Meetings, Conferences, Symposia and Workshops

	2	2004
July 10-14 2004	SOLAR 2004	To be held in Portland, OR • www.ases.org.
July 25-28 2004	IESNA Annual Conference 04	To be held in Tampa, FL • www.iesna.org
Augus† 2-3 2004	EnergyPlus Workshop for Experienced Modelers	To be held in Boulder, CO • http://www.gard.com/training.htm
Augus† 4-6 2004	SimBild 2004 - IBPSA-USA First National Conference	To be held in Boulder, CO • http://www.ibpsa.org/
August 8-11 2004	2004 Energy	To be held in Rochester, NY • http://www.energy2004.ee.doe.gov/
Augus† 19-21 2004	HRAI Annual Meeting HRA	To be held at the Grand Okanagaan Resort in Kelowna, BC, Canada • www.hrai.ca
August 22-27 2004	Summer Study on Energy Efficiency in Buildings	To be held in Pacific Grove, CA • www.aceee.org
September 22-23 2004	NFRC Annual Fall Meeting	To be held in Portland, OR • www.nfrc.org/meetings.html
September 22-24	AHR Expo-Mexico	To be held at the Cintermex Convention Center in Monterrey, Mexico www.ahrexpomex.com
September 27-30	NASEO 2004 Annual Meeting	To be held in Chicago, IL • http://www.naseo.org/events/annual/default.htm
October 7-8 2004	IBPSA France Conference (at AICVF Congress)	To be held in Tolouse, France • http://www.ibpsa-france.net/
October 10-14 2004	World Energy Engineering Congress	To be held in Austin, TX • www.energycongress.com.
October 18-19 2004	ICEBO 2004 To be held in Pa	To be held in Paris, France • http://kheops.champs.cstb.fr/icebo2004/Default.aspx?IDPage=1
November 10-12 2004	GreenBuild Int'l Conference	To be held in Portland, OR • www.greenbuildexpo.com
December 5-10, 2004	Performance of the Exterior Envelopes of Whole Buildings IX International Conference	To be held in Clearwater Beach, FL • www.ornl.gov/buildings/

		2	2005
February 5-9, 2005	ASHRAE Winter Meeting	T V V V V V V V V V V V V V V V V V V V	To be held in Orlando, FL • www.ashrae.org
May 12-13, 2005	Canadian Building Science and Technology Conference	Z005	To be held in Ottawa.Canada • www.nbec.net/conference.htm.
May 30-June 02, 2005	IEA Heat Pump Conference		To be held at Ceasars Palace in Las Vegas, NV • www.ornl.gov/hp2005.
June 25-29, 2005	ASHRAE Annual Meeting	T V S	To be held in Denver, CO • www.ashrae.org
July 06-09, 2005	HVAC Asia, Singapore		Contact ◆ hqlink@singnet.com.sg.
Augus† 08-12, 2005	ASES/ISES Solar World Congress 2005	2005 Sour Wond Concress	To be held in Orlando, Florida • http://www.swc2005.org/
Augus† 15-18, 2005	IBPSA's BS 2005		To be held at École Polytechnique de Montréal in Montreal, Canada • http://www.ibpsa.org/
October 09-12, 2005	8th REHVA World Congress Clima 2005	Clima 2005 Lausente	To be held in Lausanne and Luzern, Switzerland • http://www.clima2005.ch/
		2	2006
January 21-25, 2006	ASHRAE Winter Meeting	T VICTOR	To be held in Chicago, IL • www.ashrae.org
June 24-28, 2006	ASHRAE Annual Meeting	T V H	To be held Quebec City, Canada • www.ashrae.org
July 09-12, 2006	SOLAR 2006		http://www.ases.org/

Directory of Software and Services for EnergyPlus

Program Name	Description		Cost
EnergyPlus 1.2	Downloadable from	Support mailto:EnergyPlus-Support@gard.com	Free!
	www.eilergypius.gov	Support Group groups.yahoo.com/group/EnergyPlus_Support	

