i2 Transportation Modeler v6.2 Training

14-Apr-2006

Summary

Solution Type:	SCM
Industry:	Transportation / Logistics
Product(s)/Template(s):	i2 Transportation Modeler, i2 Logistics Tariff Manager
Target Audience:	Functional Implementers (Business Lead / i2 Lead) Technical Implementers (Super User / Application Engineer)
Delivery Method:	Instructor-Led Training
Training Approach:	Lecture, Demo, and Hands-on
Duration:	4 days
Version:	6.2

Description

This course provides training for transportation modeling using Transportation Modeler for data model management and optimization, as well as Logistics Tariff Manager for tariff creation and management. Designed for analysts who desire to have classroom instruction and hands-on experience, the course is built around a “case study” for exercises and discussion of functionality.

Content

This course is composed of the following modules:

- Module 1: Basics
- Module 2: Model Enhancement
- Module 3: Tariffs
- Module 4: Optimization Strategies
- Module 5: Advanced Functionality

Prerequisites

- Basic PC knowledge and skills, including MS Windows™
- Knowledge and/or experience in the logistics/transportation industry is helpful but not required.
- Basic understanding of MS-Access is beneficial

Course Objectives

On completion of this course you will be able to:

- Explain the i2 solution and transportation / logistics solutions "in context".
- Explain specific business scenarios and enabling functionality.
- Describe the modeling process and recommended steps for building a model using Transportation Modeler.
- Identify the core Control Center input tables, relationships, and minimum required fields.
- Given an MS-Access database, import data into a starter model.
- Explain how to configure option for optimization.
- Explain the post-optimization files, views, and tables.
- Explain how to export results from output tables.
- Given a model, optimize and work with results.
- Explain location-related enhancements to a model.
- Explain hub enhancements to a model.
- Explain shipment enhancements to a model.
- Given different business scenarios, enhance the model, re-optimize and evaluate the results.
- Explain tariff components and structure.
- Identify the different sources of tariffs.
- Provided tariff business scenarios, outline tariff components and structure.
- Explain purpose, architecture and interface of LTM.
- Explain tariff creation process in LTM.
- Given tariff components and structure, create tariffs in LTM.
- Explain Delivery Schedule use and creation in LTM.
- Given delivery schedule business scenario, create in LTM.
- Explain the optimization strategies and arguments in the context of business examples.
- Explain the Strategy File Editor, plan stacks, variables, and looping.
- Explain the optimization parameters and Parameter File Editor.
- Explain the importance and use of Carrier Constraints.
- Explain the importance and use of Lane Constraints.
- Explain the importance and use of Domiciling.
- Explain the importance and use of Hub Constraints.
- Explain the importance and use of Performance-Based Rating.

Course Agenda

DAY 1 – Introduction, Modeling Building & GUI Basics

Section 1 – Introduction to Transportation Modeler

Objectives: Explain the specific business scenarios and enabling functionality which can be modeled via Transportation Modeler.
Explain the modeling process using Transportation Modeler.
Method: PowerPoint Slides & Lecture

Section 2 – Building a "starter model" in Transportation Modeler

Objective: Introduce the core Control Center input tables and explain the minimum fields that are required for a starter model.
Explain table relationships and dependencies.
Explain the recommended steps for building a model.
Explain the data import process to populate input tables.
Method: PowerPoint Slides & Lecture

Exercise - Building a Starter Model

Objective: Students import pre-defined data from MS-Access and follow the modeling building steps to create a starter model.
Method: Instructor-Led Exercise or Scripted Exercise using **NewCo Fasteners** business scenario.

---------- **LUNCH BREAK** ----------

Section 3 – Optimizing a "starter model" in Transportation Modeler

Objective: Explain the configuration of options for optimization.
Explain and show the post-optimization files, views, and tables.
Explain how to export results from Control Center plan (output) tables.
Method: PowerPoint Slides & Lecture

Exercise – Optimizing a Starter Model

Objective: Students configure their model for optimization, run the optimization, review results through various methods, construct summary views, working with map outputs and export results.
Strategy files, parameter files, and tariffs are all provided.
Method: Instructor-Led Exercise or Scripted Exercise using **NewCo Fasteners** business scenario.

Section 4 – Managing Data

Objective: Explain the use of Entity Attributes.
Method: PowerPoint Slides & Lecture

Exercise – Managing Data

Objective: Students create entity attributes within their starter model to assist with data selection and maintenance..
Method: Instructor-Led Exercise or Scripted Exercise using **NewCo Fasteners** business scenario.

