

```

10 0000 ;*****
20 0000 ;
30 0000 ; NESTAR TEXT EDITOR
40 0000 ;
50 0000 ; AUXILLIARY ROUTINES
60 0000 ;
70 0000 ;
80 0000 ; L. J. SHUSTEK
90 0000 ;
100 0000 ; COPYRIGHT 1979,1980 NESTAR SYSTEMS INC.
110 0000 ;
120 0000 ;*****
130 7060 *=JFIND
140 7060 4C7B7A JMP FIND
150 705D *=JSETAB
160 705D 4C617B JMP SETABS
170 7063 *=JRENUM
180 7063 4C847B JMP RENUM
190 7066 *=JWINDO
200 7066 4CFC7B JMP WINDOW
210 7036 *=JPRVLN
220 7036 4C857E JMP PRVLIN
230 7069 *=JCOPY
240 7069 4C3A7D JMP COPY
250 706F *=JMOVE
260 706F 4C3E7D JMP MOVE
270 706C *=JCHNGE
280 706C 4C407C JMP CHANGE
290 7A7B *=BAUX
300 7A7B ;*****
310 7A7B ;
320 7A7B ; FIND/STRING/<RANGE>,N
330 7A7B ;
340 7A7B ; (ANY CHARACTER CAN BE SUBSTITUTED FOR THE / DELIMETER)
350 7A7B ;
360 7A7B ;*****
370 7A7B 203090 FIND JSR WMOVE SAVE CURRENT LINE
380 7A7E 31 .BYT LPTR,CTEMP1,0
380 7A7F 35
380 7A80 00
390 7A81 A901 LDA #1 DEFAULT N=1
400 7A83 8D7702 STA FCNT
410 7A86 20767E JSR SKIPBL SKIP BLANKS
420 7A89 A000 LDY #0
430 7A8B B127 LDA (NXTCHR),Y GET DELIMETER
440 7A8D 8D7D02 STA DELIM
450 7A90 C90D CMP #13
460 7A92 D00B BNE FIND7
470 7A94 A9FF LDA #$FF NO OPERANDS: SET HIGH=FF
480 7A96 8D7202 STA NHIGH AND SEARCH FROM CURRENT
490 7A99 8D7302 STA NHIGH+1
500 7A9C 4CD47A JMP FINDIT
510 7A9F 20F77A FIND7 JSR INCNXT SKIP DELIMITER
520 7AA2 20FE7A JSR PARSTR GET STRING INTO FSTR
530 7AA5 20327B JSR MOVSTR
540 7AA8 202470 JSR JRANGE PARSE RANGE
550 7AAB 200370 JSR SCAN
560 7AAE 2C .BYTE ',','13 PARSE ',N"
560 7AAF 0D
570 7AB0 F00A BEQ FIND6
580 7AB2 205A70 JSR JGETNM

```

```

590 7AB5 D002      BNE FIND5
600 7AB7 A200      LDX #0           JUST COMMA: N=INFINITY
610 7AB9 8E7702    FIND5  STX FCNT
620 7ABC 202A70    FIND6  JSR JENDCM     CHK FOR END OF CMD
630 7ABF 202D70    JSR JPNT1      START OF RANGE
640 7AC2 F02A      BEQ FINDZ      NONE...
650 7AC4 201270    FIND3  JSR UNPACK     UNPACK LINE TO LBUF
660 7AC7 A982      LDA #LBUF*256/256
670 7AC9 853B      STA PSTR
680 7ACB A902      LDA #LBUF/256
690 7ACD 853C      STA PSTR+1
700 7ACF 203E7B    JSR SUBSTR     FIND SUBSTRING
710 7AD2 B007      BCS FOUND
720 7AD4 203070    FINDIT JSR JRXNXT     NEXT LINE IN RANGE
730 7AD7 90EB      BCC FIND3     MORE
740 7AD9 B013      BCS FINDZ     NO MORE
750 7ADB 204E70    FOUND  JSR JPRCUR     PRINT SUCCESSFUL FIND
760 7ADE 203090    JSR WMOVE     SAVE IT FOR CURRENT LINE
770 7AE1 31        .BYT LPTR,CTEMP1,0
770 7AE2 35
770 7AE3 00
780 7AE4 AD7702    LDA FCNT      TEST "N"
790 7AE7 F0EB      BEQ FINDIT    INFINITY...
800 7AE9 CE7702    DEC FCNT      ELSE COUNT DOWN
810 7AEC D0E6      BNE FINDIT
820 7AEE 203090    FINDZ  JSR WMOVE     RESTORE CURRENT LINE
830 7AF1 35        .BYT CTEMP1,LPTR,0
830 7AF2 31
830 7AF3 00
840 7AF4 4C2170    JMP COMMAN
850 7AF7 ;
860 7AF7 E627      INCNXT INC NXTCHR . INCREMENT NXTCHR
870 7AF9 D002      BNE INCRTS
880 7AFB E628      INC NXTCHR+1
890 7AFD 60        INCRTS RTS
900 7AFE ;-----
910 7AFE ; PARSTR  PARSE A STRING UP TO DELIMETER.