Support Tools for EnergyPlus

Vendor	Description
Joe Huang and Associates 31 Sarah Lane Moraga CA 94556-2563 Ph: (925) 247-9180	DrawBDL allows users to visually review the building geometry in both EnergyPlus and DOE-2 input files. DrawBDL can export the DOE-2 surface data in EnergyPlus IDF format; useful for those users who wish to convert their DOE-2 input files into EnergyPlus input files.
Square One Research Centre for Research in the Built Environment, Bute Building King Edward VII Avenue CARDIFF, CF10 3NB - Wales United Kingdom	Ecotect couples an intuitive 3-D design interface with a comprehensive set of performance analysis functions (visualization, solar and daylighting analysis, shadows and shading, lighting design, thermal performance, UK building regulations, ventilation, and acoustic analysis) with interactive information displays. It also can export an EnergyPlus IDF file. For more details, click here for an article from the Building Energy Simulation User News.
Taylor Systems Engineering, Inc. 9801 Fair Oaks Blvd., Suite 100 Fair Oaks, CA. 95628 Ph: (916) 961-3400 Fx: (916) 961-3410	TSe+ is the first of a suite of tools to manage data for EnergyPlus. These (alpha) tools are available free of charge from Taylor Systems Engineering. TSe+Mat (materials library) is an interface to the materials datasets that come bundled with EnergyPlus and allows users to manage their frequently used material inputs for EnergyPlus data by manipulating new and existing material DataSets from EnergyPlus and exporting them in the required IDF format.

TSe+Glz (glazing library) is the TSe+ suite. It was an alpha release as of Sept 2003. TSe+Glz allows the the user to create, edit and manage window glazing, and gas, shade and blind materials and constructions.

Support Tools for EnergyPlus (Continued)

The Deringer Group, Inc. 1349 Addison Street Berkeley, CA 94702 Ph. (510) 843-9000 Fx. (510) 843-9005

EnergyPlus Online Simulations are online tools embedded in the Deringer Group's EcoAdvisor, a set of training modules on sustainable buildings. These tools can be used by anyone and require no special knowledge of EnergyPlus.

EnergyPlus Interface Support Tools

This set of stand-alone Windows-based tools is intended to make the text-based use of EnergyPlus faster, easier, and more accurate. The tools assume that the user is somewhat familiar with typical text-based interfaces for energy simulations. So far there are two proof-ofconcept tools.

DrawEzPlus

is a 3-D rendering tool that reads the geometry data in an EnergyPlus input file and uses a set of OpenGL commands to render the building organized by type of building object. Second, the temporary file is processed by a set of OpenGL utilities that produces renderings of the 3-D data. The current version allows the user to: toggle between orthogonal (parallel lines do not converge) and perspective views, toggle between line and surface (fill) presentation modes, and select to draw any mix of key building objects (floor, walls, roof, windows, and attached and detached shading). DrawEZplus 1.1 will produce renderings in either orthogonal view simulations. objects. Two key steps are involved. First, the EnergyPlus input file is parsed and all vertices data is extracted into a temporary file,

EzPlus-Parm

is a stand-alone Windows tool intended primarily for EnergyPlus parametric analysis. It was designed to simplify the running of multiple parametric EnergyPlus simulations and helps a user organize and edit files.

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Vendor	Description	Cost
DesignBuilder Software, Ltd. Palace Chambers 41 London Road Stroud Gloucestershire, GL5 2AJ UK	DesignBuilder provides a range of environmental performance data such as: annual energy consumption, maximum summertime temperatures and detailed feedback on temperatures and heat flows in the building. DesignBuilder provides an interface to the latest EnergyPlus version for envelope, solar, ventilation and daylighting capabilities as well as heating and cooling load modeling. The software comes with summer and winter design data for 1439 worldwide locations and has access to more than 500 hourly simulation weather files.	See website
www.designbuilder.co.uk/		
EPlusinterface	EPIusInterface is an open source initiative to develop a comprehensive interface for EnergyPlus. The code is free for anyone to use. The license is GPL. Modules currently under development are listed below; a few are ready to use. For latest downloads and status	or anyone to use.
Contact Santosh Philip	check the website.EPlusTUI: Text based interface tui = text user interface	
	EPlusGUI: Graphical interface for Linux, Mac and Windows	
	 API: A set of well documented API that can be used to develop specialized interfaces 	
	CAD Interface: Protocol for building 3-D CAD models for EnergyPlus with conversion routines to generate EnergyPlus files	nergyPlus files
	 Material Library: Develop standard libraries for materials, construction, windows, systems, plants etc. 	
	 Import/Export: Protocol for transferring (import/export) elements between files. 	

