



Building Energy Modelling in CAN-QUEST 1.0v 2-Day Training Overview



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Course Objectives

- Prepare an energy model in CAN-QUEST
 - Use Wizards to set up preliminary models
 - Building accurate models of archetype buildings
 - Have limitations that prevent them from being used for a full compliance analysis
 - Create zoning diagrams
 - Understand DOE reporting and calculations
 - Use CAN-QUEST as a compliance tool



Overview and Schedule – DAY 1

1. Introduction – What is CAN-QUEST?
2. Schematic Design Wizard (single shell Wizard)
 - General Schematic Design (SD) Wizard Overview
 - Limits of SD Wizard
 - Energy Efficiency Measures Wizard
3. Design Development Wizard (multi-shell Wizard)
 - Project and Site Data (building type, location, seasons, utilities and rates)
 - Shells and Zoning (building shells, 3D-viewer, zoning principles, space types, importing custom footprints and zoning)



Overview and Schedule – DAY 1

- Envelope (building up a wall and a roof, calculating R-value, walls & floors in contact with ground, windows, custom window placement) → Exercise 1
- Internal and External Loads (Internal loads, lighting & daylighting, equipment, external loads, domestic hot water and exterior lighting)
- HVAC Systems (available HVAC systems, specifying system details, plant options, DHW equipment and HVAC limitations)

4. Running Simulation and Results

5. Detailed Interface – Demo

6. Compliance Run



Overview and Schedule – DAY 2

1. Computational Steps in CAN-QUEST
2. Important Files
3. Detailed Interface
 - General information
 - Schedules → Exercise 2
 - Envelope (building up a wall, roofs, windows and floors, below-grade construction and reference building envelope)
 - Internal Loads (lighting and equipment)
 - Water-side HVAC (loops, boilers, chillers, heat rejection, pumps, controls, reference building)
 - Air-side – HVAC (systems basics, fans, outdoor air, cooling, heating)



Overview and Schedule – DAY 2

4. Spreadsheet Mode
5. Parametric Runs (What are parametric runs, tips and tricks, global parameters, setting up parametric runs)

