

LINE# LOC CODE LINE

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0001 0000 ; *****
0002 0000 ; *
0003 0000 ; * PET 2001 OPERATING SYSTEM *
0004 0000 ; *
0005 0000 ; * VERSION 4.0 JULY 25 1979 *
0006 0000 ; * VERSION 3.0 JUNE 11 1979 *
0007 0000 ; * VERSION 2.0 AUGUST 2, 1978 *
0008 0000 ; * VERSION 1.0 AUGUST 8, 1977 *
0009 0000 ; *
0010 0000 ; *****

0012 0000 OFFSET =#0000 ; FOR *** HARD MACHINE ***

0014 0000 ; LISTING DATE 10/23/79

0016 0000 * =#8D
0017 008D TIME ==#+3 ; 24 HR CLOCK IN 1/60 SEC
0018 0090 CINV ==#+2 ; IRQ RAM VECTOR
0019 0092 CBINV ==#+2 ; BRK INSTR RAM VECTOR
0020 0094 NMINV ==#+2 ; NMI RAM VECTOR
0021 0096 SATUS ==#+1 ; I/O OPERATION STATUS BYTE
0022 0097 LSTX ==#+1 ; INDEX TO CHAR IN KEYSKAN
0023 0098 SFST ==#+1 ; KEYBOARD SHIFT FLAG
0024 0099 CRFAC ==#+2 ; CORRECTION FACTOR TIME
0025 009B STKEY ==#+1 ; STOP KEY FLAG
0026 009C SVXT ==#+1 ; TEMPORARY
0027 009D VERCK ==#+1 ; LOAD OR VERIFY FLAG
0028 009E NDX ==#+1 ; INDEX TO KEYD QUEUE
0029 009F RVS ==#+1 ; REVERSE FIELD ENABLED
0030 00A0 C3PO ==#+1 ; CASSETTE SERVO CONSTANT
0031 00A1 INDX ==#+1 ;
0032 00A2 SNSW ==#+1 ; CASSETTE...
0033 00A3 LSXP ==#+1 ; START OF SCREEN INPUT
0034 00A4 LSTP ==#+1 ;
0035 00A5 BSOUR ==#+1 ; CHAR BUFFER FOR IEEE
0036 00A6 SFDX ==#+1 ; SHIFT MODE FOR PRINT
0037 00A7 BLNSW ==#+1 ; CURSOR BLINK ENABLE
0038 00A8 BLNCT ==#+1 ; COUNTER TO FLIP CURSORBREAK
0039 00A9 GDBLN ==#+1 ; OLD CHAR BEFORE BLINK
0040 00AA BLNON ==#+1 ; ON/OFF BLINK FLAG
0041 00AB SYND ==#+1 ; CASSETTE SYNC #
0042 00AC CRSW ==#+1 ; INPUT/GET FLAG
0043 00AD XSAV ==#+1 ; TEMP FOR BASIN
0044 00AE LDTND ==#+1 ; INDEX TO LOGICAL FILE
0045 00AF DFLTN ==#+1 ; DEFAULT INPUT DEVICE #
0046 00B0 DFLTO ==#+1 ; DEFAULT OUTPUT DEVICE #
0047 00B1 PRTY ==#+1 ; CASSETTE PARITY
0048 00B2 DPSW ==#+1 ; CASSETTE DIPOLE SWITCH
0049 00B3 WSW ==#+1 ; CASSETTE WRITE ENABLE
0050 00B4 SAVX
0051 00B4 T1 ==#+1 ; TEMPORARY 1
0052 00B5 RCNT
0053 00B5 TMPC
0054 00B5 T2 ==#+1 ; TEMPORARY 2
0055 00B6 TMPC2

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0056	00B6	T3	==+1	; TEMPORARY 3
0057	00B7	PCNTR	==+1	; CASSETTE STUFF
0058	00B8	PTCH	==+1	
0059	00B9	FIRT	==+1	
0060	00BA	CNTDN	==+1	; CASSETTE SYNC COUNTDOWN
0061	00BB	BUFPT	==+2	; POINTER TO ACTIVE CASSETTE BUFFER
0062	00BD	SHCNL	==+1	; CASSETTE SHORT COUNT
0063	00BE	RER	==+1	; CASSETTE READ ERROR
0064	00BF	REZ	==+1	; CASSETTE READING ZEROES
0065	00C0	PTR1	==+1	; CASSETTE ERROR PASS1
0066	00C1	PTR2	==+1	; CASSETTE ERROR PASS2
0067	00C2	RDFLG	==+1	; CASSETTE READ MODE
0068	00C3	SHCNH	==+1	; CASSETTE SHORT CNT
0069	00C4	PNT	==+1	
0070	00C5	POINT	==+1	
0071	00C6	PNTR	==+1	
0072	00C7	SAL	==+1	
0073	00C8	SAH	==+1	
0074	00C9	EAL	==+1	
0075	00CA	EAH	==+1	
0076	00CB	CMPO	==+1	
0077	00CC	TEMP	==+1	
0078	00CD	QTSW	==+1	
0079	00CE	SNSW1	==+1	
0080	00CF	DIFF	==+1	
0081	00D0	PRP	==+1	
0082	00D1	FNLEN	==+1	; LENGTH CURRENT FILE N STR
0083	00D2	LA	==+1	; CURRENT FILE LOGICAL ADDR
0084	00D3	SA	==+1	; CURRENT FILE 2ND ADDR
0085	00D4	FA	==+1	; CURRENT FILE PRIMARY ADDR
0086	00D5	LNMX	==+1	
0087	00D6	TBUF	==+2	
0088	00D8	TBLX	==+1	
0089	00D9	DATA	==+1	
0090	00DA	FNADR	==+2	; ADDR CURRENT FILE NAME STR
0091	00DC	INSRT	==+1	
0092	00DD	OCHAR	==+1	
0093	00DE	WRAP		
0094	00DE	FSBLK	==+1	; CASSETTE READ BLOCK COUNT
0095	00DF	MYCH	==+1	
0096	00E0	LDTB1	==+25	
0097	00F9	CAS1	==+1	
0098	00FA	CAS2	==+1	
0099	00FB	TMPO		
0100	00FB	STAL	==+1	
0101	00FC	STAH	==+1	
0102	00FD	FNADR2		
0103	00FD	TMP2	==+2	
0104	00FF		==\$100	
0105	0100	BAD	==+1	
0106	0101		==\$200	
0107	0200	BUF		; BASIC INPUT BUFFER
0108	0200	; VIRTUAL REGS FOR MACHINE LANGUAGE MONITOR		
0109	0200	PCH	==+1	
0110	0201	PCL	==+1	

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0111	0202	FLGS	===+1	
0112	0203	ACC	===+1	
0113	0204	XR	===+1	
0114	0205	YR	===+1	
0115	0206	SP	===+1	
0116	0207	INVH	===+1	; USER MODIFIABLE IRQ
0117	0208	INVL	===+1	
0118	0209	SAVNAM	===+72	; BUFFER
0119	0251	; TABLES FOR OPEN FILES		
0120	0251	LAT	===+10	; LOGICAL FILE NUMBERS
0121	025B	FAT	===+10	; PRIMARY DEVICE NUMBERS
0122	0265	SAT	===+10	; SECONDARY ADDRESSES
0123	026F	KEYD	===+10	
0124	0279		===+1	
0125	027A	TAPE1	===+192	
0126	033A	TAPE2		; 192 BYTES RESERVED
0127	033A	POS		
0128	033A	FNLEN2	===+1	
0129	033B	DRIVE1	===+1	
0130	033C	DRIVE2	===+1	
0131	033D	DIDCHK		
0132	033D	LRECL	===+1	
0133	033E	PARCHK	===+1	
0134	033F	DISKID	===+2	
0135	0341	COUNT	===+1	
0136	0342	TBUF2	===+17	; FN1 STORAGE
0137	0353	TBUFF	===+167	
0138	03FA	; RAM VECTOR FOR USER INTERP OF MONITOR CMDS		
0139	03FA	USRCMD	===+2	
0140	03FC	BOB	===+1	
0141	03FD		==\$EB10	
0142	E810	PIAL	===+1	
0143	E811	PIAL1	===+1	
0144	E812	PIAK	===+1	
0145	E813	PIAS	===+1	
0146	E814		==\$EB20	
0147	E820	IEEI	===+1	
0148	E821	IEEIS	===+1	
0149	E822	IEEO	===+1	
0150	E823	IEEOS	===+1	
0151	E824		==\$EB40	
0152	E840	PIA	===+1	
0153	E841	SYNC	===+1	
0154	E842	P2DB	===+1	
0155	E843	P2DA	===+1	
0156	E844	TIL	===+1	
0157	E845	TIH	===+1	
0158	E846	TILL	===+1	
0159	E847	TILH	===+1	
0160	E848	T2L	===+1	
0161	E849	T2H	===+1	
0162	E84A	SR	===+1	
0163	E84B	ACR	===+1	
0164	E84C	PCR	===+1	
0165	E84D	IFR	===+1	

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0166 E84E IER **#+1
 0167 EB4F SYNC1 **#+1

0169 E850 ; CONSTANTS FROM BASIC
 0170 E850 CHANL =#0010
 0171 E850 READY =#B3FF+OFFSET-\$8000
 0172 E850 INIT =#D3B6+OFFSET-\$8000
 0173 E850 FRMNUM =#BD84+OFFSET-\$8000
 0174 E850 GETADR =#C92D+OFFSET-\$8000
 0175 E850 LINNUM =#0011
 0176 E850 TXTPTR =#0077
 0177 E850 FINI =#B4AD+OFFSET-\$8000
 0178 E850 STXTPT =#B622+OFFSET-\$8000
 0179 E850 FLOAD =#B60B+OFFSET-\$8000
 0180 E850 VARTAB =#002A
 0181 E850 GETBYT =#CBD4+OFFSET-\$8000
 0182 E850 SNERR =#BFO0+OFFSET-\$8000
 0183 E850 CHRQGT =#0076
 0184 E850 TYPERR =#B3ED+OFFSET-\$8000
 0185 E850 SYNCHR =#BEF7+OFFSET-\$8000
 0186 E850 CHKCOM =#BEF5+OFFSET-\$8000
 0187 E850 FRESTR =#C7B5+OFFSET-\$8000
 0188 E850 FRMEVL =#BD98+OFFSET-\$8000
 0189 E850 CHRQET =#0070
 0190 E850 BSTOP =#B7C6+OFFSET-\$8000 ; BASIC SYMB STOP
 0191 E850 INDEX1 =#001F
 0192 E850 TXTTAB =#0028
 0193 E850 LASTWR =#D472+OFFSET-\$8000
 0194 E850 POKER =#0011
 0195 E850 LINPRT =#CF83+OFFSET-\$8000
 0196 E850 GETSPA =#C61D+OFFSET-\$8000
 0197 E850 CHKOPN =#BEF2+OFFSET-\$8000
 0198 E850 CHKCLS =#BEEF+OFFSET-\$8000
 0199 E850 ERRFC =@065
 0200 E850 ERRLS =@260
 0201 E850 ERROR =#B3CF+OFFSET-\$8000

0203 E850 ; TAPE BLOCK TYPES
 0204 E850 EDT=5
 0205 E850 BLF=1
 0206 E850 BDF=2
 0207 E850 BDFH=4
 0208 E850 BUFSZ=192
 0209 E850 CR =#D
 0210 E850 ONTK=#91
 0211 E850 TOTK=#A4
 0212 E850 APEN =#41

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0213 E850
0214 E850

DSDESC =\$000D
. FILE CALLE

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0216 E850          *=LASTWR          ; START ADDRESS
0217 5472          NCMDS          =8
0218 5472 A9 43    CALLE          LDA #'C          ; SET A=C TO INDICATE
0219 5474 B5 B5          STA TMPC
0220 5476 D0 19          BNE B3          ; CALL ENTRY, THEN JMP TO B3
0221 5478 20 A6 72    BRKE          JSR CLRCH          ; CLR CHANNELS
0222 5478 A9 42          LDA #'B
0223 547D B5 B5          STA TMPC
0224 547F D8          CLD
0225 5480 4A          LSR A          ; SET CY FOR PC CORRECTION
0226 5481 68          PLA
0227 5482 8D 05 02    STA YR          ; SAVE Y
0228 5485 68          PLA
0229 5486 8D 04 02    STA XR          ; AND X
0230 5489 68          PLA
0231 548A 8D 03 02    STA ACC          ; AND ACCUMULATOR
0232 548D 68          PLA
0233 548E 8D 02 02    STA FLGS          ; AND FLAGS
0234 5491 68          PLA
0235 5492 69 FF          ADC #$FF          ; CY SET TO PC-1 FOR BREAK
0236 5494 8D 01 02    STA PCL
0237 5497 68          PLA
0238 5498 69 FF          ADC #$FF
0239 549A 8D 00 02    STA PCH
0240 549D A5 90          LDA CINV
0241 549F 8D 08 02    STA INVL
0242 54A2 A5 91          LDA CINV+1
0243 54A4 8D 07 02    STA INVH
0244 54A7 BA          TSX
0245 54A8 8E 06 02    STX SP          ; SAVE ORIGINAL SP
0246 54AB 58          CLI          ; CLEAR INTS
0247 54AC 20 34 55    B5          JSR CRLF
0248 54AF A6 B5          LDX TMPC          ; SET X EQUAL TO B OR C
0249 54B1 A9 2A          LDA #'*
0250 54B3 20 31 57    JSR WRTWO
0251 54B6 A9 52          LDA #'R          ; SET FOR R DISPLAY TO
0252 54B8          ; PERMIT IMMEDIATE
0253 54B8          ; ALTER FOLLOWING
0254 54B8          ; BREAKPOINT
0255 54B8          BNE SO
0256 54BA A9 02          STRT          LDA #2          ; NEXT COMMAND FROM USER
0257 54BC B5 77          STA TXTPTR
0258 54BE A9 00          LDA #0
0259 54C0 B5 DE          STA WRAP          ; CLEAR ADR WRAPZAROUND FLAG
0260 54C2 A2 0D          LDX #CR
0261 54C4 A9 2E          LDA #'.'          ; TYPE A PROMPTING '.'
0262 54C6 20 31 57    JSR WRTWO
0263 54C9 20 98 57    ST1          JSR RDOC          ; READ COMMAND. CHARACTER
0264 54CC          ; IS RETURNED IN A
0265 54CC C9 2E          CMP #'.'          ; IGNORE PROMPTING '.'
0266 54CE F0 F9          BEQ ST1
0267 54D0 C9 20          CMP ##20          ; IGNORE SPACES
0268 54D2 F0 F5          BEQ ST1
0269 54D4 A2 07          SO          LDX #NCMDS-1          ; LOOKUP COMMAND
0270 54D6 DD 44 55    S1          CMP CMDS, X

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0271 54D9  D0 0B          BNE S2
0272 54DB  86 B4          STX SAVX      ; SAVE CURRENT COMMAND INDEX
0273 54DD          ; INDIRECT JMP FROM TABLE BY
0274 54DD          ; PUSHING TARGET ADDRESS-1
0275 54DD          ; THEN RTS
0276 54DD  BD 4C 55      LDA ADRH, X
0277 54E0  4B          PHA
0278 54E1  BD 54 55      LDA ADRL, X
0279 54E4  4B          PHA
0280 54E5  60          RTS
0281 54E6  CA          S2          DEX
0282 54E7  10 ED          BPL S1          ; LOOP FOR ALL COMMANDS
0283 54E9  6C FA 03      JMP (USRCMD)
0284 54EC  A5 FB          PUTP          LDA TMPO          ; MOVE TMPO TO PCH, PCL
0285 54EE  8D 01 02      STA PCL
0286 54F1  A5 FC          LDA TMPO+1
0287 54F3  8D 00 02      STA PCH
0288 54F6  60          RTS
0289 54F7          ;
0290 54F7          ; DISPLAY MEM SUBR. SET AR=NUMBER
0291 54F7          ; OF MEMORY BYTES DISPLAYED.
0292 54F7          ; TMPO=ADR OF MEM DISPLAYED
0293 54F7          ;
0294 54F7  B5 B5          DM          STA TMPC
0295 54F9  A0 00          LDY #0
0296 54FB  20 31 55      DM1          JSR SPACE          ; WR N BYTES
0297 54FE  B1 FB          LDA (TMPO), Y    ; (TMPO)=ADR
0298 5500  20 22 57      JSR WR03
0299 5503  20 39 55      JSR INCTMP
0300 5506  C6 B5          DEC TMPC
0301 5508  D0 F1          BNE DM1
0302 550A  60          RTS
0303 550B          ; READ AND STORE BYTE.
0304 550B          ; NO STORE IF SPACE OR TMPC = 0.
0305 550B  20 63 57      BYTE          JSR RDOB          ; CHAR IN A, CY=0 IF SP
0306 550E  90 0D          BCC BY3          ; SPACE
0307 5510  A2 00          LDX #0          ; STORE BYTE
0308 5512  81 FB          STA (TMPO, X)
0309 5514  C1 FB          CMP (TMPO, X)    ; TEST FOR VALID WRITE (RAM)
0310 5516  F0 05          BEQ BY3
0311 5518  6B          PLA          ; ERROR: CLEAR JSR ADR IN STACK
0312 5519  6B          PLA
0313 551A  4C A4 57      JMP ERROPR
0314 551D  20 39 55      BY3          JSR INCTMP          ; GD INC TMPO ADR
0315 5520  C6 B5          DEC TMPC
0316 5522  60          RTS
0317 5523  A9 02          SETR          LDA #<FLGS          ; SET TO ACCESS REGS
0318 5525  85 FB          STA TMPO
0319 5527  A9 02          LDA #>FLGS
0320 5529  85 FC          STA TMPO+1
0321 552B  A9 05          LDA #5
0322 552D  60          RTS
0323 552E  20 31 55      SPAC2        JSR SPACE
0324 5531  A9 20          SPACE        LDA #$20
0325 5533  2C          .BYT $2C

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0326	5534	A9 OD	CRLF	LDA	##D	
0327	5536	4C 66 72		JMP	BSOUT	
0328	5539			; INCREMENT (TMPO, TMPO+1) BY 1		
0329	5539	E6 FB	INCTMP	INC	TMPO	; LOW BYTE
0330	553B	D0 06		BNE	SETWR	
0331	553D	E6 FC		INC	TMPO+1	; HIGH BYTE
0332	553F	D0 02		BNE	SETWR	
0333	5541	E6 DE		INC	WRAP	
0334	5543	60	SETWR	RTS		

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0336	5544	3A	CMDS	.BYT	' :	'	; MODIFY MEMORY
0337	5545	3B		.BYT	' ;	'	; ALTER REGISTERS
0338	5546	52		.BYT	' R	'	; DISPLAY REGS
0339	5547	4D		.BYT	' M	'	; DISPLAY MEMORY
0340	5548	47		.BYT	' G	'	; START EXECUTION
0341	5549	58		.BYT	' X	'	; WARM START BASIC
0342	554A	4C		.BYT	' L	'	; LOAD MEMORY
0343	554B	53		.BYT	' S	'	; SAVE MEMORY
0344	554C	56	ADRH	.BYT	>ZZ1		
0345	554D	55		.BYT	>ZZ2		
0346	554E	55		.BYT	>ZZ3		
0347	554F	55		.BYT	>ZZ4		
0348	5550	56		.BYT	>ZZ5		
0349	5551	56		.BYT	>ZZ6		
0350	5552	56		.BYT	>ZZ7		
0351	5553	56		.BYT	>ZZ8		
0352	5554	1C	ADRL	.BYT	<ZZ1		
0353	5555	FA		.BYT	<ZZ2		
0354	5556	86		.BYT	<ZZ3		
0355	5557	8B		.BYT	<ZZ4		
0356	5558	32		.BYT	<ZZ5		
0357	5559	6A		.BYT	<ZZ6		
0358	555A	74		.BYT	<ZZ7		
0359	555B	74		.BYT	<ZZ8		