920 7AFE ;          STORE AT CSTR, ENDING WITH CR
930 7AFE ;-----
940 7AFE A000      PARSTR LDY #0
950 7B00 A200      LDX #0
960 7B02 B127      PARST1 LDA (NXTCHR),Y  MOVE A CHAR
970 7B04 9D4503    STA CSTR,X
980 7B07 E020      CPX #MFSTR
990 7B09 B019      BCS ERSTR     TOO LONG
1000 7B0B C90D      CMP #13
1010 7B0D F015      BEQ ERSTR     MISSING DELIM
1020 7B0F CD7D02    CMP DELIM
1030 7B12 F007      BEQ PARST2    DONE...
1040 7B14 E8        INX
1050 7B15 20F77A    JSR INCNXT    NEXT CHAR
1060 7B18 4C027B    JMP PARST1
1070 7B1B A90D      PARST2 LDA #13      PUT IN CR AT END
1080 7B1D 9D4503    STA CSTR,X
1090 7B20 20F77A    JSR INCNXT    SKIP OVER DELIM
1100 7B23 60        RTS
1110 7B24 ;
1120 7B24 201570    ERSTR  JSR ERRENT
1130 7B27 42        .BYT 'BAD STRING',0
1130 7B28 41
1130 7B29 44
1130 7B2A 20
1130 7B2B 53
1130 7B2C 54
1130 7B2D 52
1130 7B2E 49

```

```

1130 7B2F 4E
1130 7B30 47
1130 7B31 00
1140 7B32
1150 7B32 ; MOVSTR: MOVE CSTR TO FSTR
1160 7B32 ;
1170 7B32 A220 MOVSTR LDX #MFSTR
1180 7B34 BD4403 MOVSTL LDA CSTR-1,X
1190 7B37 9D2303 STA FSTR-1,X
1200 7B3A CA DEX
1210 7B3B D0F7 BNE MOVSTL
1220 7B3D 60 RTS
1230 7B3E ;-----
1240 7B3E ;
1250 7B3E ; SUBSTR FIND 1ST OCCURENCE OF FSTR IN STRING @PSTR
1260 7B3E ; BOTH STRINGS END WITH CR
1270 7B3E ; UPDATES PSTR TO POINT TO OCCURENCE (OR END)
1280 7B3E ; RETURN C IF FOUND, Y HAS LENGTH OF FSTR (W/O CR)
1290 7B3E ;
1300 7B3E ;-----
1310 7B3E A000 SUBSTR LDY #0
1320 7B40 A90D SUBSTL LDA #13
1330 7B42 D92403 CMP FSTR,Y
1340 7B45 F016 BEQ SUBSTS END OF FSTR: SUCCESS
1350 7B47 D13B CMP (PSTR),Y
1360 7B49 F014 BEQ SUBSTF END OF PSTR: FAILURE
1370 7B4B B92403 LDA FSTR,Y
1380 7B4E D13B CMP (PSTR),Y
1390 7B50 D003 BNE SUBSTI MISMATCH: TRY NEXT POSITION IN PSTR
1400 7B52 C8 INY
1410 7B53 D0EB BNE SUBSTL (UNC)
1420 7B55 E63B SUBSTI INC PSTR +PSTR
1430 7B57 D0E5 BNE SUBSTR
1440 7B59 E63C INC PSTR+1
1450 7B5B D0E1 BNE SUBSTR (UNC)
1460 7B5D 38 SUBSTS SEC
1470 7B5E 60 RTS
1480 7B5F 18 SUBSTF CLC
1490 7B60 60 RTS
1500 7B61 ;*****
1510 7B61 ;
1520 7B61 ; SET TABS N,N,N (UP TO 8)
1530 7B61 ;
1540 7B61 ;*****
1550 7B61 A900 SETABS LDA #0 TABS COUNTER
1560 7B63 48 PHA
1570 7B64 200670 SETABL JSR NUMBER
1580 7B67 F015 BEQ SETABZ NO MORE...
1590 7B69 68 PLA
1600 7B6A AA TAX
1610 7B6B A525 LDA GPPTR
1620 7B6D 9D6903 STA TABS,X STORE NEW TAB
1630 7B70 E8 INX
1640 7B71 E008 CPX #8
1650 7B73 F009 BEQ SETABZ DID 8...
