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10 0000 ;*****
20 0000 ;
30 0000 ; NESTAR TEXT EDITOR
40 0000 ;
50 0000 ; MAINLINE ROUTINES
60 0000 ;
70 0000 ; L J SHUSTEK, APRIL 1979
80 0000 ;
90 0000 ;*****
100 0000 ; COPYRIGHT 1979,1980 NESTAR SYSTEMS, INC.
110 0000 ;
120 7000 *=START
130 7000 4CFB73 JMP INIT
140 7021 *=COMMAN
150 7021 4C4D74 JMP CMDS
160 7024 *=JRANGE
170 7024 4C9D76 JMP RANGE
180 7027 *=JNUMDT
190 7027 4CF976 JMP NUMDOT
200 702A *=JENDCM
210 702A 4C5877 JMP ENDCMD
220 702D *=JPNT1
230 702D 4C7277 JMP PNT1
240 7030 *=JRXNT
250 7030 4CB977 JMP RANXNT
260 7033 *=JNXTLN
270 7033 4C9E77 JMP NXTLN
280 7039 *=JENDCK
290 7039 4CE177 JMP ENDTST
300 703F *=JINSCK
310 703F 4CF275 JMP INSCHK
320 7042 *=JGOPEN
330 7042 4C3D78 JMP GOPEN
340 7045 *=JGCLOS
350 7045 4C0E78 JMP GCLOSE
360 704E *=JPRCUR
370 704E 4C6376 JMP PRCUR
380 7051 *=JERVOI
390 7051 4C8079 JMP ERVOID
400 7057 *=JEROP
410 7057 4C7179 JMP EROP
420 705A *=JGETNM
430 705A 4C4B77 JMP GETNUM
440 703C *=JCHKCR
450 703C 4C6B77 JMP CHKCR
460 7054 *=JERLEX
470 7054 4CCF79 JMP ERLEX
480 7048 *=JDELIN
490 7048 4CE675 JMP DELLIN
500 704E *=JINSLN
510 704E 4C1476 JMP INSERT
520 73FB *=BMAIN
530 73FB ;*****
540 73FB ;
550 73FB ; INITIALIZATION
560 73FB ;
570 73FB ;*****
580 73FB 204890 INIT JSR PRSTR
590 73FE 0D .BYT 13,18,'EDITOR',0
590 73FF 12
590 7400 45
590 7401 44

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590 7402 49
590 7403 54
590 7404 4F
590 7405 52
590 7406 00
600 7407 AD4CE8      LDA 59468  SET LOWER CASE MODE
610 740A 0902      ORA #02
620 740C 8D4CE8      STA 59468
630 740F A916      LDA #TEXTB/256
640 7411 852A      STA STEXT+1      START OF TEXT BUFFER
650 7413 A900      LDA #TEXTB*256/256
660 7415 8529      STA STEXT
670 7417 A96F      LDA #TEXTE/256
680 7419 852E      STA ZTEXT+1      END OF TEXT BUFFER
690 741B A9FF      LDA #TEXTE*256/256
700 741D 852D      STA ZTEXT
710 741F 203090     JSR WMOVE
720 7422 29        .BYT STEXT,LPTR,0
720 7423 31
720 7424 00
730 7425 ADFE12     LDA $12FE  KLUDGE: USE ASM'S END OF TEXT POINTER
740 7428 852B      STA ETEXT
750 742A ADFF12     LDA $12FF
760 742D 852C      STA ETEXT+1
770 742F A900      LDA #0     DEFAULT CASE IS UPPER
780 7431 8D6703     STA CASE
790 7434 8D7B02     STA AUTINC+1    AUTO DEFAULTS
800 7437 8D7902     STA AUTCUR+1
810 743A A90A      LDA #10
820 743C 8D7A02     STA AUTINC
830 743F 8D7802     STA AUTCUR
840 7442 A208      LDX #8     SET DEFAULT TABS
850 7444 BD017A     INITAB LDA TABDFL-1,X
860 7447 9D6803     STA TABS-1,X
870 744A CA        DEX
880 744B D0F7      BNE INITAB
890 744D          ;*****
900 744D          ;
910 744D          ;  COMMAND SCANNER
920 744D          ;
930 744D          ;*****
940 744D A90D      CMDS  LDA #13  PROMPT A CR
950 744F 204B90     JSR PRCHAR
960 7452 200C70     JSR RDLINE
970 7455 A52B      CMDSCN LDA ETEXT  KLUDGE: STORE ASM'S END OF TEXT POINTER
980 7457 8DFE12     STA $12FE
990 745A A52C      LDA ETEXT+1
1000 745C 8DFF12    STA $12FF
1010 745F 205E77    JSR SKIPBL  SKIP BLANK, IF ANY
1020 7462 206B77    JSR CHKCR
1030 7465 F0E6      BEQ CMDS  NULL CMD...