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0361 555C 0D          REGK  .BYT CR,$20,$20,$20,$20 ; 4 SPACES
0361 555D 20
0361 555E 20
0361 555F 20
0361 5560 20
0362 5561 20 50      .BYT ' PC ',' IRQ ',' SR AC XR YR SP '
0362 5565 20 49
0362 556A 20 53
0363 5579 98          ALTRIT TYA
0364 557A 4B          PHA
0365 557B 20 34 55    JSR CRLF
0366 557E 6B          PLA
0367 557F A2 2E       LDX #'
0368 5581 20 31 57    JSR WRTWO
0369 5584 4C 2E 55    JMP SPAC2
0370 5587
;
0371 5587 A2 00      DSPLYR LDX #0
0372 5589 BD 5C 55    D2     LDA REGK, X
0373 558C 20 66 72    JSR BSQUT
0374 558F E8          INX
0375 5590 E0 1D      CPX #29
0376 5592 D0 F5      BNE D2
0377 5594 A0 3B      LDY #'
0378 5596 20 79 55    JSR ALTRIT
0379 5599 AD 00 02      LDA PCH
0380 559C 20 22 57    JSR WROB
0381 559F AD 01 02      LDA PCL
0382 55A2 20 22 57    JSR WROB
0383 55A5 20 31 55    JSR SPACE
0384 55A8 AD 07 02      LDA INVH
0385 55AB 20 22 57    JSR WROB
0386 55AE AD 08 02      LDA INVL
0387 55B1 20 22 57    JSR WROB
0388 55B4 20 23 55    JSR SETR
0389 55B7 20 F7 54      JSR DM          ; USE DM SUBR.
0390 55BA F0 39      BEQ BEQS1
0391 55BC 20 98 57      DSPLYM JSR RDOC
0392 55BF 20 54 57      JSR RDOA          ; READ START ADR
0393 55C2 90 34      BCC ERRS1        ; ERR IF NO SA
0394 55C4 20 44 57      JSR T2T2        ; SA TO TMP2
0395 55C7 20 98 57      JSR RDOC        ; SKIP DELIMITER
0396 55CA 20 54 57      JSR RDOA        ; READ END ADR
0397 55CD 90 29      BCC ERRS1        ; ERR IF NO EA
0398 55CF 20 44 57      JSR T2T2        ; SA TO TMP0, EA TO TMP2
0399 55D2 20 35 73      DSP1  JSR STOP1     ; TEST FOR STOP KEY
0400 55D5 F0 1E      BEQ BEQS1
0401 55D7 A6 DE      LDX WRAP
0402 55D9 D0 1A      BNE BEQS1
0403 55DB 38          SEC          ; DOUBLE BYTE COMPARE
0404 55DC A5 FD      LDA TMP2
0405 55DE E5 FB      SBC TMP0
0406 55E0 A5 FE      LDA TMP2+1
0407 55E2 E5 FC      SBC TMP0+1
0408 55E4 90 0F      BCC BEQS1        ; STOP IF EA LESS THAN SA
0409 55E6 A0 3A      LDY #'

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0410 55E8 20 79 55      JSR ALTRIT
0411 55EB 20 17 57      JSR WROA
0412 55EE A9 08        LDA #8
0413 55F0 20 F7 54      JSR DM                ; DISPLAY 8, INCR TMPO
0414 55F3 F0 DD        BEQ DSP1
0415 55F5 4C BA 54      BEQS1 JMP STRT
0416 55F8 4C A4 57      ERRS1 JMP ERROPR
0417 55FB                ; ALTER REGISTERS
0418 55FB 20 63 57      ALTR JSR RDOB          ; SKIP 2 SPACES
0419 55FE 20 54 57      JSR RDOA             ; CY=0 IF SP
0420 5601 90 03        BCC AL2              ; SPACE
0421 5603 20 EC 54      JSR PUTP            ; ALTER PC
0422 5606 20 15 72      AL2 JSR BASIN
0423 5609 20 54 57      JSR RDOA
0424 560C 90 0A        BCC AL3
0425 560E A5 FB        LDA TMPO
0426 5610 8D 08 02      STA INVL
0427 5613 A5 FC        LDA TMPO+1
0428 5615 8D 07 02      STA INVH
0429 5618 20 23 55      AL3 JSR SETR          ; SET TO ALTER R'S
0430 561B D0 0A        BNE A4
0431 561D                ; ALTER MEMORY - READ ADR AND DATA
0432 561D 20 63 57      ALTM JSR RDOB          ; SKIP 2 SPACES
0433 5620 20 54 57      JSR RDOA             ; READ MEM ALTER ADR
0434 5623 90 D3        BCC ERRS1            ; CY=0, IF SPACE, ERR
0435 5625 A9 08        LDA #8                ; SET CNT = 8
0436 5627 85 B5        A4 STA TMPC
0437 5629 20 98 57      A5 JSR RDOC
0438 562C 20 08 55      JSR BYTE
0439 562F D0 FB        BNE A5
0440 5631 F0 C2        A9 BEQ BEQS1
0441 5633 20 15 72      G0 JSR BASIN
0442 5636 C9 0D        CMP #80                ; IF CR, EXIT
0443 5638 F0 0C        BEQ G1
0444 563A C9 20        CMP #20                ; IF NOT SPACE, ERR
0445 563C D0 BA        BNE ERRS1
0446 563E 20 54 57      JSR RDOA
0447 5641 90 03        BCC G1
0448 5643 20 EC 54      JSR PUTP
0449 5646 AE 06 02      G1 LDX SP
0450 5649 9A                TXS                    ; ORIG OR NEW SP VALUE TO SP
0451 564A 78                SEI
0452 564B AD 07 02      LDA INVH
0453 564E 85 91        STA CINV+1
0454 5650 AD 08 02      LDA INVL
0455 5653 85 90        STA CINV
0456 5655 AD 00 02      LDA PCH
0457 5658 48                PHA
0458 5659 AD 01 02      LDA PCL
0459 565C 48                PHA
0460 565D AD 02 02      LDA FLGS
0461 5660 48                PHA
0462 5661 AD 03 02      LDA ACC
0463 5664 AE 04 02      LDX XR
0464 5667 AC 05 02      LDY YR

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0465 566A 40          RTI
0466 566B AE 06 02   EXIT  LDX SP
0467 566E 9A          TXS
0468 566F 4C FF 33   JMP READY      ;EXIT TO BASIC WARM START
0469 5672 4C A4 57   ERRL  JMP ERROPR
0470 5675          ZZZ1  =SAVNAM      ;PLACE TO PUT NAME
0471 5675 A0 01      LD    LDY #1
0472 5677 84 D4      STY FA        ;DEFAULT DEVICE #1
0473 5679 88          DEY
0474 567A 84 D1      STY FNLEN
0475 567C 84 96      STY SATUS     ;CLEAR STATUS ON LOAD
0476 567E 84 9D      STY VERCK
0477 5680 A9 02      LDA #>ZZZ1    ;PLACE TO STORE NAME
0478 5682 85 DB      STA FNADR+1
0479 5684 A9 09      LDA #<ZZZ1
0480 5686 85 DA      STA FNADR
0481 5688 20 15 72   L1    JSR BASIN
0482 5688 C9 20      CMP #'
0483 568D F0 F9      BEQ L1        ;SPAN BLANKS
0484 568F C9 0D      CMP #CR
0485 5691 F0 1A      BEQ L5        ;DEFAULT TO LOAD
0486 5693 C9 22      CMP #'"
0487 5695 D0 DB      L2    BNE ERRL    ;FILE NAME MUST BE NEXT
0488 5697 20 15 72   L3    JSR BASIN
0489 569A C9 22      CMP #'"
0490 569C F0 24      BEQ L8        ;END OF NAME
0491 569E C9 0D      CMP #CR      ;DEFAULT A LOAD
0492 56A0 F0 0B      BEQ L5
0493 56A2 91 DA      STA (FNADR)Y
0494 56A4 E6 D1      INC FNLEN
0495 56A6 C8          INY
0496 56A7 C0 10      CPY #16
0497 56A9 F0 C7      L4    BEQ ERRL    ;FILE NAME TOO LONG
0498 56AB D0 EA      BNE L3
0499 56AD A5 B4      L5    LDA SAVX
0500 56AF C9 06      CMP #6
0501 56B1 D0 E2      L6    BNE L2        ;NOT A LOAD
0502 56B3 20 56 73   JSR LD15
0503 56B6 20 2B 79   JSR TWAIT
0504 56B9 A5 96      LDA SATUS
0505 56BB 29 10      AND #SPERR
0506 56BD D0 F2      L7    BNE L6        ;LOAD ERROR
0507 56BF 4C BA 54   JMP STRT
0508 56C2 20 15 72   L8    JSR BASIN
0509 56C5 C9 0D      CMP #CR
0510 56C7 F0 E4      BEQ L5        ;DEFUALT LOAD
0511 56C9 C9 2C      CMP #',
0512 56CB D0 F0      L9    BNE L7        ;BAD SYNTAX
0513 56CD 20 63 57   JSR RDOB
0514 56D0 29 0F      AND #*F
0515 56D2 F0 D5      L10   BEQ L4        ;DEVICE 0
0516 56D4 C9 03      CMP #3
0517 56D6 F0 FA      L11   BEQ L10       ;DEVICE 3
0518 56D8 B5 D4      STA FA
0519 56DA 20 15 72   JSR BASIN

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LINE# LOC CODE LINE

```

0520 56DD C9 OD          CMP #CR
0521 56DF F0 CC          BEQ L5                ; DEFAULT LOAD
0522 56E1 C9 2C          CMP #' ,
0523 56E3 D0 E6          L12 BNE L9            ; BAD SYNTAX
0524 56E5 20 54 57      JSR RDOA
0525 56E8 20 44 57      JSR T2T2
0526 56EB 20 15 72      JSR BASIN
0527 56EE C9 2C          CMP #' ,
0528 56F0 D0 F1          L13 BNE L12          ; MISSING END ADDR
0529 56F2 20 54 57      JSR RDOA
0530 56F5 A5 FB          LDA TMPO
0531 56F7 85 C9          STA EAL
0532 56F9 A5 FC          LDA TMPO+1
0533 56FB 85 CA          STA EAH
0534 56FD 20 44 57      JSR T2T2
0535 5700 20 15 72      L20 JSR BASIN
0536 5703 C9 20          CMP ##20
0537 5705 F0 F9          BEQ L20
0538 5707 C9 OD          CMP #CR
0539 5709 D0 E5          L14 BNE L13          ; MISSING CR AT END
0540 570B A5 B4          LDA SAVX
0541 570D C9 07          CMP #7
0542 570F D0 F8          BNE L14
0543 5711 20 E3 76      JSR SV5
0544 5714 4C BA 54      JMP STRT
0545 5717                ZZ1=ALTM-1
0546 5717                ZZ2=ALTR-1
0547 5717                ZZ3=DSPLYR-1
0548 5717                ZZ4=DSPLYM-1
0549 5717                ZZ5=GO-1
0550 5717                ZZ6=EXIT-1
0551 5717                ZZ7=LD-1
0552 5717                ZZ8=LD-1
0553 5717                .FIL UTILIT

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Maguire Business Systems, Inc.

LINE# LOC CODE LINE

```

0555 5717          ;WRITE ADR FROM TMPO STORES
0556 5717 A2 01    WROA  LDX #1
0557 5719 B5 FA    WROA1 LDA TMPO-1, X
0558 571B 48      PHA
0559 571C B5 FB    LDA TMPO, X
0560 571E 20 22 57 JSR WROB
0561 5721 68      PLA
0562 5722          ;WRITE BYTE --- A = BYTE
0563 5722          ;UNPACK BYTE DATA INTO TWO ASCII
0564 5722          ;CHARACTERS. A=BYTE; X,A=CHARS
0565 5722 48      WROB  PHA
0566 5723 4A      LSR A
0567 5724 4A      LSR A
0568 5725 4A      LSR A
0569 5726 4A      LSR A
0570 5727 20 3A 57 JSR ASCII          ; CONVERT TO ASCII
0571 572A AA      TAX
0572 572B 68      PLA
0573 572C 29 0F    AND #$0F
0574 572E 20 3A 57 JSR ASCII
0575 5731          ;WRITE 2 CHARS--X, A=CHARS
0576 5731 48      WRTWO PHA
0577 5732 8A      TXA
0578 5733 20 66 72 JSR BSQUT
0579 5736 68      PLA
0580 5737 4C 66 72 JMP BSQUT
0581 573A 18      ASCII CLC
0582 573B 69 F6    ADC #$F6
0583 573D 90 02    BCC ASC1
0584 573F 69 06    ADC #$06
0585 5741 69 3A    ASC1  ADC #$3A
0586 5743 60      RTS
0587 5744 A2 02    T2T2  LDX #2
0588 5746 B5 FA    T2T21 LDA TMPO-1, X
0589 5748 48      PHA
0590 5749 B5 FC    LDA TMP2-1, X
0591 574B 95 FA    STA TMPO-1, X
0592 574D 68      PLA
0593 574E 95 FC    STA TMP2-1, X
0594 5750 CA      DEX
0595 5751 D0 F3    BNE T2T21
0596 5753 60      RTS
0597 5754          ;READ HEX ADR, RETURN HI IN TMPO,
0598 5754          ;LD IN TMPO+1, AND CY=1
0599 5754          ;IF SP CY=0
0600 5754 20 63 57 RDDA  JSR RDOB          ;READ 2-CHAR BYTE
0601 5757 90 02    BCC RDDA2          ;SPACE
0602 5759 85 FC    STA TMPO+1
0603 575B 20 63 57 RDDA2 JSR RDOB
0604 575E 90 02    BCC RDEXIT        ;SP
0605 5760 B5 FB    STA TMPO
0606 5762 60      RDEXIT RTS
0607 5763          ;READ HEX BYTE AND RETURN IN A
0608 5763          ;AND CY=1 IF SP CY=0
0609 5763 A9 00    RDOB  LDA #0          ;SPACE

```

LINE# LOC CODE LINE

```

0610 5765 8D 00 01          STA BAD          ; READ NEXT CHAR
0611 5768 20 98 57          JSR RDOC
0612 576B C9 20          RDOB1  CMP #'
0613 576D D0 09          BNE RDOB2
0614 576F 20 98 57          JSR RDOC          ; READ NEXT CHAR
0615 5772 C9 20          CMP #'
0616 5774 D0 0F          BNE RDOB3
0617 5776 18          CLC              ; CY=0
0618 5777 60          RTS
0619 5778 20 8D 57          RDOB2  JSR HEXIT          ; TO HEX
0620 577B 0A          ASL A
0621 577C 0A          ASL A
0622 577D 0A          ASL A
0623 577E 0A          ASL A
0624 577F 8D 00 01          STA BAD
0625 5782 20 98 57          JSR RDOC          ; 2ND CHAR ASSUMED HEX
0626 5785 20 8D 57          RDOB3  JSR HEXIT
0627 5788 0D 00 01          ORA BAD
0628 578B 38          SEC              ; CY=1
0629 578C 60          RTS
0630 578D C9 3A          HEXIT  CMP ##3A
0631 578F 08          PHP              ; SAVE FLAGS
0632 5790 29 0F          AND ##0F
0633 5792 28          PLP
0634 5793 90 02          BCC HEX09          ; 0-9
0635 5795 69 08          ADC #8           ; ALPHA ADD 8+CY=9
0636 5797 60          HEX09  RTS
0637 5798 20 15 72          RDOC   JSR BASIN          ; READ CHAR
0638 579B C9 0D          CMP ##0D          ; IS IT A CR
0639 579D D0 FB          BNE HEX09          ; NO, RTS
0640 579F 68          PLA
0641 57A0 68          PLA              ; YES, CLEAN STACK, EXIT
0642 57A1 4C BA 54          JMP STRT
0643 57A4 A9 3F          ERROPR LDA ##3F
0644 57A6 20 66 72          JSR BSOUT
0645 57A9 4C BA 54          JMP STRT
0646 57AC          .FIL DOS. SYNTAX

```

LINE# LOC CODE LINE

```

0648 57AC ; *****
0649 57AC ; * COMMODORE DOS PARSER *
0650 57AC ; *
0651 57AC ; * -MGM 7/11/79- *
0652 57AC ; *
0653 57AC ; * THIS SET OF ROUTINES TAKES *
0654 57AC ; * TOKENS AND VALUES AFTER THE *
0655 57AC ; * THE FOLLOWING BASIC KEYWORDS*
0656 57AC ; * DOPEN; DCLOSE ; RECORD ; *
0657 57AC ; * FORMAT ; COLLECT ; BACKUP ; *
0658 57AC ; * COPY ; CONCAT ; DSAVE ; *
0659 57AC ; * DLOAD ; CATLDG ; RENAME ; *
0660 57AC ; * APPEND ; SCRTCH *
0661 57AC ; *****
0662 57AC ;
0663 57AC ; IT THEN PARSES THE FOLLOWING LINE
0664 57AC ; AND FINDS SYNTAX ERRORS, CHECKS
0665 57AC ; FOR OUT OF RANGE VALUES, AND SETS
0666 57AC ; VARIABLES IN THE ZERO-PAGE TO BE
0667 57AC ; PASSED TO THE DISK MESSAGE GEN-
0668 57AC ; ERATOR (DMG)
0669 57AC ;
0670 57AC ;
0671 57AC 4C 00 3F SYNERR JMP SNERR ; SYNTAX ERROR
0672 57AF ;
0673 57AF ; *****
0674 57AF ; * "RECORD" PARSER & SYNTAX CHECKER *
0675 57AF ; * NOTE: POSITION DEPENDENT *
0676 57AF ; *****
0677 57AF A9 01 RECORD LDA #01 ; FIX POS
0678 57B1 8D 3A 03 STA POS
0679 57B4 20 76 00 JSR CHRGD
0680 57B7 A9 23 LDA #'#
0681 57B9 20 F7 3E JSR SYNCHR ; NXT CHR MUST BE '#'
0682 57BC 20 8A 5E JSR GTVL2 ; GET NXT VALUE
0683 57BF E0 00 CPX #0
0684 57C1 F0 3E BEQ QTYER1 ; ADDR CAN'T BE < 1
0685 57C3 86 D2 STX LA ; STORE LOGICAL ADDR
0686 57C5 20 F5 3E JSR CHKCOM ; NXT MUST BE COMMA
0687 57C8 F0 E2 BEQ SYNERR ; <CR>/<: > NOT ALLOWED
0688 57CA 90 0F BCC NUMADR ; MUST BE NUM OR "("
0689 57CC 20 F2 3E JSR CHKOPN ; MUST BE "("
0690 57CF 20 98 3D JSR FRMEVL
0691 57D2 20 2D 49 JSR GETADR
0692 57D5 20 EF 3E JSR CHKCLS
0693 57D8 4C E1 57 JMP REXNEX
0694 57DB 20 98 3D NUMADR JSR FRMEVL
0695 57DE 20 2D 49 JSR GETADR ; SEE WHAT NXT IS
0696 57E1 20 76 00 REXNEX JSR CHRGD ; SEE WHAT NXT IS
0697 57E4 F0 18 BEQ DONER ; <CR>/<: > => DONE
0698 57E6 20 F5 3E JSR CHKCOM ; ELSE MUST BE COMMA
0699 57E9 F0 C1 BEQ SYNERR ; CANT BE <CR> OR <: >
0700 57EB 20 8A 5E JSR GTVL2
0701 57EE E0 00 CPX #0
0702 57F0 F0 0F BEQ QTYER1 ; OUT OF RANGE

```


LINE# LOC CODE LINE

0703	57F2	E0	FF	CPX	#\$FF	
0704	57F4	F0	0B	BEQ	QTYER1	; OUT OF RANGE
0705	57F6	8E	3A 03	STX	POS	; STORE POSITION OF REC
0706	57F9	20	76 00	JSR	CHRGDT	
0707	57FC	D0	AE	BNE	SYNERR	; MUST BE <CR> OR <:>
0708	57FE	4C	31 5A	DONER	JMP	BOBREC
0709	5801					;

Western Business Form, Inc

LINE# LOC CODE LINE

