<p>1.5 hours</p>
21: Routing Guide	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe the components of routing guide. • Describe how priority rules for carrier selection are implemented. • Utilize data upload utility for uploading routing guide. • Review routing guide rules. • Set up routing guide rules. 	<p>30 minutes</p>
22: Palletization	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe palletization and its benefits. • Identify the master data entities required for effective palletization. • Compare different pallet types and their applications in optimization. • Distinguish between item types. • Configure and create pallet types. • Evaluate the effectiveness of different palletization strategies in reducing transportation costs. 	<p>30 minutes</p>

Hands-on Exercises: This course contains hands-on exercises for practicing the tasks covered in the lessons.

Additional Resources: This course includes additional topics such as Architecture, Glossary, Fuel Surcharge Modeling, Procurement Bridge, and Ocean Booking that can be covered by the trainer based on customer's usage.

5290: Transportation Modeling

Course Objectives

After completing this training, learners will be able to:

- Describe Transportation Modeling and its features.
- Navigate through Transportation Modeling user interface, utilizing its functionalities.
- Create and optimize starter models.
- Define scenarios, verify data, and configure solver options.
- Apply location constraints and add business hours, routing, and transit overrides.
- Incorporate hubs into models.
- Develop a tariff strategy using the access rating tool.
- Design delivery schedules to streamline transportation planning.
- Evaluate different strategies and parameters to optimize solve results.
- Model continuous moves using strategy files and access rating tool.
- Explain the functions of different reports generated postoptimization.

Audience

Transportation Modeling Project team and end users

Prerequisites

No prerequisites are required for this course.

Duration

4 days (in person or virtual)

Training Level

Intermediate and advanced

Lesson Name	Learning Objectives	Duration
01: Overview	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Identify the business benefits of Transportation Modeling. • Describe the key components of Transportation Modeling. • Explain transportation modeling techniques to create an optimized transportation plan. • Compare different transportation scenarios. 	1 hour

02: User Interface	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the basic functionalities of various pages and tables within Transportation Modeling. • Navigate through Detail Table to filter, import, export, and manipulate data. • Assess input and output data of solved scenarios. • Create entity relationships and attributes to categorize data. 	<p>1 hour</p>
03: Building a Starter Model	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Build a starter model by providing information on locations, shipments, geocodes, and map zones. • Analyze the role of entities, relationships, and attributes. • Create a scenario in Transportation Modeling. • Evaluate the effectiveness of a starter model by interpreting import results. • Identify errors using error logs. • Configure geocoding of location data to provide latitude and longitude coordinates. • Use the road map feature to view locations, shipments, loads, and trips. 	<p>2 hours</p>
04: Introduction to Optimizing a Starter Model	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define optimization in the context of Transportation Modeling. • Describe the data requirements for performing optimization. • Demonstrate various data validation techniques to ensure data accuracy and readiness for optimization. 	<p>1 hour</p>
05: Optimizing a Starter Model	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Configure and optimize a starter model using the solver engine. • Adjust strategic parameters as necessary. • Analyze the optimization log and output summary to evaluate the effectiveness of optimization strategies. • Examine and interpret optimization results, including load and trip distances. • Create and execute a batch of scenarios from multiple projects. 	<p>1.5 hours</p>
06: Data Validation	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the significance of data validation in ensuring effective modeling outcomes. • Describe the data validation techniques to assess and improve the accuracy of model inputs. 	<p>2 hours</p>

07: Managing Data	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Configure a basic model using the solver engine for optimization. • Evaluate the results from the optimization process. • Analyze the log and output data and identify areas for improvement. • Design multiple scenarios to compare outcomes and deduce the best modeling strategies. 	1.5 hours
08: Location Constraints	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define location constraints in Transportation Modeling. • Describe the elements required to set location constraints. 	1 hour
09: Setting Up Location Constraints	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Create and assign business hours to various locations within a model. • Apply loading and unloading restrictions to specific location types in a transportation model. • Calculate handling times. • Evaluate routing restrictions for stops that must be first or last on a load. • Create transit override scenarios to reflect actual distances and transit times between locations. • Manage exceptions to regular business hours. 	1.5 hours
10: Adding a Hub	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define a hub in Transportation Modeling. • Add a new hub to the transportation model. • Create and assign business hours to a newly added hub. • Analyze how incorporating a hub affects the optimization of the transportation model. • Create a hub scenario that maximizes load consolidation and efficiency in freight movement. • Visualize hubs and associated loads on a map. 	1 hour