1040 7467          ;
1050 7467 200370     JSR SCAN
1060 746A 50        .BYT 'P',13      POINT
1060 746B 0D
1070 746C F003      BEQ *+5
1080 746E 4C1475    JMP POINT
1090 7471 200370     JSR SCAN
1100 7474 44        .BYT 'D',13      DELETE
1100 7475 0D
1110 7476 F003      BEQ *+5
1120 7478 4C7875    JMP DELETE
1130 747B 200370     JSR SCAN
1140 747E 52        .BYT 'R',13      RENUMBER
1140 747F 0D
1150 7480 F003      BEQ *+5

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1160	7482	4C6370		JMP JRENUM	
1170	7485	200370		JSR SCAN	
1180	7488	46	.BYT 'F',13		FIND
1180	7489	0D			
1190	748A	F003		BEQ *+5	
1200	748C	4C6070		JMP JFIND	
1210	748F	200370		JSR SCAN	
1220	7492	43	.BYT 'C',13		COPY
1220	7493	0D			
1230	7494	F003		BEQ *+5	
1240	7496	4C6970		JMP JCOPY	
1250	7499	200370		JSR SCAN	
1260	749C	4D	.BYT 'M',13		MOVE
1260	749D	0D			
1270	749E	F003		BEQ *+5	
1280	74A0	4C6F70		JMP JMOVE	
1290	74A3	200370		JSR SCAN	
1300	74A6	57	.BYT 'W',13		WINDOW
1300	74A7	0D			
1310	74A8	F003		BEQ *+5	
1320	74AA	4C6670		JMP JWINDO	
1330	74AD	200370		JSR SCAN	
1340	74B0	41	.BYT 'ASM',13		ASM
1340	74B1	53			
1340	74B2	4D			
1340	74B3	0D			
1350	74B4	F003		BEQ *+5	
1360	74B6	4C6011		JMP \$1160	
1370	74B9	200370		JSR SCAN	
1380	74BC	43	.BYT 'CH',13		CHANGE
1380	74BD	48			
1380	74BE	0D			
1390	74BF	F003		BEQ *+5	
1400	74C1	4C6C70		JMP JCHNGE	
1410	74C4	200370		JSR SCAN	
1420	74C7	4E	.BYT 'NEW',13		NEW
1420	74C8	45			
1420	74C9	57			
1420	74CA	0D			
1430	74CB	F003		BEQ *+5	
1440	74CD	4C6F75		JMP NEW	
1450	74D0	200370		JSR SCAN	
1460	74D3	4E	.BYT 'N',13		NEXT
1460	74D4	0D			
1470	74D5	F003		BEQ *+5	
1480	74D7	4C4775		JMP NEXT	
1490	74DA	200370		JSR SCAN	
1500	74DD	41	.BYT 'A',13		AUTO
1500	74DE	0D			
1510	74DF	F003		BEQ *+5	
1520	74E1	4C8C78		JMP AUTO	
1530	74E4	200370		JSR SCAN	
1540	74E7	43	.BYT 'CASE',13		CASE
1540	74E8	41			
1540	74E9	53			
1540	74EA	45			
1540	74EB	0D			
1550	74EC	F003		BEQ *+5	
1560	74EE	4C6679		JMP CHCASE	
1570	74F1	200370		JSR SCAN	
1580	74F4	54	.BYT 'TABS',13		TABS
1580	74F5	41			
1580	74F6	42			
1580	74F7	53			
1580	74F8	0D			
1590	74F9	F003		BEQ *+5	

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1600 74FB 4C5D70      JMP JSETAB
1610 74FE 200370      JSR SCAN
1620 7501 58          .BYT 'X',13
1620 7502 0D
1630 7503 D00B          BNE XIT
1640 7505 204B77      JSR GETNUM
1650 7508 F003          BEQ *+5
1660 750A 4CB675      JMP NNNN
1670 750D 4CDE79      JMP ERWHAT
1680 7510
1690 7510 00          XIT BRK XIT TO MONITOR
1700 7511 4CFB73      JMP INIT
1710 7514
1720 7514
1730 7514          ; PRINT <RANGE>
1740 7514
1750 7514
1760 7514 209D76      POINT JSR RANGE PARSE RANGE
1770 7517 A900          LDA #0
1780 7519 853D          STA LSTFLG FLAG "NUMBERED"
1790 751B 200370      JSR SCAN
1800 751E 2C          .BYT ',UNN',13
1800 751F 55
1800 7520 4E
1800 7521 4E
1800 7522 0D
1810 7523 F002          BEQ POINT1
1820 7525 E63D          INC LSTFLG FLAG "UNNUMBERED"
1830 7527 205877      POINT1 JSR ENDCMD CHECK FOR END OF CMD
1840 752A 207277      JSR PNT1 POINT TO 1ST LINE
1850 752D F012          BEQ BACKUP
1860 752F A53D          PNTLP LDA LSTFLG
1870 7531 F006          BEQ PNTLIN NUMBERED...
1880 7533 205676      JSR PRCUR UNNUMBERED
1890 7536 4C3C75      JMP PNTNXT
1900 7539 206376      PNTLIN JSR PRCUR PRINT CURRENT LINE
1910 753C 20B977      PNTNXT JSR RANNXT NEXT LINE IN RANGE
1920 753F 90EE          BCC PNTLP MORE...
1930 7541 203670      BACKUP JSR JPRVLN BACKUP 1 LINE
1940 7544 4C4D74      JMP CMDS
1950 7547
1960 7547
1970 7547          ; NEXT <N>
1980 7547
1990 7547
2000 7547 A901          NEXT LDA #1
2010 7549 8D7402      STA NCNT DEFAULT IS 1 LINE
2020 754C 206B77      JSR CHKCR
2030 754F F00E          BEQ NEXTLP
2040 7551 204B77      JSR GETNUM
2050 7554 D003          BNE *+5
2060 7556 4C7179      JMP EROP
2070 7559 8E7402      STX NCNT
2080 755C 205877      JSR ENDCMD
2090 755F 209E77      NEXTLP JSR NXTLIN
2100 7562 F008          BEQ NEXTZ
2110 7564 206376      JSR PRCUR
2120 7567 CE7402      DEC NCNT
2130 756A D0F3          BNE NEXTLP
2140 756C 4C4D74      NEXTZ JMP CMDS
2150 756F
2160 756F
2170 756F          ; NEW
2180 756F
2190 756F
2200 756F 203090      NEW JSR WMOVE

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2212 7572 29          .BYT STEXT,ETEXT,Ø NO TEXT
2210 7573 2B
2210 7574 00
2220 7575 4C4D74      JMP CMDS
2230 7578            ;*****
2240 7578            ;
2250 7578            ;  DELETE <RANGE> [,N]
2260 7578            ;
2270 7578            ;*****
2280 7578 206B77      DELETE JSR CHKCR
2290 757B F036          BEQ ERRVOI  DISALLOW NULL RANGE
2300 757D 209D76      JSR RANGE  PARSE RANGE
2310 7580 A901          LDA #1
2320 7582 853D          STA LSTFLG  'PRINT'
2330 7584 200370      JSR SCAN
2340 7587 2C            .BYTE ',N',13
2340 7588 4E
2340 7589 0D
2350 758A F002          BEQ DELET1
2360 758C C63D          DEC LSTFLG  'NOPRINT'
2370 758E 205877      DELET1 JSR ENDCMD  CHK FOR END OF CMD
2380 7591 207277      JSR PNT1   1ST LINE OF RANGE
2390 7594 F01D          BEQ ERRVOI  NONE...