```

0711 5801
0712 5801
0713 5801 4C 27 5E QTYER1 JMP QTYERR
0714 5804
0715 5804 ; *****
0716 5804 ; * SYNTAX CHECKER *
0717 5804 ; * ROUTINES FOR DOS.WRITE *
0718 5804 ; *****
0719 5804 29 E6 CHK1 AND #E6; FOR HEADER, DLOAD, SCRTCH
0720 5806 F0 03 BEQ CHK2 ; CHK OPT PARMS
0721 5808 4C 00 3F CHKER1 JMP SNERR
0722 5808 AD 3E 03 CHK2 LDA PARCHK ; FOR DSAVE
0723 580E 29 01 AND #1
0724 5810 C9 01 CMP #1 ; CHK REQ'D PARMS
0725 5812 D0 F4 BNE CHKER1 ; ERROR IF 1 MISSING
0726 5814 AD 3E 03 LDA PARCHK ; RELOAD FOR RETURN
0727 5817 60 RTS
0728 5818
0729 5818 29 E7 CHK3 AND #E7 ; FOR COLECT, CATLOG
0730 581A D0 EC BNE CHKER1 ; CHK OPT PARMS
0731 581C 60 RTS
0732 581D
0733 581D 29 C4 CHK4 AND #C4 ; FOR COPY, CONCAT
0734 581F D0 E7 BNE CHKER1 ; CHK OPT PARMS
0735 5821 AD 3E 03 LDA PARCHK
0736 5824 29 03 CHK5 AND #3 ; FOR RENAME
0737 5826 C9 03 CMP #3 ; CHK REQ'D PARMS
0738 5828 D0 DE BNE CHKER1
0739 582A AD 3E 03 LDA PARCHK ; RELOAD FOR RETURN
0740 582D 60 RTS
0741 582E
0742 582E 29 05 CHK6 AND #5 ; FOR APPEND, DOPEN
0743 5830 C9 05 CMP #5 ; CHK REQ'D PARMS
0744 5832 D0 D4 BNE CHKER1
0745 5834 AD 3E 03 LDA PARCHK ; RELOAD FOR RTS
0746 5837 60 RTS
0747 5838
0748 5838 . FILE DOS.WRITE

```

LINE# LOC CODE LINE

```

0750 5838 ;*****
0751 5838 ;*
0752 5838 ;* PET2001 DISK ROUTINES
0753 5838 ;* --RSR--7/24/79--
0754 5838 ;*
0755 5838 ;*****
0756 5838 ;
0757 5838 ; TABLD SYMBOLS
0758 5838 XFN1   =#F1           ; SENDS FILENAME1
0759 5838 XFN2   =#F2           ; SENDS FILENAME2
0760 5838 XID    =#D0           ; SENDS DISK ID
0761 5838 XREC   =#E0           ; SENDS S FOR SEQ OR LRECL
0762 5838 XWRT   =#E1           ; SENDS W OR L
0763 5838 XD1    =#D1           ; SENDS DRIVE1
0764 5838 XD2    =#D2           ; SENDS DRIVE2
0765 5838 ;
0766 5838 ; TABLD
0767 5838 ;
0768 5838 TABLD           ; USED TO BUILD DISK STRINGS
0769 5838 ; CATALOG
0770 5838 FF           . BYT $FF, '$', XD1
0770 5839 24
0770 583A D1
0771 583B ; DOPEN DSAVE DLOAD
0772 583B D1           . BYT XD1, ': ', XFN1, ', ', XWRT, ', ', XREC
0772 583C 3A
0772 583D F1
0772 583E 2C
0772 583F E1
0772 5840 2C
0772 5841 E0
0773 5842 ; APPEND
0774 5842 D1           . BYT XD1, ': ', XFN1, ', ', 'A'
0774 5843 3A
0774 5844 F1
0774 5845 2C
0774 5846 41
0775 5847 ; HEADER
0776 5847 4E           . BYT 'N', XD1, ': ', XFN1, ', ', XID
0776 5848 D1
0776 5849 3A
0776 584A F1
0776 584B 2C
0776 584C D0
0777 584D ; COLLECT
0778 584D 56           . BYT 'V', XD1
0778 584E D1
0779 584F ; BACKUP
0780 584F 44           . BYT 'D', XD2, '=', XD1
0780 5850 D2
0780 5851 3D
0780 5852 D1
0781 5853 ; COPY
0782 5853 43           . BYT 'C', XD2, ': ', XFN2, '=', XD1, ': ', XFN1
0782 5854 D2

```

LINE# LOC CODE LINE

```
0782 5855 3A
0782 5856 F2
0782 5857 3D
0782 5858 D1
0782 5859 3A
0782 585A F1
0783 585B          ; CONCAT
0784 585B 43          .BYT 'C',XD2,':',XFN2,'=',XD2,':',XFN2
0784 585C D2
0784 585D 3A
0784 585E F2
0784 585F 3D
0784 5860 D2
0784 5861 3A
0784 5862 F2
0785 5863 2C          .BYT ', ',XD1,':',XFN1
0785 5864 D1
0785 5865 3A
0785 5866 F1
0786 5867          ; RENAME
0787 5867 52          .BYT 'R',XD1,':',XFN2,'=',XD1,':',XFN1
0787 5868 D1
0787 5869 3A
0787 586A F2
0787 586B 3D
0787 586C D1
0787 586D 3A
0787 586E F1
0788 586F          ; SCRATCH
0789 586F 53          .BYT 'S',XD1,':',XFN1
0789 5870 D1
0789 5871 3A
0789 5872 F1
0790 5873          ;
```

LINE# LOC CODE LINE

```

0792 5873          ;
0793 5873          ; CATALOG (BOB F'S)
0794 5873          ;
0795 5873 A5 D2    CATLOG LDA LA          ; SAVE LA
0796 5875 B5 B3    STA WSW
0797 5877 20 68 5C JSR DQSPAR          ; PARSE THE LINE
0798 587A 20 18 58 JSR CHK3           ; CHK OPT PARMS
0799 587D A0 00    CATALG LDY #0          ; TABLD OFFSET
0800 587F A2 01    LDX #1           ; JUST #
0801 5881 AD 3E 03 LDA PARCHK        ; CHK FOR DEFAULT
0802 5884 29 10    AND #$10          ; NO DRIVE?
0803 5886 F0 01    BEQ CATBLD
0804 5888 EB      INX
0805 5889 BA      CATBLD TXA          ; A NOW HAS LENGTH
0806 588A 20 FA 5B JSR SENDP         ; BUILD
0807 588D A5 B0    LDA DFLTO          ; SAVE DFLTO
0808 588F B5 BA    STA CNTDN
0809 5891 A9 60    LDA #$60          ; SECONDARY ADDR
0810 5893 B5 D3    STA SA
0811 5895 A9 0E    LDA #14          ; OPEN THE FILE
0812 5897 B5 D2    STA LA
0813 5899 20 B9 71 JSR UNLSN         ; DON'T LISTEN TO FLOPPY
0814 589C 20 65 75 JSR FOPEN
0815 589F A9 00    LDA #0
0816 58A1 B5 96    STA SATUS          ; SET STATUS TO 0
0817 58A3 A0 03    LDY #$03          ; LOOP THREE TIMES
0818 58A5          ;
0819 58A5 B4 D1    WG220 STY FNLEN        ; SAVE NEW COUNT
0820 58A7 A2 0E    LDX #14          ; DISK CHANNEL
0821 58A9 20 AF 77 JSR CHKIN
0822 58AC 20 15 72 JSR BASIN
0823 58AF B5 FD    STA TMP2
0824 58B1 A4 96    LDY SATUS          ; CHECK STATUS
0825 58B3 D0 5D    BNE WG230         ; BAD STATUS
0826 58B5 20 15 72 JSR BASIN
0827 58B8 B5 FE    STA TMP2+1
0828 58BA A4 96    LDY SATUS          ; CHECK STATUS
0829 58BC D0 54    BNE WG230
0830 58BE A4 D1    LDY FNLEN        ; MORE TO DO?
0831 58C0 B8      DEY
0832 58C1 D0 E2    BNE WG220         ; NOT DONE YET
0833 58C3 20 A6 72 JSR CLRCHN       ; CLEAR CHANNEL
0834 58C6 20 23 59 JSR SUBB
0835 58C9 A6 FD    LDX TMP2
0836 58CB A5 FE    LDA TMP2+1
0837 58CD 20 B3 4F JSR LINPRT       ; PRINT LINE NUMBER
0838 58D0 A9 20    LDA #$20          ; PRINT A SPACE
0839 58D2 20 66 72 SKIPB JSR BSOUT
0840 58D5 20 A6 72 JSR CLRCHN
0841 58D8 A2 0E    WG250 LDX #14          ; DISK CHANNEL
0842 58DA 20 AF 77 JSR CHKIN
0843 58DD 20 15 72 JSR BASIN
0844 58E0 48      PHA
0845 58E1 20 A6 72 JSR CLRCHN
0846 58E4 68      PLA

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LINE# LOC CODE LINE

```

0847 58E5 A6 96          LDX STATUS
0848 58E7 D0 29          BNE WG230          ; BAD
0849 58E9 C9 00          CMP #0             ; EOL
0850 58EB F0 18          BEQ WG240
0851 58ED 20 1A 59       JSR SUBA
0852 58F0 20 35 73       JSR STOP1          ; STOP KEY
0853 58F3 F0 1D          BEQ WG230          ; YES...
0854 58F5 20 05 72       JSR GETIN          ; GET CHAR FROM KBYD
0855 58F8 F0 DE          BEQ WG250          ; NOTHING...
0856 58FA C9 20          CMP ##20           ; SPACE BAR?
0857 58FC D0 DA          BNE WG250          ; NO...
0858 58FE 20 05 72       WG255 JSR GETIN          ; ANY KEY STARTS
0859 5901 F0 FB          BEQ WG255
0860 5903 D0 D3          BNE WG250          ; (JMP)
0861 5905 A9 OD          WG240 LDA #CR
0862 5907 20 1A 59       JSR SUBA
0863 590A 20 B9 71       JSR UNLSN
0864 590D A0 02          LDY ##02           ; DO TWICE
0865 590F D0 94          BNE WG220
0866 5911 68            WG235 PLA             ; CLEAN UP
0867 5912 20 A6 72       WG230 JSR CLRCHN
0868 5915 A9 0E          LDA #14            ; CLOSE FLOPPY
0869 5917 4C E2 72       JMP FCLOSE
0870 591A                ;
0871 591A 20 23 59       SUBA JSR SUBB
0872 591D 20 66 72       JSR BSOUT
0873 5920 4C A6 72       JMP CLRCHN
0874 5923                ;
0875 5923 A6 BA          SUBB LDX CNTDN
0876 5925 E0 03          CPX #3
0877 5927 F0 05          BEQ SUBBR
0878 5929 A6 B3          LDX WSW
0879 592B 20 FE 77       JSR CHKOUT
0880 592E 60            SUBBR RTS
0881 592F                ;

```

LINE# LOC CODE LINE

```

0883 592F          ;
0884 592F          ; ENTRY LOOK UP SUBROUTINE
0885 592F          ;
0886 592F A0 61    ENTRY0 LDY ##61      ; CALC SA >APPEND ENTRY
0887 5931 C8      ENTRY1 INY
0888 5932 98      TYA
0889 5933 A6 AE    LDX LDTND
0890 5935 CA      ENTRY2 DEX
0891 5936 30 07    BMI RFOUND      ; ALL THRU STK?
0892 5938 DD 65 02 CMP SAT, X
0893 593B FO F4    BEQ ENTRY1      ; THIS SA USED
0894 593D DO F6    BNE ENTRY2      ; CONT DOWN
0895 593F 84 D3    RFOUND STY SA      ; .Y=SA
0896 5941 60      RTS
0897 5942          ;
0898 5942          ; DOPEN CODE D:FNC,TL,RJ]
0899 5942          ;
0900 5942 20 68 5C DOPEN JSR DOSPAR      ; CALL PARSER SUB
0901 5945 20 2E 58 JSR CHK6
0902 5948 29 22    AND ##22
0903 594A FO 03    BEQ DOPEN2
0904 594C 4C 00 3F JMP SNERR
0905 594F 20 2F 59 DOPEN2 JSR ENTRY0      ; GET SA
0906 5952 A0 02    LDY #2          ; INFO OFFSET
0907 5954 A2 03    LDX #3          ; BASIC LENGTH
0908 5956 2C 3E 03 BIT PARCHK      ; REL RECORD?
0909 5959 50 02    BVC LEAV        ; Z=NO
0910 595B A2 07    RECLCK LDX #7      ; LENGTH NOW 7
0911 595D 2C 3E 03 LEAV BIT PARCHK   ; CHK FOR @
0912 5960 10 0E    BPL LEAV1       ; NO @
0913 5962 A9 40    LDA #'@
0914 5964 8D 53 03 STA TBUFF
0915 5967 8A      TXA
0916 5968 A2 01    LDX #1
0917 596A 20 FC 5B JSR SENDP1
0918 596D 4C 63 75 JMP OP94
0919 5970 8A      LEAV1 TXA
0920 5971 20 FA 5B JSR SENDP
0921 5974 4C 63 75 JMP OP94
0922 5977          ;

0924 5977          ; APPEND CODE
0925 5977          ;
0926 5977 20 68 5C APPEND JSR DOSPAR      ; PARSE IT
0927 597A 20 2E 58 JSR CHK6          ; CHK REQ'D PARMS
0928 597D 29 E2    AND ##E2        ; CHK OPT PARMS
0929 597F FO 03    BEQ DAPPEN
0930 5981 4C 00 3F JMP SNERR
0931 5984 20 2F 59 DAPPEN JSR ENTRY0      ; GET A SA
0932 5987 A0 09    LDY #9          ; TABLD INDEX
0933 5989 A9 05    LDA #5          ; LENGTH
0934 598B 20 FA 5B JSR SENDP        ; BUILD
0935 598E 4C 63 75 JMP OP94          ; GO OPEN
0936 5991          ;

```

LINE# LOC CODE LINE

```

0938 5991 ;
0939 5991 ; ERROR CHANNEL READ
0940 5991 ;
0941 5991 A5 0D ERRCHL LDA DSDDESC ; ENTRY FOR USER
0942 5993 D0 16 BNE ECHKs ; CHK OLD STATUS
0943 5995 A9 28 GETDS LDA #40 ; GET 40 CHAR STR
0944 5997 85 0D STA DSDDESC ; WE HAVE 40 CHRS
0945 5999 20 1D 46 JSR GETSPA
0946 599C 86 0E STX DSDDESC+1 ; RETURN LOW
0947 599E 84 0F STY DSDDESC+2 ; RETURN HIGH
0948 59A0 A9 00 LDA #00 ; BACKLINK STRING
0949 59A2 A0 29 LDY #41
0950 59A4 91 0E STA (DSDDESC+1)Y ; UPPER
0951 59A6 88 DEY
0952 59A7 A9 0D LDA #0D ; ADDRESS $000D
0953 59A9 91 0E STA (DSDDESC+1)Y ; LOWER
0954 59AB A5 D4 ECHKs LDA FA ; CHK BUS <=DS READ
0955 59AD D0 04 BNE EREAD ; IF =0 DEFAULT
0956 59AF A9 08 LDA #8
0957 59B1 85 D4 STA FA
0958 59B3 20 D2 70 EREAD JSR TALK
0959 59B6 A9 6F LDA #6F
0960 59B8 85 D3 STA SA
0961 59BA 20 43 71 JSR SECND TKSK TKS4
0962 59BD A0 FF LDY #FF; FOR OFFSET
0963 59BF C8 LOOP1 INY
0964 59C0 20 C0 71 JSR ACPTR
0965 59C3 C9 0D CMP #CR ; CHECK FOR END
0966 59C5 F0 04 BEQ ERREND
0967 59C7 91 0E STA (DSDDESC+1)Y
0968 59C9 D0 F4 BNE LOOP1 ; BR ALWAYS
0969 59CB A9 00 ERREND LDA #00
0970 59CD 91 0E STA (DSDDESC+1)Y
0971 59CF 4C AE 71 JMP UNTLK ; GOT ALL
0972 59D2 ;

```


LINE# LOC CODE LINE

```

0974 59D2                ;FORMAT ND:DNE, IDJ
0975 59D2                ;
0976 59D2 20 68 5C      FORMAT JSR DOSPAR
0977 59D5 20 04 58      JSR CHK1          ;CHK OPT PARMS
0978 59D8 29 11         AND #11          ;CHK REQ'D PARMS
0979 59DA C9 11         CMP #11
0980 59DC F0 03         BEQ DFORMA
0981 59DE 4C 00 3F      FERRO JMP SNERR
0982 59E1 20 1B 5A      DFORMA JSR DCLALL ;CLOSE ALL FILES
0983 59E4 20 9E 5B      JSR RUSURE      ;R-U-SURE PRPT
0984 59E7 90 01         BCC FBUILD      ;C-NO & DIRECT
0985 59E9 60            RTS              ;Z SET IF FOUND ELSE NO
0986 59EA                ;
0987 59EA A0 0E         FBUILD LDY #14   ;TABLD INDEX
0988 59EC A9 04         LDA #4          ;LENGTH
0989 59EE AE 3F 03      LDX DISKID     ;CHECK FOR DISKID
0990 59F1 F0 02         BEQ FCONT
0991 59F3 A9 06         LDA #6          ;LENGTH WITH ID
0992 59F5 20 98 5A      FCONT JSR TRANS   ;BUILD AND SEND
0993 59F8                ;
0994 59F8 20 91 59      FERRS JSR ERRCHL ;ERRS?
0995 59FB A0 00         LDY #0
0996 59FD B1 0E         LDA (DSDESC+1)Y
0997 59FF C9 32         CMP #'2
0998 5A01 B0 01         BCS FERRP      ;>=2 IS ERROR
0999 5A03 60            RTS              ;ELSE BYE
1000 5A04                ;
1001 5A04 4C D7 5B      FERRP JMP BADDIS ;PRINT ?BAD DISK
1002 5A07                ;

```

LINE# LOC CODE LINE

```

1004 5A07          ; DCLOSE
1005 5A07          ;
1006 5A07 20 68 5C DCLOSE JSR DQSPAR
1007 5A0A 29 F3    AND  #F3
1008 5A0C F0 03    BEQ  DCLSE      ; CHECK OPT PARMS
1009 5A0E 4C 00 3F JMP  SNERR      ; EXTRA STUFF ERR?
1010 5A11 20 E1 5B DCLSE JSR OLDCLR
1011 5A14 A5 D2    LDA  LA
1012 5A16 F0 03    BEQ  DCLALL    ; CHK FOR ALL DEFALT
1013 5A18 4C E2 72 JMP  CLOS5      ; GO REMOVE
1014 5A1B          ;
1015 5A1B A5 D4    DCLALL LDA FA      ; GET DISK #
1016 5A1D A6 AE    LDX  LDTND     ; SRCH FOR DISK REFS
1017 5A1F CA       DCLLP  DEX
1018 5A20 30 0E    BMI  DCLBYE    ; DONE?
1019 5A22 DD 5B 02 CMP  FAT, X
1020 5A25 D0 F8    BNE  DCLLP
1021 5A27 BD 51 02 LDA  LAT, X
1022 5A2A 20 E7 72 JSR  CLOS10     ; GET LA & REMOVE
1023 5A2D B8        CLV
1024 5A2E 50 EB    BVC  DCLALL    ; BRA
1025 5A30 60      DCLBYE RTS      ; BYE
1026 5A31          ;

1028 5A31          ; DRECORD
1029 5A31          ; --P<CHL><RECNUML><RECNUMH><POS>
1030 5A31          ;
1031 5A31 A5 D2    BOBREC LDA LA      ; CHK TABLES
1032 5A33 20 C1 72 JSR  JLTLK
1033 5A36 F0 05    BEQ  DRECG
1034 5A38 A0 17    LDY  #MS3-MS1   ; FILE NOT FOUND ERR
1035 5A3A 4C AF 75 JMP  ERMSG
1036 5A3D 20 CD 72 DRECG JSR JZ100    ; GET RECORD
1037 5A40 20 E1 5B JSR  OLDCLR
1038 5A43 A9 50    DREBLD LDA #'P      ; BUILD
1039 5A45 8D 53 03 STA  TBUFF
1040 5A48 A5 D3    LDA  SA        ; GET CHL
1041 5A4A 8D 54 03 STA  TBUFF+1
1042 5A4D A5 11    LDA  POKER     ; GET RECNUML
1043 5A4F 8D 55 03 STA  TBUFF+2
1044 5A52 A5 12    LDA  POKER+1   ; GET RECNUMH
1045 5A54 8D 56 03 STA  TBUFF+3
1046 5A57 AD 3A 03 LDA  FNLEN2    ; GET POS
1047 5A5A 8D 57 03 STA  TBUFF+4
1048 5A5D A2 05    LDX  #05       ; FNLEN
1049 5A5F 20 4C 5C JSR  TRANR     ; SET POINTERS
1050 5A62 4C 9B 5A JMP  TRANS1    ; CHNL 15
1051 5A65          ;

