

PACKAGE ID - 000716IBMPC13 NEAT7.1.3

KWIC TITLE - National Energy Audit

AUTHORS -

LIMITATION CODE -UNL **AUDIENCE CODE** - UNL

COMPLETION DATE - 04/01/2001 **PUBLICATION DATE** - 04/01/2001

DESCRIPTION - A user-friendly, advanced computer energy audit, the National Energy Audit (NEAT) has been developed by the Existing Buildings Research Program at Oak Ridge National Laboratory's (ORNL's) Building Technology Center for the U.S. Department of Energy's (DOE's) Weatherization Assistance and Existing Buildings Program. The computer program is designed for use by State agencies and utilities to determine the most cost-effective retrofit measures for single-family homes to increase the energy efficiency and comfort level. NEAT7.1.3 contains minor changes and improvements in NEAT7.1.

PACKAGE CONTENTS - ORNL-TM/2001-56; Media Includes Executable Module, Weather Data for 217 U.S. Cities, Readme File, Help Files, Auxiliary Material, Sample Problem Input and Output;

SOURCE CODE INCLUDED? - No

MEDIA QUANTITY - 1 CD Rom

METHOD OF SOLUTION - A user inputs data on building characteristics, including its type of heating and cooling systems, which NEAT uses to produce a prioritized list of cost-effective, energy efficiency measures. The program considers 43 measures, including envelope, mechanical equipment, and base loaded measures. Recommendations are customized for each home. The output also includes an estimated dollar value for the projected energy savings, savings-to-investment ratios, and a list of the quantities of the major materials necessary to perform the recommended retrofit.

COMPUTER - IBM PC

OPERATING SYSTEMS - Windows 95, 98, NT4.0, Win2000

PROGRAMMING LANGUAGES - C

SOURCE CODE AVAILABLE (Y/N) - N

UNIQUE FEATURES - NEAT is easy to use, employing graphic user interfaces and default values for many inputs. The programs can be customized to reflect local conditions such as price of fuel, material and labor costs, and other parameters. Data base storage of both input and output parameters allows interfacing with other management systems.

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UNIQUE FEATURES - (CONT)

RELATED SOFTWARE - None

OTHER PROG/OPER SYS INFO - The most recent release of NEAT (Version 7.1) adds a traditional Windows user interface, database storage of information, and an array of base load electric and water heating measures. It uses an auditor's estimate of individual window infiltration to make more accurate recommendations on the repair, retrofitting, or replacement of each window. If HVAC distribution losses are measured by any of three common procedures, NEAT will compute system efficiency and dollar savings from the sealing of duct leaks.

HARDWARE REQS - NEAT runs on any IBM-compatible computer having at least 32 mega-bytes (MB) of free random-access memory (RAM). Installation requires approximately 15 MB of available hard disk space. Your graphics card and monitor should be able to produce a display with a minimum resolution of 800 x 600 pixels in order to allow windows to be seen without scrolling. All files necessary to run NEAT are stored on a single CD, including weather files for 216 cities in the continental United States. (These files can be accessed from the General Information screen to select the city nearest the audited residence. NEAT uses your existing Windows printer setup to print results.

TIME REQUIREMENTS - Variable

REFERENCES - National Energy Audit (NEAT) Users Manual (Version 7), Mike Gettings, John Krigger, Mark Fishbaugher, ORNL/TM-2001/56, April 2001.

SUBJECT CLASS CODE - T

SPONSOR - DOE/CE

PACKAGE TYPE - AS - IS