2400 7596 20CD77      JSR RANCHK
2410 7599 B018          BCS ERRVOI  PAST RANGE...
2420 759B 203090      JSR WMOVE
2430 759E 31            .BYTE LPTR,BPTR,Ø  SAVE START
2430 759F 2F
2430 75A0 00
2440 75A1 A53D          DELET2 LDA LSTFLG
2450 75A3 F003          BEQ DELET3
2460 75A5 206376      JSR PRCUR  OPTIONAL PRINT
2470 75A8 20B977      DELET3 JSR RANNXT  NEXT LINE IN RANGE
2480 75AB 90F4          BCC DELET2  CONTINUE TO END OF RANGE
2490 75AD 200E78      JSR GCLOSE  CLOSE GAP FROM BPTR TO LPTR
2500 75B0 4C4175      JMP BACKUP
2510 75B3 4C8079      ERRVOI JMP ERVOID  VOID RANGE
2520 75B6            ;*****
2530 75B6            ;
2540 75B6            ;  <NNN> LINE NUMBER INSERT/DELETE
2550 75B6            ;
2560 75B6            ;*****
2570 75B6 8E7002      NNNN  STX NLOW  SAVE LINE #
2580 75B9 8C7102      STY NLOW+1
2590 75BC 206B77      JSR CHKCR
2600 75BF F011          BEQ NNDEL  CR: DELETE
2610 75C1 205E77      JSR SKIPBL  SKIP BLANK, IF ANY
2620 75C4 20F275      JSR INSCHK  OK TO INSERT?
2630 75C7 B014          BCS NNREP  NO: REPLACE
2640 75C9 201476      NNINS  JSR INSERT  INSERT IT
2650 75CC 203670      JSR JPRVLN  BACKUP CURRENT LINE TO IT
2660 75CF 4C4D74      JMP CMDS
2670 75D2 20F275      NNDEL  JSR INSCHK  EXISTS?
2680 75D5 900C          BCC ERRNSL  NO SUCH LNE
2690 75D7 20E675      JSR DELLIN  DELETE IT
2700 75DA 4C4D74      JMP CMDS
2710 75DD 20E675      NNREP  JSR DELLIN
2720 75E0 4CC975      JMP NNINS
2730 75E3 4CBF79      ERRNSL JMP ERNSL  NO SUCH LINE
2740 75E6            ;
2750 75E6            ;  DELLIN: DELETE THE LINE AT LPTR
2760 75E6            ;
2770 75E6 203090      DELLIN JSR WMOVE  SAVE START
2780 75E9 31            .BYTE LPTR,BPTR,Ø
2780 75EA 2F
2780 75EB 00

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2790 75EC 209E77 JSR NXTLIN POINT TO THE NEXT LINE
2800 75EF 4C0E78 JMP GCLOSE CLOSE THE GAP + RETURN
2810 75F2 ;
2820 75F2 ; INSCHK CHK IF OK TO INSERT LINE 'NLOW'.
2830 75F2 ; SET LPTR TO LINE BEFORE WHICH TO INSERT
2840 75F2 ; RETURN BCC IF OK, BCS IF NOT
2850 75F2 ;
2860 75F2 AD7002 INSCHK LDA NLOW
2870 75F5 0D7102 ORA NLOW+1
2880 75F8 F018 BEQ INSCHG ZERO IS ALWAYS OK
2890 75FA 207277 JSR PNT1 FIND LINE OR NEXT
2900 75FD F013 BEQ INSCHG OK IF OFF END OF TEXT
2910 75FF A000 LDY #0
2920 7601 B131 LDA (LPTR),Y
2930 7603 CD7002 CMP NLOW IF NOT SAME NUMBER, OK
2940 7606 D00A BNE INSCHG
2950 7608 C8 INY
2960 7609 B131 LDA (LPTR),Y
2970 760B CD7102 CMP NLOW+1
2980 760E D002 BNE INSCHG
2990 7610 38 SEC LINE EXISTS: NG
3000 7611 60 RTS
3010 7612 18 INSCHG CLC OK
3020 7613 60 RTS
3030 7614 ;
3040 7614 ; INSERT INSERT THE LINE 'NLOW' AT LPTR
3050 7614 ; LPTR IS UPDATED TO POINT TO THE NEXT LINE
3060 7614 ; TEXT IS TAKEN FROM (NXTCHR) AND SHOULD END WITH CR
3070 7614 ;
3080 7614 200F70 INSERT JSR PACK PACK IT AT NXTCHR
3090 7617 A000 LDY #0 FIND LENGTH, INCL. CR
3100 7619 B127 INSL1 LDA (NXTCHR),Y
3110 761B C8 INY
3120 761C C90D CMP #13
3130 761E D0F9 BNE INSL1
3140 7620 8C7C02 STY INSLN SAVE LENGTH
3150 7623 C8 INY ADD 2 FOR 'LINE#'
3160 7624 C8 INY
3170 7625 843B STY GLEN OPEN A GAP
3180 7627 A900 LDA #0
3190 7629 853C STA GLEN+1
3200 762B 203D78 JSR GOPEN
3210 762E A000 LDY #0 STORE LINE #
3220 7630 AD7002 LDA NLOW
3230 7633 9131 STA (LPTR),Y
3240 7635 A231 LDX #LPTR
3250 7637 20F577 JSR INCW
