

PACKAGE ID - 000398IBMPC01 SIMPLEV2.0

KWIC TITLE - Simple Electric Vehicle Simulation

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 04/01/1993 **PUBLICATION DATE** - 04/01/1993

DESCRIPTION - SIMPLEV2.0 is an electric vehicle simulation code which can be used with any IBM compatible personal computer. This general purpose simulation program is useful for performing parametric studies of electric and series hybrid electric vehicle performance on user input driving cycles.. The program is run interactively and guides the user through all of the necessary inputs. Driveline components and the traction battery are described and defined by ASCII files which may be customized by the user. Scaling of these components is also possible. Detailed simulation results are plotted on the PC monitor and may also be printed on a printer attached to the PC.

PACKAGE CONTENTS - Media Directory; Software Abstract; DOE/ID-10293-2;
Media Includes Executable Module, Auxiliary Material;

SOURCE CODE INCLUDED? - No

MEDIA QUANTITY - 1 3.5 Diskette

METHOD OF SOLUTION - Algebraic solution of conventional force and motion equations. Linear interpolation of input data.

COMPUTER - IBM PC

OPERATING SYSTEMS - DOS

PROGRAMMING LANGUAGES - BASICA compiled with IBM BASIC compiler version 2.3

SOFTWARE LIMITATIONS - Miminum 300kB RAM must be available.

SOURCE CODE AVAILABLE (Y/N) - N

UNIQUE FEATURES - None

RELATED SOFTWARE - None

OTHER PROG/OPER SYS INFO - File extension naming conventions:
Executable file - .EXE; Data input files - .VEH, .MOT, .INV, .TX,
.BTY, .CYC, .ENG, .CAT, .GEN

HARDWARE REQS - Minimum 300kB RAM, 3.5 inch floppy drive.

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TIME REQUIREMENTS - Varies, typically several seconds to over 1 hour depending upon microprocessor speed and options chosen. The sample test case will run between <20 sec for a 486 microprocessor to > 120 sec for a 80086 microprocessor.

REFERENCES - Cole, G.H., SIMPLEV: A Simple Electric Vehicle Simulation Program - Version 2.0, DOE/ID-10293-2, April 1993.

ABSTRACT STATUS - Abstract first submitted May 1992. Version 2.0 Submitted August 17, 1993. Released AS-IS September 2, 1993. Contains no source code.

SUBJECT CLASS CODE - T

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
S CODES
COMPUTERIZED SIMULATION
PERFORMANCE
PARAMETRIC ANALYSIS
ELECTRIC-POWERED VEHICLES
BASIC
ELECTRIC BATTERIES
SIMULATION

EDB SUBJECT CATEGORIES -
990200 330300

SPONSOR - DOE/IO

PACKAGE TYPE - AS - IS