1660 7B75 8A TXA
1670 7B76 48 PHA
1680 7B77 200370 JSR SCAN
1690 7B7A 2C .BYTE ', ',13
1690 7B7B 0D
1700 7B7C D0E6 BNE SETABL
1710 7B7E 202A70 SETABZ JSR JENDCM
1720 7B81 4C2170 JMP COMMAN
1730 7B84 ;*****
1740 7B84 ;
1750 7B84 ; RENUMBER (SIMPLE VERSION)

```

```

1760 7B84 ;
1770 7B84 ;*****
1780 7B84 203090 RENUM JSR WMOVE
1790 7B87 31 .BYTE LPTR,CTEMP1,STEXT,LPTR,0 SAVE LPTR & GO TO 1ST
LINE
1790 7B88 35
1790 7B89 29
1790 7B8A 31
1790 7B8B 00
1800 7B8C 200370 JSR SCAN "BY NNN"
1810 7B8F 42 .BYTE 'BY',13
1810 7B90 59
1810 7B91 0D
1820 7B92 D007 BNE RENUMN
1830 7B94 200370 JSR SCAN
1840 7B97 2C .BYT ', ',0
1840 7B98 00
1850 7B99 F007 BEQ RENUMD
1860 7B9B 205A70 RENUMN JSR JGETNM
1870 7B9E F038 BEQ ERROP
1880 7BA0 D004 BNE RENUMS HE GIVES IT...
1890 7BA2 A20A RENUMD LDX #10 DEFAULT IS 10
1900 7BA4 A000 LDY #0
1910 7BA6 8E7E02 RENUMS STX RENCUR
1920 7BA9 8C7F02 STY RENCUR+1
1930 7BAC 8E8002 STX RENINC
1940 7BAF 8C8102 STY RENINC+1
1950 7BB2 202A70 JSR JENDCM
1960 7BB5 203970 JSR JENDCK WHILE LPTR<ETEXT
1970 7BB8 F008 BEQ RENUMZ
1980 7BBA 20DB7B RENUML JSR NEWNUM DO NEW NUMBER
1990 7BBD 203370 JSR JNXTLN
2000 7BC0 D0F8 BNE RENUML
2010 7BC2 203090 RENUMZ JSR WMOVE RESTORE CURRENT LINE POINTER
2020 7BC5 35 .BYTE CTEMP1,LPTR,0
2020 7BC6 31
2020 7BC7 00
2030 7BC8 AD7E02 LDA RENCUR PRINT FINAL #
2040 7BCB 8511 STA $11
2050 7BCD AD7F02 LDA RENCUR+1
2060 7BD0 8512 STA $12
2070 7BD2 205490 JSR PRDECF
2080 7BD5 4C2170 JMP COMMAN
2090 7BD8 4C5770 ERROP JMP JEROP
2100 7BDB ;
2110 7BDB ; NEWNUM CHANGE THE LINE # OF @LPTR TO RENCUR
2120 7BDB ;
2130 7BDB A000 NEWNUM LDY #0
2140 7BDD AD7E02 LDA RENCUR
2150 7BE0 9131 STA (LPTR),Y
2160 7BE2 C8 INY
2170 7BE3 AD7F02 LDA RENCUR+1
2180 7BE6 9131 STA (LPTR),Y
2190 7BE8 18 CLC
2200 7BE9 AD7E02 LDA RENCUR RENCUR+:=RENINC
2210 7BEC 6D8002 ADC RENINC
2220 7BEF 8D7E02 STA RENCUR
2230 7BF2 AD7F02 LDA RENCUR+1
2240 7BF5 6D8102 ADC RENINC+1
2250 7BF8 8D7F02 STA RENCUR+1
2260 7BFB 60 RTS
2270 7BFC ;*****
2280 7BFC ;
2290 7BFC ; WINDOW W <LINE>!COUNT
2300 7BFC ;
2310 7BFC ; PRINT A WINDOW AROUND THE GIVEN LINE

```

```

2320 7BFC ;
2330 7BFC ;*****
2340 7BFC 203C70 WINDOW JSR JCHKCR OPERANDS?