3260 763A AD7102 LDA NLOW+1
3270 763D 9131 STA (LPTR),Y
3280 763F 20F577 JSR INCW
3290 7642 B127 INSL3 LDA (NXTCHR),Y MOVE TEXT
3300 7644 9131 STA (LPTR),Y
3310 7646 A231 LDX #LPTR +LPTR
3320 7648 20F577 JSR INCW
3330 764B A227 LDX #NXTCHR +NXTCHR
3340 764D 20F577 JSR INCW
3350 7650 CE7C02 DEC INSLN -INSLN
3360 7653 D0ED BNE INSL3
3370 7655 60 RTS1 RTS
3380 7656 ;
3390 7656 ; PRCUR PRINT CURRENT LINE
3400 7656 ; PRCURU PRINT CURRENT LINE UNNUMBERED
3410 7656 ;
3420 7656 204890 PRCURU JSR PRSTR BLANKS INSTEAD OF NUMBER
3430 7659 0D .BYT 13
3440 765A 20 .BYT ' ',0

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3440 765B 20
3440 765C 20
3440 765D 20
3440 765E 20
3440 765F 00
3450 7660 4C7076      JMP PRCURS
3460 7663 20E177  PRCUR  JSR ENDTST
3470 7666 F0ED      BEQ RTS1      EXIT IF AT END
3480 7668 A90D      LDA #13     START WITH CR
3490 766A 204B90      JSR PRCHAR
3500 766D 208A76      JSR PRCNO   PRINT LINE#
3510 7670 201270  PRCURS  JSR UNPACK  UNPACK THE LINE
3520 7673 A200      LDX #0
3530 7675 BD8202  PRCURL  LDA LBUF,X  GET A CHAR
3540 7678 C90D      CMP #13
3550 767A F006      BEQ PRCURZ
3560 767C 201E70      JSR PRINTA  PRINT ASCII
3570 767F E8        INX
3580 7680 D0F3      BNE PRCURL
3590 7682 202AF3  PRCURZ  JSR STPTST  DONE: STOP KEY PRESSED?
3600 7685 D0CE      BNE RTS1    NO
3610 7687 4C4D74      JMP CMDS    YES
3620 768A      ;
3630 768A      ; PRCNO   PRINT CURRENT LINE#
3640 768A      ;
3650 768A A000      PRCNO   LDY #0
3660 768C B131      LDA (LPTR),Y
3670 768E 8511      STA $11
3680 7690 C8        INY
3690 7691 B131      LDA (LPTR),Y
3700 7693 8512      STA $12
3710 7695 205490      JSR PRDECF
3720 7698 A920      LDA #      ;
3730 769A 4C4B90      JMP PRCHAR
3740 769D      ;*****
3750 769D      ;
3760 769D      ;   PARSE A RANGE
3770 769D      ;
3780 769D      ;   EXAMPLES:  N   N-M   N-   -M   N!M
3790 769D      ;               N,M MAY BE NUMBERS, ., F, OR L
3800 769D      ;
3810 769D      ;               SETS NLOW, NHIGH, NCNT
3820 769D      ;               DEFAULT IS F-L
3830 769D      ;
3840 769D      ;*****
3850 769D A900      RANGE  LDA #0      DEFAULT NLOW=0
3860 769F 8D7002      STA NLOW
3870 76A2 8D7102      STA NLOW+1
3880 76A5 8D7402      STA NCNT     DEFAULT NCNT=0
3890 76A8 A9FF      LDA #$FF
3900 76AA 8D7202      STA NHIGH   DEFAULT NHIGH=INFINITY
3910 76AD 8D7302      STA NHIGH+1
3920 76B0 200370      JSR SCAN
3930 76B3 2D        .BYTE '- ',0
3930 76B4 00
3940 76B5 D012      BNE RA2ND
3950 76B7 20F976      JSR NUMDOT  FIRST# OR DOT
3960 76BA F01D      BEQ RARET
3970 76BC 8E7002      STX NLOW
3980 76BF 8C7102      STY NLOW+1
3990 76C2 200370      JSR SCAN
4000 76C5 2D        .BYTE '- ',0
4000 76C6 00
4010 76C7 F011      BEQ RAONE  ONLY ONE #
4020 76C9 20F976  RA2ND  JSR NUMDOT  SECOND# OR DOT
4030 76CC F006      BEQ RANOCT

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4040 76CE 8E7202 STX NHIGH
4050 76D1 8C7302 STY NHIGH+1
4060 76D4 A900 RANOCT LDA #0 NO COUNT
4070 76D6 8D7402 STA NCNT
4080 76D9 60 RARET RTS
4090 76DA AD7002 RAONE LDA NLOW HIGH:=LOW
4100 76DD 8D7202 STA NHIGH
4110 76E0 AD7102 LDA NLOW+1
4120 76E3 8D7302 STA NHIGH+1
4130 76E6 200370 JSR SCAN
4140 76E9 21 .BYTE '! ',0
4140 76EA 00
4150 76EB F0E7 BEQ RANOCT
4160 76ED 204B77 JSR GETNUM
4170 76F0 F004 BEQ ERROP NO COUNT AFTER !
