



Ecotect Analysis® 2010 Tutorial Series

Nearly 100 video tutorials on the essentials for beginner, intermediate and advanced users.

Instructor Patrick Vilella is a LEED AP and AEC Application Engineer with CADSoft Consulting. For over ten years, Patrick has been providing customized training, consulting, and implementation services to firms using Autodesk® Revit®, 3ds Max® and Ecotect Analysis®.

Topics covered:

Prerequisites: no previous Ecotect Analysis® experience required, some Revit® recommended

Requirements:

Disk version requires Windows XP(32) or higher. Windows Vista and 7 32 or 64 bit.
Internet Explorer 6.0+ Browser
Adobe Flash Player
DVD Drive
Pointing device
3 GB Drive Space

Online versions need only a high speed Internet connection, a browser and Adobe® Flash.

Autodesk is a registered trademark of Autodesk, Inc.
Adobe is a registered trademark of Adobe Systems, Inc.

CADLearning is a trademark of 4D Design Solutions, LLC
Bedford, NH USA
01-603-641-3900

Copyright © 2010
All Rights Reserved

Getting Started

- Important Points
- Layers and Zones
- Objects and Nodes
- Element Types
- Object Relationships
- Viewing the Model

User Interface

- Interface Overview
- User Preferences
- Project Page
- 3d Editor Page
- Visualize Page
- Analysis Page Overview
- Analysis Page - Thermal Analysis
- Analysis Page - Solar Exposure
- Analysis Page - Material Costs
- Analysis Page - Resource Consumption
- Analysis Page - Reverberation Times
- Analysis Page - Acoustic Response
- Reports Page
- Panels - Selection Information
- Panels - Zone Management
- Panels - Material Assignments
- Panels - Display Settings
- Panels - Visualization Settings
- Panels - Shadow Settings
- Panels - Analysis Grid
- Panels - Rays and Particles
- Panels - Parametric Objects
- Panels - Object Transformation

Panels - Export Manager
Panels - Script Manager
Loading Weather and Location Data
Object Materials - Overview
Working with Zones

Modeling Techniques

Selecting Objects & Measuring
Creating Objects - Overview
Modifying Objects - Overview
Moving Objects
Rotating Objects
Scaling Objects
Mirroring Objects
Extruding Objects
Revolving Objects
Trimming and Extending
Linking and Unlinking
Editing Object Properties
Modifying Zone Height
Modifying Nodes
Creating Points
Creating Lines
Creating Planes
Creating Partitions
Creating Zones
Creating Roofs
Creating Lights
Creating Speakers
Creating Cameras
Creating Appliances
Creating Windows, Doors and Panels
Creating Voids
Creating Photovoltaic Panels

Revit Modeling Techniques

Modeling Techniques - Overview
Ensuring Correct Room or Space Creation
Exporting a Revit Model as a gbXML File
Exporting a Revit Model as a DXF File
Importing gbXML Files Into Ecotect
Importing gbXML and DXF Files Into Ecotect

Visual Analysis

Shadows - Overview
Tagging Objects for Shadows and Reflections
Working with the Sun-Path Diagram
Shading Masks
Creating Butterfly Diagrams
Reverse-Sorting Shadows
Shading Design - Overview
Using the Shading Wizard
Cutting Solar Profiles
Projecting Solar Potential
Projecting Solar Rays
Viewing the Model from the Sun's Location
Calculating Visibility of Selected Objects
Calculating Access to Views

Lighting Simulation

Calculating Daylight Factors - Analysis Grid Method
Calculating Daylight Factors - Point Method
Simulating Artificial Lighting

Solar Exposure

Calculating Solar Insolation - Analysis Grid Method
Calculating Solar Insolation - Mapping Over a Surface
Method
Making Sense of Solar Graphs
Calculating a Solar Envelope - Surface Mapping Method
Calculating a Solar Envelope - Sprayed Particles Method

Thermal Analysis

Thermal Modeling Techniques
Calculating Inter-Zonal Adjacencies
Interpreting Analysis Data
Calculating Overall Energy Requirements
Estimating Material Costs
Creating an Animation
Creating Screen Captures
Exporting to Radiance
Exporting to EnergyPlus
Exporting to Green Building Studio