extendsim®

Advanced ExtendSim Online
Database Techniques & Programming
Training Agenda - May 12 to 23, 2025

Unlock the full potential of ExtendSim with our advanced training:
- Develop expert-level skills with the ExtendSim internal database.
- Maximize the use of equation-based blocks.
- Create custom components within the ExtendSim development environment.

The Online Advanced Training course includes six 2-hour sessions over the course of 2 weeks, held on Mondays, Wednesdays, and Fridays. Each session begins at 3pm EDT/8pm CET.

week 1 agenda

Session 1: Database Basics
- Overview of the Course
- Creating Databases, Tables, Fields, and Records
- Database Indexes
- Parent Child Relationships
- Reading & Writing Data using Value blocks (Basics)

Session 2: Reading & Writing & Importing & Exporting
- Reading & Writing Data using Value blocks (Options)
- Dynamic linking between an ExtendSim Database and Data
- Reading & Writing Data using Item blocks
- Importing & Exporting Data: Data Import Export

Session 3: Basics of Equation Blocks
- Introduction to the Equation Blocks & The ModL Language
- Operators
- Input and Output Variable Types
- Variables and Data Types: Local, Static, Global, and System Variables
- Control Statements: If Statement and For Loop
- Common Functions: Math, Animation, Database, and more

week 2 agenda

Session 4: Custom Blocks
- Creating a Custom Block and Custom Library
- Dialog Items
- Functions and Procedures
- Messages and Message Handlers

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week 2 agenda -- continued

Session 5: Simulation Architectures
- Continuous Simulation Architecture
- Discrete Event Simulation Architecture
- Event Posting Architecture

Session 6: Messaging
- Connector Messaging
- Equation Messaging

prerequisites and prepping for the course

Essential ExtendSim Training, or, on instructor approval, a comparable proficiency is required. It will also be beneficial to be comfortable with the database concept and be familiar with programming concepts and terminology (C++ recommended).

course materials supplied

- Course manual with case studies.
- Solution files for all course-based case studies and exercises.

after the course you'll receive...

- A Certificate of Completion.
- Book of additional case studies with solutions for post-course practice.
- Plus, if you have a few more questions within the first year after completing this course, you qualify for a free online coaching session from your trainer.