CONFIDENTIAL
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# JOT™

## Juggler of Text

## PRELIMINARY SPECIFICATIONS.



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JOT™ is an on-line text editor intended for simple people who do not know, or want to know, anything about computers, but who are concerned about text and want to keep their minds on it.

JOT is very simple and is expected to be very fast.

JOT works from teletypes (plain old model 33), IBM Selectric terminal, and keyscopes. However, it captures full upper and lower case even when an upper-case device is used.

JOT is intended for revision and retyping of a document being actually revised on paper, and edited from a paper copy. However, JOT may be used raw by the fearless initiate.

JOT, in its first version, will run ~~from~~ a Nova computer with one Sykes cassette drive. However, it will run several users simultaneously and independently, until the cassette is full.

(JOT is built around the XANADU™ system, a highly unconventional display-and-retrieval complex for minicomputers. JOT contains about 60% of the complete Xanadu system, without the graphics, compound-data functions, or other techniques.)

The system should be available in mid-72. Rental of Nova with Selectric and Hazeltine display should be about $750/month; price of program is ~~[illegible]~~ yet undetermined.

# The JOT command structure.

JOT is built around "running edit" mode. This allows rapid revision of stored text without line numbers or explicit reference to location. Text may be inserted, deleted or passed over very rapidly.

**TO INSERT:** merely type in what's to be inserted.

**TO DELETE:** press RUBOUT for each element (word, sentence, para, character) to be deleted. It will be typed between slashes ~~/THIS/~~ like /THIS/.

**TO ACCEPT OR PASS OVER:** press Space Bar for each element (word, sentence, para, character) to be ~~deleted~~ accepted. It will be typed normally.

**EXAMPLE.** Suppose the text stored already is

The quick brown fox jumps over the lazy dog.

We want to change it to

The quick fox jumps giddily over the dog.

First we "go to the beginning of the sentence" and "enter word mode." Will explain later.

Your action: sp ~~sp~~ sp ~~sp~~ (RUBOUT) sp sp giddily sp

Typed result: The quick /brown/ fox jumps giddily over

sp (RUBOUT) sp

The /lazy/ dog.

NOTE: meaning of Space and RUBOUT depend on context. After a word is inserted first Space means end of word, second is an acceptance. While typing in, RUBOUT undoes a character (echoed /char/), repeatable to beginning of insert.

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## TRAVELLING & MODE CHANGE.

| Command | Result |
|---|---|
| ← | Go to start of sentence, enter Word mode. |
| ← ← | Go to start of ~~para~~ paragraph, enter Sentence mode. |
| ← ← ← | Go to start of chapter or section, enter Para mode. |

The meaning of Space and RUBOUT ~~change~~ depend on the mode:

| mode | Meaning of Space, RUBOUT | Echo |
|---|---|---|
| Word | Accept/delete Word | Word, /Word/ |
| Sentence | Accept/delete Sentence | Firstword ... /astword., /Firstword ... ~~last~~ /astword./ |
| Para | Accept/delete Para | [Indent] Firstword ... Lastword., /[Indent] Firstword ... Lastword./ |

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**REARRANGEMENT or SWITCHEROO.** A nifty/sneaky method of rearrangement is employed. To rearrange two sections, three cuts in the text are ~~employed~~ implied. These cuts are signalled by three exclamation points, typed between words (or sentences or paragraphs) in running edit mode.

**EXAMPLE.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Action:** | sp | ! sp | ! sp | ! sp |
| **Echo:** | The | ! quick | ! brown | ! fox |
| **Actual result:** | the brown quick fox |

**COMPLICATIONS OF SWITCHEROO.**

Switcheroos may be combined and nested by the use ~~of labels~~ labelled exclamation points. As leading exclamation points do not occur in nature, it looks like this: **!LABEL**

**Example.**

!B The !A quick !A brown !A fox !B ! jumps ! over the lazy dog. ! !B

**RESULT:** Over the lazy dog jumps the brown quick fox.

⇨ The system automatically takes care of certain complications:

1. **Capitalization.** All text is stored in lower-case, except ~~Things~~ things which are supposed to stay capitalized, like names and acronyms. (These are set to upper-case by using the "Control" button as a Shift Lock.) In "show caps" mode these echo on teletypes and other all-cap devices with an up-arrow, e.g.

   ↑L. ↑FRANK ↑BAUM
   ↑X↑A↑N↑A↑D↑U

   On output, the first words of sentences are automatically capitalized.

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2. Punctuation echo.

