

```

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 *=JRANXT
250 7030 4CB977 JMP RANNXT
260 7033 *=JNXTLN
270 7033 4C9E77 JMP NXTLIN
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 704B *=JINSLN
510 704B 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

```

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 2000C70 JSR RDLINE
 970 7455 A52B CMDSCN LDA ETEXT KLUDGE: STORE ASM'S END OF TEXT POINTER
 980 7457 8DFF12 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

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

JMP JRENUM
JSR SCAN
FIND

BEQ *+5
JMP JFIND
JSR SCAN

COPY

BEQ *+5
JMP JCOPY
JSR SCAN

MOVE

BEQ *+5
JMP JMOVE
JSR SCAN

WINDOW

BEQ *+5
JMP JWINDO
JSR SCAN

ASM

BEQ *+5
JMP \$1160
JSR SCAN

CHANGE

BEQ *+5
JMP JCHNGE
JSR SCAN

NEW

BEQ *+5
JMP NEW
JSR SCAN

NEXT

BEQ *+5
JMP NEXT
JSR SCAN

AUTO

BEQ *+5
JMP AUTO
JSR SCAN

CASE

BEQ *+5
JMP CHCASE
JSR SCAN

TABS

BEQ *+5

1600 74FB 4C5D70 JMP JSETAB
 1610 74FE 200370 JSR SCAN
 1620 7501 58 .BYT 'X',13 XIT TO MONITOR
 1620 7502 0D BNE XIT
 1630 7503 D00B JSR GETNUM LINE NUMBER
 1640 7505 204B77 BEQ *+5
 1650 7508 F003 JMP NNNN
 1660 750A 4CB675 JMP ERWHAT UNKNOWN COMMAND
 1670 750D 4CDE79 ;
 1680 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 PRCURU 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 JPRVIN 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

2210 7572 29 .BYT STEXT,ETEXT,0 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,0 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 LINE
 2690 75D7 20E675 JSR DELLIN DELETE IT
 2700 75DA 4C4D74 JMP CMDS
 2710 75DD 20E675 NNREP JSR DELLIN
 2720 75E0 4C0975 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,0
 2780 75EA 2F
 2780 75EB 00

2790 75EC 209E?? JSR NATLIN 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 807C02 STY INSLEN 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 INSLEN -INSLEN
 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

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

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)

4600 774F A625 LDX GPPTR
 4610 7751 A426 LDY GPPTR+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 779F ; 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

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 20F177 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 #\$FF
 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

5900 780E ;
 5910 780E 203090 GCLOSE JSR WMOVE GLEN:=LPTR; LPTR:=BPTR
 5920 7811 31 .BYTE LPTR,GLEN,BPTR,L PTR,0
 5920 7812 3B
 5920 7813 2F
 5920 7814 31
 5920 7815 00
 5930 7816 A53B GCLOSS1 LDA GLEN UNTIL GLEN=ETEXT
 5940 7818 C52B CMP ETEXT
 5950 781A D006 BNE GCLOSS2
 5960 781C A53C LDA GLEN+1
 5970 781E C52C CMP ETEXT+1
 5980 7820 F014 BEQ GCLOSS4
 5990 7822 A000 GCLOSS2 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 GCLOSS3
 6040 782C E63C INC GLEN+1
 6050 782E E62F GCLOSS3 INC BPTR +BPTR
 6060 7830 D0E4 BNE GCLOSSL
 6070 7832 E630 INC BPTR+1
 6080 7834 D0E0 BNE GCLOSSL
 6090 7836 203090 GCLOSS4 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

