

PICK JET
word processor guide

88A00783A01



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Title: PICK JET Word Processor Guide

Document No. 88A00783A01

Date	Issue
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FOREWORD

This document is one of a family of ZEBRA reference manuals devoted to PICK processors that are on call within the PICK operating system. Before reading this document and using the processor described, it is recommended that you first become familiar with the PICK terminal control language and file structure. These subjects are thoroughly covered in 88A00782A, listed below with other documents covering PICK processors.

<u>Document No.</u>	<u>Title</u>
88A00757A	PICK Operator Guide
88A00758A	ACCU-PLOT Operator Guide
88A00759A	COMPU-SHEET Operator Guide
88A00760A	Quick Guide for the PICK Operating System
88A00774A	PICK Utilities Guide
88A00776A	PICK ACCESS Reference Manual
88A00777A	PICK SPOOLER Reference Manual
88A00778A	PICK BASIC Reference Manual
88A00779A	PICK EDITOR Reference Manual
88A00780A	PICK PROC Reference Manual
88A00781A	PICK RUNOFF Reference Manual
88A00782A	Introduction to PICK TCL and FILE STRUCTURE

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How to Use this Manual

This manual covers the use of the JET word processing system.

It is divided into several sections.

The first section is a tutorial for first time users, and the second section is a comprehensive reference manual.

If you have never used the JET word processor before, you should start with the first section. First, read the "Three Steps to using JET". Once you understand the use of JET-IN and JET-OUT, you can try the tutorial.

The tutorial is "interactive"; that is, to follow the tutorial, you should have a CRT (terminal) attached to a computer system running the JET word processor software.

Note: before trying the the tutorial, configure your CRT for a blinking, block cursor.

The tutorial will lead you through the design and entry of a sample memo, complete with examples of rulers, typing at tab stops, and moving the cursor. Once you have completed the tutorial, you can read the remainder of the manual.

Following the tutorial section are "reference" sections. These sections are for users with a working knowledge of the JET word processor.

The JET-IN reference section covers the CRT editing keys, cursor positioning keys, using the keyboard to type text, the different type of tabs, hyphenation, spelling checking, underlining, boldfacing, and the ruler editor.

The JET-OUT reference section covers the commands that can be used when printing documents with JET-OUT, to control headings, footings, paging, highlighting, and merging of text from data files.

The last section covers using JET on different CRTs, using JET as a screen editor, and a trouble-shooting guide.

What is the JET word processor?

The JET word processor software is a system of computer programs which enables a computer with a PICK operating system to function as a word processor.

It gives anyone with access to a CRT (or terminal) and a printer the capabilities of a word processing computer.

The JET word processor is divided into two parts. The first is called "JET-IN" and is used to enter data from your CRT into the computer system. The second is called "JET-OUT" and is used to print data from the computer system onto a printer.

What does JET do?

The JET word processing system will help you produce:

Letters, personalized letters, form letters, forms for fill-in, listings, reports, memos, manuals, mailing lists, phone lists, ledger sheets, statements, invoices, purchase orders, sales orders, sales brochures, software, documentation, and various and sundry types of paperwork. You can even use JET to eliminate paperwork.

With JET-IN (and a CRT or terminal) you can:

Indent, tab, center, fill paragraphs, justify left and right margins, align columns of data, fill paragraphs to margins, wrap lines automatically, hyphenate, create, modify and update documents.

With JET-OUT (and a printer) you can:

Automatically paginate; print headings, footings, page numbers, and highlights; compile documents; merge data from standard "boilerplate" sources, from your CRT, or even output from ACCESS, PROC or BASIC program.

Three Steps to Using JET

The three steps to producing a document (letter, memo, form, manual, etc.) using the JET word processor are as follows:

1. Determine the "format" of the document.

The format is the shape, structure, or arrangement of the the text on the page--as opposed to the content, or subject matter, of the document.

For example, the format of a business letter would include a heading, body, and footing, with left and right margins and paragraph indentions. The content of each letter (name, address, and subject matter) might differ, but all the letters would have the same format. This design step may be done with pencil and paper.

The JET word processor uses special ruler lines to establish or define the margins and tab settings in a document, and special command lines to control everything else. Command lines always start with the "backslash" character ("\") on the CRT keyboard.

2. Use JET-IN and a CRT keyboard to "enter" or type in the document, complete with text, command lines, and ruler lines, into the computer.

Input new text by typing on your CRT (terminal) keyboard, or merge existing text (standard formats, boilerplate, names and addresses, etc.) from disk files.

JET-IN lets you "overview" the document by displaying it on your CRT screen, to see how it would print. Then you "edit" or revise the text, command lines, and ruler lines, until the CRT overview matches what you want to put on paper.

3. Use JET-OUT and a printer to print the document.

Letters, memos, and forms are usually printed only once. Longer works, such as manuals, may be printed first as drafts, to be marked for revision. Rough drafts and forms are usually printed on quicker dot-matrix or line printers; letters and final drafts may require slower "letter-quality" printers with better type quality.

JET-OUT can print the document on a "hard-copy" terminal, a "slave" or "console" printer attached to the CRT, or on serial printers or line printers, through the spooler.

Follow these three steps to produce any type of document using the JET word processor.

Step 1: Specifying a format

The format of a document is the shape, arrangement, alignment, or visual appearance of the data on each page. For example, a one-page memo might look something like this:

To: Department
From: Person
Regarding: Subject

- * First paragraph, here, is full of words, words, and more words.
- * More words words words make up the second paragraph.

CC: Recipient
Recipient

The format of the above memo is the following: a heading section, followed by the body of the memo, followed by a distribution section. Each section has its own format.

The heading section has the words "To:", "From:", and "Regarding:" aligned on the right, and the two names and the subject aligned on the left.

The body of the memo has an asterisk ("*") or "bullet" to mark each paragraph. Each paragraph is indented completely inside the bullet.

The distribution (recipient) section has the same format as the heading section--right and left aligned columns.

It is important to distinguish between the format, or shape of a document, and the contents of the document. The following memo has the same format as the above memo, but it has different content.

To: Office Staff
From: K. Sylvester Livingston
Regarding: JET word processing

- * Our new JET word processing software has been installed.
- * Remember to use JET for all office letters and memos.

CC: Layla
Ralph

Once you have designed a format for a particular type of document, you can continue to use the same format for any subsequent documents of the same type.

Step 1: Specifying a Format (continued) Designing Rulers

The format of a section of a document is controlled by the "ruler" at the top of the section. Rulers are special lines of text in a document. Rulers are special because:

1. Rulers appear on the CRT (during input and editing) only; they do not appear when you print a document.
2. Rulers are created and modified in a special way, using the "ruler editor".
3. Rulers usually appear as a "reverse video" line on the CRT. (Grey bar with black letters.)

A ruler contains a left and right margin, an optional "zone indicator", and a tab character for each different tab stop used in a section of a document. The left and right margin define the width of a section of a document. The zone indicator controls word wrapping and hyphenation. The tabs align words on the left, right, or center, align numbers on the decimal point, and indent paragraphs.

Each ruler controls the format of any text appearing below that ruler in the document, until another ruler is encountered. There is no limit to the number of rulers in a document, nor is there a limit on the number of tabs stops in a ruler. However, there can only be one left margin (L), one right margin (R), and one zone indicator (Z) in a ruler.

The action of a ruler is detailed in the sample memo below:

```

Left margin
|           Right tab           Zone indicator
|           | Auto tab         |           Right margin
|-----|-----|-----|-----|-----|
L         > A                   Z                   R
|-----|-----|-----|-----|-----|
|           To: Office Staff
|           From: K. Sylvester Livingston
|Regarding: JET word processing
|           |
|           * Our new JET word processing
|           | software has been installed.
|           |
|           * Remember to use JET for all
|           | office letters and memos.
|           |
|           CC: Layla
|           | Ralph
  
```

When you are deciding on a format for a JET document, you should think in terms of rulers, because you must specify a ruler to control the format of each section of the document. Usually, this will mean more than one ruler per document; in this simple example of a memo, however, one ruler was used.

Step 1: Specifying a format (continued)
Entering new rulers

Once you have designed the rulers you need to format each section of a document, you can begin to enter the rulers, using the JET-IN utility.

Rulers are created and entered into a document with the JET "ruler editor". The first time you JET-IN a new document, you are given a chance to edit rulers before you start to enter the text of the document.

When the cursor is positioned to an existing ruler line, press the "E" key to edit that ruler. When the cursor is on a line of text, press the "E" key to insert a new ruler just above the cursor position.

To create a ruler, simply move the CRT cursor to the left and right, pressing the backspace key to go left, and the space bar to go right. When the cursor is at the position in the ruler where you wish to make a change, press the key for the ruler character you want in that position, or press the "-" (minus sign or hyphen) key to remove the character at that position.

Note: A ruler may contain only one each of these characters:

L Left margin Z Zone indicator R Right margin

Each ruler can contain many of the following tab characters:

< Left tab > Right tab C Center tab
A Auto tab . Decimal tab

When creating rulers, it is best to remove any tab stops that are not needed to avoid problems or confusion later.

