

Creating Business Simulations with Powersim Studio

Day 1 Focus on the Fundamentals of the Powersim Modeling Language

- 9:00 1. Introduction
Introduce yourself and define your personal objectives for the class.
- 9:15 2. Simulator Exercise
See an example of a complex simulator built by Powersim.
- 9:45 3. Levels and Flows
Review stock and flow definitions. Learn to deduce dynamic behavior from stocks and flows.
- 10:30 4. Modeling Common Feedback Structures
Understand the common types of feedback structures and how to model them.
- 11:00 5. Conceptualization
Learn a process for conceptualizing models.
- 11:30 6. Brainstorming Issues for Simulation
Based on a real case study, use hexagons to generate issues, identify variables, and create a casual loop diagram of the business problem.
- 1:30 6. Brainstorming Issues for Simulation
Continued.
- 2:30 7. Introduction to Studio
Learn how to navigate the software.
- 3:15 8. Units in Studio
Understand unit consistency in Studio. Learn about different types of units and the simulation calendar.
- 4:00 9. Choosing an Appropriate Simulation Algorithm
Learn how Powersim Studio calculates the values in a simulation model. Understand when to use different time-steps and simulation algorithms.
- 4:30 10. Casual Map to Level and Flow
Learn how to go from a casual loop to a stock and flow diagram.
- 5:30 End of Day One

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Day 2 Examine Advance Topics in System Dynamics using Powersim Studio

- 9:00 11. Modeling Time Delays
Understand the different types of time delays and when to use them, including information, material, and pipeline delays.
- 9:45 12. Modeling Soft Variables
See examples of soft variables in models.
- 10:30 13. Multi-Attribute Attractiveness Functions
Learn how to model multiple factors influencing decisions. Learn how to model market share with the multi-attribute attractiveness function.
- 11:00 14. Adding Model Detail with Multi-Dimensional Arrays
Understand how and when to use arrays in Studio.
- 1:30 15. Sharing Data with Other Applications
Understand different means of sharing Studio data with other applications.
- 2:30 16. Creating Simulation Applications in Studio
Understand important design issues of Simulator applications. Create an interface with Studio using the built-in command button, input/output and multi-media objects.
- 3:30 17. Model Verification, Validation and Testing
Understand techniques to build confidence in models. Apply those techniques to a partially built model.
- 4:30 18. Analysis Tools in Studio
Learn about risk assessment/management and optimization
- 5:00 19. Questions

Leadership & Management Training

- War Game Simulations for hands-on training.
- For planners and decision makers: Strategic visioning workshops suitable for senior-level executives as well as managers in operations, budgeting, resource allocation, finance, HR, etc.
- Leadership development for managers to build their leadership capacity, enhance business acumen, and gain a more cross-functional and enterprise-level view.

Simulation-based Scenario Planning

- Allows managers and analysts to project future changes in the organization in order to design policies to cope with strengths, weaknesses, opportunities and threats.
- Experiment with alternative strategies in a risk-free simulation environment in the form of a comprehensive custom computer simulation model of your business structure, strategies, and industry environment.

Business Simulation Creation

- Consulting: custom business simulation development by Powersim Solutions consultants
- Software: Powersim Studio™ - system dynamics modeling software - to build your own models
- Training Workshops: learn to create business simulations with Powersim Studio™

Powersim Solutions Computer Simulation Development				
Conceptual Model	Simulation Model	Simulation Behavior	Application Integration: Desktop or Web App	

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Powersim Solutions provides active learning workshops using business war games. We run war games for both small and large groups (hundreds of participants).

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