Support Tools for EnergyPlus (Continued)

Vendor	Description	Cost
SQUARE ONE Research Centre for Research in the Built Environment, Bute Building, King Edward VII Avenue CARDIFF, CF10 3NB Wales United Kingdom	ECOTECT couples an intuitive 3D design interface with a comprehensive set of performance analysis functions (visualization, solar and daylighting analysis, shadows and shading, lighting design, thermal performance, UK building regulations, ventilation, and acoustic analysis) with interactive information displays. It also can export an EnergyPlus IDF file.	See website
Taylor Systems Engineering Suite 100 9801 Fair Oaks Boulevard Fair Oaks, CA. 95628 Phone: (916) 961-3400 Fax: (916) 961-3410 www.tse-inc.net/	TSe+ is a suite of applications to enhance the data management for EnergyPlus users. The various modules aid the specific groups of data required in EnergyPlus. TSe+ is still an Alpha (pre-release) version in its development stage and the modules are being provided to users to assess the usability and functionality of the program for further development. Your effort to provide feedback and comments will be greatly appreciated and will benefit the tool development. The TSe+ modules are provided totally free of cost. TSe+Mat (materials library) is the first module of TSe+ module (Aug 2003). This is a module which enables the users to manage their frequently used material inputs for EnergyPlus data through adding, editing and manipulating, new and existing material DataSets from EnergyPlus and export them in the required IDF format. TSe+GIz (glazing library) is the second module of the TSe+ suite. It is also an alpha release (Sept 2003). TSe+GIz allows the capability of creation, editing and management of window glazing, gas, shade and blind materials and construction.	Free!

U.S. EnergyPlus CONSULTANTS

California				
Cliff Gustafson or Smita Gupta cdg@tse-inc.net	Taylor Systems Engrg., Inc. www.tse-inc.net/tseplus/index.html	9801 Fair Oaks Boulevard, #100	Fair Oaks, CA 95628	(916) 961-3400 fax: 961-3410
Tianzhen Hong, PhD, P.E. thong@archenergy.com	Architectural Energy Corporation www.archenergy.com/	142 Minna Street	San Francisco, CA 94105	(415) 957-1977 fax: 957-1381
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Virginia				
John R. Ross III, P.E. jross3@erols.com	Westwind Corporation	1609 Sereno Court	Vienna, VA 22182-1958	(703) 255-4712 fax: 255-4712

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Directory of Software and Services for DOE-2

ESTSC Versions of DOE-2

Cost	Support Limited operational support Limited operational support U.S. Govt/Non-Profit/Educ \$ 300 (telephone assistance for U.S. Public, Mexico, Canada \$ 575 installation, media or platform Japan \$1268 questions).	
Description	Source code, executable code and complete documentation for: DOE-2.1E/Version 121 (1000-zone version) OS: Windows, SUN UNIX	
Program Name and Vendor	DOE-2.1E (Ed Kidd, Kim Buckner)Source code, executable code and complete current estsc@adonis.osti.govESTSCdocumentation for:P.O. Box 1020 Oak Ridge, TN 37831-1020 Ph: 865-576-2606 / Fx: 576-2865 www.osti.gov/estscDOE-2.1E/Version 121 (1000-zone version) OS: Windows, SUN UNIX	