Placing the "Z" (zone indicator) closer to the "R" (right margin) will force you to do more hyphenation when you are entering text. Placing the "Z" farther to the left of the "R" will reduce the likelihood of having to hyphenate.

Up to nine rulers may be created and saved with the ruler editor, but they will only be saved while you are entering the document. However, rulers can be saved more permanently by entering them into a "default" ruler document, and these rulers can then be merged into any document at any time.

To embed a ruler into the document and leave the ruler editor, press the "ESCAPE" (or "ESC") key. To exit the ruler editor without changing or embedding the ruler, press the "X" key.

Step 2: Entering a Document

There are four ways to begin entering text in a JET document:

1. Use JET-IN to enter a new document; exit the ruler editor by pressing the "ESCAPE" key and begin entering text at the top of the new document.
2. Use JET-IN to edit an existing document; press the "I" (insert text) key and begin entering text just to the left of the cursor location.
3. JET-IN an existing document, and press the "L" (insert line) key, to begin entering text on a new line, just below the cursor location.
4. JET-IN an existing document; press the "W" (replace word) key and replace the word at the cursor location with a new word.

When you are entering text with a ruler that contains tab stops, pressing the "TAB" key will move the cursor to the next tab stop to the right. (If your CRT keyboard does not have a TAB key, press the "control-I" key for the TAB key by simultaneously holding down the "CONTROL" or "CTRL" key and pressing the "I" key.)

Once you have pressed the tab key, the text you type will be formatted as you type it. For all tabs, the CRT cursor will first jump to the right, until it is directly under the tab stop in the ruler. For left and auto tabs, continue typing normally. When typing at a left tab, the text will wrap back to the left margin; when typing at an auto tab, the text will wrap to the location of the auto tab in the ruler.

When typing at a right tab, the cursor will stay in the same spot, and the text will move to the left as you type. When typing at a center tab, the text will move both left and right as you type. Typing at a decimal tab is identical to typing at a right tab, until a decimal point or period (".") key is pressed. Then the decimal point will remain aligned under the decimal tab, and the remaining digits in the number are typed normally.

When you reach the end of a line that is not the last line in a paragraph, simply keep typing. When you get past the right margin, (the "R" in the ruler), the cursor will drop down to the next line. This feature is called "word wrap". You should not press the "RETURN" or "NEWLINE" key at the end of a line, if there are to be any more lines in that paragraph, since this will defeat the word wrap feature. Only press the "RETURN" or "NEWLINE" key at the end of a paragraph.

Step 3: Printing a Document

Once you have entered a document, complete with all the rulers and command lines needed to format the document properly, use JET-OUT to print the document.

JET-OUT can print the document on a "hard-copy" terminal, a "slave" or "console" printer attached to the CRT, or on serial printers or line printers, through the spooler. For example, a document named "MEMO" in a file named "FORMS" could be printed several different ways, depending upon the "options" (letters in parentheses) specified:

JET-OUT FORMS MEMO	Prints the memo on the CRT screen, or on paper if the CRT is a "hard-copy" terminal.
JET-OUT FORMS MEMO (P)	Routes the memo to the spooler, to be printed on a line printer or serial printer.
JET-OUT FORMS MEMO (C)	Prints the memo on a console printer, attached to the CRT.

The length of the page is determined by the page depth of the TERM verb setting. For example, suppose your TERM is set to:

	Terminal	Printer
Page Width:	79	132
Page Depth:	24	60
Line Skip :	0	
LF Delay :	1	
FF Delay :	5	
Backspace :	8	
Term Type :	R	

The default page length for JET-OUT will be 24 lines per page on the CRT, and 60 lines per page on the printer. To override the default page length, and set the page length to 55 lines, regardless of how the document is printed, enter a "\page length 55" command line in the document.

JET-OUT will not normally print a form feed at the top of a document. If documents are set up with a "\footing" command, or if they end with a "\bp" command, then a form feed will be printed after the document is printed. This method wastes the least amount of paper. To force a form feed at the top of each document, use JET-OUT with the (F) option.

Paging is controlled by the TERM verb setting, or by "\page length" commands. A new page can be forced with a "\bp" command, or a "\test page" command.

More information on command lines is available in a later section. The command lines that control paging are introduced here, since they are the most commonly used.

First time using JET

Follow this example to design, enter, and print a document using the JET word processor. To best appreciate the example, you should have access to a CRT (terminal) on a computer system that is running the JET word processor.

In the course of following the example, you will create a file, enter a new document into the file with JET-IN, and then print the document with JET-OUT.

To properly follow the example, work from start to finish. Do not try to start in the middle of the example.

Logon to the account that has been assigned to you, and type the following: (don't type the ">" or prompt character)

```
>CREATE-FILE (WP.DATA 1,1 3,1)
```

The computer system should respond with a message like:

```
[417] FILE "WP.DATA" CREATED; BASE=xxxxx MODULO=1 SEPAR=1
```

```
[417] FILE "WP.DATA" CREATED; BASE=yyyyy MODULO=3 SEPAR=1
```

If you instead get a message like:

```
[413] THE FILE NAME EXISTS IN THE MASTER DICTIONARY (MD).
```

Then you didn't need to create the file, and can proceed with the example.

Now call up the JET interactive word processor to create a new item (JET-TEST) in the WP.DATA file you just created:

```
>JET-IN WP.DATA JET-TEST
```

The bottom line on the CRT screen, called the "**Status Line**", always will indicate what you are doing. The first time you JET-IN the new item named "JET-TEST", the status line reads:

```
change ruler or hit ? for help "JET-TEST"          View on
```

Above the status line is a list of the keys available when you are editing a ruler. The two rows of numbers above the ruler line are to help you in laying out the ruler exactly the way you want it, by aligning with the properly numbered column. This entire CRT screen is called the "ruler help screen."

Next, you will use the ruler editor to design a ruler. Then, you will use the CRT (terminal) keyboard to enter text, and the ruler you designed will format the text as you type it. Later, the same ruler will format text as it is printed.

First time Designing a Ruler

Here is how the ruler for our example of a memo is designed. The goal is to produce a memo with the following format:

```
-----
      To:  Department
      From: Person
      Regarding: Subject

      * First paragraph, here, is full of
        words, words, and more words.

      * More words words words make up
        the second paragraph.

      CC:  Recipient
          Recipient
-----
```

First a left margin of one inch is chosen. Assuming the printer will print 10 characters per inch, the left margin is at position 10 in the ruler.

The words "To:", "From:" and "Regarding:" are arranged in a column, and aligned by the right edge--this indicates a right tab. Since the longest word to appear at the right tab, the word "Regarding:", has 10 characters, the right tab is 10 spaces to the right of the margin, at position 20. This same right tab will also be used to align the "bullets".

The department name, the name of the originator of the memo, and the subject matter of the memo are arranged in a column, and aligned by the left edge. This indicates a left or auto tab. Because this same tab will be used to align the left edge of the paragraphs, an auto tab ("A") is chosen.

The two columns in the heading of the memo are three spaces apart, and the paragraphs are indented 3 spaces from the bullets, so the auto tab ("A") is 3 spaces from the right tab (">"), at position 23.

The right margin, "R", is at 55, because the sample memo is only six inches wide. The "Z" is at 44, far from the "R", to inhibit hyphenation. The finished ruler design looks like:

```

          1          2          3          4          5          6
123456789012345678901234567890123456789012345678901234567890
-----
          L          >          A          Z          R
-----
Left      | Right  | | Auto   Zone   | Right  |
Margin   | Tab    | | Tab   Indicator | Margin |
at 10----+ at 20---+ +---at 23  at 44-----+ at 55----+
```

Use the ruler editor to produce a ruler exactly like the one above. Move the cursor to position 10, and press the "L" key. Then move to position 20, and press the ">" key, move to position 23, press the "A" key, move to 44, press the "Z" key, move to 55, and press the "R" key.

Before you go on. . .

The various types of tabs available with the JET word processor give it power and flexibility. Use them!

Sometimes it will seem that the best way to indent or align something is to type a few blanks at the start of the line, or between two columns, and not have to set up tab stops in a ruler. In the long run, however, you will be better off by using the tab stops.

With tabs, you can change the ruler which formats a section of the document, and JET will automatically reformat the section. This won't happen for you if you use blanks to align everything.

Also, if you change the size of a word that is at a tab stop, the remaining text will stay aligned. If you are using blanks to align the text, you will always have to add or subtract blanks to keep the text aligned.

So use tabs when they are needed, but don't use tabs when they are not needed.

Each tab stop in a ruler should have a purpose. If a tab stop is not needed in a ruler, then it should be removed from the ruler. Extra tabs will only cause problems.

In particular, the ruler you are designing for the sample memo must be exactly the same as in this manual, in order for you to properly follow the example. Therefore, for this example, you must remove any extra tab stops.