4180 76F2 8E7402 STX NCNT
4190 76F5 60 RTS
4200 76F6 4C7179 ERROP JMP EROP OPERAND ERROR
4210 76F9 ;
4220 76F9 200370 NUMDOT JSR SCAN LOOK FOR F,L,N,P, OR <NUMBER>
4230 76FC 2E .BYTE '. ',0 SET X/Y & NE IF FOUND
4230 76FD 00
4240 76FE D03A BNE DOT
4250 7700 200370 JSR SCAN
4260 7703 46 .BYT 'F',13 ** F **
4260 7704 0D
4270 7705 F009 BEQ LAST
4280 7707 203090 JSR WMOVE LPTR:=FIRSTLINE
4290 770A 29 .BYT STEXT,LPTR,0
4290 770B 31
4290 770C 00
4300 770D 4C3A77 JMP DOT
4310 7710 200370 LAST JSR SCAN
4320 7713 4C .BYT 'L',13 ** L **
4320 7714 0D
4330 7715 F00C BEQ NUMN
4340 7717 203090 JSR WMOVE LPTR:=LASTLINE
4350 771A 2B .BYT ETEXT,LPTR,0
4350 771B 31
4350 771C 00
4360 771D 203670 JSR JPRVLN
4370 7720 4C3A77 JMP DOT
4380 7723 200370 NUMN JSR SCAN
4390 7726 4E .BYT 'N',13 ** N **
4390 7727 0D
4400 7728 F006 BEQ NUMP
4410 772A 209E77 JSR NXTLIN NEXT LINE
4420 772D 4C3A77 JMP DOT
4430 7730 200370 NUMP JSR SCAN
4440 7733 50 .BYT 'P',13 ** P **
4440 7734 0D
4450 7735 F014 BEQ GETNUM
4460 7737 203670 JSR JPRVLN PREVIOUS LINE
4470 773A 20E177 DOT JSR ENDTST DOT: ANY CURRENT LINE?
4480 773D F016 BEQ ERRDOT NO...
4490 773F A000 LDY #0 GET CURRENT LINE
4500 7741 B131 LDA (LPTR),Y
4510 7743 AA TAX
4520 7744 C8 INY
4530 7745 B131 LDA (LPTR),Y
4540 7747 A8 TAY
4550 7748 A901 LDA #1 SET NE
4560 774A 60 RTS
4570 774B ;
4580 774B 200670 GETNUM JSR NUMBER GET A NUMBER IN XY
4590 774E 08 PHP SAVE SUCCESS FLAG (EQ)

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4600 774F A625      LDX GPTR
4610 7751 A426      LDY GPTR+1
4620 7753 28        PLP
4630 7754 60        RTS
4640 7755 4C9C79    ERRDOT JMP ERNCL  NO CURRENT LINE
4650 7758          ;
4660 7758          ; ENDCMD  CHECK FOR END OF COMMAND
4670 7758          ;
4680 7758 206B77    ENDCMD JSR CHKCR
4690 775B D099      BNE ERROP
4700 775D 60        ENDCMR  RTS
4710 775E          ;
4720 775E          ; SKIPBL  SKIP A SINGLE BLANK
4730 775E          ;
4740 775E A000      SKIPBL LDY #0
4750 7760 B127      LDA (NXTCHR),Y
4760 7762 C920      CMP # ;
4770 7764 D0F7      BNE ENDCMR
4780 7766 A227      LDX #NXTCHR
4790 7768 4CF577    JMP INCW
4800 776B          ;
4810 776B          ; CHKCR  CHECK FOR CR AS NEXT CHAR
4820 776B          ;
4830 776B A000      CHKCR  LDY #0
4840 776D B127      LDA (NXTCHR),Y
4850 776F C90D      CMP #13
4860 7771 60        RTS
4870 7772          ;
4880 7772          ;
4890 7772          ; PNT1  POINT TO 1ST LINE OF RANGE
4900 7772          ; RETURN LPTR + TEST IF PAST END OF TEXT
4910 7772          ;
4920 7772 203090    PNT1 JSR WMOVE
4930 7775 29        .BYTE STEXT,LPTR,0  START WITH FIRST LINE
4930 7776 31
4930 7777 00
4940 7778 20E177    PNTFLP JSR ENDTST
4950 777B F020      BEQ PNTFZE  OFF END: RET Z
4960 777D AD7002    LDA NLOW  IF LOW=0,
4970 7780 0D7102    ORA NLOW+1
4980 7783 F016      BEQ PNTFZN  DONE WITH NE
4990 7785 A000      LDY #0  COMPUTE LINE#-NLOW
5000 7787 38        SEC
5010 7788 B131      LDA (LPTR),Y
5020 778A ED7002    SBC NLOW
5030 778D C8        INY
5040 778E B131      LDA (LPTR),Y
5050 7790 ED7102    SBC NLOW+1
5060 7793 B006      BCS PNTFZN  GE: STOP
5070 7795 209E77    JSR NXTLIN  LT: GO ON TO NEXT LINE
5080 7798 4C7877    JMP PNTFLP
5090 779B A901      PNTFZN LDA #1 (SET NE)
5100 779D 60        PNTFZE RTS
5110 779E          ;
5120 779E          ; NXTLIN POINT TO NEXT LINE
5130 779E          ; RET EQ IF ALREADY AT END
5140 779E          ;
5150 779E 20E177    NXTLIN JSR ENDTST
5160 77A1 F015      BEQ NXTLIZ  END OF TEXT: RET
5170 77A3 A000      LDY #0
5180 77A5 A231      LDX #LPTR
5190 77A7 20F577    JSR INCW   (SKIP 2 FOR LINE #)
5200 77AA 20F577    NXTLIL JSR INCW
5210 77AD B131      LDA (LPTR),Y  SEARCH FOR CR
5220 77AF C90D      CMP #13
5230 77B1 D0F7      BNE NXTLIL

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5240 77B3 20F577 JSR INCW (SKIP OVER CR)
5250 77B6 A901 LDA #1 SET NE
5260 77B8 60 NXTLIZ RTS
5270 77B9 ;
5280 77B9 ; RANNXT GET NEXT LINE IN RANGE
5290 77B9 ; SET C IF NO MORE
5300 77B9 ;
5310 77B9 ; RANCHK CHECK CURRENT LINE #
5320 77B9 ; SET C IF BEYOND RANGE
5330 77B9 ;
5340 77B9 209E77 RANNXT JSR NXTLIN MOVE TO NEXT LINE
5350 77BC 20E177 JSR ENDTST
5360 77BF F01E BEQ RANNXZ END: RETURN FAIL
5370 77C1 AD7402 LDA NCNT NCNT=0?
