A building’s heating, cooling, lighting, and equipment systems all interact with each other, the building envelope and the building site in a multitude of complex ways. Integrating all of the variables into an energy efficient design can be a daunting task without the assistance of design tools—tools such as those found on the U.S. Department of Energy (DOE) Office of Building Technology, State and Community Programs (BTS) Web site at www.eren.doe.gov/buildings/tools_directory. The BTS Building Energy Software Tools directory provides information on more than 150 energy-related software tools. The common thread for all of the tools is an emphasis on sustainable design, improving energy efficiency, and integrating renewable energy technologies into building systems.

DOE researchers developed some of the building energy tools in the directory, and private companies developed others. The tools include databases, spreadsheets, component and systems analyses, and whole-building energy performance simulation programs. The directory provides a short description of each tool along with information such as expertise required to use the tool, likely users and audiences, input/output criteria, computer platforms, programming language, strengths, weaknesses, technical contacts, and availability. Some are available free of charge while others require a fee or license.

**An Invitation**
We welcome new additions to this directory. If you are a developer of energy software, we encourage you to submit your software tools for addition the BTS Building Software Tools directory. www.eren.doe.gov/buildings/tools_directory
The tools are assembled under four major categories with subcategories:

- **Whole-Building Analysis**
  - Energy Simulation
  - Load Calculation
  - Renewable Energy
  - Retrofit Analysis

- **Codes and Standards**

- **Materials, Components, Equipment, and Systems**
  - Envelope Systems
  - HVAC Equipment and Systems
  - Lighting Systems

- **Other Applications**
  - Atmospheric Pollution
  - Energy Economics
  - Indoor Air Quality
  - Multibuilding Facilities
  - Solar/Climate Analysis
  - Utility Evaluation

- Ventilation/Airflow
- Water Conservation
- Miscellaneous Applications

This tools directory holds the software programs developed by DOE researchers in several BTS programs. The tools were developed to help researchers, designers, architects, engineers, builders, code officials, and others to evaluate and rank potential energy-efficiency and renewable energy technologies in new or existing buildings.

To learn more about buildings software tools, contact

Dru Crawley, Program Manager. Building Energy Tools
U.S. Department of Energy, EE-41
1000 Independence Avenue, SW
Washington, DC 20585-0121
(202) 586-2344

Visit the Building Energy Software Tools directory on the BTS Web site at:
www.eren.doe.gov/buildings/tools_directory

Or call the Energy Efficiency and Renewable Energy Clearinghouse at: 1-800-DOE-3732

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