To remove a character from the ruler, move the cursor on top of the character to be removed, and press the "-" key.

The TAB key will move the cursor immediately to the next character to the right of the cursor position. This is the quickest way to position the cursor in order to remove characters from the ruler with the minus sign ("-") key.

The RETURN or NEWLINE key will move the cursor to position 1.

Once you have produced a ruler exactly like the above example ruler, press the "ESCAPE" or "ESC" key. This will put the ruler you created at the top line of the item, "JET-TEST".

Now you will be able to type in some data, and see how the ruler you just designed formats data on your CRT screen as you type it.

Press the ESCAPE or ESC key, and proceed to the next page!

First time Inserting Text

Whenever you are using JET-IN to insert text in the item "JET-TEST", the bottom (status) line of the CRT reads:

insert text, then press ESCAPE "JET-TEST" View on

The top line of the CRT screen will be the sample ruler you created earlier with the ruler editor. It looks like this:

```
-----  
L > A Z R  
-----
```

The cursor is now under the "L" in the ruler. When you are inserting, the cursor always indicates where the next character you type will be placed on the CRT screen. Usually, you start inserting a line at the left margin.

1. Press the "TAB" (or CTRL-"I") key
2. Type the word "To:"
3. Press the "TAB" key
4. Type the department name: "Office Staff"
5. Press the "RETURN" or "NEWLINE" key
6. Press the "TAB" key, then type the word "From:"
7. Press the "TAB" key, then type the name "K. Sylvester Livingston", then press the RETURN or NEWLINE key.
8. Press the "RETURN" key again to insert an empty line
9. Press the "TAB" key, and the "*" (asterisk) key
10. Press the "TAB" key, and type the sentence "Remember to use JET for all office letters and memos."
11. Press the "ESCAPE" (or "ESC") key.

Your version of the sample memo should look like this:

```
-----  
L > A Z R  
-----  
To: Office Staff  
From: K. Sylvester Livingston  
  
* Remember to use JET for all  
office letters and memos.  
-----
```

Notice that the words "To:" and "From:", which are each typed at a right tab, are "pushed" to the left as you type them. JET-IN will format text as you type it, whether you are using left, right, auto, decimal or center tabs.

Notice, also, what happens as you type the word "office". As you type this word, it extends past the right margin. When this happens, the JET software erases the word, and "wraps" the sentence you are typing down to the next line.

This process of wrapping words, which happens without any help from the person typing, is called "automatic word wrap".

You are finished inserting text for now. Press the "ESCAPE" or "ESC" key, and proceed to the next section on "editing".

First time Positioning Cursor

Whenever you are using JET-IN to edit text in the item "JET-TEST", the bottom (status) line of your CRT reads:

move cursor or press ? for help "JET-TEST" View on

When you are editing, the first step is always to position the cursor to a particular spot in the document. There are many different keys that JET-IN uses to position the cursor.

One key that positions the cursor is the "T" key. It positions the cursor to the top of the entire document.

Press the "T" key. Your CRT (terminal) screen will be erased, then the ruler you designed with the ruler editor, and the text of the memo you entered earlier will be displayed. The cursor will then be placed at the top left corner of the CRT. Your screen will look like this:

```
-----  
L > A Z R  
-----  
To: Office Staff  
From: K. Sylvester Livingston  
  
* Remember to use JET for all  
office letters and memos.
```

Note that if your cursor is not blinking, it may be difficult for you to locate the cursor.

Another key that positions the cursor is the "B" key. It positions the cursor to the bottom of the entire document.

Press the "B" key. The text on your CRT will not change, but the cursor will move to the bottom of the memo, like this:

```
-----  
L > A Z R  
-----  
To: Office Staff  
From: K. Sylvester Livingston  
  
* Remember to use JET for all  
office letters and memos.  
^  
|  
-----+  
(the CURSOR is here)-----+
```

The "T" (top) and "B" (bottom) keys are easy to remember, and very useful. Now we will go on to some other keys that position the cursor.

First time Positioning Cursor (continued)

Press the "T" key again. Now try pressing the "9" key a few times. The cursor on your CRT screen will move forward from word to word, like this:

```
-----  
L      >  A      Z      R  
-----  
      * Remember to use JET for all  
      ^  ^      ^  ^  ^  
Here-----+  |      |  |  |  
to here-----+      |  |  |  
to here-----+-----+  |  |  
to here-----+-----+  |  
one word at a time-----+
```

The "9" key is called the "word advance" or "word forward" key, because when you press the "9" key, the CRT cursor moves forward to the next word to the right.

Press the "B" key again. Now try pressing the "7" key a few times. The cursor on your CRT screen will move backward from right to left, like this:

```
-----  
L      >  A      Z      R  
-----  
      * Remember to use JET for all  
      ^  ^  ^  ^  ^  
      |  |  |  |  |  
      |  |  |  |  +--- From here,  
      |  |  |  +----- to here,  
      |  |  +----- to here,  
      |  +----- to here,  
      +----- one word at a time.
```

The "7" key is called the "word back" key, because when you press the "7" key, the CRT cursor moves back one word.

Similarly, pressing the "1" and "3" keys will move the cursor forward or backward one sentence at a time. The "6" and "4" keys will move the cursor forward and backward one character at a time, and the ">" and "<" keys will move the cursor forward and backward one paragraph at a time.

Get to know some of these cursor positioning keys. Using the right keys will save you time when using JET-IN to edit a document.

Example of JET verb usage

On any computer with a PICK operating system, you communicate with the computer through T.C.L. (Terminal Control Language), by typing the names of programs. The names of these programs are called "verbs". When you type a verb name, you must also type a "file" name, and one or more "item" names. Each item contains a document, or a part of a document. Each file can contain any number of items.

When you type "JET-IN", followed by a file name, followed by some item names, you invoke the JET word processor to create or edit those items. When you type "JET-OUT", followed by a file name, and some item names, you invoke the JET word processor to print those items on a CRT, or on a line printer or serial printer.

To use any verb, you type the verb name, followed by a file name, followed (usually) by one or more item names, followed by "options". The options are each capital letters, and must be inside parentheses.

You may type a "SELECT", "SSELECT" or "QSELECT" verb just before typing the JET-IN or JET-OUT verb. This will generate a list of item-IDs. If you do not specify any items with the JET-IN or JET-OUT verb, the list will be the list of items to edit or print. If you generate a selected list, and then specify JET-OUT, and do specify a list of item-IDs, then the list will be used to specify items in a data file, to be used with the ~insert command.

Here are some examples of T.C.L. (Terminal Control Language) commands to invoke the JET word processor. The first word in each example (the verb name,) will be either "JET-IN" or "JET-OUT". The second word is the file name. This is followed by the item list, if any, and the options, if any.

T.C.L. Command.....	Explanation.....
>JET-IN WP.DOC FORMAT	Enters JET word processor to edit an item, named "FORMAT", in a file, named "WP.DOC", which contains word processor documentation.
>JET-IN WP.DOC STEP1 STEP2	Enters JET word processor to edit two items, named "STEP1" and "STEP2", in the "WP.DOC" file.
>SSELECT WP.DOC = "EDITJ" >JET-IN WP.DOC	Selects those items in the file named "WP.DOC" whose names start with "EDIT", then enters the JET word processor to edit those items, "EDIT1", "EDIT2", "EDIT3", etc., just selected.

Example of JET verb usage (continued)

T.C.L. Command.....	Explanation.....
>JET-OUT WP.DOC STEP1	Prints the item named "STEP1" in the file named "WP.DOC" to the CRT (terminal), to produce one section of the JET word processor documentation.
>JET-OUT WP.DOC STEP2 (P)	Prints the item "STEP2" in the file "WP.DOC" to the line printer.
>JET-OUT WP.DOC STEP3 (C)	Prints the item "STEP3" in the file "WP.DOC" to the console (slave) printer.
>SELECT WP.DOC = "STEP^" JET-OUT WP.DOC	Selects only those items in the "WP.DOC" file whose names are "STEP1", "STEP2", "STEP3", etc. and then prints them on the CRT (terminal) screen.
>JET-OUT WP.DOC DRIVER (P)	Prints the item named "DRIVER" in the file "WP.DOC" on the line printer.
This item contains many "\read" commands, and will produce the entire JET word processor documentation.	
>SSELECT CUST >JET-OUT TEXT BILL (P)	Selects the "CUST" file. Prints the item "BILL" in the file "TEXT" on the lineprinter.
This item contains "~insert" commands, which gather data from items in the CUST file. This bill will print one time for each of the customers selected in the "CUST" file.	
>JET-OUT TEXT BILL (P)	Since no select list is specified, JET-OUT will print all ~INSERT commands, and this bill will print only once.
>JET-OUT TEXT BILL (P,V)	Prints the item "BILL" in the file "TEXT" to the lineprinter. All command lines and ruler lines, and all ~insert commands will be printed.
>SELECT CUST WITH LATE > "90" >JET-OUT TEXT LATE.LETTER	Selects the items in the "CUST" file with payments more than ninety days late, and prints a late letter for each customer.