11: Introduction to Shipment Grouping and Ordering	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define shipment grouping and ordering in Transportation Modeling. • Describe the role of shipment grouping and ordering in optimization. 	<p>1 hour</p>
12: Shipment Grouping and Ordering	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Add new shipments to the shipment detail table. • Force direct delivery of shipments to their destination. • Apply Merge in Transit concept to shipments that can be combined for simultaneous delivery. • Utilize consolidation classes for shipments of same characteristics. • Explain how location group exclusions can prevent unwanted combinations of locations on a load. 	<p>1.5 hours</p>
13: Tariff Strategy	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define the structure and components of a tariff. • Determine the most cost-effective carrier services considering various constraints. 	<p>1 hour</p>
14: Configuring Tariff Strategy	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Create tariff components in the access rating tool. • Evaluate the effectiveness of different tariff strategies in achieving transportation optimization. • Apply lane-specific tariff rates to real-world transportation scenarios. • Analyze delivery schedules and associated itineraries. 	<p>2 hours</p>
15: Delivery Schedules	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe delivery schedules and their significance in Transportation Modeling. • Create a detailed delivery schedule using access rating tool. • Differentiate between different types of delivery schedules. • Analyze the impact of delivery scheduling on freight movement across multiple transportation modes. • Modify existing delivery schedules and assess their impact on logistics efficiency. • Evaluate delivery schedule components. 	<p>2 hours</p>

16. Introduction to Strategies and Parameters	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Identify the components and functions within a strategy file. • Identify the different global parameters. • Describe the functions of the parameter file. • Describe how the optimizer utilizes the optimizer plan hierarchy. 	<p>2 hours</p>
17. Configuring Strategies and Parameters	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Edit a strategy file using the strategy file editor. • Analyze the impact of changing global parameters within the parameter file. • Create a custom strategy file using the strategy file editor. • Incorporate functions such as plan stack and log functions in the strategy file. • Evaluate the effectiveness of different plan comparison functions. • Apply constraint functions to enforce constraints during optimization. • Examine the role of web rule functions. • Critique different strategies and recommend improvements based on objectives and constraints. 	<p>2 hours</p>
18: Modeling Carrier Equipment Availability Constraints	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • List the three distinct levels at which carrier equipment availability can be modeled. • Describe how constraints interact with the tariff hierarchy. • Apply the optimization parameters to control distance and transit time behavior in modeling scenarios. • Analyze the impact of lane-level constraints on enforcing carrier equipment availability. • Calculate transit times considering traffic patterns. • Evaluate the effectiveness of penalties applied when constraints are violated. • Assess how penalties can affect the cost and feasibility of transportation plans. 	<p>2 hours</p>

19: Continuous Move Modeling	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define continuous moves in the context of Transportation Modeling. • Explain how individual loads are linked. • Configure carrier and tariff settings effectively to facilitate continuous move modeling. • Utilize Rank parameter to prioritize trip consolidation by cost or distance savings. • Analyze the impact of different trip configurations on the efficiency and cost-effectiveness of continuous move models. • Assess strategies to minimize empty miles while maximizing asset utilization. 	1.5 hours
20: Reporting Optimization Metrics	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define optimization metrics and list their primary purposes in Transportation Modeling. • Describe the process of configuring optimization metrics. • Explain the functions of different reports generated postoptimization. • Access and use the optimization metric detail table to view and analyze transport data metrics. • Apply the chart option to visualize optimization metrics for comparison between multiple transportation plans. 	1 hour

Hands-on Exercises: This course contains hands-on exercises for practicing the tasks covered in the lessons.

5262: Transportation Modeler Level I

Course Objectives

After completing this course, learners will be able to:

- Describe Transportation Modeler and its features.
- Navigate through Transportation Modeler user interface, utilizing its functionalities.
- Create and optimize starter models.
- Define scenarios, verify data, and configure solver options.
- Apply location constraints and add business hours, routing, and transit overrides.
- Incorporate hubs into models.
- Develop a tariff strategy using the access rating tool.
- Design delivery schedules to streamline transportation planning.
- Evaluate different strategies and parameters to optimize solve results.
- Model continuous moves using strategy files and the access rating tool.
- Explain the functions of different reports generated postoptimization.

Audience

Transportation Modeler project team and IT members

Prerequisites

No prerequisites are required for this course.