5380 77C4 F007 BEQ RANCHK YES: CHECK LINE#
5390 77C6 CE7402 DEC NCNT DECR LINE COUNT
5400 77C9 F014 BEQ RANNXZ ZERO: RETURN FAIL
5410 77CB D010 BNE RANNXS OTHERWISE DO A LINE
5420 77CD A000 RANCHK LDY #0
5430 77CF 38 SEC COMPUTE NHIGH-LINE#
5440 77D0 AD7202 LDA NHIGH
5450 77D3 F131 SBC (LPTR),Y
5460 77D5 C8 INY
5470 77D6 AD7302 LDA NHIGH+1
5480 77D9 F131 SBC (LPTR),Y
5490 77DB 9002 BCC RANNXZ LT: STOP
5500 77DD 18 RANNXS CLC GE: RETURN SUCCESS
5510 77DE 60 RTS
5520 77DF 38 RANNXZ SEC RETURN FAILURE
5530 77E0 60 RTS
5540 77E1 ;
5550 77E1 ; ENDTST TEST IF LPTR=ETEXT
5560 77E1 ; (CURRENT LINE IS END)
5570 77E1 ; ABORT WITH ERROR IF LPTR>ETEXT
5580 77E1 ;
5590 77E1 A52C ENDTST LDA ETEXT+1
5600 77E3 C532 CMP LPTR+1
5610 77E5 F003 BEQ ENDTSE
5620 77E7 9009 BCC ERRMUN
5630 77E9 60 ENDTSZ RTS
5640 77EA A52B ENDTSE LDA ETEXT
5650 77EC C531 CMP LPTR
5660 77EE F0F9 BEQ ENDTSZ
5670 77F0 B0F7 BCS ENDTSZ
5680 77F2 4CE779 ERRMUN JMP ERMUNG
5690 77F5 ;
5700 77F5 ; INCW DECW INCREMENT/DECREMENT WORD IN PAGE 0
5710 77F5 ;
5720 77F5 F600 INCW INC 0,X (OFFSET IN X)
5730 77F7 D002 BNE INCWR
5740 77F9 F601 INC 1,X
5750 77FB 60 INCWR RTS
5760 77FC ;
5770 77FC D600 DECW DEC 0,X (DECW ALSO SETS Z/NZ)
5780 77FE F00B BEQ DECWZC
5790 7800 B500 LDA 0,X
5800 7802 C9FF CMP #0FF
5810 7804 D0F5 BNE INCWR
5820 7806 D601 DEC 1,X
5830 7808 C900 CMP #0 (SET NZ)
5840 780A 60 RTS
5850 780B B501 DECWZC LDA 1,X
5860 780D 60 RTS
5870 780E ;
5880 780E ; GCLOSE CLOSE THE GAP FROM BPTR TO LPTR
5890 780E ; UPDATE ETEXT; NO ERRORS POSSIBLE

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5900 780E 203090 ;
5910 780E 203090 GCLOSE JSR WMOVE GLEN:=LPTR; LPTR:=BPTR
5920 7811 31 .BYTE LPTR,GLEN,BPTR,LPTR,0
5920 7812 3B
5920 7813 2F
5920 7814 31
5920 7815 00
5930 7816 A53B GCLOSL LDA GLEN UNTIL GLEN=ETEXT
5940 7818 C52B CMP ETEXT
5950 781A D006 BNE GCLOS2
5960 781C A53C LDA GLEN+1
5970 781E C52C CMP ETEXT+1
5980 7820 F014 BEQ GCLOS4
5990 7822 A000 GCLOS2 LDY #0 (BPTR):=(GLEN)
6000 7824 B13B LDA (GLEN),Y
6010 7826 912F STA (BPTR),Y
6020 7828 E63B INC GLEN +GLEN
6030 782A D002 BNE GCLOS3
6040 782C E63C INC GLEN+1
6050 782E E62F GCLOS3 INC BPTR +BPTR
6060 7830 D0E4 BNE GCLOSL
6070 7832 E630 INC BPTR+1
6080 7834 D0E0 BNE GCLOSL
6090 7836 203090 GCLOS4 JSR WMOVE
6100 7839 2F .BYTE BPTR,ETEXT,0 UPDATE ETEXT
6100 783A 2B
6100 783B 00
6110 783C 60 RTS
6120 783D ;
6130 783D ; GOPEN OPEN A GAP AT LPTR WHICH IS GLEN BYTES LONG
6140 783D ; UPDATE ETEXT; ERROR IF BUFFER OVERFLOW
6150 783D ;
6160 783D A53B GOPEN LDA GLEN
6170 783F 053C ORA GLEN+1
6180 7841 F045 BEQ GOPENZ IMMEDIATE RET IF GLEN=0
6190 7843 18 CLC
6200 7844 A52B LDA ETEXT TEMP:=ETEXT+GLEN (NEW ETEXT)
6210 7846 653B ADC GLEN
6220 7848 8533 STA ZTEMP
6230 784A A52C LDA ETEXT+1
6240 784C 653C ADC GLEN+1
6250 784E 8534 STA ZTEMP+1
6260 7850 38 SEC COMPUTE ZTEXT-TEMP
6270 7851 A52D LDA ZTEXT
6280 7853 E533 SBC ZTEMP
6290 7855 A52E LDA ZTEXT+1
6300 7857 E534 SBC ZTEMP+1
6310 7859 902E BCC ERROVL LT: OVERFLOW
6320 785B 203090 JSR WMOVE GLEN:=ETEXT; ETEXT:=TEMP
6330 785E 2B .BYTE ETEXT,GLEN,ZTEMP,ETEXT,0
6330 785F 3B
6330 7860 33
6330 7861 2B
6330 7862 00
6340 7863 A53B GOPENL LDA GLEN UNTIL GLEN=LPTR
6350 7865 C531 CMP LPTR
6360 7867 D006 BNE GOPEND
6370 7869 A53C LDA GLEN+1
6380 786B C532 CMP LPTR+1
6390 786D F019 BEQ GOPENZ
6400 786F A533 GOPEND LDA ZTEMP -TEMP
6410 7871 D002 BNE GOPEN2
6420 7873 C634 DEC ZTEMP+1
6430 7875 C633 GOPEN2 DEC ZTEMP