Options for JET-IN and JET-OUT

The following options are supported by the JET word processor JET-IN and JET-OUT functions. Some of them do not have a meaning for both JET-IN and JET-OUT, and some have slightly different meanings for JET-IN and JET-OUT.

Each option is listed by the option letter, by option name, and by the description of the option.

Opt. Name..... Meaning.....

- (C) Console Routes output of the JET-OUT verb to a console or slave printer (a printer that attaches to the rear of the CRT). This is accomplished by first turning on the CRT printer (or AUX) port, then printing the document, then turning off the CRT printer port.
- (E) NEC Indicates NEC Spinwriter printer. Must be used in conjunction with the (Q) option.
- (F) Formfeed Prints a form feed at the top of each item.
- (L) Line # Specifies line numbers for JET-OUT.
- (N) (Nopage) Suppresses paging for the JET-OUT verb.

With the (N) option specified, the entire document will be printed on the CRT without stopping. Without the (N) option, output is suspended at the end of each page until the operator hits a CRT key. (This is called "paging".)

Pressing a control-X key at the bottom of a page, when "paging", will terminate output of the document.

- (P) Printer Specifies JET-OUT to print to the SPOOLER.

Usually, this will mean printing on a lineprinter or serial printer. However, the SPOOLER can alternatively route the output to a "hold file" or a magnetic tape.

- (Q) Quality Indicates a letter-quality printer. If the printer happens to be a NEC Spinwriter, you must also specify the (E) option. If the printer is a QUME Sprint model, you must also specify the (U) option.

Options for JET-IN and JET-OUT (continued.)

Opt. Name..... Meaning.....

(R) Random Suppresses "randomization" of the random number routine used by "JET-OUT" to justify right margins.

With the (R) option specified, each time you "JET-OUT" a document, it will be justified by inserting blanks in the same spots between words. Without the (R) option, the distribution of the blanks within the line will vary from printing to printing.

(S) Spacing Selects "proportional" spacing, instead of random blank spacing, to right-justify margins.

The "proportional" method of justification is only supported on letter quality printer, so this option must be used with the (Q) option, and the (E) or (U) option, as needed.

With this method, the spaces between words are adjusted to be the same width, within the nearest 1/120th of an inch. The spacing between letters remains the same. That is, each word is printed at the same pitch, and pitch only changes between words.

(U) QUME Specifies QUME Sprint model letter-quality printer--must be used with the (Q) option.

(V) (View) Disables the printing of ruler and command lines when used with JET-IN, enables the printing of ruler and command lines when used with JET-OUT.

The view options allow you to see and modify any ruler or command lines when using JET-IN without the (V) option. If you use JET-IN with the (V) option, you will not be able to see ruler lines or command lines, only lines of text. Using JET-OUT with the (V) option allows you to print the ruler and command lines.

10-Key Pad Cursor Positioning

The numeric key pad, or "ten-key pad", to the right of the alphabetic keys on the CRT keyboard, can be used to position the cursor when editing. On an Ampex Dialogue 80 CRT, or ADDS Regent CRT, the numeric keyboards look like:

Ampex Dialogue 80

7 8 9 -

4 5 6 TAB

1 2 3 E
N

T

, 0 . R

ADDS Regent

7 8 9 -

4 5 6 E
N

1 2 3 E
R

0 . ,

When you are positioning the cursor, the keys function as though they were labeled:

Ampex Dialogue 80

Word Line Word
<-- Up -->

Char Page Char
<-- Top -->

Sent Line Sent Next
<-- Down --> Line

Page Page
<-- -->

ADDS Regent

Word Line Word
<-- Up -->

Char Page Char Next
<--- Top --> Line

Sent Line Sent
<-- Down -->

Page Page
<-- -->

If your CRT has a similar numeric keypad, you can learn to use it for cursor positioning.

Thus, while editing a document, you can position the cursor anywhere in the document by using just the numeric keypad.

Editing Keys--a Table

Below is a summary of the keys on the CRT keyboard, and their function when you are editing a document. The keys are grouped by the kind of text they operate on--letters, words, lines, sentences, paragraphs, etc., and by the function they perform--moving forward, moving backward, etc.

Some words have been abbreviated: Char. for character, Sent. for sentence, and Para. for paragraph.

	Char.	Word	Sent.	Para.	Page	Line	Item	Paste	
Next	6	9	3	}	.	2			
Previous	4	7	1	{	0	8			
Beginning					5	RETURN	T		
End						^	B		
Any	S	S	S	S	S	G		0--9	
Delete	D	Q	Y			K	FD	FD	
Insert	I	I	I	L	L	L	M	P	
Replace	R	W							
Transpose	Z	----Use Cut and Paste keys-----							
Change case	:	*				!			
Cut (delete)			J	J	J	J			
Paste (move)			P	P	P	P		P	
Display							0	'	
Search and replace	S or ;	S or ;							
Search again	A	A							
File							FI		

Remaining keys and their functions are:

- C Reprint the CRT screen.
- E Enter Ruler Editor to change or insert a ruler.
- U Turn spelling checker on or off.
- V Turn view (for ruler and command lines) on or off.
- I Check spelling of words from cursor downward.
- ? Print the editing help screens.

Cursor Positioning Keys

When you are editing a document, the keys on the CRT keyboard are used to position the cursor or to perform text editing or word processing functions.

To make changes to existing text, you must first position the cursor where you want to modify or add text. Then you press the correct key to invoke the desired editing function.

The cursor positioning keys are listed by the key, the name of the function of the key, and the description of the function:

Key	Name.....	Cursor positioning function.....
T	Top	Moves the cursor to the first character in the first line at the top of the document.
B	Bottom	Moves the cursor to the end of the last line at the bottom of the document.
4	Char back	Moves the cursor left one character, or if at the first character in a line, the cursor will move to the last character in the previous line. Note that the backspace (or control-H) key is also a character back key.
6	Char adv	Moves the cursor right one character. The cursor can be positioned on space to the right of the last character in a line. At this position, the "D" (Delete Character) key has a special function. Note that the space bar or blank is also a character advance key.
7	Word back	Moves the cursor left to the beginning of the previous word. This may move the cursor up a line. At the top of the CRT screen, it may jump back to the previous page.
9	Word adv	Moves the cursor to the right to the first character in the next word.
1	Sent back	Moves the cursor to the first character in the sentence. If at the first character in a sentence, cursor will go to the first character in the previous sentence.
3	Sent adv	Moves the cursor to the right to the first character in the next sentence. Note that a sentence ends with a period (.) question mark (?) or exclamation point (!), or at the end of a paragraph.

Cursor Positioning Keys (continued)

Key	Name.....	Cursor positioning function.....
0	Page back	Moves the CRT cursor backwards 20 lines, or to the first line in the document.
.	Page adv	Advances the cursor to the bottom line on the CRT screen; if it is already there, then prints the next 20 lines, or to the end of the document.
{	Para back	Backs the cursor up one paragraph.
}	Para adv	Advances cursor one paragraph.
^	End-of-line	Advances the cursor to the end of the line containing the cursor. If the cursor is already at the end of line, the cursor will advance to the end of the next line. This key is useful when merging paragraphs.
CR	RETURN	The RETURN key (called the NEWLINE or ENTER key on some keyboards) will position the cursor to the first character in the line. If the cursor is already at the first character, it will advance to the first character in the next line.
8	Line back	Moves the cursor up to the previous line, except at the first line, where it has no effect.
2	Line adv	Moves the cursor down to the next line, except at the last line, where it has no effect.
<p>Note: The line back and line advance keys ("8" and "2") try to move the cursor directly up and down. However, if tabs are used, the cursor may move sideways, too.</p>		
5	Page top	Moves the cursor to the first character in the page, at the top of the CRT screen.
S	Search	The search key can be used to position the cursor to any particular word.
G	Goto Line	This key will allow you to go to a given line by specifying the line number.

Editing keys--Description

The following keys are used to insert, delete, locate, replace, move, merge, or change text. To use them, first position the cursor at the exact spot in the document where you want to work on the text, then press the appropriate key. For some of the keys you will need to enter more information.

Key Name..... Editing function.....

A Again Searches for the last search string specified by an "S" (Search) or ";" (Reverse Search) command. If no previous search command was entered, the status line prompts:

No search string!

You must press a CRT key to proceed.

B Bottom Positions the cursor to the last character in the last print line in the document. If the last character is on the current page, the cursor is moved there. If the last line is less than 22 lines away, the screen is rolled up to the last line. If the last line is 22 or more lines away, the screen is erased and the last page is displayed.

D Del char Deletes the character at the current cursor position, and shortens the line.

If the cursor is at the delimiter at the end of a line, this key will merge words from the next line. This enables you to merge paragraphs or lines of code together, or delete an extra RETURN (end of paragraph key) from text.