```

Meore Business Forms, Inc. F

LINE# LOC CODE LINE

```

1053 5A65                ; COLLECT V<DRIVE#>
1054 5A65                ;
1055 5A65 20 68 5C      COLECT JSR DOSPAR
1056 5A6B 20 18 58      JSR CHK3                ; CHK OPT PARMS
1057 5A6B 20 1B 5A      DCOLLE JSR DCLALL      ; CLOSE ALL FILES
1058 5A6E A0 14         LDY #20                ; TABLD OFFSET
1059 5A70 A2 01         LDX #1                 ; LENGTH
1060 5A72 AD 3E 03      LDA PARCHK
1061 5A75 29 10         AND #*10
1062 5A77 F0 01         BEQ DCOLLO
1063 5A79 EB           INX                ; INCLUDE DRIVE
1064 5A7A 8A           DCOLLO TXA                ; PLACE IN A
1065 5A7B 4C 9B 5A      JMP TRANS
1066 5A7E                ;
    
```

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LINE# LOC CODE LINE

```

1068 5A7E          ; BACKUP D<DD>=<SD>
1069 5A7E          ;
1070 5A7E 20 68 5C  BACKUP JSR DOSPAR
1071 5A81 29 30          AND ##30          ; REQ'D PARMS
1072 5A83 C9 30          CMP ##30
1073 5A85 F0 03          BEQ BBACK
1074 5A87 4C 00 3F      BERRO JMP SNERR
1075 5A8A AD 3E 03      BBACK LDA PARCHK          ; MISSING PARMS ERR?
1076 5A8D 29 C7          AND ##C7          ; OPT PARMS
1077 5A8F D0 F6          BNE BERRO
1078 5A91 20 1B 5A      DBACKU JSR DCLALL          ; CLOSE DISK
1079 5A94 A0 16          LDY #22
1080 5A96 A9 04          LDA #4            ; LENGTH
1081 5A98          ;
1082 5A98          ; TRANS SUBROUTINE
1083 5A98          ;
1084 5A98 20 FA 5B      TRANS JSR SENDP          ; BUILD
1085 5A9B A9 6F          TRANS1 LDA ##6F          ; OPEN CHL 15
1086 5A9D 85 D3          STA SA
1087 5A9F 20 D5 70      JSR LISTN          ; DON'T OPEN15
1088 5AA2 A5 D3          LDA SA
1089 5AA4 4C B4 74      JMP OPENIB          ; SEND MESSAGE
1090 5AA7          ;

1092 5AA7          ; COPY ROUTINES CDD:DFN=SD:SFN
1093 5AA7          ;
1094 5AA7 20 68 5C      COPY JSR DOSPAR          ; PARSE IT
1095 5AAA 29 30          AND ##30
1096 5AAC C9 30          CMP ##30          ; CHK REQ'D PARMS
1097 5AAE D0 07          BNE COPY2
1098 5AB0 AD 3E 03      LDA PARCHK
1099 5AB3 29 C7          AND ##C7
1100 5AB5 F0 09          BEQ COPY3
1101 5AB7 AD 3E 03      COPY2 LDA PARCHK
1102 5ABA 20 1D 58      JSR CHK4
1103 5ABD AD 3E 03      COPCON LDA PARCHK
1104 5AC0 A0 1A          COPY3 LDY #26          ; TABLD OFFSET
1105 5AC2 A9 08          LDA #8            ; LENGTH
1106 5AC4 4C 98 5A      JMP TRANS          ; GO DO IT
1107 5AC7          ;
1108 5AC7          ; CONCAT ROUTINES
1109 5AC7          ; --CDD:DFN=DD:DFN,SD:SFN
1110 5AC7          ;
1111 5AC7 20 68 5C      CONCAT JSR DOSPAR          ; PARSE IT
1112 5ACA 20 1D 58      JSR CHK4
1113 5ACD A0 22          LDY #34          ; OFFSET
1114 5ACF A9 0C          LDA #12          ; LENGTH
1115 5AD1 4C 98 5A      JMP TRANS          ; GO DO IT
1116 5AD4          ;

```

LINE# LOC CODE LINE

```

1118 5AD4                ; COPY ROUTINES
1119 5AD4                ;
1120 5AD4  A5 D1        RSNFN  LDA FNLEN
1121 5AD6  8D 3A 03      STA FNLEN2
1122 5AD9  A5 DA        LDA FNADR
1123 5ADB  85 FD        STA FNADR2
1124 5ADD  A5 DB        LDA FNADR+1
1125 5ADF  85 FE        STA FNADR2+1
1126 5AE1                ;
1127 5AE1                ; MOVE INFO INTO TBUFF
1128 5AE1                ;
1129 5AE1  98          RDFN   TYA                ; SAVE Y
1130 5AE2  4B          PHA
1131 5AE3  AC 3A 03    LDY  FNLEN2            ; CHK FOR NO FILENAME
1132 5AE6  F0 10      BEQ  RDRT0
1133 5AE8  A0 00      LDY  #0                ; MOVE NAME TO TBUFF
1134 5AEA  B1 FD      RDMOV  LDA (FNADR2)Y
1135 5AEC  9D 53 03    STA  TBUFF, X
1136 5AEF  EB          INX
1137 5AF0  C8          INY
1138 5AF1  CC 3A 03    CPY  FNLEN2            ; ALL DONE?
1139 5AF4  D0 F4      BNE  RDMOV
1140 5AF6  F0 01      BEQ  RDRT1            ; BRA AROUND
1141 5AFB  CA          RDRTO  DEX                ; CASE CDD=SD
1142 5AF9  68          RDRT1  PLA                ; RESTORE Y
1143 5AFA  AB          TAY
1144 5AFB  38          SEC                ; RETURN FLAG
1145 5AFC  60          RTS
1146 5AFD                ;
1147 5AFD                ; ID SUBROUTINE
1148 5AFD                ;
1149 5AFD  AD 3F 03    RID   LDA  DISKID            ; INCLUDE ID
1150 5B00  9D 53 03    STA  TBUFF, X
1151 5B03  EB          INX
1152 5B04  AD 40 03    LDA  DISKID+1
1153 5B07  9D 53 03    STA  TBUFF, X
1154 5B0A  EB          INX
1155 5B0B  8A          TXA                ; KILL WEIRD .A JUST IN CASE
1156 5B0C  60          RTS
1157 5B0D                ;

```

LINE# LOC CODE LINE

```

1159 5B0D                ; DSAVE D: FN
1160 5B0D                ;
1161 5B0D 20 68 5C      DSAVE JSR DOPAR
1162 5B10 20 0B 5B      JSR CHK2
1163 5B13 29 66         AND ##66
1164 5B15 F0 03         BEQ DSAVE2
1165 5B17 4C 00 3F      JMP SNERR
1166 5B1A A0 02         DSAVE2 LDY #2           ; TABLE OFFSET
1167 5B1C AD 3E 03      LDA PARCHK           ; CHK FOR @
1168 5B1F 29 80         AND ##80           ;
1169 5B21 F0 0F         BEQ SAVLD1
1170 5B23 A9 40         SAVLD0 LDA #'e       ; @SYMBOL
1171 5B25 8D 53 03      STA TBUFF
1172 5B28 A2 01         LDX #1             ; ONE CHAR IN
1173 5B2A A9 03         LDA #3
1174 5B2C 20 FC 5B      JSR SENDP1
1175 5B2F 4C E0 76      JMP SV3
1176 5B32 A9 03         SAVLD1 LDA #3       ; LENGTH
1177 5B34 20 FA 5B      JSR SENDP
1178 5B37 4C E0 76      JMP SV3
1179 5B3A                ;
1180 5B3A                ; DLOAD D: FN
1181 5B3A                ;
1182 5B3A 20 68 5C      DLOAD JSR DOPAR
1183 5B3D 20 0B 5B      JSR CHK2
1184 5B40 29 E6         AND ##E6
1185 5B42 F0 03         BEQ DLOAD2
1186 5B44 4C 00 3F      DLOERR JMP SNERR
1187 5B47 A0 02         DLOAD2 LDY #2
1188 5B49 A9 03         LDA #3             ; LENGTH
1189 5B4B 20 FA 5B      JSR SENDP           ; BUILD
1190 5B4E A9 00         LDA #0             ; CLR VERIFY FLAG
1191 5B50 85 9D         STA VERCK
1192 5B52 4C 0B 74      JMP LOADNP

1194 5B55                ; RENAME RDD: DFN=SD: SFN
1195 5B55                ;
1196 5B55 20 68 5C      RENAME JSR DOPAR
1197 5B58 20 24 5B      JSR CHK5
1198 5B5B 29 E4         AND ##E4
1199 5B5D DO E5         BNE DLOERR
1200 5B5F A0 2E         DREN1 LDY #46        ; OFFSET
1201 5B61 A9 08         LDA #8             ; LENGTH
1202 5B63 4C 98 5A      JMP TRANS           ; GO DO IT

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LINE# LOC CODE LINE

```

1204 5B66 ; SCRATCH SD:FN
1205 5B66 ;
1206 5B66 20 68 5C SCRATCH JSR DQSPAR
1207 5B69 20 04 58 JSR CHK1
1208 5B6C 20 9E 5B DSCRAT JSR RUSURE ; DIRECT=>R-U-SURE
1209 5B6F B0 27 BCS NUMBYE ; C-NO&DIRECT
1210 5B71 A0 36 LDY #54 ; OFFSET
1211 5B73 A9 04 LDA #4 ; LENGTH
1212 5B75 20 98 5A JSR TRANS
1213 5B78 ;
1214 5B78 20 99 5B NUMSCR JSR DDIREC ; DIRECT?
1215 5B7B D0 1B BNE NUMBYE ; Z CLR=NOT DIRECT
1216 5B7D 20 91 59 JSR ERRCHL ; READ ERRS
1217 5B80 A9 0D LDA #D ; PRINT C/R
1218 5B82 20 02 62 JSR PRT
1219 5B85 A0 00 LDY #0 ; CLR TO READ ERRCHL
1220 5B87 B1 0E NUMLPL LDA (DSDASC+1)Y ; GET MESSG
1221 5B89 C9 00 CMP #00
1222 5B8B F0 06 BEQ NUMPRT
1223 5B8D 20 02 62 JSR PRT ; TO SCRN
1224 5B90 C8 INY
1225 5B91 D0 F4 BNE NUMLPL
1226 5B93 A9 0D NUMPRT LDA #D
1227 5B95 20 02 62 JSR PRT
1228 5B98 60 NUMBYE RTS

1230 5B99 ; DIRECT CHECK SUBROUTINE
1231 5B99 A5 78 DDIREC LDA TXTPTR+1
1232 5B9B C9 02 CMP #2
1233 5B9D 60 DXCRO RTS
1234 5B9E ;
1235 5B9E ; R-U-SURE SUBROUTINE
1236 5B9E 20 99 5B RUSURE JSR DDIREC ; CHK FOR DIRECT
1237 5BA1 D0 32 BNE ANSYES ; Z CLR=NOT DIRECT
1238 5BA3 A0 B6 RUSUR1 LDY #MSG30-MSG1 ; ARE YOU SURE ?
1239 5BA5 20 85 71 JSR MSG
1240 5BA8 20 A6 72 JSR CLRCH ; CLR CHL FOR BASIN
1241 5BAB 20 15 72 RUSUR2 JSR BASIN ; GET BASIC INPUT
1242 5BAE C9 59 CMP #'Y ; MUST START WITH Y
1243 5BB0 D0 19 BNE ANSNO
1244 5BB2 20 15 72 JSR BASIN ; NEXT CHR
1245 5BB5 C9 0D CMP #D ; CR?
1246 5BB7 F0 1C BEQ ANSYES ; Y CR
1247 5BB9 C9 45 CMP #'E ; THEN E
1248 5BBB D0 0E BNE ANSNO
1249 5BBD 20 15 72 JSR BASIN ; NEXT CHR
1250 5BC0 C9 53 CMP #'S ; THEN S
1251 5BC2 D0 07 BNE ANSNO
1252 5BC4 20 15 72 JSR BASIN ; NEXT CHR
1253 5BC7 C9 0D CMP #D ; CR?
1254 5BC9 F0 0A BEQ ANSYES
1255 5BCB C9 0D ANSNO CMP #CR ; LOOK FOR END
1256 5BCD 38 SEC ; CARRY SET =NO&DIRECT
1257 5BCE F0 06 BEQ ANSBYE
1258 5BD0 20 15 72 JSR BASIN ; GET NEXT CHR

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LINE# LOC CODE LINE

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1259 5BD3 DO F6          BNE ANSNO          ;BRA TO DUMP INPUT
1260 5BD5 18          ANSYES CLC          ;CARRY CLR =NOT DIRECT
1261 5BD6 60          ANSBYE RTS
1262 5BD7          ;
1263 5BD7          ;BAD DISK SUBROUTINE
1264 5BD7 20 99 5B    BADDIS JSR DDIREC   ;DIRECT?
1265 5BDA DO FA          BNE ANSBYE          ;NEED RTN
1266 5BDC A0 C5          LDY #MSG31-MSG1    ;? BAD DISK
1267 5BDE 4C 85 71     JMP MSG
1268 5BE1          ;
1269 5BE1          ;OLDCLR SUBROUTINE
1270 5BE1          ;CLEARS DISK STATUS & SATUS
1271 5BE1          ;
1272 5BE1 98          OLDCLR TYA          ;SAVE Y
1273 5BE2 48          PHA
1274 5BE3 A5 OD          LDA DSDDESC        ;CHK FOR ALLOCATION
1275 5BE5 F0 OA          BEQ OLDCL1        ;BRA IF NOT
1276 5BE7 A0 28          LDY #40
1277 5BE9 98          TYA
1278 5BEA 91 OE          STA (DSDDESC+1)Y   ;LENGTH OF GARBAGE
1279 5BEC C8          INY
1280 5BED A9 FF          LDA #$FF
1281 5BEF 91 OE          STA (DSDDESC+1)Y   ;GARBAGE FLAGED
1282 5BF1 A9 00          OLDCL1 LDA #0
1283 5BF3 85 96          STA SATUS          ;ZAP STATUS
1284 5BF5 85 OD          STA DSDDESC        ;KILL DS#
1285 5BF7 68          PLA          ;RESTORE Y
1286 5BF8 A8          TAY
1287 5BF9 60          RTS
1288 5BFA          ;

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LINE# LOC CODE LINE

```

1290 5BFA
1291 5BFA A2 00 ; SENDP LDX #0 ; ZERO OFFSET
1292 5BFC BD 41 03 SENDP1 STA COUNT ; NON ZERO ENTRY
1293 5BFF 20 E1 5B JSR OLDCLR ; CLR OLD STATUS
1294 5C02 CE 41 03 SENDP2 DEC COUNT
1295 5C05 30 45 BMI TRANR
1296 5C07 C8 INY ; MOVE DOWN TABLE
1297 5C08 B9 38 58 LDA TABLD, Y ; GET NEXT ENTRY
1298 5C0B 10 39 BPL RPLCE ; IF N CLR THEN CHAR
1299 5C0D C9 F1 RXFN1 CMP #XFN1 ; FILE NAME 1
1300 5C0F D0 03 BNE RXFN2
1301 5C11 20 D4 5A JSR RSFN
1302 5C14 C9 F2 RXFN2 CMP #XFN2
1303 5C16 D0 03 BNE RXREC
1304 5C18 20 E1 5A JSR RDFN
1305 5C1B C9 E0 RXREC CMP #XREC
1306 5C1D D0 05 BNE RXID
1307 5C1F AD 3D 03 LDA LRECL ; GET REC#
1308 5C22 D0 22 BNE RPLCE ; BRA
1309 5C24 C9 D0 RXID CMP #XID
1310 5C26 D0 03 BNE RXWRT
1311 5C28 20 FD 5A JSR RID
1312 5C2B C9 E1 RXWRT CMP #XWRT ; CHK FOR W OR L
1313 5C2D D0 05 BNE RXD1
1314 5C2F 20 57 5C JSR RWRT
1315 5C32 D0 12 BNE RPLCE ; BRA
1316 5C34 C9 D1 RXD1 CMP #XD1
1317 5C36 D0 05 BNE RXD2
1318 5C38 AD 38 03 LDA DRIVE1
1319 5C3B 10 07 BPL RXDD ; BRA
1320 5C3D C9 D2 RXD2 CMP #XD2
1321 5C3F D0 C1 BNE SENDP2 ; END OF TABLE BRA
1322 5C41 AD 3C 03 LDA DRIVE2
1323 5C44 09 30 RXDD ORA #48 ; CHANGE TO ASCII
1324 5C46
1325 5C46 9D 53 03 RPLCE STA TBUFF, X ; ELSE INTO BUFFER
1326 5C49 EB INX
1327 5C4A D0 B6 BNE SENDP2 ; BRA TO RESTART
1328 5C4C
1329 5C4C 86 D1 ; TRANR STX FNLEN ; X IS LENGTH TO SEND
1330 5C4E A9 53 LDA #<TBUFF ; MOVE POINTERS
1331 5C50 85 DA STA FNADR
1332 5C52 A9 03 LDA #>TBUFF
1333 5C54 85 DB STA FNADR+1
1334 5C56 60 RTS
1335 5C57
1336 5C57 AD 3D 03 RWRT LDA LRECL ; CHK FOR L OR W
1337 5C5A F0 04 BEQ RWRT1 ; ZERO THEN WRITE
1338 5C5C A9 4C LDA #'L
1339 5C5E D0 07 BNE RWRTS ; BRA
1340 5C60 A9 53 RWRT1 LDA #'S ; SEND W, S
1341 5C62 8D 3D 03 STA LRECL
1342 5C65 A9 57 LDA #'W
1343 5C67 60 RWRTS RTS
1344 5C68 . FILE DOS. PARSER

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LINE# LOC CODE LINE

```

1346 5C68 ;***** DOPAR *****
1347 5C68 ;*
1348 5C68 ;* -MGM 7/23/79-
1349 5C68 ;*
1350 5C68 ;* THIS IS THE PARSER ROUTINE
1351 5C68 ;* IT LOOKS AT LINES PASSED TO
1352 5C68 ;* IT AND MAKES SURE THAT THE
1353 5C68 ;* SYNTAX IS ALL PROPER.
1354 5C68 ;*
1355 5C68 ;* IT RETURNS WITH PARCHK
1356 5C68 ;* IN THE .ACC
1357 5C68 ;*
1358 5C68 ;* PARCHK IS THE
1359 5C68 ;* "PARSING CHECK BYTE".
1360 5C68 ;* FLAGS ARE SET ACCORDINGLY
1361 5C68 ;* AS VALUES ARE PARSED AND SET
1362 5C68 ;*
1363 5C68 ;* STRUCTURE OF PARCHK:
1364 5C68 ;*
1365 5C68 ;*I-I-I-I-I-I-I-I
1366 5C68 ;*I7+6+5+4+3+2+1+0I
1367 5C68 ;*I-I-I-I-I-I-I-I
1368 5C68 ;* ^ ^ ^ ^ ^ ^ ^ ^ => FN1: THIS BIT
1369 5C68 ;* ! ! ! ! ! ! ! ! IS SET WHEN THE FIRST
1370 5C68 ;* ! ! ! ! ! ! ! ! FILENAME IS PARSED
1371 5C68 ;* ! ! ! ! ! ! ! ! !=> FN2: " FOR SECOND FILENAME
1372 5C68 ;* ! ! ! ! ! ! ! ! !=> LA: BIT SET WHEN #L IS PARSED
1373 5C68 ;* ! ! ! ! ! ! !=> FA: BIT SET WHEN UNIT# IS PARSED
1374 5C68 ;* ! ! ! ! !=> D1: BIT SET WHEN DRIVE1 PARSED
1375 5C68 ;* ! ! ! !=> D2: DITTO - WHEN DRIVE2 PARSED
1376 5C68 ;* ! ! !=> LRECL: SET WHEN LRECL PARSED
1377 5C68 ;* !=> @RPL: SET ON REPLCMNT OPERATOR IN FN1
1378 5C68 ;*
1379 5C68 ;* THE FOLLOWING ARE THE VALID BIT-
1380 5C68 ;* PATTERNS FOR PARCHK AFTER PARSING
1381 5C68 ;* FOR THE VARIOUS KEYWORDS:
1382 5C68 ;*
1383 5C68 ;*
1384 5C68 ;* PARCHK
1385 5C68 ;* 7 6 5 4 3 2 1 0
1386 5C68 ;*(FORMAT)
1387 5C68 ;* HEADER 0 0 0 1 * 0 0 1
1388 5C68 ;* COLECT 0 0 0 * * 0 0 0
1389 5C68 ;* BACKUP 0 0 1 1 * 0 0 0
1390 5C68 ;* COPY 0 0 1 1 * 0 0 0
1391 5C68 ;* DR. . 0 0 * * * 0 1 1
1392 5C68 ;* CONCAT 0 0 * * * 0 1 1
1393 5C68 ;* DSAVE * 0 0 * * 0 0 1
1394 5C68 ;* DLOAD 0 0 0 * * 0 0 1
1395 5C68 ;* CATLOG 0 0 0 * * 0 0 0
1396 5C68 ;* RENAME 0 0 0 * * 0 1 1
1397 5C68 ;* APPEND 0 0 0 * * 1 0 1
1398 5C68 ;* SCRTCH 0 0 0 * * 0 0 1
1399 5C68 ;* DOPEN * * 0 * * 1 0 1
1400 5C68 ;* DCLOSE 0 0 0 0 * * 0 0
; * ^ ^ ^ ^ ^ ^ ^ ^