6440 7877 A53B LDA GLEN -GLEN
6450 7879 D002 BNE GOPEN3

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0460 787B C63C          DEC GLEN+1
0470 787D C63B          GOPEN3 DEC GLEN
0480 787F A000          LDY #0
0490 7881 B13B          LDA (GLEN),Y (TEMP):=(GLEN)
0500 7883 9133          STA (ZTEMP),Y
0510 7885 4C6378        JMP GOPENL
0520 7888 60           GOPENZ RTS
0530 7889 4CAF79        ERROVL JMP EROVFL TEXT OVERFLOW
0540 788C                ;*****
0550 788C                ;
0560 788C                ; AUTO <NUMBER> [ BY <NUMBER> ]
0570 788C                ;
0580 788C                ;*****
0590 788C 20F976        AUTO JSR NUMDOT
0600 788F F006          BEQ AUTBY
0610 7891 8E7802        STX AUTCUR          STARTING NUMBER
0620 7894 8C7902        STY AUTCUR+1
0630 7897 200370        AUTBY JSR SCAN
0640 789A 42            .BYTE 'BY',13
0640 789B 59
0640 789C 0D
0650 789D D007          BNE AUTBY2
0660 789F 200370        JSR SCAN
0670 78A2 2C            .BYT ', ',0
0670 78A3 00
0680 78A4 F00E          BEQ AUT1
0690 78A6 204B77        AUTBY2 JSR GETNUM
0700 78A9 D003          BNE AUT4
0710 78AB 4C7179        JMP EROP
0720 78AE 8E7A02        AUT4 STX AUTINC          INCREMENT
0730 78B1 8C7B02        STY AUTINC+1
0740 78B4 205877        AUT1 JSR ENDCMD
0750 78B7 AD7802        LDA AUTCUR
0760 78BA 8D7002        STA NLOW
0770 78BD AD7902        LDA AUTCUR+1
0780 78C0 8D7102        STA NLOW+1
0790 78C3 20F275        JSR INSCHK          FIND PLACE TO INSERT
0800 78C6 9009          BCC AUT2            OK...
0810 78C8 206376        JSR PRCUR           EXISTS: PRINT IT
0820 78CB 209E77        JSR NXTLIN         AND TRY TO INSERT AFTER IT
0830 78CE 4C1C79        JMP AUTNXT
0840 78D1 203670        AUT2 JSR JPRVLN         FIND PREVIOUS
0850 78D4 206376        JSR PRCUR           PRINT IT
0860 78D7 AD7802        AUTLP LDA AUTCUR          NLOW,$11:=AUTCUR
0870 78DA 8D7002        STA NLOW
0880 78DD 8511          STA $11
0890 78DF AD7902        LDA AUTCUR+1
0900 78E2 8D7102        STA NLOW+1
0910 78E5 8512          STA $12
0920 78E7 20F275        JSR INSCHK         FIND PLACE TO INSERT
0930 78EA B077          BCS ERRLEX         (SHOULD NOT OCCUR)
0940 78EC A90D          LDA #13
0950 78EE 204B90        JSR PRCHAR
0960 78F1 205490        JSR PRDECF         PRINT NUMBER
0970 78F4 A920          LDA #              PRINT A BLANK
0980 78F6 204B90        JSR PRCHAR
0990 78F9 200C70        JSR RDLINE         READ THE LINE
1000 78FC 204B77        JSR GETNUM         START WITH NUMBER?
1010 78FF D003          BNE AUT3
1020 7901 4C5574        JMP CMDSCN         NO: STOP AUTO AND SCAN COMMAND
1030 7904 EC7802        AUT3 CPX AUTCUR         SAME NUMBER?
1040 7907 D005          BNE AUT5
1050 7909 CC7902        CPY AUTCUR+1
1060 790C F003          BEQ AUT6
1070 790E 4CB675        AUT5 JMP NNNN          NO: INSERT/DELETE AND STOP AUTO
1080 7911 206B77        AUT6 JSR CHKCR         JUST CR?

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7090 7914 F047      BEQ AUTZ      YES: EXIT AUTO
7100 7916 205E77   JSR SKIPBL   SKIP BLANK IF ANY
7110 7919 201476   JSR INSERT  NO: INSERT THE LINE
7120 791C 18       AUTNXT CLC
7130 791D AD7802   LDA AUTCUR  AUTCUR+:=AUTINC
7140 7920 6D7A02   ADC AUTINC
7150 7923 8D7802   STA AUTCUR
7160 7926 AD7902   LDA AUTCUR+1
7170 7929 6D7B02   ADC AUTINC+1
7180 792C 8D7902   STA AUTCUR+1
7190 792F 20E177   JSR ENDTST  INSERTING AT END?
