# MASSACHUSETTS INSTITUTE OF TECHNOLOGY A. I. LABORATORY

Artificial Intelligence Memo No. 215A

September 1971

INSTANT TJ6
HOW TO GET THE SYSTEM TO TYPE YOUR PAPERS

Mark Dowson

Work reported herein was conducted at the Artificial Intelligence Laboratory, a Massachusetts Institute of Technology research program supported in part by the Advanced Research Projects Agency of the Department of Defense and monitored by the Office of Naval Research under Contract Number NO0014-70-A-0362-0002.

### INSTANT TJ6

TJ6 is a program that takes disk files of text and arranges them so that they can be printed out neatly on 8 1/2 by 11 paper, lines justified, pages numbered, and so on. So that TJ6 will know what to do you must insert instructions to it in your file. A.I. Memo No. 164A fully describes TJ6 and lists all the instructions available. This note describes a useful subset of the instructions to get you started.

TJ6 instructions always have a line to themselves and start with a period. We will start with the instructions which will occur in most files for TJ6.

- Line spacing
  - .DOUBLE says 'double space'
  - .SINGLE says 'single space'
- Justification
  - .FILL aligns the right margin roughly as would a typist
  - .ADJUST inserts extra spaces to precisely line up the right hand margin.

Note that carriage returns in the original file are ignored.

- End of file
  - .END must be the last word of the file.

You can change from double spacing to single spacing or vice versa anywhere during the file by inserting the appropriate new instruction where you want the change to occur. Similarly you can change from FILL to ADJUST mode and vice versa. .NOFILL and .NOJUST turn off FILL and ADJUST modes respectively. If you do not specify particular values for the length of lines or the number of lines per page TJ6 assumes sensible values. I find the default value of line length (72 characters) too long, and usually prefix files with:

.LINE 65 to correct this.

## Optional Instructions

To center the next line of text (this is useful for headings)
 insert:

.CENTER

To leave a blank line (before a new paragraph, perhaps):

.SP

or n blank lines

.SP n

To insist on starting a new line:

.BR

However, a carriage return followed by one or more spaces will also start a new line, indenting its beginning by however many spaces were typed.

To insist on starting a new page insert:

.PA

Page 15 of MEMO 164A gives an example of the use of most of the above instructions. Their effect is shown on page 2 of the memo.

#### Getting an Output

When you have made your file for TJ6 prefix it with .NOWAIT, then log in to a DATEL loaded with a continuous roll of paper and type:

TJ6controlK

from DDT.

DATELS are peculiar in that the '0' key corresponds to the 'control' key of an ordinary console and the '&' key corresponds to altmode. This is confusing. Why not get someone to show you first time around.

TJ6 signals that it is loaded by typing

TJ6 120

Now type: TTY:\_filenamel filename2carriagereturn

followed by hitting the 'space'bar.

TJ6 will now type your file on the continuous roll so you can see what it looks like. When you have TECO edited the file to your complete satisfaction remove the .NOWAIT at the beginning. Now TJ6 will pause at the end of each page and wait for you to load a new, clean, beautiful sheet of paper. When you have managed this, hit the space bar and TJ6 will type the next page for you. Loading single sheets into a DATEL is a delicate operation; get someone to show you first time round.

To get TJ6 to stop in the middle of typing a file hit the ATTN key on the DATEL and then type controlG. You cannot continue from where you left off after doing this, but you can start TJ6 printing out several pages into a file by prefixing the file with

.BEGIN n

where n is the page number you want it to start at.

If you do this don't be discouraged if there is a half minute or so pause before it starts to type - TJ6 is thinking.

# Upper and Lower Case

If you are making your file for TJ6 at a console which does not have lower case characters (this applies to DATAPOINTS and most teletypes) put your TECO into 'lower case mode' by typing -1 \$ 6. Now all characters will be interpreted by TJ6 as lower case unless prefixed by a slash ("/"). Thus, to print "The AI Laboratory", type:

/THE /A/I /LABORATORY

To print "/" type "//".

Exit from lower case mode is made by typing: Ø\$\$\$\$.