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1983/32.   Conversion of computer text files for input to the
           Government Printer's phototypesetter

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Abstract

        The procedure for the conversion of a PERKIN-ELMER 8/32
    computer text file to a DEC DOS stream ASCII format magnetic
    tape is outlined.

INTRODUCTION

        The procedure for the preparation of text on the Perkin-Elmer 8/32
computer for subsequent input to the Government Printer's phototypesetter
is as follows:

    (1)   Text should first be edited, and three additional symbols
         added. One of these is added to the end of each paragraph or
         heading, another between the elements of a table, and the last
         to signify the end of a table.

    (2)   The text input file (identified by the file extension .TXT)
         is then edited, and when in final form is copied to a type-
         setting command file (identified by the file extension .TYC).

    (3)   The typesetting command file is edited to replace the paragraph
         and table symbols by typesetting commands.

    (e)   A magnetic tape file is prepared in a form suitable for input
         to the Government Printer: phototypesetter.

TEXT INPUT

The following special symbols are used:

~ (tilde)   - delimits end of paragraph or heading
\ (backslash) - separates elements of a table
↑ (up arrow) - delimits end of table.

all symbols immediately follow text without intervening spaces.

TYPESETTING COMMANDS

        Most typesetting commands will be inserted by the Government Printer's
photocomposition staff.

The following conversions are made to the .TYC file:

~ is converted to CTRL-Gql
\ is converted to CTRL-Gtab

this conversion is made using the CH command (if using EDIT) or the BC
command (if using EDITOR).

PRODUCING THE MAGNETIC TAPE

        OUTTAPE is a FORTRAN program which converts a normal 72-character
per line text file to a file in DEC DOS stream ASCII format.

OUTTAPE reads from the .TYC file in blocks of 150 lines.

It operates in two stages:

(1) All-blank lines are deleted.
A carriage return and line feed are added to the end of each text line, but not to lines within a table (except for the last line of a table - *i.e.* containing a ↑).

(2) On output to tape in 512-byte blocks all multiple blanks, nulls and up-arrows (↑) are deleted. If the number of characters in the last block is odd, a null is added.

The program is called by typing OUTTAPE and is operated as follows:

(1) Load a tape onto the tape drive.

(2) Enter RADIX-50 file name in response to prompt.

(3) Enter file descriptor of input .TYC file.

(4) As each block of lines is read in and output to tape the following information will be output to the screen:

   (*a*) Number of non-blank lines input.
   (*b*) Number of characters output
   (*c*) Number of 512-byte blocks output
   (*d*) Number of characters in last block

The message 'Transfer complete' signifies that the program has terminated successfully.

The tape now comprises one or more files. The first block of each file consists of 14 bytes and contains the RADIX-50 file descriptor. The first file extension is .1 and is incremented by one in each subsequent file. This header block is followed by a series of 512-byte blocks, which in turn are followed by a final block consisting of an even number of bytes (<=512).

Each file is separated by a filemark and the last file is followed by two filemarks.

OBTAINING A PRINT-OUT FROM THE MAGNETIC TAPE

If a print-out from the tape is needed it is best achieved using COPY. Proceed as follows:

(1) Rewind tape

(2) Enter COPY

(3) Enter LIST PR:

(4) Enter - IN MAG1:,14
            DI
You will get an error message
            IN MAG1:,512
            DI

You will get an error message listing a record size

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      BR I
      IN MAG1:,n - where n is the record size
      DI
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You will get an EOF message

To display subsequent files repeat (4).

(5) Enter END - the file will be printed in hexadecimal and ASCII format.

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