7200 7932 F0A3     BEQ AUTLP   YES: CONTINUE
7210 7934 A000     LDY #0
7220 7936 38      SEC          ELSE
7230 7937 AD7802   LDA AUTCUR  COMPARE TO NEXT LINE #
7240 793A AD7802   LDA AUTCUR
7250 793D F131     SBC (LPTR),Y
7260 793F C8      INY
7270 7940 AD7902   LDA AUTCUR+1
7280 7943 F131     SBC (LPTR),Y
7290 7945 9090     BCC AUTLP   LT: CONTINUE
7300 7947 206376   JSR PRCUR   GE: PRINT LINE WE RAN INTO
7310 794A 38      SEC
7320 794B AD7802   LDA AUTCUR  MOVE AUTO CUR BACK TO
7330 794E ED7A02   SBC AUTINC  LAST LINE INSERTED
7340 7951 8D7802   STA AUTCUR
7350 7954 AD7902   LDA AUTCUR+1
7360 7957 ED7B02   SBC AUTINC+1
7370 795A 8D7902   STA AUTCUR+1
7380 795D 203670   AUTZ JSR JPRVLN MOVE CUR BACK
7390 7960 4C4D74   JMP CMDS   AND STOP
7400 7963 4CCF79   ERRLEX JMP ERLEX LINE EXISTS
7410 7966          ;*****
7420 7966          ;
7430 7966          ; CASE CHANGE KEYBOARD CASE FLAG
7440 7966          ;
7450 7966          ;*****
7460 7966 AD6703   CHCASE LDA CASE
7470 7969 4980     EOR #580
7480 796B 8D6703   STA CASE
7490 796E 4C4D74   JMP CMDS
7500 7971          ;
7510 7971          ; ERRORS
7520 7971          ;
7530 7971          ;
7540 7971 201570   EROP JSR ERRENT
7550 7974 42      .BYTE 'BAD OPERAND',0
7550 7975 41
7550 7976 44
7550 7977 20
7550 7978 4F
7550 7979 50
7550 797A 45
7550 797B 52
7550 797C 41
7550 797D 4E
7550 797E 44
7550 797F 00
7560 7980 201870   ERVOID JSR ER2ENT
7570 7983 56      .BYTE 'VOID RANGE',0
7570 7984 4F
7570 7985 49
7570 7986 44
7570 7987 20
7570 7988 52
7570 7989 41

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7570 798A 4E
7570 798B 47
7570 798C 45
7570 798D 00
7580 798E 201570 ERBSTR JSR ERRENT
7590 7991 42 .BYTE 'BAD STRING',0
7590 7992 41
7590 7993 44
7590 7994 20
7590 7995 53
7590 7996 54
7590 7997 52
7590 7998 49
7590 7999 4E
7590 799A 47
7590 799B 00
7600 799C 201570 ERNCL JSR ERRENT
7610 799F 4E .BYTE 'NO CURRENT LINE',0
7610 79A0 4F
7610 79A1 20
7610 79A2 43
7610 79A3 55
7610 79A4 52
7610 79A5 52
7610 79A6 45
7610 79A7 4E
7610 79A8 54
7610 79A9 20
7610 79AA 4C
7610 79AB 49
7610 79AC 4E
7610 79AD 45
7610 79AE 00
7620 79AF 201870 EROVFL JSR ER2ENT
7630 79B2 4F .BYTE 'OUT OF SPACE',0
7630 79B3 55
7630 79B4 54
7630 79B5 20
7630 79B6 4F
7630 79B7 46
7630 79B8 20
7630 79B9 53
7630 79BA 50
7630 79BB 41
7630 79BC 43
7630 79BD 45
7630 79BE 00
7640 79BF 201870 ERNSL JSR ER2ENT
7650 79C2 4E .BYTE 'NO SUCH LINE',0
7650 79C3 4F
7650 79C4 20
7650 79C5 53
7650 79C6 55
7650 79C7 43
7650 79C8 48
7650 79C9 20
7650 79CA 4C
7650 79CB 49
7650 79CC 4E
7650 79CD 45
7650 79CE 00
7660 79CF 201870 ERLEX JSR ER2ENT
7670 79D2 4C .BYTE 'LINE EXISTS',0
7670 79D3 49
7670 79D4 4E
7670 79D5 45
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7670 79D6 20
7670 79D7 45
7670 79D8 58
7670 79D9 49
7670 79DA 53
7670 79DB 54
7670 79DC 53
7670 79DD 00
7680 79DE 201870 ERWHAT JSR ER2ENT
7690 79E1 57 .BYTE 'WHAT?',0
7690 79E2 48
7690 79E3 41
7690 79E4 54
7690 79E5 3F
7690 79E6 00
7700 79E7 201870 ERMUNG JSR ER2ENT
7710 79EA 42 .BYTE 'BAD END-OF-TEXT POINTER',0
7710 79EB 41
7710 79EC 44
7710 79ED 20
7710 79EE 45
7710 79EF 4E
7710 79F0 44
7710 79F1 2D
7710 79F2 4F
7710 79F3 46
7710 79F4 2D
7710 79F5 54
7710 79F6 45
7710 79F7 58
7710 79F8 54
7710 79F9 20
7710 79FA 50
7710 79FB 4F
7710 79FC 49
7710 79FD 4E
7710 79FE 54
7710 79FF 45
7710 7A00 52
7710 7A01 00
7720 7A02 06 TABDFL .BYTE 6,13,17,25,35,45,55,65
7720 7A03 0D
7720 7A04 11
7720 7A05 19
7720 7A06 23
7720 7A07 2D
7720 7A08 37
7720 7A09 41
7730 7A0A .END
```