E Edit ruler Enters the Ruler editor. If the cursor is on a ruler line, that ruler will be edited. Otherwise, a new ruler will be inserted above the current line. When you enter the Ruler editor, the status line prompts:

change ruler or hit "?" for help

You may change the existing ruler, or add a new ruler. (See the section on the Ruler editor keys.)

When an ESCAPE (embed ruler) or "X" (exit Ruler editor) key is pressed, you return to the editor. Pressing a question-mark ("?") key will get you to the ruler help screen.

Note that if the view is off, the ruler line will not be displayed on the CRT screen upon leaving the Ruler editor.

Key Name..... Editing function.....

FI File doc Updates the document to the file, and exits the "JET" word processor for this item.

FS File save Saves the document to the file, and returns back into the "JET" word processor.

Note: when you "FI" (file) or "FS" (save) a document that is more than 32,000 characters long, the status line reads:

Document too big. Type extension document name:

You must enter the item-ID (name) of the extension item. If the extension item exists on file, the status line reads:

Extension document already exists!

This is to prevent accidental loss of documents.

FD File delete Deletes the item, (you must first verify by pressing the "Y" key,) and exits the "JET" word processor for this item.

FX Exit item Exits the current item. If the item has changed, you must first verify by pressing the "Y" key.

FK Exit all Exits the current item and all items, when editing or word processing many items.

I Insrt text Allows you to insert text, starting just before the current cursor position. The CRT screen is erased from the cursor position to the end of the line, and the status line prompts:

insert text, then press ESCAPE

Pressing the RETURN (or NEWLINE) key will start a new line, or add null lines; text is added until the ESCAPE key is pressed, at which time you are finished inputting, and are back to editing.

Note: The only way to stop inputting and resume editing is to press the "**ESCAPE**" (or "ESC") key. Pressing the RETURN (or NEWLINE) key will only add more blank lines.

K Del line Deletes a line, including ruler lines and backslash (command) lines.

L Insrt line Allows you to insert a new line starting just below the current cursor position.

Key Name. Editing function.....

M Merge Allows you to merge lines from another item, possibly in another file, just **below** the current cursor position. The status line shows the prompt:

file name or RETURN for current:

Type the name of the file that contains the item you wish to merge, or press the RETURN (or NEWLINE) key to merge from the same file as the item being edited. If you do not enter a valid file name, the system will prompt for file name again.

Once a valid file name (or RETURN key) has been entered, the status line shows the item-ID prompt:

Item-ID or RETURN for "YYYY"

Where "YYYY" represents the name of the item being edited. Type the name of the item you wish to merge from, or press the RETURN key to merge from the current item, as present in the file at the time. If the item is not found, the system will prompt for file name again. Otherwise, the status line will show the prompt:

First line# (RETURN for 001):

A RETURN key indicates the first line, otherwise the number entered must not be more than the number of lines in the item to be merged from, or the item-ID prompt will appear again. Once a valid starting line number (or RETURN key) has been entered, the status line will show:

Last line# (RETURN for E-0-Item):

Press the RETURN key to merge up to and including the last line of the item, or enter the last desired line number. If this number is less than the first line number, the item-ID prompt will appear again; if it is greater than the number of lines in the item, the system will merge up to and including the last line. The indicated number of lines are merged into the current document, starting after the line in which the cursor was originally positioned.

Note that the merge operation can be aborted at any time by pressing the ESCAPE key in response to any of the prompts.

Key Name..... Editing function.....

O Overview The document is printed, from the current line to the last line, exactly as it would be printed by the "JET-OUT" verb, except that the output goes to the CRT.

This function is useful to determine the exact location of page breaks.

P Paste Inserts previously cut out sections of text. A one-digit paste number is prompted for, and the corresponding paste item is looked up. The status line prompts:

paste in which paste # (0--9)

The paste number must be 0 through 9, and the item-ID for a given paste number (N) will be:

PASTE*XX*N

Where XX is the port number of the CRT. Note that a paste item cut from one document can be pasted into a different document, but no more than 10 paste items may be used by one user (one port) at a time.

Q Del word Deletes the word in which the cursor is positioned, and closes up the sentence. Note that this may cause words from lines below the cursor to be moved up into the current line.

R Repl text Replaces the text, starting at the current cursor position, with new text. The status line prompts:

replace text, then press ESCAPE

Simply type the new text "on top of" the existing text. Note that if you attempt to replace text past the end of a paragraph, you will cease "replacing" and begin "inserting" text. The status line will then read:

insert text, then press ESCAPE

Note also that you can not replace a tab with anything. If you are replacing text and come upon a tab, the cursor will "jump" to the first character of the word at the tab.

Key Name..... Editing function.....

S Search Searches for a word. The status line prompts:

Search for:

Type the word (or phrase) you are searching for, and then press the RETURN key. The status line prompts:

Replace with (or ESC for search only):

If you are only searching, then press the ESCAPE key. If you wish to replace the word or phrase you are searching for with something different, then type that, and press the RETURN key. (Note that you can delete a word or phrase by searching for it, and replacing it with "nothing".) If you choose to search and replace, the status line prompts:

All occurrences (Y/N):

If you press the "Y" key, JET-IN will replace every occurrence of the first word/phrase with the second. Next the status line prompts:

Compare case (Y/N):

To search for a word exactly as you typed it, press the "Y" key. Then upper case and lower case letters will not match; that is, the word "This" will not match "THIS" or "this".

If you searching for and replacing all occurrences of a word or phrase, then JET-IN will position the cursor to each occurrence. The status line prompts:

Replace (Y=Yes N=No Q=Quit):

If you press the "Y" key, JET-IN will perform the replace, and reprint the CRT screen as needed. If you press the "Q" key, JET-IN will quit searching, and you can resume editing. If you press any other key, then JET-IN will look for another occurrence. If JET-IN finds one, it prompts you again, as above. Otherwise, the status line prompts:

String not found!

Then you must press one character on the CRT keyboard before you can resume editing.

Key.	Name.....	Editing function.....
T	Doc top	Positions the cursor to the top of the document. The CRT screen is erased, and the first page of the document is displayed.
U	Spelling	Pressing the "U" key will alternately turn the spelling checker for input on and off. The status line will prompt: Spelling checker on! Then you must press any one key on the keyboard, in order to resume editing. The spelling checker is disabled by the same "U" key, and the status line prompts: Spelling checker off! Once again, press any one key to resume editing. Each use of the "U" key will turn the spelling checker on or off.
V	View	Switches the view from On to Off, or vice versa, and re-displays the current page. When the view is On, all command lines and ruler lines can be seen with JET-IN; when the view is Off, they are invisible lines.
W	Repl word	Replaces the word at the current cursor position. The CRT screen is erased from the beginning of the word to end-of-line, and the status line prompts: insert text, then press ESCAPE Type the new word on the CRT keyboard, ending with an ESCAPE key. The remainder of the CRT screen is redisplayed, and you resume editing your document.
X	Exit	The "JET" word processor is exited; the document is not updated to the file. If the item has been <u>changed</u> during the interactive session, then the status line prompts: item has changed: press "Y" to exit You must press the "Y" key to exit the word processor; otherwise, the cursor is repositioned and you resume editing.

Key Name.... Editing function.....

Y Del sent Deletes a sentence from the current cursor position to the end of sentence or end of paragraph. When using "JET-IN", the cursor should be positioned to the first character in the sentence to be deleted. When using "JET-EDIT", this key will delete from the current cursor position to the end of the line.

Z Transpose When you press the "Z" key, the character under the cursor will change places with the character just to the right of the cursor. Note that only printable characters can be transposed with the "Z" key.

J Cut To cut out a section of a document, first position the cursor to the first character to be cut, then press the cut ("J") key. The status line reads:

Position cursor for 2nd cut.

Next, move the cursor to the last character to be cut, and press the cut key again. The status line reads:

paste in which paste # (0--9)

Press a one-digit paste number, 0 to 9. The section of text between the first and second cuts will be removed from the CRT screen, and copied to a "paste item" in the same file as the current item, with the ITEM-ID:

PASTE*XX*N

Where XX is your port number, and N is the paste number. For example, if you are logged on to line 7, and you cut out and save a section of text with paste number 3, the item-ID of the item containing the cut out text will be:

PASTE*07*3

The cut-out text may now be "pasted" into place in a different spot in the current or a different document. See the description of the Paste ("P") key.

Key Name.... Editing function.....

" D paste Displays a cut-out paste item. The status line prompts for paste number, like the Cut key, and you enter a one digit paste number from the CRT. If no paste item has been cut out and saved with the given number, the right side of the status line will read:

cannot find paste #X

Where X is the given paste number. Once you press any key, the cursor is repositioned, and you resume editing.

; Rev search Operates exactly like the "S" (Search and Replace) key, except that the search proceeds upward from the current cursor position, instead of downward.

: Chng lettr Changes the case of the letter at the current cursor position. Upper case letters become lower case letters, and lower case letters become upper case letters.

