

**Autodesk®**

Ecotect™ Analysis 2010

Visualize Sustainable Design.



Autodesk®

# Simulate Early. Analyze Often. Create More Sustainable Designs.

Comprehensive analysis capabilities help you to analyze and simulate conceptual designs. Study alternatives and make decisions earlier to deliver achievable, resource-efficient building designs.



Albuquerque Public Schools prototype elementary school section through cafeteria and media center. Architect: Van H. Gilbert, Architect PC.

## Design Sustainably From the Start

Autodesk® Ecotect™ Analysis software is a concept-to-detail sustainable design analysis solution with architect-designed desktop tools that measure the impact of environmental factors on a building's performance and web-based technology for whole building analysis. Customers who add subscription to their Autodesk Ecotect Analysis software license can access\* the web-based technology for the duration of their subscription and use the platform to more quickly evaluate multiple design alternatives for energy efficiency and carbon neutrality. Autodesk Ecotect Analysis makes it easier for building designers to conduct simulations and visualize results. Because analysis can be conducted on a building model as soon as the thermal zones are defined, your team can make fact-based, more sustainable design decisions during the schematic stage when designs are easier and less expensive to change. Ultimately, these capabilities result in better building performance, faster time to market, and lower project costs, as well as lower total cost of ownership over time. Unlike complicated engineering analysis tools, Autodesk Ecotect Analysis was developed specifically for architects and designers to provide powerful feedback that's easier to interact with, interpret, and communicate.

\*Access to the Autodesk Green Building Studio web-based service is subject to the terms of use that accompanies the service. See <https://www.greenbuildingstudio.com/default.aspx> for details.

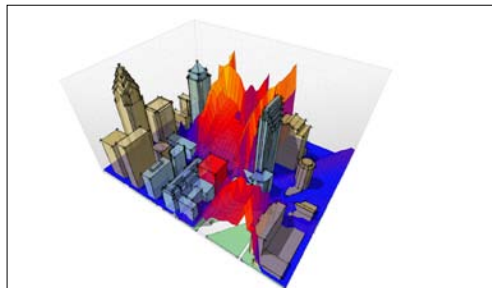
## Stay Competitive with BIM Solutions from Autodesk

The world is changing. The economy is changing. Building and architectural firms must adopt new design practices to meet increasing requirements for energy and resource efficiency—delivering designs that minimize the environmental impact of new and renovated buildings, while seeking opportunities to keep costs low. By integrating sustainable design technologies from Autodesk into your workflows, you can more easily transform today's challenges into profitable opportunities. Autodesk building information modeling (BIM) solutions help make sustainable design practices easier, more efficient, and less costly. BIM solutions from Autodesk—Autodesk® Revit® Architecture and Autodesk® Revit® MEP software—are interoperable with Autodesk Ecotect Analysis.

When you add subscription to your Autodesk Ecotect Analysis software license, you can get access\* to the following web-based capabilities:

**Whole-Building Energy Analysis** calculates the total energy use and carbon emissions of your building model on an annual, monthly, daily, and hourly basis.

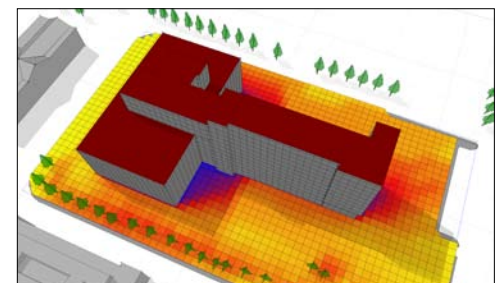
**Visual Impact** helps you to analyze site projection angles, assess obstructions, calculate vertical sky components for any point or surface, and visualize the no-sky line in any space.



**Carbon Emission Reporting** reports carbon dioxide (CO<sub>2</sub>) emissions for nearly all aspects of a proposed building, including on-site fuel use as well as emissions from power plants.

**Water Usage and Cost Evaluation** summarizes estimated water use inside and outside the building, based on the number of occupants as well as the building type.

**Solar Radiation** analysis enables you to visualize incident solar radiation on windows and surfaces, showing differential incident solar radiation calculated over any period.



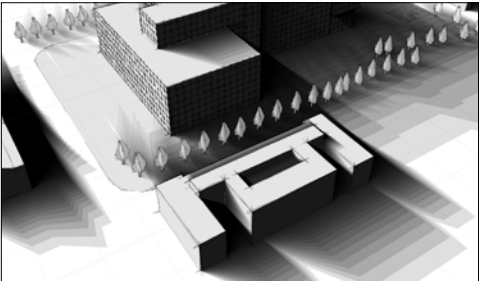


# Add value through energy and water efficiency and environmental performance.

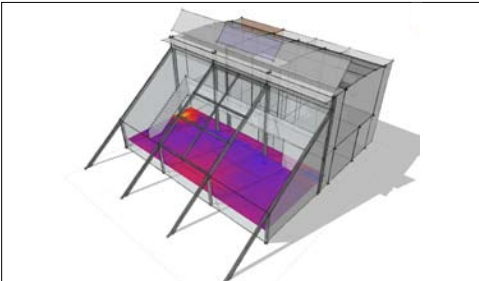
Gain better design insight with whole-building energy, water, and carbon emission analysis. Interact with powerful visual feedback to study how environmental factors may impact building performance.

	Desktop Tools Visualize and Simulate Design Performance	Web-based Technology Analyze Multiple Design Alternatives
Whole Building Energy Analysis		x
Carbon-Emissions Estimates		x
Water Use and Cost Estimates		x
ENERGY STAR® Scoring		x
LEED® Daylighting Credit Potential		x
Natural Ventilation	x	x
Wind Energy	x	x
Photovoltaic Collection	x	x
Thermal Performance	x	x
Solar Radiation	x	
Visual Impact	x	
Shadows and Reflections	x	
Daylighting	x	
Shading Design	x	
Acoustic Analysis	x	

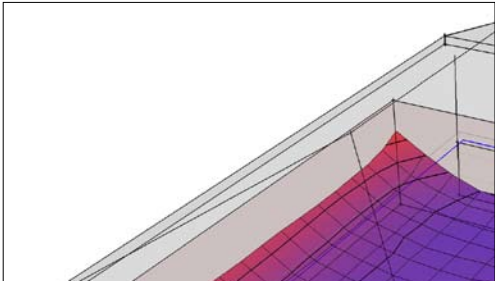
**Shadows and Reflections** simulation displays the Sun's position and path relative to the model at any date, time, and location. View how sunlight enters through windows and moves around within a space.



**Daylighting** calculates daylight factors and illuminance levels at any point in the model or over the analysis grid. Helps determine potential savings due to daylight-linked lighting design.



**Thermal Performance** calculates heating and sensible cooling loads for models with any number of zones or types of geometry, and analyzes effects of occupancy, internal gains, infiltration, and equipment items.



Autodesk sustainable analysis tools let us combine real-world conditions with our design expertise in a way that we couldn't do otherwise. Besides providing technical analysis of building design, Autodesk tools help us come up with better designs.

—Stephen F. Smith  
Van H. Gilbert  
Architect PC

#### Learn More or Purchase

Access specialists worldwide who can provide product expertise, a deep understanding of your industry, and value that extends beyond your software purchase. To purchase Autodesk Ecotect Analysis software, contact an Autodesk Authorized Reseller. Locate a reseller near you at [www.autodesk.com/reseller](http://www.autodesk.com/reseller).

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Wind turbine design based on [quietrevolution](#).

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