Commercial Versions of DOE-2

Program Name and Vendor	Description		Cost
ADM-DOE-2 (Richard Burkhart) ADM Associates	Use on 386/486 PCs with a math co-processor and 4MB of RAM. The package contains everything needed to run	Input	\$395 + \$15/SH including one set weather data (vour choice) and
3239 Ramos Circle Sacramento, CA 95827-2501	the program: program files, utilities, sample input files, and weather files. More than 300 weather files available.	Output	documentation
Ph: 916-363-8383 / Fx: 363-1788 www.adm-energy.com/	OS: DOS, Windows 95	Support	
Compare-IT (Matt Brost) RLW Analytics, Inc. info@rlw.com 1055 Broadway, Suite G	Compare-IT allows DOE-2 professionals to add value to their projects by giving clients "what-if" scenarios using DOE-2. The interface is designed for novice energy	Input: Customizable windows GUI dynamically built based on DOE-2 macros.	\$500 consultant \$2000 client
Sonoma, CA 95476 Ph: 707-939-8823 / Fx: 939-9218 www.rlw.com	analysts and the GUI can be customized for each client's particular interests. Based DOE-2.1E. OS: DOS, Windows (98, 95, NT)	Output Support	Documentation available
DOE-Plus (Steve Byrne)	Complete support for all DOE-2 commands. Utility	Input Interactive, graphical,	\$895 with DOE-2 and doc
St. S.	processor. Over 500 worldwide weather files. Imports BDL	1 1 1	\$495 without DOE-2
Editionas, WA 30020 Ph: 425-640-3210 www.item.com/doeplus.htm	DOE-2.1E. OS: DOS, Windows (3.1, 95, NT)	Output Customizable tables and graphics	Source code not available.

Note: We list third-party DOE-2-related products and services for the convenience of program users, with the understanding that the Simulation Research Group does not have the resources to check the DOE-2 program adaptations and utilities for accuracy or reliability.

Commercial Versions of DOE-2 (continued)

Program Name and Vendor EnergyPro 3.0 (D. Vonderkulen)			
(D. Vonderkulen)	Description		Cost
	Nonresidential load calculations for HVAC equipment sizing. Exports forms to AutoCad for inclusion on blueprints. On-line help. 344 weather files for the U.S.	Input: Graphical	DOE-2 Module: Non-residential \$ 700 ^{1,2} Residential \$ 250 ^{1,2}
1025-5 th Street, Suite A Novato, CA 94945 Ph: 415.897.6400 / Fx: 897-6422	and Canada. OS: DOS, Windows (95, NT). For California Users: Performs Title 24 compliance calculations; state-certified HVAC and DHW	Output: Graphs, forms	nterface ects cash dis documentat
ш м	Equipment directories, Title 24 lighting calculations. Based on DOE-2.1E	Support Unlimited support	required
EZDOE (Bill Smith)	Provides full screen, fill-in-the-blank data entry, dynamic error checking, context-sensitive help, mouse	Input Fill-in-the-blanks	\$1295 w/documentation
Elite Software 5.0. Box 1194 6.0 Bryan, TX 77806 01 Ph: 409-846-2340 / Fx: 846-4367 h	support, graphic reports, a 750-page user manual, and extensive weather data. Full implementation of DOE-2 on DOS-based 386 and higher computers. On-line help. Some weather files. Based on DOE-2.1E. DOS	Output Standard DOE reports plus some custom graphic reports Support Unlimited phone support	Source code not available.
FTI/DOE2 (Scott Henderson)	Version 3.0 Release FTI/DOE is 100% compatible	Input Version 2.x: text based	\$ 995.99 US w/documentation
Finite Technologies Inc. 3763 Image Drive Anchorage, Alaska 99504 Eh: 907-333-8937 / Fx: 333-4482 A	with LDVL version. Source code versions will complie with most F77-compliant compilers. On-line help: 344 weather files for the U.S. and Canada. Based on ESTSC DOE-2.1E. No demo, 30-day trial period OS: DOS, Windows (3.x, 95, NT) AIX, ULTRIX, VMS, Linux, NeXTStep,	Couput All standard DOE-2 reports Run time and status graphics Support 90-days free; then cost is \$ 35 each email per incident \$ 55 per hour per incident \$ 125 per hour for engineering advice.	\$4999.99 Source code
PRC-DOE-2 (Paul Reeves)	Text-based version of DOE-2 includes documentation.	Input Standard text-based	\$ 495 w/documentation
ource Conservation et	information on new system types, new commands, new options, etc., added to later versions of 2.1E.	Output	Source code not available.
Boulder, CO 80303 Ph: 303-499-8611 / Fx: 554-1370	OS: DOS, Windows (95, NT)	Support Unlimited support.	
VisualDOE 3.1 (Eric Kolderup)	Fast construction of building geometry with pre-defined blocks and drawing interface. Import zone shapes from		\$800 new commercial license
	CADD file (axf). Point-click to define zone properties and HVAC systems. Dynamic 3-D model views. Online	Output Graphical 60% discount fo \$3000 Site licen	60% discount for educational use \$3000 Site license (up to 8 registration keys)
Ph: 415-957-1977 / Fax 1381 w	weather files. OS: Windows 95/98/NT/ME/2000/XP	Support 90 days free phone plus 1 year email support; thereafter \$300/year per licensed user	e plus 1 year email support.; ensed user