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LINE# LOC CODE LINE

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1401 5C68          ;*          @ L D D   F L F F
1402 5C68          ;*          R R 2 1   A A N N
1403 5C68          ;*          P E           2 1
1404 5C68          ;*          L L
1405 5C68          ;*   "1" BITS ARE REQ'D PARAMETERS
1406 5C68          ;*   "*" BITS ARE OPTIONAL PARMS
1407 5C68          ; *****
1408 5C68          ;
1409 5C68 A2 00      DOSPAR LDX #0
1410 5C6A 8E 3E 03      STX PARCHK
1411 5C6D 86 D2          STX LA
1412 5C6F 8E 3D 03      STX LRECL      ; INIT VARS
1413 5C72 8E 3B 03      STX DRIVE1
1414 5C75 8E 3C 03      STX DRIVE2
1415 5C78 86 D1          STX FNLEN
1416 5C7A 8E 3A 03      STX FNLEN2
1417 5C7D 8E 3F 03      STX DISKID
1418 5C80 A2 08          LDX #8
1419 5C82 86 D4          STX FA
1420 5C84 20 76 00      JSR CHRGOT      ; GET CURRENT CHR
1421 5C87 F0 7A          BEQ DONE1       ; <CR> OR <: > => DONE
1422 5C89
1423 5C89 C9 23          PARSE1 CMP #'#
1424 5C8B F0 30          BEQ LOGADR
1425 5C8D C9 57          CMP #'W
1426 5C8F F0 47          BEQ RECLEN
1427 5C91 C9 4C          CMP #'L
1428 5C93 F0 43          BEQ RECLEN
1429 5C95 C9 52          CMP #'R
1430 5C97 D0 06          BNE PARNXT
1431 5C99 20 70 00      JSR CHRGET      ; MOVE ON
1432 5C9C 4C 96 5D      JMP DELIM1
1433 5C9F C9 44          PARNXT CMP #'D
1434 5CA1 F0 72          BEQ DRV1
1435 5CA3 C9 91          CMP #ONTK      ; "ON" TOKEN
1436 5CA5 F0 62          BEQ ON1
1437 5CA7 C9 55          CMP #'U
1438 5CA9 F0 64          BEQ UNIT1
1439 5CAB C9 49          CMP #'I
1440 5CAD D0 03          BNE NEXT7
1441 5CAF 4C 37 5D      JMP IDENT
1442 5CB2 C9 22          NEXT7 CMP #' "
1443 5CB4 F0 50          BEQ NAME11
1444 5CB6 C9 2B          CMP #' (
1445 5CB8 F0 4C          BEQ NAME11
1446 5CBA 4C 00 3F      SNER1 JMP SNERR      ; SNYNTAX ERROR
1447 5CBD
1448 5CBD
1449 5CBD
1450 5CBD AD 3E 03      LOGADR LDA PARCHK      ; CHK SYNTAX
1451 5CC0 29 04          AND #4
1452 5CC2 D0 F6          BNE SNER1      ; ONLY ONE LA ALLOWED
1453 5CC4 20 87 5E      JSR GETVAL
1454 5CC7 E0 00          CPX #0
1455 5CC9 F0 69          BEQ QTYER2     ; ZERO NOT ALLOWED

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LINE# LOC CODE LINE

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1456 5CCB 86 D2          STX LA
1457 5CCD AD 3E 03      LDA PARCHK
1458 5CD0 09 04          ORA #4          ; SET LA FLAG &
1459 5CD2 8D 3E 03      STA PARCHK
1460 5CD5 4C 96 5D      JMP DELIM1      ; CONTINUE
1461 5CD8                ;
1462 5CD8                ;
1463 5CD8 AA            RECLEN TAX          ; SAVE CHAR
1464 5CD9 AD 3E 03      LDA PARCHK      ; CHK SYNTAX
1465 5CDC 29 40          AND ##40
1466 5CDE D0 DA          BNE SNER1        ; ONLY 1 LRECL ALLOWED
1467 5CE0 E0 57          CPX #'W
1468 5CE2 D0 06          BNE RECD0
1469 5CE4 20 70 00      JSR CHRGET
1470 5CE7 4C F8 5C      JMP RECON        ; ONLY SET PARCHK
1471 5CEA 20 87 5E      RECD0 JSR GETVAL
1472 5CED E0 00          CPX #0
1473 5CEF F0 43          BEQ QTYER2       ; ZERO ILLEGAL LRECL
1474 5CF1 E0 FF          CPX #255
1475 5CF3 F0 3F          BEQ QTYER2       ; ILLEGAL LRECL
1476 5CF5 8E 3D 03      STX LRECL        ; STORE PARCEL
1477 5CF8 AD 3E 03      RECON LDA PARCHK
1478 5CFB 09 40          ORA ##40         ; SET LRECL FLAG &
1479 5CFD 8D 3E 03      STA PARCHK
1480 5D00 4C 96 5D      JMP DELIM1      ; CONTINUE
1481 5D03                ;
1482 5D03 4C 23 5E      DONE1 JMP DONE
1483 5D06                ;
1484 5D06 4C 60 5D      NAME11 JMP NAME1
1485 5D09 20 2C 5E      ON1 JSR ON
1486 5D0C 4C 96 5D      JMP DELIM1
1487 5D0F 20 33 5E      UNIT1 JSR UNIT    ; DO UNIT# PARSING
1488 5D12 4C 96 5D      JMP DELIM1
1489 5D15                ;
1490 5D15                ;
1491 5D15 AD 3E 03      DRV1 LDA PARCHK
1492 5D18 29 10          AND ##10
1493 5D1A D0 9E          BNE SNER1        ; DRIVE1 ALLOWED ONCE
1494 5D1C 20 87 5E      JSR GETVAL
1495 5D1F E0 02          CPX #2
1496 5D21 B0 11          BCS QTYER2       ; ILLEGAL DRV# IF >1
1497 5D23 8E 3B 03      STX DRIVE1
1498 5D26 8E 3C 03      STX DRIVE2
1499 5D29 AD 3E 03      LDA PARCHK
1500 5D2C 09 10          ORA ##10
1501 5D2E 8D 3E 03      STA PARCHK      ; SET DRIVE1 FLAG &
1502 5D31 4C 96 5D      JMP DELIM1      ; CONTINUE
1503 5D34                ;
1504 5D34 4C 27 5E      QTYER2 JMP QTYERR
1505 5D37                ;
1506 5D37 AD 3D 03      IDENT LDA DIDCHK
1507 5D3A 29 FF          AND ##FF
1508 5D3C F0 03          BEQ IDCON        ; ONLY 1 DISKID ALLOWED
1509 5D3E 4C 00 3F      JMP SNERR
1510 5D41 A0 00          IDCON LDY #0

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LINE# LOC CODE LINE

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1511 5D43 A2 00          LDX #0
1512 5D45 E6 77          NEXT3 INC TXTPTR
1513 5D47 D0 02          BNE NEXT4
1514 5D49 E6 78          INC TXTPTR+1
1515 5D4B B1 77          NEXT4 LDA (TXTPTR),Y
1516 5D4D 9D 3F 03      STA DISKID,X ;M(TXTPTR => DISKID
1517 5D50 EB              INX
1518 5D51 E0 02          CPX #2
1519 5D53 90 F0          BCC NEXT3
1520 5D55 A9 FF          LDA #$FF
1521 5D57 8D 3D 03      STA DIDCHK ;SET DISKID FLAG &
1522 5D5A 20 70 00      JSR CHRGET ;CONTINUE
1523 5D5D 4C 96 5D      JMP DELIM1
1524 5D60                ;
1525 5D60                ;
1526 5D60 AD 3E 03      NAME1 LDA PARCHK
1527 5D63 29 01          AND #1 ;NAME1 ALLWD ONLY ONCE
1528 5D65 20 49 5E      JSR NEWNAM ;DO NAME PARSING
1529 5D68 85 D1          STA FNLEN
1530 5D6A 8D 41 03      STA COUNT ;SAVE TEMP VALUE
1531 5D6D A9 42          LDA #<TBUF2
1532 5D6F 85 DA          STA FNADR
1533 5D71 A9 03          LDA #>TBUF2
1534 5D73 85 DB          STA FNADR+1;RESET FNADR VALUE
1535 5D75 A0 00          LDY #0
1536 5D77 B1 1F          LOOP6 LDA (INDEX1)Y ;TBUF2 XFER LOOP
1537 5D79 C0 00          CPY #0
1538 5D7B D0 08          BNE NAMCON
1539 5D7D C9 40          CMP #'@
1540 5D7F D0 04          BNE NAMCON
1541 5D81 E6 DA          INC FNADR ;AND ERASE IT
1542 5D83 C6 D1          DEC FNLEN
1543 5D85 99 42 03      NAMCON STA TBUF2,Y
1544 5D88 C8              INY
1545 5D89 CC 41 03      CPY COUNT
1546 5D8C 90 E9          BCC LOOP6
1547 5D8E AD 3E 03      LDA PARCHK
1548 5D91 09 01          ORA #1 ;SET NAME1 FLAG
1549 5D93 8D 3E 03      STA PARCHK
1550 5D96                ;
1551 5D96 20 76 00      DELIM1 JSR CHRGET
1552 5D99 D0 03          BNE NXXX
1553 5D9B 4C 03 5D      JMP DONE1 ;<CR>/<: > => DONE
1554 5D9E C9 2C          NXXX CMP #',
1555 5DA0 D0 06          BNE NEXT6
1556 5DA2 20 70 00      JSR CHRGET
1557 5DA5 4C 89 5C      JMP PARSE1
1558 5DA8 C9 91          NEXT6 CMP #QNTK
1559 5DAA D0 03          BNE NEXT6A
1560 5DAC 4C 09 5D      JMP ON1
1561 5DAF C9 A4          NEXT6A CMP #TDTK ;"TO" TOKEN
1562 5DB1 F0 03          BEQ PARSE2
1563 5DB3 4C 00 3F      SNERRB JMP SNERR ;SNTAX ERROR
1564 5DB6                ;
1565 5DB6                ;

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LINE# LOC CODE LINE

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1566 5DB6 20 70 00  PARSE2 JSR CHRGET
1567 5DB9 C9 44      CMP #'D
1568 5DBB F0 13      BEQ DRV2
1569 5DBD C9 91      CMP #ONTK ; "ON" TOKEN
1570 5DBF F0 2B      BEQ ON2
1571 5DC1 C9 55      CMP #'U
1572 5DC3 F0 2D      BEQ UNIT2
1573 5DC5 C9 22      CMP #' "
1574 5DC7 F0 2F      BEQ NAME2
1575 5DC9 C9 28      CMP #'(
1576 5DCB F0 2B      BEQ NAME2
1577 5DCD 4C 00 3F  SNER2  JMP SNERR ; ERROR
1578 5DD0 ;
1579 5DD0 ;
1580 5DD0 AD 3E 03  DRV2  LDA PARCHK
1581 5DD3 29 20      AND ##20
1582 5DD5 D0 F6      BNE SNER2 ; ONLY ONE DRIVE2 ALLWD
1583 5DD7 20 87 5E  JSR GETVAL
1584 5DDA E0 02      CPX #2
1585 5DDC B0 49      BCS QTYERR ; ILLEGAL DRIVE #
1586 5DDE 8E 3C 03  STX DRIVE2
1587 5DE1 AD 3E 03  LDA PARCHK
1588 5DE4 09 20      ORA ##20
1589 5DE6 8D 3E 03  STA PARCHK ; SET DRIVE2 FLAG &
1590 5DE9 4C 0F 5E  JMP DELIM2
1591 5DEC ;
1592 5DEC ;
1593 5DEC 20 2C 5E  ON2   JSR ON
1594 5DEF 4C 0F 5E  JMP DELIM2
1595 5DF2 20 33 5E  UNIT2 JSR UNIT ; DO UNIT# PARSING
1596 5DF5 4C 0F 5E  JMP DELIM2
1597 5DF8 ;
1598 5DF8 ;
1599 5DF8 AD 3E 03  NAME2 LDA PARCHK
1600 5DFB 29 02      AND #2 ; NAME2 ALLOWED ONLY ONCE
1601 5DFD 20 49 5E  JSR NEWNAM
1602 5E00 8D 3A 03  STA FNLEN2
1603 5E03 86 FD      STX FNADR2
1604 5E05 84 FE      STY FNADR2+1
1605 5E07 AD 3E 03  LDA PARCHK
1606 5E0A 09 02      ORA #2 ; SET FILENAME2 FLAG &
1607 5E0C 8D 3E 03  STA PARCHK
1608 5E0F ; CONTINUE
1609 5E0F ;
1610 5E0F 20 76 00  DELIM2 JSR CHRGOT
1611 5E12 F0 0F      BEQ DONE ; DONE ON <CR><.:>
1612 5E14 C9 2C      CMP #' ,
1613 5E16 F0 9E      BEQ PARSE2
1614 5E18 C9 91      CMP #ONTK ; "ON" TOKEN
1615 5E1A F0 D0      BEQ ON2
1616 5E1C C9 55      CMP #'U
1617 5E1E F0 D2      BEQ UNIT2
1618 5E20 4C 00 3F  SNER3  JMP SNERR ; ERROR
1619 5E23 ;
1620 5E23 ;

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LINE# LOC CODE LINE

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1621 5E23 AD 3E 03   DONE   LDA PARCHK       ; LOAD PARSE CHK
1622 5E26 60                RTS               ; BYTE FOR CALLING PRDG TO CHECK
1623 5E27                ;
1624 5E27                ; *****
1625 5E27                ; * DOSPAR SUPPORT ROUTINES *
1626 5E27                ; *****
1627 5E27                ;
1628 5E27                ;
1629 5E27 A2 35   QTYERR LDX #ERRFC
1630 5E29 4C CF 33   JMP ERROR;"ILLEGAL QUANTITY"
1631 5E2C                ;
1632 5E2C                ;
1633 5E2C 20 70 00   ON       JSR CHRGET
1634 5E2F C9 55                CMP #'U
1635 5E31 D0 ED                BNE SNER3       ; NXT CHR MUST BE "U"
1636 5E33 20 87 5E   UNIT     JSR GETVAL
1637 5E36 E0 20                CPX #32
1638 5E38 B0 ED                BCS QTYERR     ; ERROR IF >31
1639 5E3A E0 03                CPX #3
1640 5E3C 90 E9                BCC QTYERR     ; ERROR IF <3
1641 5E3E B6 D4                STX FA
1642 5E40 AD 3E 03                LDA PARCHK
1643 5E43 09 08                ORA #8
1644 5E45 8D 3E 03   STA PARCHK     ; SET UNIT# FLAG
1645 5E48 60                RTS
1646 5E49                ;
1647 5E49                ;
1648 5E49 D0 D5   NEWNAM  BNE SNER3
1649 5E4B 20 98 3D                JSR FRMEVL
1650 5E4E 20 B5 47                JSR FRESTR
1651 5E51 AA                TAX
1652 5E52 C9 00                CMP #0
1653 5E54 F0 D1                BEQ QTYERR     ; 0 LENGTH NOT ALLOWED
1654 5E56 C9 12                CMP #18
1655 5E58 B0 1A                BCS ERRLEN
1656 5E5A A0 00                LDY #0
1657 5E5C B1 1F                LDA (INDEX1)Y
1658 5E5E C9 40                CMP #'@
1659 5E60 D0 0A                BNE LENCHK
1660 5E62 AD 3E 03                LDA PARCHK
1661 5E65 29 80                AND #$80       ; IF T => SNERR
1662 5E67 F0 10                BEQ NXXT5
1663 5E69 4C 00 3F                JMP SNERR
1664 5E6C 8A                LENCHK  TXA
1665 5E6D C9 11                CMP #17       ; "STRING TOO LONG ?
1666 5E6F B0 03                BCS ERRLEN
1667 5E71 4C 82 5E                JMP NXX5
1668 5E74 A2 B0                ERRLEN  LDX #ERRLS
1669 5E76 4C CF 33                JMP ERROR     ; "STRING TOO LONG"
1670 5E79 AD 3E 03   NXXT5  LDA PARCHK
1671 5E7C 09 B0                ORA #$80       ; SET "@" FLAG
1672 5E7E 8D 3E 03   STA PARCHK
1673 5E81 BA                NEXT5  TXA       ; .A = FNLEN NOW
1674 5E82 A6 1F                NXX5   LDX INDEX1
1675 5E84 A4 20                LDY INDEX1+1

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LINE# LOC CODE LINE

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1676 5E86 60          RTS
1677 5E87          ;
1678 5E87          ;
1679 5E87          GETVAL          ; GET NEXTVALUE ROUTINE
1680 5E87 20 70 00    JSR CHRGET      ; GET NXT CHR
1681 5E8A D0 03      GTVL2 BNE CONT
1682 5E8C 4C 00 3F    JMP SNERR       ; CANT BE <CR>/<C:>
1683 5E8F 90 09      CONT BCC NUMERC ; CAN BE NUMERIC
1684 5E91 20 F2 3E    JSR CHKOPN     ; OR A "("
1685 5E94 20 D4 48    JSR GETBYT     ; ANYTHING ELSE IS AN ERROR
1686 5E97 4C EF 3E    JMP CHKCLS     ; NEED CLOSING ")"
1687 5E9A 4C D4 48    NUMERC JMP GETBYT ; EVALUATE IT
1688 5E9D          ;
1689 5E9D 00          CKSUMD .BYT 0   ; D-PAGE CHECKSUM BYT
1690 5E9E          ;
1691 5E9E          .FILE DA1SRC

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LINE# LOC CODE LINE

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1693 5E9E                *=$6000+OFFSET ; OFFSET IS FOR A
1694 6000                ; *** SOFT MACHINE *****
1695 6000 A9 7F          CINT  LDA #$7F
1696 6002 8D 4E EB      STA IER
1697 6005 A2 6D          LDX #CAS2-TIME
1698 6007 A9 00          LDA #0
1699 6009 95 8D          PX1  STA TIME, X
1700 600B CA             DEX
1701 600C 10 FB          BPL PX1
1702 600E A9 55          LDA #<KEY
1703 6010 85 90          STA CINV
1704 6012 A9 64          LDA #>KEY
1705 6014 85 91          STA CINV+1
1706 6016 A9 03          LDA #3
1707 6018 85 B0          STA DFLTO
1708 601A A9 0F          LDA #$F
1709 601C 8D 10 EB      STA PIAL
1710 601F 0A             ASL A
1711 6020 8D 40 EB      STA PIA
1712 6023 8D 42 EB      STA P2DB
1713 6026 8E 22 EB      STX IEEO
1714 6029 8E 45 EB      STX TIH
1715 602C A9 3D          LDA #$3D
1716 602E 8D 13 EB      STA PIAS
1717 6031 2C 12 EB      BIT PIAK
1718 6034 A9 3C          LDA #$3C
1719 6036 8D 21 EB      STA IEEIS
1720 6039 8D 23 EB      STA IEEOS
1721 603C 8D 11 EB      STA PIAL1
1722 603F 8E 22 EB      STX IEEO
1723 6042 A9 0C          LDA #$C
1724 6044 8D 4C EB      STA PCR
1725 6047 85 AB          STA BLNCT
1726 6049 85 A7          STA BLNSW
1727 604B A0 83          CLSR LDY #$83
1728 604D A2 18          LDX #24
1729 604F 94 E0          LPS1 STY LDTB1, X
1730 6051 E0 14          CPX #20
1731 6053 F0 08          BEQ LPS2
1732 6055 E0 0D          CPX #13
1733 6057 F0 04          BEQ LPS2
1734 6059 E0 07          CPX #7
1735 605B D0 01          BNE LPS3
1736 605D 88            LPS2 DEY
1737 605E CA            LPS3 DEX
1738 605F 10 EE          BPL LPS1
1739 6061 84 C5          STY POINT
1740 6063 EB            INX
1741 6064 86 9F          STX RVS
1742 6066 86 C4          STX POINT-1
1743 6068 A9 20          LDA #'
1744 606A 9D 00 80      LPS4 STA $8000, X
1745 606D 9D 00 81      STA $8100, X
1746 6070 9D 00 82      STA $8200, X
1747 6073 9D 00 83      STA $8300, X

