

INTERDEPARTMENTAL

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*from the office of*

January 15, 1971

To: Victor Voydock  
From: J. H. Saltzer  
Subject: EDM design review

Here are the changes which I have made to EDM to produce a private editor suitable for fast touch typing. (A very few of the changes are actually proposals which I have not yet gotten around to adding.) The one main problem with this list is that it does not explain why the changes are interesting or worthwhile. You are welcome to also look at the code to see how some of the changes were accomplished. The source file is named

>udd>m>jhs>edit.pll

Good luck.

January 15, 1971

Edit notes -- changes which are visible to the user.

1. Program interrupt handler did not work in all cases. Fixed to allow stopping of excessive output only.
2. "y" request allows insertion of mistyped request.
3. Full names of requests allowed as well as abbreviations; space required following request name to simplify syntax.
4. Can switch verification on and off separately for each request including ".". The default is changed as follows:
  - . on , l on , n off , b on , c on
5. Print last line in file in response to "bottom" request.
6. Print copy of request in error.
7. Print copy of request which encountered end of file.
8. Print copy of change request which changed nothing.
9. Print name of file when a file error occurs.
10. Add TYPSET "append" request instead of comment mode.
11. "Split" and "Join" requests added. Abbreviation not allowed.
12. Add TYPSET "file" request (equivalent to "write" followed by "quit").
13. Check for file names containing blanks and complain.
14. Use TYPSET "change" syntax; changes only 1 instance unless "g" requested.
15. Terminate all files when finished.
16. No separate backup request -- use "next -10".
17. \* for count means "all".
18. Reset input buffers when an error message is typed out. (every unexpected message only.)
19. "locate" does not circle around file.
20. "l string" may be followed by "l", but not "f", and vice versa.

Edit notes -- changes which are visible to the user -- continued

21. Failed locate request leaves you at end of file.
22. Will only quit if one types "q"; all other lines starting with "q" are rejected as errors.
23. Separate error comment for backing up beyond top of file.
24. If trouble reading source segment, prints segment name as part of error comment.
25. Prints original of request causing "no segment name given" diagnostic.
26. Request "i" with no following string should insert a blank line.
27. User is required to type a file name on "join" request.

Still to be developed: a clean syntax for moving lines and paragraphs around within a file.

Implementation notes -- changes invisible to user

1. Use PL/I internal subroutines instead of computed goto's.
2. "pi" and "cleanup" handlers can be much simpler. (No goto's.)
3. No need to use "error\_table."
4. Before first request, copy source segment to buffer; allows removal of much special-case code later.
5. No need to use "move\_", substr works just as well.
6. No need for an expanded (one character per word) buffer -- substr works better.
7. Should propagate use of index and substr everywhere.
8. Should delay copying from "from" buffer to "to" buffer until proven necessary by a request which changes something.
9. Fewer buffers needed for line copies.

Should explore: use of pointers to "current line" in the "from" or "to" buffer, rather than copying the current line.