Support Tools for DOE-2

Program Name and Vendor	Description	Cost
DOE-2 Parametric Study Tool The Deringer Group, Inc. 1349 Addison Street Berkeley, CA 94702 Ph: (510) 843-9000, Fx: 843-9005	DOE2PARM – is an MS Windows-based tool that permits you to run, edit and link all the related input and output files together in the same window.	Free!
DoeRayMe (Jason Glazer, P.E.) GARD Analytics 1028 Busse Highway Park Ridge, Illinois 60068-1802 Ph: 847-698-5690	DoeRayMe is a simple and flexible user interface for DOE-2 "screening tool" applications. DoeRayMe uses a specially developed DOE-2 input template to change the user interface. This allows new "screening tools" to be developed by anyone with DOE-2 knowledge.	
DrawBDL (Joe Huang) Joe Huang & Associates 31 Sarah Lane Moraga CA 94556-2563 Ph: 925-247-9180	DrawBDL, Version 3.0, is a graphic debugging and drawing tool for DOE-2 building geometry. DrawBDL reads your BDL input and makes a rotate-able 3-D drawing of your building with walls, windows, and building shades preham in different colors for easy identification. OS: DOS, Windows (3.1, 95, 98, NT) [Works with 2.1E] email: tmchow@compuserve.com	\$125.00 plus shipping
PRC-DOE-2 (Paul Reeves) Partnership for Resource Conservation 140 South 34 th Street Boulder, CO 80303 Ph: 303-499-8611, Fx: 554-1370	PRC-Tools aid in extracting, analyzing, and formatting DOE-2 output. PRC-Grab automates the process of extracting any number of answers from DOE-2 standard output files. PRC-Hour and PRC-Peak format the hourly output and create Peak-Day and Average-Day load shapes for any number of periods and for any combination of hourly values. OS: Windows (95, 98, NT) [Works with 2.1E]	\$99.00
RIUSKA (Tuomas Laine) Olof Granlund Oy P O Box 59 Helsinki, FIN-00701 Finland Ph: +358 (9) 351031 / Fx: 35103421	With RIUSKA user can add building envelope materials, internal loads and HVAC-system into the created 3D-model of the building and perform thermal calculations. RIUSKA can be used for space simulations to dimension cooling or heating equipments, or for energy calculations of the whole building. OS: Windows (95, 98, NT) [Works with 2.1E]	Contact Tuomas Laine for pricing.
Visualize-IT (Matt Brost) RLW Analytics, Inc. 1055 Broadway, Suite G Sonoma, CA 95476 Ph: 800-472-6716 Fx: 707-939-8823	Visualize-IT 2.0 is a Windows application designed to help you explore and summarize short-interval time series data, e.g., measurements taken once every 15 minutes over a period of weeks, months or years. Visualize-IT has been developed specifically for electric and gas load data measuring class profiles, market-segments, individual customer sites or specific end uses. Customized DOE2.1e hourly output importer. Visualize-IT is highly useful and informative for looking at DOE2 output and/or comparing to interval metered data. It is equally useful for other time series measurements such as weather, industrial process control, and water quality. OS:	\$500.00 per set Volume Discounts Available