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LINE# LOC CODE LINE

1748	6076	CA		DEX
1749	6077	D0 F1		BNE LPS4
1750	6079	A0 00	NXTD	LDY #0
1751	607B	84 C6		STY FNTR
1752	607D	84 D8		STY TBLX
1753	607F	A6 D8	STUPT	LDX TBLX
1754	6081	B5 E0		LDA LDTB1, X
1755	6083	09 80		ORA ##80
1756	6085	85 C5		STA POINT
1757	6087	BD 5B 66		LDA LDTB2, X
1758	608A	85 C4		STA PNT
1759	608C	A9 27		LDA #39
1760	608E	85 D5		STA LNMX
1761	6090	E0 18		CPX #24
1762	6092	F0 08		BEQ STUPZ
1763	6094	B5 E1		LDA LDTB1+1, X
1764	6096	30 04		BMI STUPZ
1765	6098	A9 4F		LDA #79
1766	609A	85 D5		STA LNMX
1767	609C	A5 C6	STUPZ	LDA FNTR
1768	609E	C9 28		CMP #40
1769	60A0	90 04		BCC STUPR
1770	60A2	E9 28		SBC #40
1771	60A4	85 C6		STA FNTR
1772	60A6	60	STUPR	RTS
1773	60A7	AC 6F 02	LP2	LDY KEYD
1774	60AA	A2 00		LDX #0
1775	60AC	BD 70 02	LP1	LDA KEYD+1, X
1776	60AF	9D 6F 02		STA KEYD, X
1777	60B2	E8		INX
1778	60B3	E4 9E		CPX NDX
1779	60B5	D0 F5		BNE LP1
1780	60B7	C6 9E		DEC NDX
1781	60B9	98		TYA
1782	60BA	58		CLI
1783	60BB	60		RTS
1784	60BC	20 02 62	LOOP4	JSR PRT
1785	60BF	A5 9E	LOOP3	LDA NDX
1786	60C1	85 A7		STA BLNSW
1787	60C3	F0 FA		BEQ LOOP3
1788	60C5	78		SEI
1789	60C6	A5 AA		LDA BLNON
1790	60CB	F0 09		BEQ LP21
1791	60CA	A5 A9		LDA GDBLN
1792	60CC	A0 00		LDY #0
1793	60CE	84 AA		STY BLNON
1794	60D0	20 06 66		JSR DSPP
1795	60D3	20 A7 60	LP21	JSR LP2
1796	60D6	C9 83		CMP ##83
1797	60D8	D0 10		BNE LP22
1798	60DA	78		SEI
1799	60DB	A2 09		LDX #9
1800	60DD	86 9E		STX NDX
1801	60DF	BD 73 66	LP23	LDA RUNTB-1, X
1802	60E2	9D 6E 02		STA KEYD-1, X

LINE# LOC CODE LINE

1803	60E5	CA		DEX	
1804	60E6	DO F7		BNE LP23	
1805	60E8	F0 D5		BEQ LOOP3	
1806	60EA	C9 OD	LP22	CMP #5D	
1807	60EC	DO CE		BNE LOOP4	
1808	60EE	A4 D5		LDY LNMX	
1809	60F0	84 AC		STY CRSW	
1810	60F2	B1 C4	CLP5	LDA (PNT)Y	
1811	60F4	C9 20		CMP #'	
1812	60F6	DO 03		BNE CLP6	
1813	60F8	88		DEY	
1814	60F9	DO F7		BNE CLP5	
1815	60FB	C8	CLP6	INY	
1816	60FC	84 A1		STY INDX	
1817	60FE	AO 00		LDY #0	
1818	6100	84 C6		STY PNTR	
1819	6102	84 CD		STY QTSW	
1820	6104	A5 A3		LDA LSXP	
1821	6106	30 16		BMI LOP5	
1822	6108	C5 D8		CMP TBLX	
1823	610A	DO 12		BNE LOP5	
1824	610C	A5 A4		LDA LSTP	
1825	610E	85 C6		STA PNTR	
1826	6110	C5 A1		CMP INDX	
1827	6112	90 OA		BCC LOP5	
1828	6114	B0 2B		BCS CLP2	
1829	6116	98	LOOP5	TYA	
1830	6117	48		PHA	
1831	6118	8A		TXA	
1832	6119	48		PHA	
1833	611A	A5 AC		LDA CRSW	
1834	611C	F0 A1		BEQ LOOP3	
1835	611E	A4 C6	LOP5	LDY PNTR	
1836	6120	B1 C4		LDA (PNT)Y	
1837	6122	85 D9		STA DATA	
1838	6124	29 3F	LOP51	AND ##3F	
1839	6126	06 D9		ASL DATA	
1840	6128	24 D9		BIT DATA	
1841	612A	10 02		BPL LOP54	
1842	612C	09 80		DRA ##80	
1843	612E	90 04	LOP54	BCC LOP52	
1844	6130	A6 CD		LDX QTSW	
1845	6132	DO 04		BNE LOP53	
1846	6134	70 02	LOP52	BVS LOP53	
1847	6136	09 40		DRA ##40	
1848	6138	E6 C6	LOP53	INC PNTR	
1849	613A	20 67 61		JSR QTSWC	
1850	613D	C4 A1		CPY INDX	
1851	613F	DO 17		BNE CLP1	
1852	6141	A9 00	CLP2	LDA #0	
1853	6143	85 AC		STA CRSW	
1854	6145	A9 OD		LDA ##D	
1855	6147	A6 AF		LDX DFLTN	; FIX GETS FROM SCREEN
1856	6149	E0 03		CPX #3	; IS IT THE SCREEN?
1857	614B	F0 06		BEQ CLP2A	

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1858	614D	A6	B0			LDX	DFLTD
1859	614F	E0	O3			CPX	#3
1860	6151	F0	O3			BEQ	CLP21
1861	6153	20	O2	62	CLP2A	JSR	PRT
1862	6156	A9	OD		CLP21	LDA	##D
1863	6158	85	D9		CLP1	STA	DATA
1864	615A	68				PLA	
1865	615B	AA				TAX	
1866	615C	68				PLA	
1867	615D	AB				TAY	
1868	615E	A5	D9			LDA	DATA
1869	6160	C9	DE			CMP	##DE
1870	6162	D0	O2			BNE	CLP7
1871	6164	A9	FF			LDA	##FF
1872	6166	60			CLP7	RTS	
1873	6167	C9	22		QTSWC	CMP	##\$22
1874	6169	D0	08			BNE	QTSWL
1875	616B	A5	CD			LDA	QTSW
1876	616D	49	O1			EOR	##1
1877	616F	85	CD			STA	QTSW
1878	6171	A9	22			LDA	##\$22
1879	6173	60			QTSWL	RTS	
1880	6174	O9	40		NXT33	ORA	##\$40
1881	6176	A6	9F		NXT3	LDX	RVS
1882	6178	F0	O2			BEQ	NVS
1883	617A	O9	80		NC3	ORA	##\$80
1884	617C	A6	DC		NVS	LDX	INSRT
1885	617E	F0	O2			BEQ	NVS1
1886	6180	C6	DC			DEC	INSRT
1887	6182	20	O6	66	NVS1	JSR	DSPP
1888	6185	E6	C6		JSTS	INC	PNTR
1889	6187	A4	D5			LDY	LMX
1890	6189	C4	C6			CPY	PNTR
1891	618B	B0	19			BCS	LOOP2
1892	618D	A6	D8			LDX	TBLX
1893	618F	C0	4F			CPY	#79
1894	6191	D0	OC			BNE	JSTS1
1895	6193	20	B3	61		JSR	JSTSX
1896	6196	20	43	63		JSR	NXLN
1897	6199	A9	00			LDA	#0
1898	619B	85	C6			STA	PNTR
1899	619D	F0	O7			BEQ	LOOP2
1900	619F	E0	18		JSTS1	CPX	##24
1901	61A1	D0	1B			BNE	JTS2
1902	61A3	20	C4	61		JSR	SCRL
1903	61A6	68			LOOP2	PLA	
1904	61A7	AB				TAY	
1905	61AB	A5	DC			LDA	INSRT
1906	61AA	F0	O2			BEQ	LOP2
1907	61AC	46	CD			LSR	QTSW
1908	61AE	68			LOP2	PLA	
1909	61AF	AA				TAX	
1910	61B0	68				PLA	
1911	61B1	58				CLI	
1912	61B2	60				RTS	

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1913	61B3	E0	17	JSTSX	CPX #23	
1914	61B5	B0	06		BCS JSXB	
1915	61B7	B5	E2		LDA LDTB1+2, X	
1916	61B9	09	80		ORA ##80	
1917	61BB	95	E2		STA LDTB1+2, X	
1918	61BD	60		JSXB	RTS	
1919	61BE	20	CD 61	JTS2	JSR JSTS2	
1920	61C1	4C	A6 61		JMP LOOP2	
1921	61C4	20	69 63	SCRL	JSR SCROL	
1922	61C7	C6	A3		DEC LSXP	; FIX INPUT SCROLL
1923	61C9	C6	DB		DEC TBLX	
1924	61CB	A6	DB		LDX TBLX	
1925	61CD	16	E1	JSTS2	ASL LDTB1+1, X	
1926	61CF	56	E1		LSR LDTB1+1, X	
1927	61D1	20	B3 61		JSR JSTSX	
1928	61D4	A5	C6		LDA PNTR	
1929	61D6	48			PHA	
1930	61D7	20	7F 60		JSR STUPT	
1931	61DA	68			PLA	
1932	61DB	85	C6		STA PNTR	
1933	61DD	60			RTS	
1934	61DE	A0	27	BKLN	LDY #39	
1935	61E0	A6	DB		LDX TBLX	
1936	61E2	D0	06		BNE BKLN1	
1937	61E4	86	C6		STX PNTR	
1938	61E6	68			PLA	
1939	61E7	68			PLA	
1940	61E8	D0	BC		BNE LOOP2	
1941	61EA	B5	DF	BKLN1	LDA LDTB1-1, X	
1942	61EC	30	05		BMI NTCN2	
1943	61EE	CA			DEX	
1944	61EF	B5	DF		LDA LDTB1-1, X	
1945	61F1	A0	4F		LDY #79	
1946	61F3	CA		NTCN2	DEX	
1947	61F4	86	DB		STX TBLX	
1948	61F6	85	C5		STA POINT	
1949	61F8	8D	5B 66		LDA LDTB2, X	
1950	61FB	85	C4		STA PNT	
1951	61FD	84	C6		STY PNTR	
1952	61FF	84	D5		STY LNMX	
1953	6201	60			RTS	
1954	6202	48		PRT	PHA	
1955	6203	85	D9		STA DATA	
1956	6205	8A			TXA	
1957	6206	48			PHA	
1958	6207	98			TYA	
1959	6208	48			PHA	
1960	6209	A9	00		LDA #0	
1961	620B	85	AC		STA CRSW	
1962	620D	A4	C6		LDY PNTR	
1963	620F	A5	D9		LDA DATA	
1964	6211	10	03		BPL *+5	
1965	6213	4C	A4 62		JMP NXTX	
1966	6216	C9	0D		CMP ##D	
1967	6218	D0	03		BNE NJT1	

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1768	621A	4C 59 63		JMP	NXT1
1769	621D	C9 20	NJT1	CMP	#'
1770	621F	90 08		BCC	NTCN
1771	6221	29 3F		AND	##3F
1772	6223	20 67 61		JSR	QTSWC
1773	6226	4C 76 61		JMP	NXT3
1774	6229	A6 DC	NTCN	LDX	INSRT
1775	622B	F0 03		BEQ	CNC3X
1776	622D	4C 7A 61		JMP	NC3
1777	6230	C9 14	CNC3X	CMP	##\$14
1778	6232	D0 1C		BNE	NTCN1
1779	6234	88		DEY	
1780	6235	84 C6		STY	PNTR
1781	6237	10 06		BPL	BK1
1782	6239	20 DE 61		JSR	BKLN
1783	623C	4C 4A 62		JMP	BK2
1784	623F	C8	BK1	INY	
1785	6240	B1 C4		LDA	(PNT)Y
1786	6242	88		DEY	
1787	6243	91 C4		STA	(PNT)Y
1788	6245	C8		INY	
1789	6246	C4 D5		CPY	LNMX
1790	6248	D0 F5		BNE	BK1
1791	624A	A9 20	BK2	LDA	#'
1792	624C	91 C4		STA	(PNT)Y
1793	624E	D0 3C		BNE	JPL3
1794	6250	A6 CD	NTCN1	LDX	QTSW
1795	6252	F0 03		BEQ	NC3W
1796	6254	4C 7A 61	CNC3	JMP	NC3
1797	6257	C9 12	NC3W	CMP	##\$12
1798	6259	D0 02		BNE	NC1
1799	625B	85 9F		STA	RVS
2000	625D	C9 13	NC1	CMP	##\$13
2001	625F	D0 03		BNE	NC2
2002	6261	20 79 60		JSR	NXTD
2003	6264	C9 1D	NC2	CMP	##\$1D
2004	6266	D0 12		BNE	NCX2
2005	6268	C8		INY	
2006	6269	84 C6		STY	PNTR
2007	626B	88		DEY	
2008	626C	C4 D5		CPY	LNMX
2009	626E	90 07		BCC	NCZ2
2010	6270	20 43 63		JSR	NXLN
2011	6273	A0 00		LDY	#0
2012	6275	84 C6	JPL4	STY	PNTR
2013	6277	4C A6 61	NCZ2	JMP	LOOP2
2014	627A	C9 11	NCX2	CMP	##\$11
2015	627C	D0 0E		BNE	JPL3
2016	627E	18		CLC	
2017	627F	98		TYA	
2018	6280	69 28		ADC	#40
2019	6282	A8		TAY	
2020	6283	C5 D5		CMP	LNMX
2021	6285	90 EE		BCC	JPL4
2022	6287	F0 EC		BEQ	JPL4

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2023	6289	20 43 63		JSR NXLN
2024	628C	4C A6 61	JPL3	JMP LOOP2
2025	628F	E8	PRT1	INX
2026	6290	85 D8		STA TBLX
2027	6292	98		TYA
2028	6293	E9 28		SBC #40
2029	6295	85 C6		STA PNTR
2030	6297	E6 D8	PRT2	INC TBLX
2031	6299	AD 5B 66		LDA LDTB2
2032	629C	85 C4		STA PNT
2033	629E	A5 E0		LDA LDTB1
2034	62A0	85 C5		STA POINT
2035	62A2	D0 E8		BNE JPL3
2036	62A4	29 7F	NXTX	AND #\$7F
2037	62A6	C9 7F		CMP #\$7F
2038	62A8	D0 02		BNE NXTX1
2039	62AA	A9 5E		LDA #\$5E
2040	62AC	C9 20	NXTX1	CMP #'
2041	62AE	90 03		BCC #+5
2042	62B0	4C 74 61		JMP NXT33
2043	62B3	C9 0D		CMP #\$D
2044	62B5	D0 03		BNE UP5
2045	62B7	4C 59 63		JMP NXT1
2046	62BA	A6 CD	UP5	LDX QTSW
2047	62BC	D0 30		BNE UP6
2048	62BE	C9 14		CMP #\$14
2049	62C0	D0 28		BNE UP9
2050	62C2	A4 D5		LDY LNMX
2051	62C4	B1 C4		LDA (PNT)Y
2052	62C6	C9 20		CMP #'
2053	62C8	D0 04		BNE INS3
2054	62CA	C4 C6		CPY PNTR
2055	62CC	D0 07		BNE INS1
2056	62CE	C0 4F	INS3	CPY #79
2057	62D0	F0 BA		BEQ JPL3
2058	62D2	20 E2 63		JSR NEWLN
2059	62D5	A4 D5	INS1	LDY LNMX
2060	62D7	88	INS2	DEY
2061	62D8	B1 C4		LDA (PNT)Y
2062	62DA	C8		INY
2063	62DB	91 C4		STA (PNT)Y
2064	62DD	88		DEY
2065	62DE	C4 C6		CPY PNTR
2066	62E0	D0 F5		BNE INS2
2067	62E2	A9 20		LDA #\$20
2068	62E4	91 C4		STA (PNT)Y
2069	62E6	E6 DC		INC INSRT
2070	62E8	D0 56		BNE JLP2
2071	62EA	A6 DC	UP9	LDX INSRT
2072	62EC	F0 05		BEQ UP2
2073	62EE	09 40	UP6	DRA #\$40
2074	62F0	4C 7A 61		JMP NC3
2075	62F3	C9 11	UP2	CMP #\$11
2076	62F5	D0 2B		BNE NXT2
2077	62F7	A5 C6		LDA PNTR

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2078	62F9	C9 28		CMP #40
2079	62FB	90 06		BCC UP1
2080	62FD	E9 28		SBC #40
2081	62FF	85 C6		STA PNTR
2082	6301	B0 3D		BCS JLP2
2083	6303	A6 D8	UP1	LDX TBLX
2084	6305	F0 39		BEG JLP2
2085	6307	B5 DF		LDA LDTB1-1, X
2086	6309	10 07		BPL UP3
2087	630B	C6 D8		DEC TBLX
2088	630D	20 7F 60		JSR STUPT
2089	6310	90 2E		BCC JLP2
2090	6312	CA	UP3	DEX
2091	6313	CA		DEX
2092	6314	86 D8		STX TBLX
2093	6316	20 7F 60		JSR STUPT
2094	6319	A5 C6		LDA PNTR
2095	631B	18		CLC
2096	631C	69 28		ADC #40
2097	631E	85 C6		STA PNTR
2098	6320	D0 1E		BNE JLP2
2099	6322	C9 12	NXT2	CMP ##12
2100	6324	D0 04		BNE NXT6
2101	6326	A9 00		LDA #0
2102	6328	85 9F		STA RVS
2103	632A	C9 1D	NXT4	CMP ##1D
2104	632C	D0 0B		BNE NXT61
2105	632E	88		DEY
2106	632F	84 C6		STY PNTR
2107	6331	10 0D		BPL JLP2
2108	6333	20 DE 61		JSR BKLN
2109	6336	4C A6 61		JMP LOOP2
2110	6339	C9 13	NXT61	CMP ##13
2111	633B	D0 03		BNE JLP2
2112	633D	20 4B 60		JSR CLSR
2113	6340	4C A6 61	JLP2	JMP LOOP2
2114	6343	38	NXLN	SEC
2115	6344	46 A3		LSR LSXP
2116	6346	A6 D8		LDX TBLX
2117	6348	EB	NXLN2	INX
2118	6349	E0 19		CPX #25
2119	634B	D0 03		BNE NXLN1
2120	634D	20 69 63		JSR SCROL
2121	6350	B5 E0	NXLN1	LDA LDTB1, X
2122	6352	10 F4		BPL NXLN2
2123	6354	86 D8		STX TBLX
2124	6356	4C 7F 60		JMP STUPT
2125	6359	A9 00	NXT1	LDA #0
2126	635B	85 DC		STA INSRT
2127	635D	85 9F		STA RVS
2128	635F	85 CD		STA QTSW
2129	6361	85 C6		STA PNTR
2130	6363	20 43 63		JSR NXLN
2131	6366	4C A6 61		JMP LOOP2
2132	6369			.FILE DA2SRC