2350 7BFF D00B BNE WINDRG YES: GET RANGE
2360 7C01 A90A LDA #10 NO: CNT=10
2370 7C03 8D7402 STA NCNT
2380 7C06 203970 JSR JENDCK DO END TEST ON CURRENT LINE
2390 7C09 4C1F7C JMP WINDTS AND START LOOP
2400 7C0C 202470 WINDRG JSR JRANGE PARSE LINE/COUNT
2410 7C0F AD7402 LDA NCNT IF NCNT=0, NCNT_10
2420 7C12 D005 BNE WINDGO
2430 7C14 A90A LDA #10
2440 7C16 8D7402 STA NCNT
2450 7C19 202A70 WINDGO JSR JENDCM CHK FOR END OF CMD
2460 7C1C 202D70 JSR JPNT1 POINT TO LINE
2470 7C1F F01C WINDTS BEQ WINDZ
2480 7C21 AD7402 LDA NCNT FCNT_NCNT/2
2490 7C24 4A LSR A
2500 7C25 8D7702 STA FCNT
2510 7C28 20857E WINDLP JSR PRVLIN BACKUP 'FCNT' LNES
2520 7C2B F005 BEQ WINDPR
2530 7C2D CE7702 DEC FCNT
2540 7C30 D0F6 BNE WINDLP
2550 7C32 204E70 WINDPR JSR JPRCUR PRINT 'NCNT' LINES
2560 7C35 203070 JSR JRXNT
2570 7C38 90F8 BCC WINDPR
2580 7C3A 203670 JSR JPRVLN LEAVE . AT LAST LINE
2590 7C3D 4C2170 WINDZ JMP COMMAN
2600 7C40 ;*****
2610 7C40 ;
2620 7C40 ; CHANGE COMMAND: CH /FROM/TO/<RANGE>
2630 7C40 ;
2640 7C40 ;*****
2650 7C40 20767E CHANGE JSR SKIPBL SKIP LEADING BLANKS
2660 7C43 A000 LDY #0
2670 7C45 B127 LDA (NXTCHR),Y GET DELIM
2680 7C47 8D7D02 STA DELIM
2690 7C4A C90D CMP #13
2700 7C4C D003 BNE *+5
2710 7C4E 4C247B JMP ERSTR
2720 7C51 20F77A JSR INCNXT SKIP DELIM
2730 7C54 20FE7A JSR PARSTR 1ST STRING TO FSTR
2740 7C57 20327B JSR MOVSTR
2750 7C5A AD2403 LDA FSTR
2760 7C5D C90D CMP #13 CAN'T BE NULL
2770 7C5F D003 BNE *+5
2780 7C61 4C247B JMP ERSTR
2790 7C64 20FE7A JSR PARSTR 2ND STRING TO CSTR
2800 7C67 202470 JSR JRANGE PARSE THE RANGE
2810 7C6A 202A70 JSR JENDCM CHK END OF CMD
2820 7C6D 202D70 JSR JPNT1 START OF RANGE
2830 7C70 F049 BEQ CHZ VOID...
2840 7C72 201270 CHLOOP JSR UNPACK UNPACK THE LINE TO LBUF
2850 7C75 A982 LDA #LBUF*256/256
2860 7C77 853B STA PSTR
2870 7C79 A902 LDA #LBUF/256
2880 7C7B 853C STA PSTR+1
2890 7C7D 20D17C JSR CHSTR FIND + CHANGE STRIG
2900 7C80 9034 BCC CHNXL NOTHING: DO NEXT LINE
2910 7C82 A000 CHCHKL LDY #0
2920 7C84 B98202 CH3 LDA LBUF,Y COMPUTE NEW LENGH
2930 7C87 C8 INY
2940 7C88 C90D CMP #13
2950 7C8A D0F8 BNE CH3
2960 7C8C C050 CPY #80
2970 7C8E B02E BCS ERLN TOO LONG...

```

```

2980 7C90 20D17C      JSR CHSTR    TRY MORE CHANGES
2990 7C93 B0ED        BCS CHCHKL  CONTINUE 'TIL NO MORE
3000 7C95 A000        LDY #0      SAVE LINE# AS NLOW
3010 7C97 B131        LDA (LPTR),Y
3020 7C99 8D7002      STA NLOW
3030 7C9C C8          INY
3040 7C9D B131        LDA (LPTR),Y
3050 7C9F 8D7102      STA NLOW+1
3060 7CA2 204870      JSR JDELIN  DELETE CURRENT LINE
3070 7CA5 A982        LDA #LBUF*256/256
3080 7CA7 8527        STA NXTCHR
3090 7CA9 A902        LDA #LBUF/256
3100 7CAB 8528        STA NXTCHR+1
3110 7CAD 204B70      JSR JINSLN  INSERT NEW LINE FROM LBUF
3120 7CB0 203670      JSR JPRVLN
3130 7CB3 204E70      JSR JPRCUR  PRINT IT
3140 7CB6 203070 CHNXL JSR JRXNXT  NEXT LINE OF RANGE
3150 7CB9 90B7        BCC CHLOOP  MORE...
3160 7CBB 4C2170 CHZ   JMP COMMAN
3170 7CBE           ;
3180 7CBE 201870 ERLN  JSR ER2ENT
3190 7CC1 4C          .BYT 'LINE > 80 CHARS',0
3190 7CC2 49
3190 7CC3 4E
3190 7CC4 45
3190 7CC5 20
3190 7CC6 3E
3190 7CC7 20
3190 7CC8 38
3190 7CC9 30
3190 7CCA 20
3190 7CCB 43
3190 7CCC 48
3190 7CCD 41
3190 7CCE 52
3190 7CCF 53
3190 7CD0 00
3200 7CD1           ; -----
3210 7CD1           ; CHSTR    CHANGE 1ST OCCURRENCE OF FSTR TO CSTR
3220 7CD1           ;          IN @PSTR  (EACH ENDS WITH CR.)