* Chng word Changes the case of the word at the current cursor position. An upper case word becomes a lower-case word, a lower-case word becomes capitalized, and a capitalized word becomes all upper case; for example:

THIS --> this --> This ---> THIS

! Chng Line Changes the case of all words from the current cursor position to the end of the line, like the "*" for change word.

? Help If you press the question mark ("?") key, the CRT screen will be replaced with the "editor help" screen. This screen lists the editing keys, and gives a brief description of the function of each key. More editor help screens, with more details on the function of the editing keys, are available.

Note: If you press 3 successive unrecognized commands when editing, you will also see the editor help screen.

Key Name.... Editing function.....

I Spelling Pressing the "I" key will cause every word from the current cursor position to the end of the document to be looked up in the spelling dictionary (WORDS file).

To check the spelling of any or all words in an existing document, use the "I" key. First, position the cursor to the beginning of the text you want to check. Then, press the "I" key. The cursor will move down to the first letter in the first misspelled word found in the document. The status line reads:

word spelled correctly? (Y/N/ESC)

To skip to the next misspelled word, press the ESCAPE key. To stop checking spelling and resume editing, press the "N" key.

If the word is spelled correctly, and you wish to add the word to the WORDS file, press the "Y" key. The status line will read:

enter it in the dictionary? (Y/N)

If you do not want the word to appear in the WORDS file, you can press the "N" key, and continue to search the document for misspelled words. If you want to add the word to the WORDS file, press the "Y" key. The status line will read:

retype word with dots at syllable breaks:

At this point, you must type the word on the status line, putting a dot (period) at the location of each syllable break. For example, you would retype the word "dummie" like this:

retype word with dots at syllable breaks:dum.mie

When the cursor reaches the bottom of the item, you are done checking spelling, and can resume editing of the document.

Using the Ruler Editor

JET-IN prints the ruler help screen, and puts you in the ruler editor, for new documents. You can insert or change rulers when editing an existing document by pressing the "E" key. When you press the "?" key in the ruler editor, JET-IN prints the ruler help screen. The status line prompts:

change ruler or hit "?" for help

You can change the ruler with the following keys:

Key Name.....	Ruler editor function.....	
L	L margin	Sets the left margin: puts an "L" in the ruler at the current cursor position.
<	Left tab	Sets a left tab: puts a "<" in the ruler.
>	Right tab	Sets a right tab: puts a ">" in the ruler.
.	Dec tab	Sets a decimal tab: puts a "." in the ruler.
A	Auto tab	Sets an Auto-tab ("A") at the current position of the cursor.
C	Center tab	Sets a center tab: puts a "C" in the ruler.
Z	Zone	Sets the fill and hyphenation zone: puts a "Z" in the ruler. The "Zone" indicates when and where automatic word wrap or hyphenation will occur when typing text with JET-IN.

Note: to disable hyphenation, remove the hyphenation zone ("Z") character from the ruler.

R	R margin	Sets the right margin: puts an "R" in the ruler at the current cursor position.
---	----------	---

Note: to disable word wrap, remove the right margin ("R") character from the ruler.

B	Block alter	Automatically alters left and right margins as well as the zone. The left margin ("L") moves to the current cursor position, and the right margin ("R") and zone ("Z") are moved the opposite direction to match the change in the left margin. The zone, if present, stays the same distance to the left of the right margin as before.
---	-------------	--

Key	Name.....	Ruler editor function.....
S	Save ruler	The status line prompts: save which ruler (1 to 9)
<p>You press number 1 through 9, and the ruler is saved in that numbered ruler buffer. When the ruler help screen is called up, the contents of each ruler buffer is displayed on the top ten lines of the CRT screen.</p>		
G	Get ruler	The status line prompts: get which ruler (0 to 9)
<p>You press a number 0 through 9, and the ruler from the specified ruler buffer is displayed. Note that ruler buffer 0 always contains the "default" ruler.</p>		
-	Clear char	Erases the character at the current cursor position. This key is used to remove any margin, tab, or zone character.
_	Clear ruler	Sets the ruler to all blanks.
ESCAPE		Embeds the ruler, leaves the ruler editor, and resumes editing.
Space		Moves cursor right one character position. If the cursor reaches the end of the ruler it is wrapped around to the left end.
Backspace		Moves cursor left one character position. If the cursor reaches the left of the CRT it is wrapped to the extreme right end.
RETURN		RETURN (or NEWLINE) will return the cursor to the extreme left of the ruler, and redisplay the ruler.
TAB		(Or Control I) Positions the cursor to next character in ruler to the right of the current cursor position.
X	eXit	Exits the Ruler editor, <u>w</u> ith <u>o</u> ut embedding the ruler in the document.
?	HELP	Prints the Ruler editor help screen, with the numbered lines, the list of ruler keys and their functions, and the contents of all previously saved rulers.

Inputting Text

You begin inputting automatically when JET-IN is used for new items, or you can initiate inputting by using the "I" (insert text), "L" (insert line) or "W" (replace word) keys. The status line will read:

insert text, then press ESCAPE

When inputting, you type text, which is formatted on the CRT screen automatically as each letter is keyed. The effects of different margin settings and tab stops can be seen as the text is being typed.

To start a new line, or add null lines, press the RETURN key (also known as "NEWLINE" or "ENTER" on some CRTs). To stop entering data and resume editing, press the ESCAPE (or ESC) key.

Automatic Word Wrap

If a right margin ("R") has been set in the ruler, an automatic carriage return and line feed will occur when the right margin has been reached, and the word being typed will drop down to the next CRT line. Just continue typing text, and do not press the RETURN key.

Example: suppose you are inputting with the ruler:

```
-----  
-----L-----Z-----R-----  
-----  
This is a test of auto word w_
```

when the next key (the "r" in "wrap") is pressed:

```
-----  
-----L-----Z-----R-----  
-----  
This is a test of auto word  
wrap._
```

Note: Word wrapping happens automatically, without user intervention. Do not press the RETURN key to word wrap. Only press the RETURN key at the end of a paragraph.

The RETURN key will print as a "<" (less-than) character.

Hyphenation

If the word being typed started to the left of the "Zone", and would extend past the right margin, the word must be hyphenated. The CRT bell sounds, and the status line reads:

Backspace, hyphenate this word

Press the backspace key until the cursor is where you want the hyphen to be, and press the hyphen ("-") key. The rest of the word will be erased from the CRT screen, and dropped down to the next line. Alternatively, if you backspace all the way to the blank before the word, the entire word will be dropped down to the next line, and will not be hyphenated.

Example: Suppose you are inputting with this ruler:

```
-----  
-----L-----Z-----R-----  
-----  
Now try testing that automati_
```

When the next character (the "c" in "automatic") is keyed, you must "Backspace and hyphenate" to the "m", and press the hyphen key. The remainder of the word is dropped down to the next CRT line, as in automatic word wrap.

```
-----  
-----L-----Z-----R-----  
-----  
Now try testing that auto-  
matic_
```

This type of "soft" hyphen may disappear later, if the margins or text are changed:

```
-----  
-----L-----Z-----R-----  
-----  
Now try testing that automatic
```

If a word is hyphenated where a hyphen originally occurred in the word, it is known as a "hard hyphen". Replace the word "automatic" with "frame-fault" in the example above. Backspace to the hyphen in "frame-fault" and press the "-" key:

```
-----  
-----L-----Z-----R-----  
-----  
Now try testing that frame-  
fault_
```

These "hard" hyphens will always print, even if the margins change, as in the example below:

```
-----  
-----L-----Z-----R-----  
-----  
This is a test of the frame-fault
```

Spelling check on Input

When the spelling check is enabled, and you are inputting text, the status (bottom) line of the CRT will read:

insert text, then press ESCAPE "JET-TEST" View on, Spelling check on

As each word is typed, JET-IN will look to see if the word is in the WORDS file. All words are converted to lower case before looking them up in the WORDS file. If the word you type is in the WORDS file, you continue to type as always. However, when you type a word that is not present in the WORDS file, the CRT will sound a bell, and the status line will read:

word spelled correctly? (Y/N/ESC)

The cursor will then be placed at the first character in the word. At this point, you have three options. If the word is not spelled correctly, simply type the word again. If, for any reason, you do not wish to add the word to the WORDS file, but you do want it to occur in the text exactly as typed, press the ESCAPE key. If the word is spelled correctly, press the "Y" key. The status line will read:

enter it in the dictionary? (Y/N)

If you do not want the word to appear in the WORDS file, you can press the "N" key, and continue typing the next word. If you want to add the word to the WORDS file, press the "Y" key. The status line will read:

retype word with dots at syllable breaks:

At this point, you must type the word again, on the status line, putting a dot (period) at the location of each syllable break. For example, if you typed the word "sensational", and it was not in the WORDS file, you would enter it as:

retype word with dots at syllable breaks:sen.sa.tion.al

Again, if you don't want to add the word to the WORDS file, you can press the ESCAPE key at this point, and then continue typing words.

