

**PACKAGE ID** - 001233IB48600 ERGOEASER2

**KWIC TITLE** - Ergonomics Education, Awareness System  
Evaluation and Recording

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

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**DESCRIPTION** - ErgoEASER is a computer based program that provides training and analysis tools on potential ergonomic hazards in the workplace. This version incorporates training on ergonomic issues in office environments and those associated with hand tool design and use. These training modules complement the ergonomic analysis tools (for lifting tasks and Video Display Terminal workstations comprising Version 1 (copyrighted under the name, ErgoAnalyze) ErgoEASER2.0 includes the entire analysis tool/training package. It provides multiple levels of support through its interactive components. Getting started reviews background information on occupational ergonomics. Awareness and reporting presents examples and photographs of potentially hazardous postures and practices, enabling users to assess their work environments. This component provides a modest level of education and training on occupational ergonomics. Lifting analysis this component enables users to input key dimensions and variables that apply to lifting tasks, then adjust the values and view results in a simulated display depicting the human postures, practices, and associated strains. VDT analysis this component enables users to input key dimensions and variables that apply to video display terminal workstation tasks, then adjust the values and view results in a simulated display depicting the human postures, practices, and associated strains. Ergonomics computer based training this component presents two computer based training lessons, one on office ergonomics and the other on hand tools. Each lesson includes four topics: ergonomics, risk factors, symptoms and signs, and a mastery exercise that assesses the students overall comprehension of the material and preparedness to use ErgoEASER's analysis components.

**PACKAGE CONTENTS** - Media Directory; Software Abstract; PNL-10581, Rev.2; Media Includes User Guide which uses Adobe Acrobat Reader, Executable Module;

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**PACKAGE CONTENTS** -(CONT)

**SOURCE CODE INCLUDED?** - No

**MEDIA QUANTITY** - 1 CD Rom

**METHOD OF SOLUTION** - For the lifting analysis component, the 1991 NIOSH lifting equation was implemented in the ErgoEASER software. For the VDT workstation analysis, human factors standards and principles were used to build algorithms that underlay the assessment. For the computer based training on office ergonomics and hand tools, human factors standards and principles were used as well as professional literature. The ErgoEASER software was developed using Asymetrix Multimedia ToolBook, an object oriented development environment for Microsoft Windows applications. The OpenScript programming language of ToolBook controls the processing. The design/development methodology was incremental and used rapid prototyping.

**COMPUTER** - IBM PC 486

**OPERATING SYSTEMS** - Microsoft Windows 3.1 and Windows 95

**PROGRAMMING LANGUAGES** - Asymetrix Multimedia ToolBook 4.0

**SOURCE CODE AVAILABLE (Y/N)** - N

**UNIQUE FEATURES** - ErgoEASER employs a graphical user interface that is easy to learn and use. Through interacting with the tool, users gain education and training on occupational ergonomics and learn how to use ErgoEASER's analysis tools for lifting task design and VDT workstation configuration to help reduce the potential work related musculoskeletal disorders. A unique feature of the software is its three tiered approach to enhancing occupational ergonomic awareness through photographic examples, assessment of tasks using an online checklist, and analysis of occupational tasks using a simulation of the workers postures that may be manipulated by the user/analyst to identify and eliminate potential strains.

**RELATED SOFTWARE** - ErgoEASER is a standalone program that does not need to be used in conjunction with any other software program.

**OTHER PROG/OPER SYS INFO** - All of the files required to run ErgoEASER are installed from self-installable or CD-ROM and placed in a directory on the user's hard disk. File naming conventions: Source code files have .exe. extensions. data files have various extensions (.lft. .vdt, .usr). Bitmaps used to store photos or diagrams have .bmp extensions. Other files (including those with extension .dll) are required to run ErgoEASER as a standalone ToolBook application.

**HARDWARE REQS** - 486 or higher IBM compatible PC with 8 megabytes of RAM and 20 megabytes of available disk space.

E S T S C  
ENERGY SCIENCE & TECHNOLOGY SOFTWARE CENTER  
SOFTWARE ABSTRACT

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**HARDWARE REQS** -(CONT)

**ABSTRACT STATUS** - Released AS-IS 8/17/1998.

**SUBJECT CLASS CODE** - Z

**KEYWORDS** -

COMPUTER PROGRAM DOCUMENTATION

E CODES

OCCUPATIONAL SAFETY

**EDB SUBJECT CATEGORIES** -

990200

**SPONSOR** - DOE/DP

**PACKAGE TYPE** - AS - IS