3230 7CD1           ;          RET C IF CHANGED, WITH PSTR POINTING
3240 7CD1           ;          TO AFTER THE CHANGED PIECE.
3250 7CD1           ; -----
3260 7CD1 203E7B CHSTR JSR SUBSTR  FIND SUBSTRING
3270 7CD4 9060      BCC CHSTRZ  NONE-EXIT
3280 7CD6 A200      LDX #0      REMOVE OLD STRING
3290 7CD8 8633      STX ZTEMP
3300 7CDA 8434      STY ZTEMP+1
3310 7CDC A434      CHSTR1 LDY ZTEMP+1  BY MOVING TAIL OF TEXT
3320 7CDE B13B      LDA (PSTR),Y
3330 7CE0 A433      LDY ZTEMP
3340 7CE2 913B      STA (PSTR),Y
3350 7CE4 E633      INC ZTEMP
3360 7CE6 E634      INC ZTEMP+1
3370 7CE8 C90D      CMP #13
3380 7CEA D0F0      BNE CHSTR1
3390 7CEC A0FF      LDY #FF     COMPUTE LENGTH OF CSTR
3400 7CEE C8        CHSTR2 INY
3410 7CEF B94503     LDA CSTR,Y
3420 7CF2 C90D      CMP #13
3430 7CF4 D0F8      BNE CHSTR2
3440 7CF6 98        TYA
3450 7CF7 F03D      BEQ CHSTRZ  NULL REPLACEMENT: EXIT
3460 7CF9 8D6603     STA CHLEN  SAVE LENGTH
3470 7CFC A0FF      LDY #FF     FIND END OF PSTR
3480 7CFE C8        CHSTR3 INY

```

```

3490 3CFF B13B          LDA (PSTR),Y
3500 7D01 C90D          CMP #13
3510 7D03 D0F9          BNE CHSTR3
3520 7D05 98            TYA
3530 7D06 18            CLC
3540 7D07 6D6603        ADC CHLEN      NEW END OF PSTR
3550 7D0A 8533          STA ZTEMP
3560 7D0C C8            INY
3570 7D0D 88            CHSTR4 DEY          OPEN A GAP IN PSTR
3580 7D0E B13B          LDA (PSTR),Y
3590 7D10 8434          STY ZTEMP+1
3600 7D12 A433          LDY ZTEMP
3610 7D14 913B          STA (PSTR),Y
3620 7D16 88            DEY
3630 7D17 8433          STY ZTEMP
3640 7D19 A434          LDY ZTEMP+1
3650 7D1F D0F0          BNE CHSTR4
3660 7D1D B94503        CHSTR5 LDA CSTR,Y    MOVE IN REPLACEMENT
3670 7D20 C90D          CMP #13
3680 7D22 F005          BEQ CHSTR6
3690 7D24 913B          STA (PSTR),Y
3700 7D26 C8            INY
3710 7D27 D0F4          BNE CHSTR5 (UNC)
3720 7D29 18            CHSTR6 CLC          UPDATE PSTR BY LENGTH OF REPL
3730 7D2A 98            TYA
3740 7D2B 653B          ADC PSTR
3750 7D2D 853B          STA PSTR
3760 7D2F A53C          LDA PSTR+1
3770 7D31 6900          ADC #0
3780 7D33 853C          STA PSTR+1
3790 7D35 38            SEC          RETURN C
3800 7D36 60            CHSTRZ RTS
3810 7D37 4C5770        ERROP2 JMP JEROP
3820 7D3A                ;*****
3830 7D3A                ;
3840 7D3A                ; COPY/MOVE COMMAND
3850 7D3A                ;
3860 7D3A                ; C <RANGE> TO <NUMBER>
3870 7D3A                ; M <RANGE> TO <NUMBER>
3880 7D3A                ;
3890 7D3A                ;*****
3900 7D3A A900          COPY  LDA #0
3910 7D3C F002          BEQ COPYM
3920 7D3E A901          MOVE  LDA #1
3930 7D40 8D7602        COPYM STA MOVFLG    SET COPY/MOVE FLAG