Duration

4 days (in person or virtual)

Training Level

Intermediate and advanced

Lesson Name	Learning Objectives	Duration
01: Transportation Modeler Overview	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Identify the business benefits of Transportation Modeler. • Describe the key components of Transportation Modeler. • Explain transportation modeling techniques to create an optimized transportation plan that balances cost and service. • Compare different transportation scenarios. 	1 hour

02: Transportation Modeler User Interface	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the basic functionalities of various pages and tables within Transportation Modeler. • Navigate through Detail Table to filter, import, export, and manipulate data. • Assess input and output data of solved scenarios. • Create entity relationships and attributes to categorize data. 	<p>1 hour</p>
03: Building a Starter Model	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Build a starter model by providing information on locations, shipments, geocodes, and map zones. • Analyze the role of entities, relationships, and attributes. • Create a scenario in Transportation Modeler. • Evaluate the effectiveness of a starter model by interpreting import results. • Identify errors using error logs. • Configure geocoding of location data to provide latitude and longitude coordinates. • Use the road map feature to view locations, shipments, loads, and trips. 	<p>2 hours</p>
04: Introduction to Optimizing a Starter Model	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define optimization in the context of Transportation Modeler. • Describe the data requirements for performing optimization. • Demonstrate various data validation techniques to ensure data accuracy and readiness for optimization. 	<p>1 hour</p>
05: Optimizing a Starter Model	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Configure and optimize a starter model using the solver engine. • Adjust strategic parameters as necessary. • Analyze the optimization log and output summary to evaluate the effectiveness of optimization strategies. • Examine and interpret optimization results, including load and trip distances. • Create and execute a batch of scenarios from multiple projects. 	<p>1.5 hours</p>

06: Data Validation	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the significance of data validation in ensuring effective modeling outcomes. • Describe the data validation techniques to assess and improve the accuracy of model inputs. 	2 hours
07: Managing Data	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Configure a basic model using the solver engine for optimization. • Evaluate the results from the optimization process. • Analyze the log and output data and identify areas for improvement. • Design multiple scenarios to compare outcomes and deduce the best modeling strategies. 	1.5 hours
08: Location Constraints	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define location constraints in Transportation Modeler. • Describe the elements required to set location constraints. 	1 hour
09: Setting Up Location Constraints	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Create and assign business hours to various locations within a model. • Apply loading and unloading restrictions to specific location types in a transportation model. • Calculate handling times. • Evaluate routing restrictions for stops that must be first or last on a load. • Create transit override scenarios to reflect actual distances and transit times between locations. • Manage exceptions to regular business hours. 	1.5 hours
10: Adding a Hub	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define a hub in Transportation Modeler. • Add a new hub to the transportation model. • Create and assign business hours to a newly added hub. • Analyze how incorporating a hub affects the optimization of the transportation model. • Create a hub scenario that maximizes load consolidation and efficiency in freight movement. • Visualize hubs and associated loads on a map. 	1 hour

11: Introduction to Shipment Grouping and Ordering	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define shipment grouping and ordering in Transportation Modeler. • Describe the role of shipment grouping and ordering in optimization. 	<p>1 hour</p>
12: Shipment Grouping and Ordering	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Add new shipments to the shipment detail table. • Force direct delivery of shipments to their destination. • Apply Merge in Transit concept to shipments that can be combined for simultaneous delivery. • Utilize consolidation classes for shipments of same characteristics. • Explain how location group exclusions can prevent unwanted combinations of locations on a load. 	<p>1.5 hours</p>
13: Tariff Strategy	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define the structure and components of a tariff. • Determine the most cost-effective carrier services considering various constraints. 	<p>1 hour</p>
14: Configuring Tariff Strategy	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Create tariff components in the access rating tool. • Evaluate the effectiveness of different tariff strategies in achieving transportation optimization. • Apply lane-specific tariff rates to real-world transportation scenarios. • Analyze delivery schedules and associated itineraries. 	<p>2 hours</p>
15: Delivery Schedules	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe delivery schedules and their significance in Transportation Modeler. • Create a detailed delivery schedule using access rating tool. • Differentiate between different types of delivery schedules. • Analyze the impact of delivery scheduling on freight movement across multiple transportation modes. • Modify existing delivery schedules and assess their impact on logistics efficiency. • Evaluate delivery schedule components. 	<p>2 hours</p>

16: Strategies and Parameters	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Identify the components and functions within a strategy file. • Identify the different global parameters. • Describe the functions of the parameter file. • Describe how the optimizer utilizes the optimizer plan hierarchy. 	<p>2 hours</p>
17: Configuring Strategies and Parameters	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Edit a strategy file using the strategy file editor. • Analyze the impact of changing global parameters within the parameter file. • Create a custom strategy file using the strategy file editor. • Incorporate functions such as plan stack and log functions in the strategy file. • Evaluate the effectiveness of different plan comparison functions. • Apply constraint functions to enforce constraints during optimization. • Examine the role of web rule functions. • Critique different strategies and recommend improvements based on objectives and constraints. 	<p>2 hours</p>
18: Carrier Equipment Availability Constraints	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • List the three distinct levels at which carrier equipment availability can be modeled. • Describe how constraints interact with the tariff hierarchy. • Apply the optimization parameters to control distance and transit time behavior in modeling scenarios. • Analyze the impact of lane-level constraints on enforcing carrier equipment availability. • Calculate transit times considering traffic patterns. • Evaluate the effectiveness of penalties applied when constraints are violated. • Assess how penalties can affect the cost and feasibility of transportation plans. 	<p>2 hours</p>

