

eQUEST Software Training

Description

eQUEST provides a sophisticated, yet easy-to-use building energy analysis tool. eQUEST was designed to allow the user to perform detailed analysis of today's state-of-the-art building design technologies using sophisticated building energy use simulation techniques but without requiring extensive experience in the "art" of building performance modeling. In day one we will describe how to use Wizards + Graphics to build a model and revise it as the design develops. In day two we will learn eQUEST's detailed interface and development of more complex building envelope and HVAC systems as well as use of the software to produce DOE 2.2 hourly energy reports.

Course assumes eQUEST version 3.63b [from <http://doe2.com/equest/index.html>] has been downloaded and installed on student's computer prior to the training session.

Audience Level

Architects and engineers interested in a simple-to-use energy modeling tool. Basic level of familiarity with building envelope, mechanical systems, and lighting is required.

NOTE: This course has an emphasis on the early phases of new building design. LEED modeling techniques, advanced building envelope and HVAC, and existing building retrofits will typically not be addressed in-depth.

Day One Agenda

- 9:00 a.m. Energy modeling basics
- 9:45 a.m. Overview of eQUEST capabilities
- 11:15 a.m. Wizards: schematic design, design development, energy efficiency measure
- 12:00 p.m. Lunch break
- 1:00 p.m. Detailed eQUEST/DOE-2 (SIM) Reports and Hourly Reporting
- 1:45 p.m. Using DWG files with eQUEST
- 2:15 p.m. Schematic design exercise
- 3:15 p.m. Design development exercise
- 5:00 p.m. Instruction Concludes

eQUEST Software Training (contd.)

Day Two Agenda

9:00 am Introduction and Demonstration of eQUEST's Detailed Interface

Basic Modeling Procedures using eQUEST's Detailed Interface, by attendee requests

- 9:30 am
- constructions & glass types
 - shading
 - schedules
 - HVAC assignments

10:30 am Detailed interface exercise #1

12:00 pm Lunch Break

1:00 pm Expressions, Parametric Runs, & Reporting

1:30 pm Editing the eQUEST input (Building Development Language) file directly

2:00 pm Quality Control Procedures

Additional modeling topics using eQUEST's Detailed Interface, by attendee requests

- 2:30 pm
- daylighting
 - HVAC sizing
 - merging building shells
 - other building envelope, loads, air-side & water-side issues and technologies

3:30 pm Detailed interface exercise #2

5:00 pm Instruction Concludes