6460 787B C63C DEC GLEN+1
 6470 787D C63B GOPEN3 DEC GLEN
 6480 787F A000 LDY #0
 6490 7881 B13B LDA (GLEN),Y (TEMP):=(GLEN)
 6500 7883 9133 STA (ZTEMP),Y
 6510 7885 406378 JMP GOPENL
 6520 7888 60 GOPENZ RTS
 6530 7889 4CAF79 ERROVL JMP EROVFL TEXT OVERFLOW
 6540 788C ;*****
 6550 788C ;
 6560 788C ; AUTO <NUMBER> [BY <NUMBER>]
 6570 788C ;
 6580 788C ;*****
 6590 788C 20F976 AUTO JSR NUMDOT
 6600 788F F006 BEQ AUTBY
 6610 7891 8E7802 STX AUTCUR STARTING NUMBER
 6620 7894 8C7902 STY AUTCUR+1
 6630 7897 200370 AUTBY JSR SCAN
 6640 789A 42 .BYTE 'BY',13
 6640 789B 59
 6640 789C 0D
 6650 789D D007 BNE AUTBY2
 6660 789F 200370 JSR SCAN
 6670 78A2 20 .BYT ',',0
 6670 78A3 00
 6680 78A4 F00E BEQ AUT1
 6690 78A6 204B77 AUTBY2 JSR GETNUM
 6700 78A9 D003 BNE AUT4
 6710 78AB 4C7179 JMP EROP
 6720 78AE 8E7A02 AUT4 STX AUTINC INCREMENT
 6730 78B1 8C7B02 STY AUTINC+1
 6740 78B4 205877 AUT1 JSR ENDCMD
 6750 78B7 AD7802 LDA AUTCUR
 6760 78BA 8D7002 STA NLOW
 6770 78BD AD7902 LDA AUTCUR+1
 6780 78C0 8D7102 STA NLOW+1
 6790 78C3 20F275 JSR INSCHK FIND PLACE TO INSERT
 6800 78C6 9009 BCC AUT2 OK...
 6810 78C8 206376 JSR PRCUR EXISTS: PRINT IT
 6820 78CB 209E77 JSR NXTLIN AND TRY TO INSERT AFTER IT
 6830 78CE 4C1C79 JMP AUTNXT
 6840 78D1 203670 AUT2 JSR JPRVLN FIND PREVIOUS
 6850 78D4 206376 JSR PRCUR PRINT IT
 6860 78D7 AD7802 AUTLP LDA AUTCUR NLOW,\$11:=AUTCUR
 6870 78DA 8D7002 STA NLOW
 6880 78DD 8511 STA \$11
 6890 78DF AD7902 LDA AUTCUR+1
 6900 78E2 8D7102 STA NLOW+1
 6910 78E5 8512 STA \$12
 6920 78E7 20F275 JSR INSCHK FIND PLACE TO INSERT
 6930 78EA B077 BCS ERRLEX (SHOULD NOT OCCUR)
 6940 78EC A90D LDA #13
 6950 78EE 204B90 JSR PRCHAR
 6960 78F1 205490 JSR PRDECF PRINT NUMBER
 6970 78F4 A920 LDA #' PRINT A BLANK
 6980 78F6 204B90 JSR PRCHAR
 6990 78F9 200C70 JSR RDLINE READ THE LINE
 7000 78FC 204B77 JSR GETNUM START WITH NUMBER?
 7010 78FF D003 BNE AUT3
 7020 7901 4C5574 JMP CMDSCN NO: STOP AUTO AND SCAN COMMAND
 7030 7904 EC7802 AUT3 CPX AUTCUR SAME NUMBER?
 7040 7907 D005 BNE AUT5
 7050 7909 CC7902 CPY AUTCUR+1
 7060 790C F003 BEQ AUT6
 7070 790E 4CB675 AUT5 JMP NNNN NO: INSERT/DELETE AND STOP AUTO
 7080 7911 206B77 AUT6 JSR CHKCR JUST CR?

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 ; CASE CHANGE KEYBOARD CASE FLAG
 7420 7966 ;
 7430 7966 ;
 7440 7966 ;
 7450 7966 ;
 7460 7966 AD6703 CHCASE LDA CASE
 7470 7969 4980 EOR #\$80
 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

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

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 20 1870 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 20 1870 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