19: Continuous Move Modeling	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define continuous moves in the context of Transportation Modeler. • Explain how individual loads are linked. • Configure carrier and tariff settings effectively to facilitate continuous move modeling. • Utilize Rank parameter to prioritize trip consolidation by cost or distance savings. • Analyze the impact of different trip configurations on the efficiency and cost-effectiveness of continuous move models. • Assess strategies to minimize empty miles while maximizing asset utilization. 	1.5 hours
20: Reporting Optimization Metrics	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define optimization metrics and list their primary purposes in Transportation Modeling. • Describe the process of configuring optimization metrics. • Explain the functions of different reports generated postoptimization. • Access and use the optimization metric detail table to view and analyze transport data metrics. • Apply the chart option to visualize optimization metrics for comparison between multiple transportation plans. 	1 hour

Hands-on Exercises: This course contains hands-on exercises for practicing the tasks covered in the lessons.

5265: Transportation Modeler Level II

Course Objectives

After completing this course, learners will be able to:

- Describe Transportation Modeler’s advanced functions and entities.
- Illustrate the advanced modeling techniques.
- Configure penalties in carrier equipment availability.
- Describe how domiciles and equipment types are modeled to reduce cost.
- Describe equipment type associations and model tractors and trailers.
- Describe and model dock scheduling.
- Configure performance-based ratings for optimizing load assignments.
- Apply dynamic shipment splitting techniques to improve modeling flexibility.
- Utilize containerization and axle balancing to manage capacity.

Audience

Transportation Modeler project team and IT members

Prerequisites

NA

Duration

3 days (in person or virtual)

Training Level

Advanced

Lesson Name	Learning Objectives	Duration
01: Introduction	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Review the topics covered in the Level I course. • Describe Transportation Modeler’s advanced functions and entities. • Describe advanced relationships required for Transportation Modeler. 	1.5 hours
02: CEA Recap	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Describe how penalties are used in modeling carrier equipment availability. • Configure carrier equipment availability. • Set up penalty structures. • Test constraint scenarios. 	1 hour

03: Introduction to Domicile Modeling	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Define domiciles. • Explain the significance of domicile modeling in Transportation Modeler. 	1 hour
04: Domicile Modeling	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Set up domicile constraints. • Describe rating requirements for modeling domiciles. • Identify the strategies used to reduce domicile penalty costs. • Describe how domicile vehicles are modeled. 	2 hours
05: Introduction to Tractor and Trailer Modeling	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Explain the role of trailer swapping and empty loads in Transportation Modeler. • Describe equipment type associations at domiciles. • Define tractors and trailers in Transportation Modeler. 	1.5 hour
06: Tractor and Trailer Modeling	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Describe how tractors and trailers are modeled in Transportation Modeler. • Configure multitrailer scenarios. • Add details to various tractor and trailer configuration tables. 	1.5 hours
07: Introduction to Dock Scheduling	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Describe dock scheduling. • Explain the role of dock scheduling in Transportation Modeler. 	1 hour
08: Dock Scheduling	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Explain how to model dock scheduling. • Set up and use dock scheduling. • View the results of dock scheduling. 	2 hours
09: Performance Rating	After completing this lesson, learners will be able to: <ul style="list-style-type: none"> • Describe the functions of performance rating in Transportation Modeler. • Explain the role of lane preference, carrier performance, and lane performance in assigning loads. 	1 hour

10: Modeling Performance Rating	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Enable a performance-based rating system. • Evaluate carrier and lane performance in Transportation Modeler. 	1.5 hours
11: Introduction to Dynamic Shipment Splitting	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe dynamic shipment splitting in Transportation Modeler. • Explain the methods and rules of dynamic shipment splitting. 	1.5 hours
12: Modeling Dynamic Shipment Splitting	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Define the various shipment splitting strategies in Transportation Modeler. • Enable dynamic shipment splitting. 	1 hour
13: Introduction to Containerization and Axle Balancing	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Describe containerization, product packaging, and capacity degradation in Transportation Modeler. • Describe axle balancing and its role in Transportation Modeler. 	2 hours
14: Containerization and Axle Balancing: Constraints and Parameters	<p>After completing this lesson, learners will be able to:</p> <ul style="list-style-type: none"> • Explain the containerization parameters that are used to control the load configurator verification. • Describe the containerization constraints impacting optimization in Transportation Modeler. • Describe the product loading factor and product loading detail percentage. • Calculate the product loading detail percentage and percentage utilization factor for the equipment used. 	2 hours

Hands-on Exercises: This course contains hands-on exercises for practicing the tasks covered in the lessons.