On receipt of each third exclamation point, the system rings a bell. The user's next action signals what happens next.

| | |
|---|---|
| sp | Go on |
| RETURN | Let's walk through it |

The system then does a carriage return/linefeed, and starts typing the switcheroo. Before each punctuation mar ~~it stops.~~ (before an exclamation cut) it stops.

| | |
|---|---|
| sp | Okay, go on |

,"sp
:sp
;"sp
;"",sp
!",sp
etc.

} replace punc as given.

This punctuation-echo option takes care of repunctuating cases like

! "Watch it, Buster," ! she said. !

3. Change cutting-point. Methods exist for moving or removing an exclamation point. (To be described later.)

4. Running Switcheroos. If no labels are used, each set of three exclamation-points is assumed to define a new, non-nested switcheroo.

5. Switcheroonies. A Switcheroony is a switcheroo with four cutting-points, viz.:

Let us go then, ! you ! and ! I !

The clear intent is to reverse the second and fourth strings. If there is no label, the fourth cut is given to the system with a != [not shown above]. The system echoes with four bells. The choice of "continue" or walk-through is repeated, as after the third.

(If an n-cut switcheroony can be meaningfully defined, this principle can be extended.)

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**Copy.** To copy a string, the same exclamation points are used; two of them define a string to be copied, a consecutive pair defines the place it is to be copied to:

! No more ! pencils, !! books, !! teachers' dirty looks.

Labels may be used as with switcheroos.

**COMMANDS.** Not everything can be done in running edt. Just what the explicit commands are to be is undecided, but the command structure is:

| Input | Echo |
|---|---|
| (ALT MODE) COM (ALT MODE) | ![COM] |

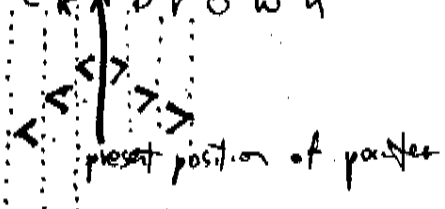
Examples:

- ![SHOW CAPS]
- ![CHANGE FILE STATUS]
- ![NEW FILE]
- ![KILL filename] (System reply: "ARE YOU SERIOUS?
- ![M{W S P C}] (Enter mode: word, space, paragraph, character)
- ![M?] What mode are we in?

## CHANGES WITHIN WORDS.

To make a change within a word, we may use two transparent pointer-movers, < and >. These put us in character mode if we are not there already.

Example. The quick brown




XU STUFF: Space and RUBOUT now accept and echo characters, in running character mode;

and typing-in causes insertion, as usual. HOWEVER, SPACES CANNOT BE INSERTED WITHIN A WORD BY THIS MEANS.

## NORMAL EXCLAMATION POINTS

If typed with no space in front of it, an exclamation point is just punctuation.

A normal exclamation point may be inserted after a word during running edit by preceding it with <.

## INSERTING AND DELETING SPACES ~~(in running edit mode)~~

While typing in: RUBOUT deletes preceding space like any other character.

In running edit mode:

| Action | Echo |
|---|---|
| ALT MODE sp ALT MODE | ![ ] |
| ALT MODE RUB OUT sp ALT MODE | ![/ /] |

## ACTIVE CUTTING-POINTS

The system does not automatically forget cutting-points.
We may view the current cutting-points by the command ![K]
Cutting-points are then printed with their immediate surroundings, in any new sequences that have been defined.

| ACTION | RESULT |
|---|---|
| Space | Accepted (this time around). Next cutting-point displayed. |
| RETURN | Accepted. We remain at this point in the text. |
| RUBOUT | Rejected. We remain at this point in the text. |
| ![!] | Accept them all, consummate and forget. (Applies to all completed switcheroos.) |
| ![!!] | Accept all completed copies, consummate and forget. |

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To move a cutting-point, we may step it by individual characters with the angles:

!\[<]

!\[>>>>]

## FORMATTING

Running text is printed out by words, with no hyphenation, according to formatting techniques which will be discussed later.

## FURTHER DEVELOPMENT.

Within this general keyboard framework, the system will be expanded to handle complex data, parallel printout and display of linked texts, alternate versions and historical backtrack.

### STANDARD MODE OF OPERATION

The system is expected to be used with successive revisions on paper. The user (secretary or writer) will ordinarily bring a paper copy of a previous version to the terminal, cut up and rearranged, with revisions written in. Thus the fastest way for him to operate is:

1. DO ALL SWITCHEROOS FIRST, thus putting all the old pieces in the new order.
2. DO THE REST IN RUNNING-EDIT MODE, one pass.

(3. Check the changes in the newly-typed copy.)

### RAW OPERATION

Obviously, sophisticated users, particularly those with access to a display terminal, will want to use the system directly without external paper. This is fine.