3940 7D43 202470        JSR J RANGE   SET NHIGH,NLOW,NCNT
3950 7D46 200370        JSR SCAN
3960 7D49 54            .BYT 'TO',13  'TO' OR COMMA
3960 7D4A 4F
3960 7D4B 0D
3970 7D4C D007          BNE COPY1
3980 7D4E 200370        JSR SCAN
3990 7D51 2C            .BYT ', ',0
3990 7D52 00
4000 7D53 F0E2          BEQ ERROP2
4010 7D55 202770        COPY1 JSR JNUMDT
4020 7D58 F0DD          BEQ ERROP2
4030 7D5A 8635          STX CTEMP1
4040 7D5C 8436          STY CTEMP1+1
4050 7D5E 202D70        JSR JPNT1    1ST LINE OF RANGE
4060 7D61 D003          BNE *+5
4070 7D63 4C5170        JMP JERVOI
4080 7D66 203090        JSR WMOVE
4090 7D69 31            .BYT LPTR,BPTR,0  SAVE START OF RANGE
4090 7D6A 2F
4090 7D6B 00

```

```

4100 7D6C 203070 COPY2 JSR JRANXT SEARCH FOR END OF RANGE
4110 7D6F 90FB BCC COPY2
4120 7D71 203090 JSR WMOVE
4130 7D74 31 .BYT LPTR,CTEMP2,0
4130 7D75 37
4130 7D76 00
4140 7D77 A535 LDA CTEMP1
4150 7D79 8D7002 STA NLOW
4160 7D7C A536 LDA CTEMP1+1
4170 7D7E 8D7102 STA NLOW+1
4180 7D81 203F70 JSR JINSCK FIND PLACE TO INSERT
4190 7D84 9003 BCC *+5
4200 7D86 4C5470 JMP JERLEX
4210 7D89 ; THE BLOCK FROM BPTR TO CTEMP2 IS TO MOVE TO LPTR.
4220 7D89 38 SEC GLEN=CTEMP2-BPTR (SIZE OF BLK)
4230 7D8A A537 LDA CTEMP2
4240 7D8C E52F SBC BPTR
4250 7D8E 853B STA GLEN
4260 7D90 A538 LDA CTEMP2+1
4270 7D92 E530 SBC BPTR+1
4280 7D94 853C STA GLEN+1
4290 7D96 ; IF LPTR>=BPTR AND LPTR<CTEMP2, THEN ERROR
4300 7D96 38 SEC
4310 7D97 A531 LDA LPTR
4320 7D99 E52F SBC BPTR
4330 7D9B A532 LDA LPTR+1
4340 7D9D E530 SBC BPTR+1
4350 7D9F 900D BCC COPY6
4360 7DA1 A531 LDA LPTR
4370 7DA3 E537 SBC CTEMP2
4380 7DA5 A532 LDA LPTR+1
4390 7DA7 E538 SBC CTEMP2+1
4400 7DA9 B01B BCS COPY7
4410 7DAB 4C647E JMP EROVLP
4420 7DAE ; IF LPTR<BPTR THEN ADD GLEN TO BPTR AND CTEMP2
4430 7DAE ; BECAUSE BLOCK TO MOVE WILL SHIFT WHEN GAP IS OPENED.
4440 7DAE A52F COPY6 LDA BPTR (C IS CLR)
4450 7DB0 653B ADC GLEN
4460 7DB2 852F STA BPTR
4470 7DB4 A530 LDA BPTR+1
4480 7DB6 653C ADC GLEN+1
4490 7DB8 8530 STA BPTR+1
4500 7DBA A537 LDA CTEMP2
4510 7DBC 653B ADC GLEN
4520 7DBE 8537 STA CTEMP2
4530 7DC0 A538 LDA CTEMP2+1
4540 7DC2 653C ADC GLEN+1
4550 7DC4 8538 STA CTEMP2+1
4560 7DC6 203090 COPY7 JSR WMOVE SAVE PTR FOR DELETE
4570 7DC9 2F .BYT BPTR,CTEMP3,0
4570 7DCA 39
4570 7DCB 00
4580 7DCC 204270 JSR JGOPEN OPEN A GAP AT LPTR
4590 7DCF 203090 JSR WMOVE
4600 7DD2 31 .BYT LPTR,CTEMP1,0
4600 7DD3 35
4600 7DD4 00
4610 7DD5 ; MOVE [BPTR TO CTEMP2) TO CTEMP1
4620 7DD5 A000 COPY3 LDY #0
4630 7DD7 B12F LDA (BPTR),Y @CTEMP1=@BPTR
4640 7DD9 9135 STA (CTEMP1),Y
4650 7ddb A22F LDX #BPTR +BPTR
4660 7ddd 20CF7E JSR INCW
4670 7DE0 A235 LDX #CTEMP1 +CTEMP1
4680 7DE2 20CF7E JSR INCW
4690 7DE5 A52F LDA BPTR BPTR=CTEMP2?