DAY 2 – Model Enhancement & Optimization

Section 5 – Enhancing a Model with Business Rules

Objective: Explain the ways to add in specific business rules to a starter model.
- Locations enhancements
- Hubs
- Shipment enhancements

Method: PowerPoint Slides & Lecture

Exercise – Location Constraints

Objective: Students update their starter model to account for location-related business rules and then re-run the optimization.
Strategy files, parameter files, and tariffs are all provided.

Method: Scripted Exercise using **NewCo Fasteners** business scenario.

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Exercise – Adding Hubs

Objective: Students update their starter model to account for hub-related business rules and then re-run the optimization.
Strategy files, parameter files, and tariffs are all provided.

Method: Scripted Exercise using **NewCo Fasteners** business scenario.

Exercises – Shipment Constraints

Objective: Students update their starter model to account for shipment-related business rules and then re-run the optimization.
Strategy files, parameter files, and tariffs are all provided.

Method: Scripted Exercise using **NewCo Fasteners** business scenario.

DAY 3 – Tariffs

Section 6 – Tariff Overview and Creation

Objective: Provide overview of tariff structures.
Explain the different sources of tariffs for Modeler.

Method: PowerPoint Slides & Lecture

Exercise – Tariff "Strategy" Discussion

Objective: Students are given tariff business scenarios. They then "map" these business scenarios to the tariff structure, creating their "tariff strategy". The exercise shows the importance of thinking through how tariffs are to be represented before actually constructing them in any tool.

Method: "Paper" exercise and instructor-led discussion.

Section 7 – Introduction to Logistics Tariff Manager (LTM)

Objective: Introduce the purpose, architecture, and interface of LTM.
Introduce the process of creating tariffs via Logistics Tariff Manager.

Method: Instructor-led navigation exercise and explanation.

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Exercise – Tariff Exercise

Objective: Students take their "tariff strategies" from the previous two business scenarios and refer to the tariff creation steps to construct the tariffs in LTM. They will then run optimization using provided strategy and parameter files.
Method: Independent Exercise (with Instructor Review) appending to **NewCo Fasteners** tariffs.

Section 8 – Delivery Schedule Overview

Objective: Explain the importance and use of Delivery Schedules (for services that are not Over-the-Road).
Method: PowerPoint Slides & Lecture

Exercise – Delivery Schedule Exercise

Objective: Students modify their tariffs in LTM to create delivery schedules, re-optimize and view results.
Method: Scripted Exercise using the **NewCo Fasteners** business scenario.

DAY 4 – Optimization Strategies & Additional Functionality

Section 9 – Optimization Strategies and Parameters Overview

Objective: Explain the optimization strategies and arguments in the context of business examples.
Explain the Strategy File Editor, plan stacks, variables, and looping.
Explain the optimization parameters and Parameter File Editor.
Method: PowerPoint Slides & Lecture

Exercise – Optimization Strategy & Parameters Exercise

Objective: Students are provided a very basic strategy file and make small adjustments to the strategy functions and arguments, re-optimize to view the effect on results. Students independently adjust the hub strategy file to attempt better solution.
Method: Scripted Exercise using the **NewCo Fasteners** business scenario.

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Section 10 – Advanced Functionality - Carrier Equipment Availability and Lane Constraints

Objective: Explain the importance and use of Carrier Equipment Availability (resource constrained carriers/services).
Method: PowerPoint Slides & Lecture

Exercise – Carrier Equipment Availability and Lane Constraint Exercises

Objective: Create necessary text files, modify their strategy file and modify options configuration for a business example of constraining resources, re-optimize and view results.
Method: Scripted Exercise using the **NewCo Fasteners** business scenario.

Section 11 – Advanced Functionality - Equipment Domicibling Overview

Objective: Explain the importance and use of Equipment Domiciling.
Method: PowerPoint Slides & Lecture

Exercise - Equipment Domiciling Exercise

Objective: Students modify their tariffs, create necessary text files, modify their strategy file and modify options configuration for a business example of domiciling resources, re-optimize and view results
Method: Scripted Exercise using the **NewCo Fasteners** business scenario.

Section 11 – Advanced Functionality - Performance-Based Rating Overview

Objective: Explain the importance and use of Performance-Based Rating (carrier ranking is considered as well as cost).
Method: PowerPoint Slides & Lecture

Exercise – Performance-Based Rating Exercise

Objective: Enable performance rating, re-optimize and view results.
Method: Scripted Exercise using the **NewCo Fasteners** business scenario.