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2134	6369	A0 00	SCRQL	LDY #0
2135	636B	84 C4		STY POINT-1
2136	636D	A9 B0		LDA #80
2137	636F	85 C8		STA SAH
2138	6371	85 C5		STA POINT
2139	6373	A9 28		LDA #40
2140	6375	24 E1		BIT LDTB1+1
2141	6377	30 02		BMI SCRQL1
2142	6379	A9 50		LDA #80
2143	637B	85 C7	SCRQL1	STA SAL
2144	637D	A9 34		LDA #34
2145	637F	8D 11 EB		STA PIAL1
2146	6382	B1 C7	MLP1	LDA (SAL)Y
2147	6384	91 C4		STA (POINT-1)Y
2148	6386	C8		INY
2149	6387	D0 F9		BNE MLP1
2150	6389	E6 C8		INC SAH
2151	638B	E6 C5		INC POINT
2152	638D	A9 84		LDA #84
2153	638F	C5 C8		CMP SAH
2154	6391	D0 EF		BNE MLP1
2155	6393	A9 E8		LDA #232
2156	6395	85 C4		STA PNT
2157	6397	C6 C5		DEC POINT
2158	6399	A9 20		LDA #'
2159	639B	C6 C4	MLP2	DEC PNT
2160	639D	C6 C7		DEC SAL
2161	639F	91 C4		STA (PNT)Y
2162	63A1	D0 FB		BNE MLP2
2163	63A3	A2 19		LDX #25
2164	63A5	86 D8		STX TBLX
2165	63A7	A2 00	SCRQL4	LDX #0
2166	63A9	C6 D8		DEC TBLX
2167	63AB	B5 E0	SCRQL5	LDA LDTB1, X
2168	63AD	29 7F		AND #7F
2169	63AF	B4 E1		LDY LDTB1+1, X
2170	63B1	10 02		BPL SCRQL3
2171	63B3	09 80		ORA #80
2172	63B5	95 E0	SCRQL3	STA LDTB1, X
2173	63B7	E8		INX
2174	63B8	E0 19		CPX #25
2175	63BA	D0 EF		BNE SCRQL5
2176	63BC	A9 83		LDA #83
2177	63BE	85 F8		STA LDTB1+24
2178	63C0	A5 E0		LDA LDTB1
2179	63C2	10 E3		BPL SCRQL4
2180	63C4	A9 3C		LDA #3C
2181	63C6	8D 11 EB		STA PIAL1
2182	63C9	A9 FE		LDA #FE
2183	63CB	CD 12 EB		CMP PIAK
2184	63CE	D0 0F		BNE MLP42
2185	63D0	A0 08		LDY #8
2186	63D2	8D 45 EB	MLP4	STA TIH
2187	63D5	2C 4D EB	MLP41	BIT IFR
2188	63D8	50 FB		BVC MLP41

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2189	63DA	88		DEY
2190	63DB	DO F5		BNE MLP4
2191	63DD	84 9E		STY NDX
2192	63DF	A6 D8	MLP42	LDX TBLX
2193	63E1	60		RTS
2194	63E2	A6 D8	NEWLN	LDX TBLX
2195	63E4	E8		INX
2196	63E5	A9 34		LDA ##34
2197	63E7	8D 11 EB		STA PIAL1
2198	63EA	EO 18		CPX #24
2199	63EC	FO 33		BEQ BLKLN
2200	63EE	90 03		BCC NEWLX
2201	63F0	4C C4 61		JMP SCRL
2202	63F3	A2 17	NEWLX	LDX #23
2203	63F5	B5 E1	NEWL1	LDA LDTB1+1, X
2204	63F7	09 80		ORA ##80
2205	63F9	85 C8		STA SAH
2206	63FB	B4 EO		LDY LDTB1, X
2207	63FD	30 02		BMI NEWLA
2208	63FF	29 7F		AND ##7F
2209	6401	95 E1	NEWLA	STA LDTB1+1, X
2210	6403	98		TYA
2211	6404	09 80		ORA ##80
2212	6406	85 C5		STA POINT
2213	6408	A0 27		LDY #39
2214	640A	BD 5C 66		LDA LDTB2+1, X
2215	640D	85 C7		STA SAL
2216	640F	BD 5B 66		LDA LDTB2, X
2217	6412	85 C4		STA PNT
2218	6414	B1 C4	NELL	LDA (PNT)Y
2219	6416	91 C7		STA (SAL)Y
2220	6418	88		DEY
2221	6419	10 F9		BPL NELL
2222	641B	CA		DEX
2223	641C	E4 D8		CPX TBLX
2224	641E	DO D5		BNE NEWL1
2225	6420	E8		INX
2226	6421	B5 EO	BLKLN	LDA LDTB1, X
2227	6423	09 80		ORA ##80
2228	6425	85 C5		STA POINT
2229	6427	29 7F		AND ##7F
2230	6429	95 EO		STA LDTB1, X
2231	642B	BD 5B 66		LDA LDTB2, X
2232	642E	85 C4		STA PNT
2233	6430	A0 27		LDY #39
2234	6432	A9 20		LDA #'
2235	6434	91 C4	BLKL	STA (PNT)Y
2236	6436	88		DEY
2237	6437	10 FB		BPL BLKL
2238	6439	A9 3C		LDA ##3C
2239	643B	8D 11 EB		STA PIAL1
2240	643E	58		CLI
2241	643F	4C 7F 60		JMP STUPT
2242	6442	48	PULS	PHA
2243	6443	8A		TXA

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2244	6444	48		PHA
2245	6445	98		TYA
2246	6446	48		PHA
2247	6447	BA		TSX
2248	6448	BD 04 01		LDA #104, X
2249	644B	29 10		AND ##10
2250	644D	F0 03		BEG PULS1
2251	644F	6C 92 00		JMP (CBINV)
2252	6452	6C 90 00	PULS1	JMP (CINV)
2253	6455	20 68 77	KEY	JSR UDTIM
2254	6458	A5 A7		LDA BLNSW
2255	645A	D0 18		BNE KEY4
2256	645C	C6 A8		DEC BLNCT
2257	645E	D0 14		BNE KEY4
2258	6460	A9 14		LDA #20
2259	6462	85 A8		STA BLNCT
2260	6464	A4 C6		LDY PNTR
2261	6466	46 AA		LSR BLNDN
2262	6468	B1 C4		LDA (POINT-1)Y
2263	646A	B0 04		BCS KEY5
2264	646C	E6 AA		INC BLNDN
2265	646E	85 A9		STA GDBLN
2266	6470	49 80	KEY5	EOR ##80
2267	6472	91 C4		STA (POINT-1)Y
2268	6474	A2 FF	KEY4	LDX ##FF
2269	6476	86 A6		STX SFDX
2270	6478	E8		INX
2271	6479	86 98		STX SFST
2272	647B	A2 50		LDX #80
2273	647D	AD 10 EB		LDA PIAL
2274	6480	29 F0		AND ##F0
2275	6482	8D 10 EB		STA PIAL
2276	6485	A0 00		LDY #0
2277	6487	AD 10 EB		LDA PIAL
2278	648A	0A		ASL A
2279	648B	0A		ASL A
2280	648C	0A		ASL A
2281	648D	10 06		BPL KEY3
2282	648F	84 F9		STY CAS1
2283	6491	A9 3D		LDA ##3D
2284	6493	D0 06		BNE KL24
2285	6495	A5 F9	KEY3	LDA CAS1
2286	6497	D0 05		BNE KL2
2287	6499	A9 35		LDA ##35
2288	649B	8D 13 EB	KL24	STA PIAS
2289	649E	90 09	KL2	BCC KL23
2290	64A0	84 FA		STY CAS2
2291	64A2	AD 40 EB		LDA PIA
2292	64A5	09 10		ORA ##10
2293	64A7	D0 09		BNE KL25
2294	64A9	A5 FA	KL23	LDA CAS2
2295	64AB	D0 08		BNE KL22
2296	64AD	AD 40 EB		LDA PIA
2297	64B0	29 EF		AND ##EF
2298	64B2	8D 40 EB	KL25	STA PIA

LINE# LOC CODE LINE

2299	64B5	A0 08	KL22	LDY #8
2300	64B7	AD 12 E8		LDA PIAK
2301	64BA	CD 12 E8		CMP PIAK
2302	64BD	DO F6		BNE KL22
2303	64BF	4A	KL1	LSR A
2304	64C0	B0 1C		BCS CKIT
2305	64C2	48		PHA
2306	64C3	BD 0A 66		LDA CHAR-1, X
2307	64C6	DO 06		BNE CKIS1
2308	64C8	A9 01		LDA #1
2309	64CA	85 98		STA SFST
2310	64CC	DO 0F		BNE CKUT
2311	64CE	C9 FF	CKIS1	CMP #FF
2312	64D0	F0 0B		BEQ CKUT
2313	64D2	C9 3C		CMP #\$3C
2314	64D4	DO 05		BNE SPCK
2315	64D6	2C 11 E8		BIT PIAL1
2316	64D9	30 02		BMI CKUT
2317	64DB	86 A6	SPCK	STX SFDX
2318	64DD	68	CKUT	PLA
2319	64DE	CA	CKIT	DEX
2320	64DF	F0 08		BEQ CKIT1
2321	64E1	88		DEY
2322	64E2	DO DB		BNE KL1
2323	64E4	EE 10 E8		INC PIAL
2324	64E7	DO CC		BNE KL22
2325	64E9	A5 A6	CKIT1	LDA SFDX
2326	64EB	C5 97		CMP LSTX
2327	64ED	F0 1C		BEQ PRENDO
2328	64EF	85 97		STA LSTX
2329	64F1	AA		TAX
2330	64F2	30 17		BMI PRENDO
2331	64F4	BD 0A 66		LDA CHAR-1, X
2332	64F7	46 98		LSR SFST
2333	64F9	90 02		BCC KN1
2334	64FB	09 80		ORA #\$80
2335	64FD	A6 9E	KN1	LDX NDX
2336	64FF	9D 6F 02		STA KEYD, X
2337	6502	E8		INX
2338	6503	E0 0A		CPX #10
2339	6505	DO 02		BNE KEYF
2340	6507	A2 00		LDX #0
2341	6509	86 9E	KEYF	STX NDX
2342	650B	4C 00 66	PRENDO	JMP PREND
2343	650E			* =\$6600+OFFSET ;SOFT OFFSET
2344	6600	68	PREND	PLA
2345	6601	A8		TAY
2346	6602	68		PLA
2347	6603	AA		TAX
2348	6604	68		PLA
2349	6605	40		RTI
2350	6606	A4 C6	DSPP	LDY PNTR
2351	6608	91 C4		STA (POINT-1)Y
2352	660A	60		RTS
2353	660B	3D	CHAR	.BYT \$3D, \$2E

LINE# LOC CODE LINE

2353	660C	2E	
2354	660D	FF	. BYT \$FF, \$3, \$3C, \$20, \$5B, \$12
2354	660E	03	
2354	660F	3C	
2354	6610	20	
2354	6611	5B	
2354	6612	12	
2355	6613	2D	. BYT \$2D, \$30, 0, \$3E, \$FF, \$5D, \$40, 0
2355	6614	30	
2355	6615	00	
2355	6616	3E	
2355	6617	FF	
2355	6618	5D	
2355	6619	40	
2355	661A	00	
2356	661B	2B	. BYT \$2B, \$32, \$FF, \$3F, \$2C, \$4E, \$56, \$58
2356	661C	32	
2356	661D	FF	
2356	661E	3F	
2356	661F	2C	
2356	6620	4E	
2356	6621	56	
2356	6622	58	
2357	6623	33	. BYT \$33, \$31, \$D, \$3B, \$4D, \$42, \$43, \$5A
2357	6624	31	
2357	6625	0D	
2357	6626	3B	
2357	6627	4D	
2357	6628	42	
2357	6629	43	
2357	662A	5A	
2358	662B	2A	. BYT \$2A, \$35, \$FF, \$3A, \$4B, \$4B, \$46, \$53
2358	662C	35	
2358	662D	FF	
2358	662E	3A	
2358	662F	4B	
2358	6630	4B	
2358	6631	46	
2358	6632	53	
2359	6633	36	. BYT \$36, \$34, \$FF, \$4C, \$4A, \$47, \$44, \$41
2359	6634	34	
2359	6635	FF	
2359	6636	4C	
2359	6637	4A	
2359	6638	47	
2359	6639	44	
2359	663A	41	
2360	663B	2F	. BYT \$2F, \$38, \$FF, \$50, \$49, \$59, \$52, \$57
2360	663C	38	
2360	663D	FF	
2360	663E	50	
2360	663F	49	
2360	6640	59	
2360	6641	52	
2360	6642	57	

LINE# LOC CODE LINE

2361	6643	39	
2361	6644	37	. BYT \$39, \$37, \$5E, \$4F, \$55, \$54, \$45, \$51
2361	6645	5E	
2361	6646	4F	
2361	6647	55	
2361	6648	54	
2361	6649	45	
2361	664A	51	
2362	664B	14	. BYT \$14, \$11, \$FF, \$29, \$5C, \$27, \$24, \$22
2362	664C	11	
2362	664D	FF	
2362	664E	29	
2362	664F	5C	
2362	6650	27	
2362	6651	24	
2362	6652	22	
2363	6653	1D	. BYT \$1D, \$13, \$5F, \$2B, \$26, \$25, \$23, \$21
2363	6654	13	
2363	6655	5F	
2363	6656	2B	
2363	6657	26	
2363	6658	25	
2363	6659	23	
2363	665A	21	
2364	665B	00	LDTB2 . BYT 0, 40, 80, 120, 160, 200
2364	665C	2B	
2364	665D	50	
2364	665E	7B	
2364	665F	A0	
2364	6660	C8	
2365	6661	F0	. BYT 240, 280-256, 320-256, 360-256
2365	6662	18	
2365	6663	40	
2365	6664	68	
2366	6665	90	. BYT 400-256, 440-256, 480-256
2366	6666	B8	
2366	6667	E0	
2367	6668	08	. BYT 520-512, 560-512
2367	6669	30	
2368	666A	58	. BYT 600-512, 640-512, 680-512
2368	666B	80	
2368	666C	A8	
2369	666D	D0	. BYT 720-512, 760-512, 800-768
2369	666E	F8	
2369	666F	20	
2370	6670	48	. BYT 840-768, 880-768, 920-768, 960-768
2370	6671	70	
2370	6672	98	
2370	6673	C0	
2371	6674	44	RUNTB . BYT 'D', \$CC, '"*"', \$D, 'RUN', \$D
2371	6675	CC	
2371	6676	22 2A	
2371	6678	0D	
2371	6679	52 55 4E	
2371	667C	0D	

LINE# LOC CODE LINE

2372	667D		;		
2373	667D	00	CKSUME .BYT 0		;E-PAGE CHECKSUM
2374	667E		;		
2375	667E			. FILE QB1SRC	

LINE# LOC CODE LINE

```

2377 667E                               *=$7000+OFFSET ; SOFT OFFSET
2378 7000                               MSG1
2379 7000 54 4F                         MS1   .BYT 'TOO MANY FILE', $D3
2379 700D D3
2380 700E 46 49                         MS2   .BYT 'FILE OPE', $CE
2380 7016 CE
2381 7017 46 49                         MS3   .BYT 'FILE NOT OPE', $CE
2381 7023 CE
2382 7024 46 49                         MS4   .BYT 'FILE NOT FOUN', $C4
2382 7031 C4
2383 7032 OD                             MS5   .BYT $D, 'SEARCH'
2383 7033 53 45
2384 7039 49 4E 47                     MS20  .BYT 'ING', $A0
2384 703C A0
2385 703D 46 4F 52                     MS6   .BYT 'FOR', $A0
2385 7040 A0
2386 7041 OD                             MS7   .BYT $D, 'PRESS PLAY', $A0
2386 7042 50 52
2386 704C A0
2387 704D 26 20                         MS8   .BYT '& RECORD', $A0
2387 7055 A0
2388 7056 4F 4E                         MS9   .BYT 'ON TAPE ', $A3
2388 705E A3
2389 705F OD                             MS10  .BYT $D
2390 7060 4C 4F 41                     MS22  .BYT 'LOA', $C4
2390 7063 C4
2391 7064 OD                             MS11  .BYT $D, 'WRITING', $A0
2391 7065 57 52
2391 706C A0
2392 706D OD                             MS21  .BYT $D
2393 706E 56 45                         MS12  .BYT 'VERIF', $D9
2393 7073 D9
2394 7074 44 45                         MS13  .BYT 'DEVICE NOT PRESEN', $D4
2394 7085 D4
2395 7086 4E 4F                         MS15  .BYT 'NOT INPUT FIL', $C5
2395 7093 C5
2396 7094 4E 4F                         MS16  .BYT 'NOT OUTPUT FIL', $C5
2396 70A2 C5
2397 70A3 OD                             MS17  .BYT $D, 'FOUND', $A0
2397 70A4 46 4F
2397 70A9 A0
2398 70AA OD                             MS18  .BYT $D, 'OK', $8D
2398 70AB 4F 4B
2398 70AD 8D
2399 70AE OD                             MS19  .BYT $D, 'READY. ', $8D
2399 70AF 52 45
2399 70B5 8D
2400 70B6 OD                             MSG30 .BYT $D, 'ARE YOU SURE ', $BF
2400 70B7 41 52
2400 70C4 BF
2401 70C5 OD                             MSG31 .BYT $D, '? BAD DISK ', $8D
2401 70C6 3F 20
2401 70D1 8D
2402 70D2 A9 40
2403 70D4 2C

```

TALK

```

LDA ##40
.BYT $2C ; SKIP TWO BYTES

```


LINE# LOC CODE LINE

2404	70D5	A9 20	LISTN	LDA #'	
2405	70D7	48	LIST1	PHA	
2406	70D8	AD 40 EB		LDA PIA	
2407	70DB	09 02		ORA #2	
2408	70DD	8D 40 EB		STA PIA	
2409	70E0	A9 3C		LDA ##3C	
2410	70E2	8D 21 EB		STA IEEEIS	
2411	70E5	24 A0		BIT C3P0	
2412	70E7	F0 11		BEQ LIST2	
2413	70E9	A9 34		LDA ##34	
2414	70EB	8D 11 EB		STA PIAL1	
2415	70EE	20 09 71		JSR ISOUR	
2416	70F1	A9 00		LDA #0	
2417	70F3	85 A0		STA C3P0	
2418	70F5	A9 3C		LDA ##3C	
2419	70F7	8D 11 EB		STA PIAL1	
2420	70FA	68	LIST2	PLA	
2421	70FB	05 D4		ORA FA	
2422	70FD	85 A5		STA BSOUR	
2423	70FF	AD 40 EB	LIST4	LDA PIA	
2424	7102	10 FB		BPL LIST4	
2425	7104	29 FB		AND ##FB	
2426	7106	8D 40 EB		STA PIA	
2427	7109	A9 3C	ISOUR	LDA ##3C	
2428	710B	8D 23 EB		STA IEEEOS	
2429	710E	AD 40 EB		LDA PIA	
2430	7111	29 41		AND ##41	
2431	7113	C9 41		CMP ##41	
2432	7115	F0 55		BEQ ERRP7	
2433	7117	A5 A5		LDA BSOUR	
2434	7119	49 FF		EOR ##FF	
2435	711B	8D 22 EB		STA IEEO	
2436	711E	2C 40 EB	ISR1	BIT PIA	
2437	7121	50 FB		BVC ISR1	
2438	7123	A9 34		LDA ##34	
2439	7125	8D 23 EB		STA IEEEOS	
2440	7128	A9 FF	ISR0	LDA ##FF	
2441	712A	8D 45 EB		STA TIH	
2442	712D	AD 40 EB	ISR2	LDA PIA	
2443	7130	2C 4D EB		BIT IFR	
2444	7133	70 1C		BVS ERRS3	
2445	7135	4A		LSR A	
2446	7136	90 F5		BCC ISR2	
2447	7138	A9 3C	ISR3	LDA ##3C	
2448	713A	8D 23 EB		STA IEEEOS	
2449	713D	A9 FF		LDA ##FF	
2450	713F	8D 22 EB		STA IEEO	
2451	7142	60		RTS	
2452	7143	85 A5	SECND	STA BSOUR	
2453	7145	20 09 71		JSR ISOUR	
2454	7148	AD 40 EB	SCATN	LDA PIA	
2455	714B	09 04		ORA #4	
2456	714D	8D 40 EB		STA PIA	
2457	7150	60		RTS	
2458	7151	AD FC 03	ERRS3	LDA BOB	; CHECK TIMEOUT FLAG