```

```

4700 7DE7 C537      CMP CTEMP2
4710 7DE9 D0EA      BNE COPY3
4720 7DEB A530      LDA BPTR+1
4730 7DED C538      CMP CTEMP2+1
4740 7DEF D0E4      BNE COPY3
4750 7DF1          ; PUT IN LINE NUMBERS FROM LPTR TO CTEMP1,
4760 7DF1          ; BY 1, STARTING WITH NLOW
4770 7DF1 A000      COPY4  LDY #0
4780 7DF3 AD7002      LDA NLOW
4790 7DF6 9131      STA (LPTR),Y
4800 7DF8 C8        INY
4810 7DF9 AD7102      LDA NLOW+1
4820 7DFC 9131      STA (LPTR),Y
4830 7DFE EE7002      INC NLOW
4840 7E01 D003      BNE COPY5
4850 7E03 EE7102      INC NLOW+1
4860 7E06 203370     COPY5  JSR JNXTLN
4870 7E09 A531      LDA LPTR
4880 7E0B C535      CMP CTEMP1
4890 7E0D D0E2      BNE COPY4
4900 7E0F A532      LDA LPTR+1
4910 7E11 C536      CMP CTEMP1+1
4920 7E13 D0DC      BNE COPY4
4930 7E15          ; ISSUE WARNING IF NEXT LINE NUMBER IS SMALLER
4940 7E15 203970     JSR JENDCK
4950 7E18 F037      BEQ COPYZ      CAN'T HAPPEN AT END
4960 7E1A A000      LDY #0
4970 7E1C 38        SEC              COMPUTE NEXTLINE-NLOW
4980 7E1D B131      LDA (LPTR),Y
4990 7E1F ED7002     SBC NLOW
5000 7E22 C8        INY
5010 7E23 B131      LDA (LPTR),Y
5020 7E25 ED7102     SBC NLOW+1
5030 7E28 B027      BCS COPYZ      GE: OK
5040 7E2A          ;
5050 7E2A 204890     JSR PRSTR
5060 7E2D 0D        .BYT 13,'WARNING: LINE NUMBERS OUT OF ORDER',0
5060 7E2E 57
5060 7E2F 41
5060 7E30 52
5060 7E31 4E
5060 7E32 49
5060 7E33 4E
5060 7E34 47
5060 7E35 3A
5060 7E36 20
5060 7E37 4C
5060 7E38 49
5060 7E39 4E
5060 7E3A 45
5060 7E3B 20
5060 7E3C 4E
5060 7E3D 55
5060 7E3E 4D
5060 7E3F 42
5060 7E40 45
5060 7E41 52
5060 7E42 53
5060 7E43 20
5060 7E44 4F
5060 7E45 55
5060 7E46 54
5060 7E47 20
5060 7E48 4F
5060 7E49 46
5060 7E4A 20

```

```

5060 7E4B 4F
5060 7E4C 52
5060 7E4D 44
5060 7E4E 45
5060 7E4F 52
5060 7E50 00
5070 7E51 ;
5080 7E51 AD7602 COPYZ LDA MOVFLG
5090 7E54 F00B BEQ MOVEZ EXIT IF COPY
5100 7E56 203090 JSR WMOVE
5110 7E59 39 .BYT CTEMP3,BPTR,CTEMP2,LPTR,0
5110 7E5A 2F
5110 7E5B 37
5110 7E5C 31
5110 7E5D 00
5120 7E5E 204570 JSR JGCLOS DELETE SOURCE RANGE
5130 7E61 4C2170 MOVEZ JMP COMMAN
5140 7E64 201870 EROVLP JSR ER2ENT
5150 7E67 52 .BYT 'RANGE OVERLAPS',0
5150 7E68 41
5150 7E69 4E
5150 7E6A 47
5150 7E6B 45
5150 7E6C 20
5150 7E6D 4F
5150 7E6E 56
5150 7E6F 45
5150 7E70 52
5150 7E71 4C
5150 7E72 41
5150 7E73 50
5150 7E74 53
5150 7E75 00
5160 7E76 ;-----
5170 7E76 ; SKIPBK SKIP BLANKS
5180 7E76 ;-----
5190 7E76 A000 SKIPBL LDY #0
5200 7E78 B127 LDA (NXTCHR),Y
5210 7E7A C920 CMP #
5220 7E7C D006 BNE SKIPBZ
5230 7E7E 20F77A JSR INCNXT
5240 7E81 4C767E JMP SKIPBL
5250 7E84 60 SKIPBZ RTS
5260 7E85 ;-----
5270 7E85 ;
5280 7E85 ; PRVLIN POINT TO PREVIOUS LINE
5290 7E85 ; RET EQ IF ALREADY AT START
5300 7E85 ; (THIS IS SOMEWHAT HEURISTIC DUE TO THE POSSIBILITY OF CR'S
5310 7E85 ; IN THE LINE NUMBER, AND ON RARE OCCASIONS WILL BACK UP
5320 7E85 ; 2 OR MORE LINES.)