Special Versions of DOE-2

escription	Gas Technology to develop and market software for the energy industry. Building Energy Analyzer - Easy to use software provides quick economic analysis for commercial and industrial building; allows users to compare energy options and to estimate energy loads and costs. BinMaker PRO - Weather data for engineering. DesiCalc - Software for screening desiccant dehumidification/cooling applications; allows users to easily run hour-by-hour simulations to compare the energy needs and costs of using desiccant-based equipment with those of competing electric air-conditioning equipment.	Natural Resources Canada's Commercial Building Incentive Program (CBIP) offers a financial incentive for the incorporation of energy efficiency features in new commercial and institutional building designs. The objective of this new incentive is to encourage energy-efficient design practices and to bring about lasting changes in the Canadian building design and construction industry.	The CoolTools TM project objective is to develop, disseminate and promote an integrated set of tools for design and operation of chilled water plants. CoolTools products are Internet based, public domain resources available to building owners, design professionals, and operators involved in both new construction and retrofits.	Energy Gauge USA allows the simple calculation and rating of residential building energy use in the USA allows the simulation calculates a six-zone model of the residence (conditioned zone, attic, crawlspace, basement, garage and sunspace) with the various buffered spaces linked to the interior as appropriate. TMY weather data for the program are available for 239 US locations.	Calculation of residential energy consumption using DOE-2.1E. In 10-20 seconds, the program performs a full annual simulation for a typical weather year (involving 8760 hourly calculations) from 239 locations around the United States.	Created for the State of California Energy Commission's, Title 24 energy code. Perform 2001 is an interface shell with DOE-2 as the engine. PERFORM 2001 calculates building energy consumption for space cooling and domestic hot water heating, and compares the energy consumption of the building design against the requirements of the standards. DOS input. Output is only California order #PS-400-04-017 ritle 24 compliant. [Based on DOE-2.1E] Technical support \$100/year from Gabel-Dodd Energy Soft reports_400.html	RESFEN calculates the energy and cost implications of a building's windows and insulated walls. Also compares the relative energy and cost impacts of two different windows. RESFEN calculates the heating and cooling energy use and associated costs, also the peak heating and cooling demand for specific window products. [Based on DOE-2.1E] OS: Windows 95, 98, NT	The Texas Emissions Reduction Calculator was created to provide Texans with an accurate, easy-
Description	InterEnergy Soft Gas Technology Easy to use soft users to compar data for enginee applications; all	Natural Resource incentive for the building designs and to bring about The program will	The CoolTools Th for design and o resources availa construction and	Energy Gauge LUS. The simulat basement, garaqappropriate. TM	Calculation of re performs a full a 239 locations an	Created for the sinterface shell w space heating, space heating of the building dof the 24 complian LLC, Call 415-88	RESFEN calcula compares the reheating and cool specific window	The Texas En
Program Name and Vendor	Building Energy Analyzer InterEnergy Software 1700 South Mount Prospect Road Des Plaines, IL 60018 support@interenergysoftware.com fwww.interenergysoftware.com	CBIP cbip.nrcan.gc.ca/cbip.htm Office of Energy Efficiency Natural Resources Canada 580 Booth St., 18th Floor Ottawa ON K1A 0E4, CANADA	Cool Tools (Peter Turnbull) Pacific Gas & Electric Company pwt1@pge.com www.hvacexchange.com/cooltools/	Energy Gauge USA (Danny Parker) Florida Solar Energy Center 1679 Clearlake Road Cocoa, FL 32922	Home Energy Saver (Residential DOE-2) hes.lbl.gov	PERFORM 2001 California Energy Commission 1516-9 th St., MS-13 Sacramento, CA 95814 Ph: 916-654-5385	RESFEN-3.1 Building Technologies, MS 90-3111 Lawrence Berkeley Laboratory Berkeley, CA 94720	TEXAS EMISSIONS REDUCTION

INTERNATIONAL DOE-2 RESOURCE CENTERS

Each resource center has the latest program documentation, all back issues of the User News, and recent LBNL reports pertaining to DOE-2. Users may make arrangements to photocopy the new material for a nominal cost. We hope to The people listed here have agreed to be primary contacts for DOE-2 program users in their respective countries. establish centers in other countries; please contact us if you want to establish a center in your area.

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