Inputting with tabs

To use a tab while inputting, press the "TAB" or control-I key. If there is a tab set in the ruler to the right of the current cursor position, the cursor will move to the tab stop. As you type, the text is pushed to the right (for a left or auto tab) or left (for a right tab) or both ways (for a decimal or center tab). Below are some examples of text formatted by various tab stops in a single ruler:

Left tab--+	Auto tab--+	Center tab-----+	Right tab-----+	Decimal tab-----+
L <	L <	C	>	R
Left tab	Auto tab	 c cen center center tab	r ri rig righ right right tab	 .\$.\$1 .\$12 .\$12. .\$12.9 .\$12.99

Inputting with auto tabs

The auto-indent ("A") tab functions like a left tab, except that it has the effect of temporarily moving the left margin to the position of the tab stop. This is useful for creating an outline, as shown below:

```
-----  
L   A   A   A           Z   R  
-----  
I.  This is the first auto  
    tab.  
  
    A.  This is the second  
        auto tab.  
  
    B.  More text at the  
        second auto tab.  
  
        1. All the way to  
           the third auto  
           tab, here.  
  
II.  RETURN key gets us back  
     to left margin.
```

Once a RETURN (or NEWLINE) key is pressed, the cursor will return to the left margin (the "L" in the ruler). To get to the proper tab stop, hit the TAB key repeatedly until the cursor is under the tab in the ruler.

Note: If you input more than 22 lines of text under the control of a given ruler, the ruler will scroll off the top of the CRT screen. Since it is easier to input with tab stops when you can actually see the tab stops as you type, it is recommended to duplicate rulers throughout the text. This way, your current ruler will always be above your cursor on the CRT screen as you are inputting text.

Underlining

To automatically underline a word as you type, first press a "control-V" by holding down the CTRL key while you press the "V" key. The word will be underlined as you type it. Some CRTs may underline more than just the word as you type it, but this will be straightened out when you end the underline. (See below.)

Another form of underlining is provided by the "control-W" key, which functions identically to the ctrl-V key, except that the blanks between the words are not underlined.

To turn off underlining, press "control-X". To summarize:

ctrl-V	Underline <u>words and blanks</u> .
ctrl-W	Underline <u>words</u> , not blanks.
ctrl-X	Stop underlining.

This is an example of the ctrl-V type of underline.
This is an example of the ctrl-W type of underline.
Always hit a ctrl-X to end underlining.

If CRT does not have graphics capabilities, it may be easier to use commands that may be seen while editing text.

~UL	Underline <u>words and blanks</u> .
~UW	Underline <u>words</u> , not blanks.
~UX	Stop underlining.

Boldfacing

To boldface words as you type them, first press a control-B key, by holding down the CONTROL key while pressing the "B" key. The text you type next will be highlighted (on most CRTs) by the use of the reverse video attribute, as you type. To terminate boldfacing, type a control-D. To summarize:

ctrl-B	Boldface on .
ctrl-D	Boldface off .

For CRTs without graphics capabilities

~BF	Boldface on .
~BX	Boldface off .

JET-OUT Command Lines

A line that begins with a backslash ("\") is a command line, sometimes called a "backslash line". Command lines are inserted into documents with JET-IN; they perform special functions when using JET-OUT. Ruler lines are special cases of command lines, and should only be altered with the ruler editor. Other command lines are edited like normal text.

Following is a list of legal command lines and their functions when used with the "JET-OUT" verb.

Command..... Function with "JET-OUT" verb.....

\beginpage Begins a new page. Also, "\begin" or "\bp"
\bp N Begins a new page numbered N.
\chain FN ID Begins printing a different item ("ID"), possibly from a different file ("FN"). Also, "\ch FN ID".
\footing Specifies a footing for the bottom of pages. Also, "\f". See "\heading" command below.
\heading Specifies the start of a block of text to be used as a page heading. Also, "\h".

The heading block begins on the next line, and extends until a command (backslash) line. Special characters allowed in a heading (or footing) include:

'D' Inserts the current date.
'I' Inserts the document name or "Item-ID".
'P' Inserts the current page number.
'T' Inserts the current time and date.

Following is an example of a simple heading:

This is what you type into the document with JET-IN:

```
\heading
*** This is the the top of Page 'P' ***
\*---comment line to mark the end of the heading---
```

This is what gets printed by JET-OUT:

```
*** This is the the top of Page 1 ***
```

Command..... Function with "JET-OUT" verb.....

\hilite C P Allows highlighting sections of text by printing the specified character ("C") two spaces outside the left, right, or both margins, as specified by the position ("P").

For example, the command "\hilite * L" will put the "*" two spaces to the left of the left margin, "\hilite # R" will put the "#" two spaces to the right of the right margin, and "\hilite | B" will put the "|" outside both margins. To turn off highlighting, use the command "\hilite OFF". Also, "\hl".

\indent N Indents the left margin N characters. For example, "\indent 40" will add another 40 characters to the left margin.

\index.file FN Specifies the file name FN as the index file for the "\index" command.

For example: "\index.file JET.INDEX" will cause all "\index" commands to generate items in the file named "JET.INDEX".

\index TEXT Generates an item in the specified index file whose ID is the "TEXT".

More than one word or phrase can be indexed with a single "\index" command. For example, the command "\index lions,tigers,beasts of the jungle" will generate three items in the index file, and IDs of the items will be "lions", "tigers" and "beasts of the jungle". The items will contain the page number where the "\index" command occurs. A word or phrase can be indexed on many pages; the item will contain the multiple page numbers as multiple values.

\justify Turns on "justification", which will align the right margins of lines. Also, "\j"

This is done by adding blanks between words until the last character in the last word lines up under the "R" (right margin) in the ruler. The default condition is justify on. Justification will take place on output only on those lines where automatic word wrap or hyphenation took place on input.

\nojustify (\nj)Disables justification.

\page N Sets the current page number to N. Also, "\page N" or "\number N".

Command..... Function with "JET-OUT" verb.....

\page length N Sets the page length to the number N.

\page width N Sets the page width to the number N.

\pclose or \pc (Printer CLOSE) Forces the SPOOLER to output the print file.

Command..... Function with "JET-OUT" verb.....

\pause or **\pa** First, prints a prompt, as specified by a previous "\prompt" command, if any. Temporarily halts output until any CRT key is pressed.

\pfile N Routes subsequent output to SPOOLER hold file number "N". Also, "\pf".

\pitch N Sets the pitch on letter-quality printers to the number "N", which must be between 8 characters per inch and 15. Also, "\pi".

\prompt "text" Saves "text" for a CRT prompt, to be printed when the next "~input" or "\pause" command is issued. Also, "\pr"

\read FN ID Similar to the "\chain" command, except that the rest of the current document is run off after the specified item is finished. This can be used to run off a list of items, or to set up standard headings or footings in documents. Also, "\r"

\spacing N Sets spacing between lines to the number N. "N" can be 1, 2, 3 or 4 only. Spacing 1 is the default, single spacing. Spacing 2 is double spacing, etc. Also, "\sp".

\testpage N Tests to see if there are "N" lines remaining on the current page. If there are not "N" lines left, it forces a new page.

\title.file FN Specifies the file name FN as the title file for the "\title" command. For example: "\title.file JET.TITLE" will cause all "\title" commands to generate an item in the file named "JET.TITLE".

\title Specifies that the following line will be added to the title file specified by the "\title.file" command. The ID of the item will be "TITLE*NN", where "NN" represents the user's line number. For example, if the user is on line 12, any "\title" command will update the item whose ID is "TITLE*12" in the title file. Each use of the "\title" command will add another line to this item. Each line will contain two values; the first will be the following line of text, and the second will be the page number.

Command..... Function with "JET-OUT" verb.....

\xref.file FN Specifies the file name FN as the cross reference file for the "\xref" command. For example: "\xref.file JET.XREF" will cause all "\xref" commands to generate items in the file named "JET.XREF". The sequential item ID counter is initialized to zero.

\xref TEXT Generates an item in the specified index file with the next sequential item ID.

That is, the first ID will be "1", then "2", and "3", and so on. The first line of the item will be the page number, and the following line(s) will be the "TEXT". If the "TEXT" contains any asterisk ("*") characters, they will specify another line in the cross reference file. For example:

```
\xref.file CARS
\page 101
\xref Cars*Chevy*Camaro
\page 102
\xref Cars*Chevy*Corvette
\page 199
\xref Cars*Audi*5000
```

Will create three items in the file named "CARS", named "1", "2", and "3". The items will look like:

	"1"	"2"	"3"
001	101	102	199
002	Cars	Cars	Cars
003	Chevy	Chevy	Audi
004	Camaro	Corvette	5000

***text** Comment line: not printed unless the View is on. Used to terminate headings/footings.

Note: These commands must have the backslash ("\") as the first character in the line. They may be entered in upper case, lower case, or any combination of upper and lower case.

Special Text Insertion Commands

There are three special commands recognized by JET-OUT which can be used anywhere in a text line, to add extra data to a document being printed. The extra data can come from the CRT keyboard, from a selected list, or from a specified file. These special commands, "input", "insert", and "readnext", may be abbreviated "I", "N", and "R". The commands, whether abbreviated or not, must be preceded by a tilde ("~") character.