5330 7E85 ;
5340 7E85 ;-----
5350 7E85 20D67E PRVLIN JSR STRTST
5360 7E88 F035 BEQ PRVLIZ RET IF START
5370 7E8A 20C07E JSR PRVBKP -LPTR
5380 7E8D D06C BNE UGH1 NOT CR: INTERNAL ERROR
5390 7E8F 20D67E PRVLIL JSR STRTST
5400 7E92 F02B BEQ PRVLIZ RET IF START
5410 7E94 20C07E JSR PRVBKP BACKUP
5420 7E97 D0F6 BNE PRVLIL UNTIL CR
5430 7E99 ; SAVE THIS PTR AND CHECK THAT NEITHER OF THE PREVIOUS TWO
5440 7E99 ; CHARACTERS ARE CR. IF SO, THIS CANNOT BE A LINE NUMBER.
5450 7E99 203090 PRVSAV JSR WMOVE
5460 7E9C 31 .BYTE LPTR,ZTEMP,0
5460 7E9D 33
5460 7E9F 00

```

```

5470 7E9F 20D67E JSR STRTST
5480 7EA2 F01B BEQ PRVLIZ
5490 7EA4 20C07E JSR PRVBKP CHECK 1 BEFORE
5500 7EA7 F0F0 BEQ PRVSAV CR: BACKUP MORE
5510 7EA9 20D67E JSR STRTST
5520 7EAC F011 BEQ PRVLIZ
5530 7EAE 20C07E JSR PRVBKP CHECK 2 BEFORE
5540 7EB1 F0E6 BEQ PRVSAV CR: BACKUP MORE
5550 7EB3 203090 JSR WMOVE RESTORE PTR
5560 7EB6 33 .BYTE ZTEMP,LPTR,0
5560 7EB7 31
5560 7EB8 00
5570 7EB9 E631 INC LPTR
5580 7EBB D002 BNE PRVLIZ
5590 7EBD E632 INC LPTR+1
5600 7EBF 60 PRVLIZ RTS RETURN Z/NZ
5610 7EC0 ;
5620 7EC0 A531 PRVBKP LDA LPTR -LPTR
5630 7EC2 D002 BNE PRVBK2
5640 7EC4 C632 DEC LPTR+1
5650 7EC6 C631 PRVBK2 DEC LPTR
5660 7EC8 A000 LDY #0
5670 7ECA B131 LDA (LPTR),Y
5680 7ECC C90D CMP #13 CHECK AG. CR
5690 7ECE 60 RTS
5700 7ECF ;-----
5710 7ECF ; INCREMENT PAGE 0 WORD, OFFSET IN X
5720 7ECF ;-----
5730 7ECF F600 INCW INC 0,X
5740 7ED1 D002 BNE INCWZ
5750 7ED3 F601 INC 1,X
5760 7ED5 60 INCWZ RTS
5770 7ED6 ;-----
5780 7ED6 ; STRTST TEST IF LPTR=STEXT, SET EQ
5790 7ED6 ; ABORT WITH ERROR IF LPTR<STEXT
5800 7ED6 ;-----
5810 7ED6 A532 STRTST LDA LPTR+1
5820 7ED8 C52A CMP STEXT+1
5830 7EDA F003 BEQ STRTSE
5840 7EDC 9009 BCC UGH2
5850 7EDE 60 STRTSZ RTS
5860 7EDF A531 STRTSE LDA LPTR
5870 7EE1 C529 CMP STEXT
5880 7EE3 F0F9 BEQ STRTSZ
5890 7EE5 B0F7 BCS STRTSZ
5900 7EE7 201870 UGH2 JSR ER2ENT
5910 7EEA 49 .BYTE 'INTERNAL ERROR 2',0
5910 7EEB 4E
5910 7EEC 54
5910 7EED 45
5910 7EEE 52
5910 7EEF 4E
5910 7EF0 41
5910 7EF1 4C
5910 7EF2 20
5910 7EF3 45
5910 7EF4 52
5910 7EF5 52
5910 7EF6 4F
5910 7EF7 52
5910 7EF8 20
5910 7EF9 32
5910 7EFA 00
5920 7EFB ;
5930 7EFB 201870 UGH1 JSR ER2ENT
5940 7EFE 49 .BYTE 'INTERNAL ERROR 1',0

```

5940 7EFF 4E
5940 7F00 54
5940 7F01 45
5940 7F02 52
5940 7F03 4E
5940 7F04 41
5940 7F05 4C
5940 7F06 20
5940 7F07 45
5940 7F08 52
5940 7F09 52
5940 7F0A 4F
5940 7F0B 52
5940 7F0C 20
5940 7F0D 31
5940 7F0E 00