

PACKAGE ID - 000643IBMPC00 TIDY6.21

KWIC TITLE - Utility to Edit FORTRAN Source Code

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

COMPLETION DATE - 03/01/1989 **PUBLICATION DATE** - 03/01/1989

DESCRIPTION - TIDY6.21 is a utility program for processing FORTRAN source programs into a standard form which is easy to read and modify. In processing FORTRAN software it renumbers statement labels so that they appear in increasing order, removes statement labels from unreferenced statements, deletes unreferenced FORMAT and CONTINUE statements, and indents DO loops and IF levels. FORMAT statements may optionally be collected at the end of routines. Blanks are inserted and removed to improve readability. Automatic generation of an END statement at the end of a routine can be suppressed if desired, which allows for the processing of FORTRAN INCLUDE files. Hollerith strings and strings delimited by a character other than an apostrophe are recognized and, optionally, translated to apostrophe-delimited strings. All lower-case alphabetical characters are translated to upper-case except those in strings, Hollerith constants, and COMMENT statements. In addition, the character used to denote alternate return addresses in CALL statements can be changed.

PACKAGE CONTENTS - NESC Note; Software Abstract; Media Includes Source Code, Sample Problems, Machine Readable Documentation, Help File, Auxiliary Information, Control Information;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 3.5 Diskette

METHOD OF SOLUTION - TIDY accepts as input ANSI FORTRAN 77 source, some IBM and CDC specific statements, and FORTRAN II and FORTRAN IV source statements. The utility identifies each statement by type and class. Each FORTRAN keyword implies a different statement type, of which there are 80. These are grouped into 9 statement classes, which are treated independently by the program. TIDY processing is done in two passes.

COMPUTER - IBM PC

OPERATING SYSTEMS - MS-DOS;PC-DOS

PROGRAMMING LANGUAGES - FORTRAN 77

SOFTWARE LIMITATIONS - Maxima of - 1500 distinct statement numbers, 1000 distinct reference numbers, 19 continuation statements, 10

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SOFTWARE LIMITATIONS - (CONT) nested DO loops. Generally, vendor extensions to ANSI FORTRAN 77 are not supported.

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - Users may select various options for processing or tidying their programs.

RELATED SOFTWARE - The original TIDY was developed by Harry M. Murphy, Jr., Air Force Weapons Laboratory, Kirtland Air Force Base, New Mexico, in 1966. TIDY and TIDY4.63 perform similar functions for CDC, Cray, and UNIVAC computers.

OTHER PROG/OPER SYS INFO - Conversion information for implementing the IBM PC version in the UNIX environment is included in that package.

HARDWARE REQS - TIDY6.21 requires 151 Kbytes of memory on an IBM PS/2 Model 70.

TIME REQUIREMENTS - Execution time varies with the size of the program that is being processed. NESC processed the sample problems in 2 minutes on an IBM PS/2 Model 70 and in 15 seconds on an IBM4331.

REFERENCES - TIDY6.21, NESC No. 896.PC, TIDY6.21 IBM PC Version Flexible Disk Cartridge Description and Implementation Information, National Energy Software Center Note 91-03, October 3, 1990.

ABSTRACT STATUS - Abstract first distributed April 1981. IBM PC version of TIDY6.21 submitted March 1989 and revised May, August, and September 1990, sample problems executed by NESC September 1990 on an IBM PS/2 Model 70.

SUBJECT CLASS CODE - P

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
T CODES
FORTRAN
EXECUTIVE CODES
DATA PROCESSING

EDB SUBJECT CATEGORIES -
990200

SPONSOR - DOE/DP

PACKAGE TYPE - TESTED