"INPUT"

The "INPUT" command is used to add text from the CRT keyboard as a document is being run off to the lineprinter. For example, consider a document containing the following text:

Please send one apple, one ~INPUT , and one orange.

When the "JET-OUT" processor encounters the "INPUT" command, it prints a **prompt**, if one has been **previously** set up by a "\prompt" command, then it accepts a line of text from the CRT keyboard. Suppose the operator typed the word "giraffe". Then the lineprinter output for the item above would read:

Please send one apple, one **giraffe**, and one orange.

"INSERT"

The "INSERT" command is used to add text from a data file to a document as it is being printed. For this example, assume there is a file named "CUSTOMER" with the following data items:

	1001	1002
001	XXX*Mr. Short	YYY*Mrs. Long
002	12345	9944
003	4456	4400
004	knicker	longjohns and sweater

Assume the DICT CUSTOMER file contains the items:

	NAME	AMOUNT	TIME	ACCT
001	S	S	S	S
002	1	2	3	4
003				
004				
005				
006				
007	G1*1		D	
008		MD2\$		
009	L	R	R	T
010	10	10	11	21

The file would list thusly:

>LIST CUSTOMER NAME AMOUNT TIME ACCT HDR-SUPP

```
CUSTOMER.. NAME..... AMOUNT.... TIME..... ACCT.....
1001      Mr. Short      $123.45  7 MAR 1981  knicker
1002      Mrs. Long       $99.44 17 JAN 1981  longjohns and sweater
```

Assume a "JET-WP" source item "LETTER" in a file named "LATE," when "JET-OUT" with the (V) option, looks like:

```
-----
From: The Boss
To: ~INSERT CUSTOMER NAME ,
```

It has come to my attention, ~INSERT CUSTOMER NAME , that your ~INSERT CUSTOMER ACCT account has been overdue since ~INSERT CUSTOMER TIME , and our records show you now owe us ~INSERT CUSTOMER AMOUNT. Unless you pay up, etc. etc.

Assume the operator typed the following at TCL:

>SSELECT CUSTOMER BY-DSND AMOUNT

2 ITEMS SELECTED.

>JET-OUT LATE LETTER (P)

Then the lineprinter output would be:

```
-----
From: The Boss
To: Mr. Short
```

It has come to my attention, Mr. Short, that your knicker account has been overdue since 7 MAR 1981, and our records show you now owe us \$123.45. Unless you pay up, etc. etc.

```
-----
From: The Boss
To: Mrs. Long
```

It has come to my attention, Mrs. Long, that your longjohns and sweater account has been overdue since 17 JAN 1981, and our records show you now owe us \$99.44. Unless you pay up, etc. etc.

Note that all correlatives and conversions, with the exception of the "A" (Arithmetic) correlative/conversion, are applied to the data before printing. Correlatives (the contents of attribute 8 of the attribute definition item) are applied before conversions (attribute 7). Also, the blank immediately following the attribute definition name is not printed, thus allowing text from the document to be concatenated directly after the converted value from the data file.

"READNEXT"

The "READNEXT" command is used to add arbitrary text from a selected list (SELECT or SSELECT verb) or formed list (QSELECT verb) to a document as it is being printed. Whenever the "READNEXT" is encountered, the next value from the list is inserted into the text, until the SELECTed or FORMed list is exhausted.

In this manner, arbitrary text can be merged into a document as it is being printed by the JET-OUT processor. This text can come from any source, giving you, the user, more power and flexibility than that obtainable by use of the ~insert command. Difficult tasks can be handled by first creating the data in a BASIC program, then writing it to an item in a file. Then you QSELECT the item, and pass the contents of the item to the JET-OUT processor to be merged into your document when it is printed.

NOTE: To enter a tilde ("~") as text, you must enter **two** of them. That is: "~" prints as "~".

Handling Multiple CRTs with JET

The JET word processor can support many different types of CRTs on the same system at the same time. Each different CRT supported has a "CRT driver" in the ERRMSG file. The item-ID of each of these driver items starts with "JET.CRT.", and ends with a CRT identifier. For example, "JET.CRT.V" is the driver for the ADDS Viewpoint CRT, "JET.CRT.R" is the driver for the ADDS Regent 100 CRT, and so on.

To indicate which CRT you are using to JET-IN or to JET-OUT an item, you should use a PROC, which STACKS the CRT identifier. For example, the following PROCs drive the ADDS Viewpoint 60 CRT. The CRT identifier for a Viewpoint 60 is "VIEWPOINT.60", and the CRT driver item in the ERRMSG file is named "JET.CRT.VIEWPOINT.60". The drivers below are named "JIN" and "JOUT". They drive the JET VERBS "JET-IN" and "JET-OUT".

	JIN	JOUT
001	PQ	PQ
002	C Viewpoint 60 driver	C Viewpoint 60 driver
003	H JET-IN	H JET-OUT
004	F	F
005	1 A	1 A
006	IF A G 1	IF A G 1
007	STON	STON
008	HVIEWPOINT.60<	HVIEWPOINT.60<
009	P	P

Make your own copies of these PROCs, and give them whatever names you like. You might want to name the above PROCs "JINV" and "JOUTV". If you change line 008 in each PROC to:

```
008   HREGENT.100<           HREGENT.100<
```

then you could rename the PROCs "JINR" and "JOUTR".

Troubleshooting JET problems

The following section covers some problems you may encounter using the JET word processing software system.

For each subject, there is a list of symptoms, an explanation of the problem, and a solution to the problem.

Symptom: You don't know whether you should be moving the cursor, typing text, or pressing the ESCAPE key.

Problem: You don't know what "mode" of operation you are in. JET-IN has an "input" mode, for typing text, an "edit" mode, for moving the cursor and other editing functions, and a "ruler" mode for rulers.

Solution: Always look at the bottom line of the CRT screen. This "status" line will indicate if you are now positioning the cursor, typing text, or editing a ruler.

Symptom: The CRT screen has "garbage" characters, or you notice that when you move the cursor a word at a time, it is not always going to the first letter in each word.

Problem: Pressing the BREAK key, receiving a message, having the CRT in LOCAL mode, or pressing some keys on some CRTs will mess up the CRT screen.

Solution: Press the ESCAPE key, to assure that you are editing and not inputting, then press the "C" key. This will redisplay the current CRT screen.

Symptom: You cannot find the cursor on your CRT screen.

Problem: The cursor may be hard to spot, especially on ruler lines. Underline cursors are harder to pick up than block cursors. Blinking cursors are easier to see than non-blinking cursors.

Solution: Configure your CRT to have a block cursor, rather than an underline cursor. Also, configure the cursor to blink, if possible.

Symptom: When you are trying to edit a document, you find yourself in the editor help screen.

Problem: You are pressing illegal keys. When you type three illegal commands in a row, you will always see the editor help screen.

Solution: Don't type illegal commands. Use only those commands listed in the editor help screen.

Symptom: When you use JET-IN to edit a BASIC program, you cannot get the program to COMPILE.

Problem: You are using a word processor for an editor.

Solution: To edit BASIC programs and PROCs, use the JET-EDIT verb instead of the JET-IN verb. Do not enter any rulers or command lines.

Symptom: When you file a document, and then edit it again, you notice some of the lines at the end of the document are missing.

Problem: Your document is getting too long to store as a single **ITEM** in the PICK operating system.

If you use JET-IN to create a document more than 32,000 characters long, and then file the document with the FI or FS command, two items will be filed. The first item will have the original item-ID, and will contain the first 32,000 characters (or less) of the item. The second item will have a different item-ID; this "extension item" contains the tail end of your item.

It is up to you, the user, to assign a meaningful name to the extension item, and to \CHAIN to or \READ the extension item.

Solution: You should do something about this situation immediately when it first occurs.

Large documents can be separated into smaller sections, and logically connected with the \CHAIN or \READ command.

Symptom: You keep finding "strange" documents in your files.

Problem: If the **item-IDs** start with "PASTE*", then they contain cut out sections of text.

Solution: Items that contain cut out sections of text can be left in the file, or periodically deleted.

Symptom: Your documents have lots of blank lines in them.

Problem: You are pressing the "RETURN" or "NEWLINE" or "ENTER" key when you are inputting text.

Each time you press the "RETURN" key, you add one more blank line to your document. To stop inserting new lines, you must press the "ESCAPE" (or "ESC") key.

Symptom: You have a large amount of documentation, or other text, which was originally entered with the Editor, and printed using RUNOFF.

Problem: You want to convert from RUNOFF to JET.

Solution: First delete any .LEFT MARGIN, .LINE LENGTH, .INDENT MARGIN, .INDENT or .TABS lines, and create rulers to duplicate their functions.

Next, use the end-of-line ("^") key to move the cursor to the end of each paragraph, and give the "D" (delete character) command, to merge paragraphs together.

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