LINE# LOC CODE LINE

2459	7154	10	OF		BPL	ERRPO	
2460	7156	20	43	73	JSR	STOP	
2461	7159	DO	CD		BNE	ISRO	
2462	715B	AD	FC	03	ERRS4	LDA	BOB
2463	715E	10	10		BPL	ERRP1	
2464	7160	20	43	73	JSR	STOP	
2465	7163	DO	68		BNE	ACPOO	
2466	7165	A9	01		ERRPO	LDA	#1
2467	7167	20	C4	7B	ERR01	JSR	UDST
2468	716A	DO	CC		BNE	ISR3	
2469	716C	A9	80		ERRP7	LDA	##80
2470	716E	30	F7		BMI	ERR01	
2471	7170	A9	02		ERRP1	LDA	#2
2472	7172	20	C4	7B	JSR	UDST	
2473	7175	AD	40	EB	EROO1	LDA	PIA
2474	7178	29	FD		AND	##FD	
2475	717A	BD	40	EB	STA	PIA	
2476	717D	A9	34		LDA	##34	
2477	717F	BD	21	EB	STA	IEEIS	
2478	7182	A9	0D		LDA	##0D	
2479	7184	60			RTS		
2480	7185	B9	00	70	MSG	LDA	MS1, Y
2481	7188	08			PHP		
2482	7189	29	7F		AND	##7F	
2483	718B	20	02	62	JSR	PRT	
2484	718E	C8			INY		
2485	718F	28			PLP		
2486	7190	10	F3		BPL	MSG	
2487	7192	60			RTS		
2488	7193	85	A5		TKSA	STA	BSOUR
2489	7195	20	09	71	JSR	ISOUR	
2490	7198	20	75	71	TKATN	JSR	EROO1
2491	719B	4C	48	71	JMP	SCATN	
2492	719E	24	A0		CIOUT	BIT	C3PO
2493	71A0	30	04		BMI	CI2	
2494	71A2	C6	A0		DEC	C3PO	
2495	71A4	DO	05		BNE	CI4	
2496	71A6	48			CI2	PHA	
2497	71A7	20	09	71	JSR	ISOUR	
2498	71AA	68			PLA		
2499	71AB	85	A5		CI4	STA	BSOUR
2500	71AD	60			RTS		
2501	71AE	AD	40	EB	UNTLK	LDA	PIA ; PULL ATN FIRST
2502	71B1	29	FB		AND	##FB	
2503	71B3	BD	40	EB	STA	PIA	
2504	71B6	A9	5F		LDA	##5F	
2505	71B8	2C			.BYT	\$2C ; SKIP TWO BYTES	
2506	71B9	A9	3F		UNLSN	LDA	##3F
2507	71BB	20	D7	70	JSR	LIST1	
2508	71BE	DO	88		BNE	SCATN	
2509	71C0	A9	34		ACPTR	LDA	##34
2510	71C2	BD	21	EB	STA	IEEIS	
2511	71C5	AD	40	EB	LDA	PIA	
2512	71CB	09	02		ORA	#2	
2513	71CA	BD	40	EB	STA	PIA	

LINE# LOC CODE LINE

2514	71CD	A9 FF	ACPO0	LDA	##FF
2515	71CF	8D 45 EB		STA	TIH
2516	71D2	2C 4D EB	ACPO1	BIT	IFR
2517	71D5	70 B4		BVS	ERRS4
2518	71D7	2C 40 EB		BIT	PIA
2519	71DA	30 F6		BMI	ACPO1
2520	71DC	AD 40 EB		LDA	PIA
2521	71DF	29 FD		AND	##FD
2522	71E1	8D 40 EB		STA	PIA
2523	71E4	2C 10 EB		BIT	PIAL
2524	71E7	70 05		BVS	ACPO3
2525	71E9	A9 40		LDA	##40
2526	71EB	20 C4 7B		JSR	UDST
2527	71EE	AD 20 EB	ACPO3	LDA	IEEI
2528	71F1	49 FF		EOR	##FF
2529	71F3	48		PHA	
2530	71F4	A9 3C		LDA	##3C
2531	71F6	8D 21 EB		STA	IEEIS
2532	71F9	2C 40 EB	ACPO5	BIT	PIA
2533	71FC	10 FB		BPL	ACPO5
2534	71FE	A9 34		LDA	##34
2535	7200	8D 21 EB		STA	IEEIS
2536	7203	68		PLA	
2537	7204	60		RTS	
2538	7205	A9 00	GETIN	LDA	#0
2539	7207	85 96		STA	SATUS
2540	7209	A5 AF		LDA	DFLTN
2541	720B	D0 17		BNE	BN10
2542	720D	A5 9E		LDA	NDX
2543	720F	F0 51		BEQ	BN32
2544	7211	78		SEI	
2545	7212	4C A7 60		JMP	LP2
2546	7215	A5 AF	BASIN	LDA	DFLTN
2547	7217	D0 0B		BNE	BN10
2548	7219	A5 C6		LDA	FNTR
2549	721B	85 A4		STA	LSTP
2550	721D	A5 D8		LDA	TBLX
2551	721F	85 A3		STA	LSXP
2552	7221	4C 16 61		JMP	LOOP5
2553	7224	C9 03	BN10	CMP	#3
2554	7226	D0 09		BNE	BN20
2555	7228	85 AC		STA	CRSW
2556	722A	A5 D5		LDA	LNMX
2557	722C	85 A1		STA	INDX
2558	722E	4C 16 61		JMP	LOOP5
2559	7231	B0 29	BN20	BCS	BN30
2560	7233	86 AD		STX	XSAV
2561	7235	20 49 72		JSR	JTGET
2562	7238	48		PHA	
2563	7239	20 49 72		JSR	JTGET
2564	723C	D0 05		BNE	JTG35
2565	723E	A9 40		LDA	#64
2566	7240	20 C4 7B		JSR	UDST
2567	7243	D6 BA	JTG35	DEC	BUFPT-1, X
2568	7245	A6 AD		LDX	XSAV

LINE# LOC CODE LINE

2569	7247	68			PLA
2570	7248	60			RTS
2571	7249	20	4B	78	JTGET JSR JTP20
2572	724C	D0	0B		BNE JTG10
2573	724E	20	9A	78	JSR RBLK
2574	7251	A6	D4		LDX FA
2575	7253	A9	00		LDA #0
2576	7255	95	BA		STA BUFPT-1, X
2577	7257	F0	F0		BEQ JTGET
2578	7259	B1	D6		JTG10 LDA (TBUF)Y
2579	725B	60			RTS
2580	725C	A5	96		BN30 LDA SATUS
2581	725E	F0	03		BEQ BN35
2582	7260	A9	0D		LDA ##D
2583	7262	60			BN32 RTS
2584	7263	4C	CO	71	BN35 JMP ACPTR
2585	7266	48			BSOUT PHA
2586	7267	A5	B0		LDA DFLTO
2587	7269	C9	03		CMP #3
2588	726B	D0	04		BNE B010
2589	726D	68			PLA
2590	726E	4C	02	62	JMP PRT
2591	7271	30	04		B010 BMI B020
2592	7273	68			PLA
2593	7274	4C	9E	71	JMP CIOUT
2594	7277	68			B020 PLA
2595	7278	85	B4		B021 STA T1
2596	727A	C9	0A		CMP ##A
2597	727C	F0	E4		BEQ BN32
2598	727E	48			PHA
2599	727F	8A			TXA
2600	7280	48			PHA
2601	7281	98			TYA
2602	7282	48			PHA
2603	7283	20	4B	78	JSR JTP20
2604	7286	D0	10		BNE JTP10
2605	7288	20	CB	78	JSR WBLK
2606	728B	A6	D4		LDX FA
2607	728D	A9	01		LDA #1
2608	728F	95	BA		STA BUFPT-1, X
2609	7291	A0	00		LDY #0
2610	7293	A9	02		LDA #BDF
2611	7295	91	D6		STA (TBUF)Y
2612	7297	C8			INY
2613	7298	A5	B4		JTP10 LDA T1
2614	729A	91	D6		STA (TBUF)Y
2615	729C	68			RSTOR PLA
2616	729D	A8			TAY
2617	729E	68			PLA
2618	729F	AA			TAX
2619	72A0	68			PLA
2620	72A1	60			RTS
2621	72A2	A9	00		CLALL LDA #0
2622	72A4	B5	AE		STA LDTND
2623	72A6				CLRCHN

LINE# LOC CODE LINE

2624	72A6	A5	B0	CLRCH	LDA	DFLTD
2625	72A8	C9	04		CMP	#4
2626	72AA	90	03		BCC	JX750
2627	72AC	20	B9 71		JSR	UNLSN
2628	72AF	A5	AF	JX750	LDA	DFLTN
2629	72B1	C9	04		CMP	#4
2630	72B3	90	03		BCC	JX770
2631	72B5	20	AE 71		JSR	UNTLK
2632	72B8	A9	03	JX770	LDA	#3
2633	72BA	85	B0		STA	DFLTD
2634	72BC	A9	00		LDA	#0
2635	72BE	85	AF		STA	DFLTN
2636	72C0	60			RTS	
2637	72C1	A6	AE	JLTLK	LDX	LDTND
2638	72C3	CA		JX600	DEX	
2639	72C4	30	14		BMI	JZ101
2640	72C6	DD	51 02		CMP	LAT, X
2641	72C9	FO	11		BEQ	JZ101
2642	72CB	DO	F6		BNE	JX600
2643	72CD	BD	51 02	JZ100	LDA	LAT, X
2644	72D0	85	D2		STA	LA
2645	72D2	BD	5B 02		LDA	FAT, X
2646	72D5	85	D4		STA	FA
2647	72D7	BD	65 02		LDA	SAT, X
2648	72DA	85	D3		STA	SA
2649	72DC	60		JZ101	RTS	
2650	72DD				. FILE	OB2SRC

LINE# LOC CODE LINE

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2652 72DD 20 OD 75   CLOSE JSR PARS2
2653 72E0 A5 D2     LDA LA
2654 72E2           CLOS5           ; DOUBLE LABEL
2655 72E2 20 C1 72   FCLOSE JSR JLTLK
2656 72E5 D0 4D     BNE JX170
2657 72E7 20 CD 72   CLOS10 JSR JZ100
2658 72EA 8A       TXA
2659 72EB 48       PHA
2660 72EC A5 D4     LDA FA
2661 72EE F0 28     BEQ JX150
2662 72F0 C9 03     CMP #3
2663 72F2 F0 24     BEQ JX150
2664 72F4 B0 1F     BCS JX120
2665 72F6 A5 D3     LDA SA           ; READ?
2666 72F8 29 0F     AND #5F
2667 72FA F0 1C     BEQ JX150       ; YES
2668 72FC 20 95 76 JSR ZZZ         ; NO. . . IT IS WRITE
2669 72FF A9 00     LDA #0
2670 7301 20 78 72 JSR BQ21
2671 7304 20 CB 78 JSR WBLK       ; EMPTY LAST BUFFER
2672 7307 A5 D3     LDA SA
2673 7309 C9 62     CMP #562       ; WRITE END OF TAPE BLOCK
2674 730B D0 08     BNE JX150
2675 730D A9 05     LDA #EOT       ; YES
2676 730F 20 19 76 JSR TAPEH
2677 7312 4C 18 73 JMP JX150
2678 7315 20 2F 77 JX120 JSR CLSEI
2679 7318           ;
2680 7318           ; ENTRY TO REMOVE A GIVE LOGICAL FILE
2681 7318           ; FROM TABLE OF LOGICAL, PRIMARY,
2682 7318           ; AND SECONDARY ADDRESSES
2683 7318           ;
2684 7318 68       JX150 PLA
2685 7319 AA       TAX
2686 731A C6 AE     DEC LDTND
2687 731C E4 AE     CPX LDTND
2688 731E F0 14     BEQ JX170
2689 7320 A4 AE     LDY LDTND
2690 7322 B9 51 02  LDA LAT, Y
2691 7325 9D 51 02  STA LAT, X
2692 7328 B9 5B 02  LDA FAT, Y
2693 732B 9D 5B 02  STA FAT, X
2694 732E B9 65 02  LDA SAT, Y
2695 7331 9D 65 02  STA SAT, X
2696 7334 60       JX170 RTS
2697 7335 A5 9B     STOP1 LDA STKEY
2698 7337 C9 EF     CMP #5EF
2699 7339 D0 07     BNE STOP2
2700 733B 0B       PHP
2701 733C 20 A6 72 JSR CLRCH
2702 733F 85 9E     STA NDX
2703 7341 28       PLP
2704 7342 60       STOP2 RTS
2705 7343 20 35 73 STOP JSR STOP1
2706 7346 4C C6 37 JMP BSTOP

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LINE# LOC CODE LINE

```

2707 7349 20 51 73   SPMSG  JSR  TXTST
2708 734C D0 F4       BNE  STOP2
2709 734E 4C 85 71   JMP  MSG
2710 7351 A5 78       TXTST  LDA  TXTPTR+1
2711 7353 C9 02       CMP  #2
2712 7355 60       TXTRT  RTS
2713 7356 A5 D4       LD15  LDA  FA ***MONITOR ENTRY
2714 7358 D0 03       BNE  *+5
2715 735A 4C 00 3F   LD20  JMP  SNERR
2716 735D C9 03       CMP  #3
2717 735F F0 F9       BEQ  LD20
2718 7361 90 71       BCC  LD100
2719 7363 A9 60       LDA  #*60
2720 7365 85 D3       STA  SA
2721 7367 A4 D1       LDY  FNLEN
2722 7369 D0 03       BNE  *+5
2723 736B 4C 00 3F   JMP  SNERR
2724 736E 20 49 74   JSR  LD300
2725 7371 20 A5 74   JSR  OPENI
2726 7374 20 D2 70   JSR  TALK
2727 7377 A5 D3       LDA  SA
2728 7379 20 43 71   JSR  SECND
2729 737C 20 C0 71   JSR  ACPTR
2730 737F 85 FB       STA  STAL
2731 7381 A5 96       LDA  SATUS ; TEST STATUS FOR ERROR
2732 7383 4A       LSR  A
2733 7384 4A       LSR  A
2734 7385 B0 3A       BCS  LD90
2735 7387 20 C0 71   JSR  ACPTR
2736 738A 85 FC       STA  STAH
2737 738C 20 6D 74   LD30  JSR  LD400

2739 738F A9 FD       LD40  LDA  #*FD ; MASK OFF TIMEOUT
2740 7391 25 96       AND  SATUS
2741 7393 85 96       STA  SATUS
2742 7395 20 43 73   JSR  STOP ; EXIT ON STOP KEY
2743 7398 20 C0 71   JSR  ACPTR ; GET BYTE OFF IEEE
2744 739B AA       TAX
2745 739C A5 96       LDA  SATUS ; WAS THERE A TIMEOUT?
2746 739E 4A       LSR  A
2747 739F 4A       LSR  A
2748 73A0 B0 ED       BCS  LD40 ; YES...RETRY

2750 73A2 8A       TXA
2751 73A3 A4 9D       LDY  VERCK ; PERFORMING VERIFY?
2752 73A5 F0 0C       BEQ  LD50 ; NO...A LOAD
2753 73A7 88       DEY ; Y IS A 1...MAKE IT 0
2754 73A8 D1 FB       CMP  (STAL)Y ; COMPARE TO MEMORY
2755 73AA F0 09       BEQ  LD60 ; VERIFIES O.K.
2756 73AC A9 10       LDA  #SPERR ; NO GOOD...VERIFY ERROR
2757 73AE 05 96       ORA  SATUS
2758 73B0 85 96       STA  SATUS
2759 73B2 2C       .BYT #2C ; SKIP OVER MEMORY STORE
2760 73B3 91 FB       LD50  STA  (STAL)Y
2761 73B5 E6 FB       LD60  INC  STAL ; INCREMENT POINTER

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LINE# LOC CODE LINE

2762	73B7	D0 02		BNE LD64	
2763	73B9	E6 FC		INC STAH	
2764	73BB	24 96	LD64	BIT SATUS	; EOI ?
2765	73BD	70 07		BVS LD65	; YES. . . DONE
2766	73BF	50 CE		BVC LD40	; NO. . . CONTINUE LOAD
2768	73C1	A0 24	LD90	LDY #MS4-MS1	; FILE NOT FOUND ERROR
2769	73C3	4C AF 75		JMP ERMSG	
2770	73C6	A5 FB	LD65	LDA STAL	
2771	73C8	85 C9		STA EAL	
2772	73CA	A5 FC		LDA STAH	
2773	73CC	85 CA		STA EAH	
2774	73CE	20 AE 71		JSR UNTLK	
2775	73D1	4C 2F 77		JMP CLSEI	
2776	73D4	20 95 76	LD100	JSR ZZZ	
2777	73D7	20 57 78		JSR CSTE1	
2778	73DA	20 49 74		JSR LD300	
2779	73DD	A5 D1	LD112	LDA FNLEN	
2780	73DF	F0 08		BEQ LD150	
2781	73E1	20 D3 74		JSR FAF	
2782	73E4	D0 08		BNE LD170	
2783	73E6	4C AD 75	LD120	JMP OP160	
2784	73E9	20 E5 75	LD150	JSR FAH	
2785	73EC	F0 F8		BEQ LD120	
2786	73EE	E0 01	LD170	CPX #BLF	
2787	73F0	D0 EB		BNE LD112	
2788	73F2	A5 96		LDA SATUS	
2789	73F4	29 10		AND #SPERR	
2790	73F6	D0 74		BNE LD115	
2791	73F8	20 7B 76		JSR LDAD2	
2792	73FB	20 6D 74		JSR LD400	
2793	73FE	4C A3 78		JMP TRD	
2794	7401	A9 00	LOAD	LDA #0	
2795	7403	85 9D		STA VERCK	
2796	7405	20 7D 74	LD10	JSR PARS1	***VERIFY ENTRY
2797	7408	20 CC 76	LOADNP	JSR SV60	
2798	740B	A9 FF		LDA #FF	
2799	740D	C5 9B	LD11	CMP STKEY	
2800	740F	D0 FC		BNE LD11	
2801	7411	C5 9B		CMP STKEY	
2802	7413	D0 F8		BNE LD11	
2803	7415	20 56 73		JSR LD15	
2804	7418	A5 9D		LDA VERCK	
2805	741A	D0 50		BNE LD115	
2806	741C	20 2B 79		JSR TWAIT	
2807	741F	A5 96		LDA SATUS	
2808	7421	29 10		AND #SPERR	
2809	7423	F0 09		BEQ LD210	
2810	7425	A0 00	LD209	LDY #0	
2811	7427	84 9E		STY NDX	
2812	7429	A0 60		LDY #MS22-MS1	
2813	742B	4C AF 75		JMP ERMSG	
2814	742E	A0 AE	LD210	LDY #MS19-MS1	
2815	7430	20 49 73		JSR SPMSG	
2816	7433	20 51 73		JSR TXTST	

LINE# LDC CODE LINE

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2817 7436 DO OB          BNE LD205
2818 7438 A5 CA          LDA EAH
2819 743A 85 2B          STA VARTAB+1
2820 743C A5 C9          LDA EAL
2821 743E 85 2A          STA VARTAB
2822 7440 4C AD 34        JMP FINI
2823 7443 20 22 36      LD205 JSR STXTPT
2824 7446 4C OB 36      JMP FLOAD
2825 7449 20 51 73      LD300 JSR TXTST
2826 744C DO 1E          BNE LD115
2827 744E AO 32          LDY #MS5-MS1
2828 7450 20 85 71      JSR MSG
2829 7453 A5 D1          LDA FNLEN
2830 7455 FO 15          BEQ LD115
2831 7457 AO 3D          LDY #MS6-MS1
2832 7459 20 85 71      JSR MSG
2833 745C A4 D1          LD105 LDY FNLEN
2834 745E FO OC          BEQ LD115
2835 7460 AO 00          LDY #0
2836 7462 B1 DA          LD110 LDA (FNADR)Y
2837 7464 20 66 72      JSR BSDUT
2838 7467 CB            INY
2839 7468 C4 D1          CPY FNLEN
2840 746A DO F6          BNE LD110
2841 746C 60            LD115 RTS
2842 746D AO 5F          LD400 LDY #MS10-MS1
2843 746F A5 9D          LDA VERCK
2844 7471 FO 02          BEQ LD410
2845 7473 AO 6D          LDY #MS21-MS1
2846 7475 20 49 73      LD410 JSR SPMSG
2847 7478 AO 39          LDY #MS20-MS1
2848 747A 4C 49 73      JMP SPMSG
2849 747D                ;USES BASIC ROUTINES TO PARSE
2850 747D                ;LOAD,SAVE,VERIFY STATEMENTS
2851 747D                ;      LOAD
2852 747D                ;      (FILE NAME OPTION)
2853 747D                ;      (OPT DEVICE #) DFLT=1
2854 747D                ;      (EOT CMD) DFLT=0=NO
2855 747D A2 00          PARS1 LDX #0
2856 747F 86 96          STX SATUS
2857 7481 86 D1          STX FNLEN
2858 7483 86 D3          STX SA
2859 7485 E8            INX
2860 7486 86 D4          STX FA
2861 7488 20 4D 75      JSR PR140
2862 748B 20 3C 75      JSR PR200
2863 748E 20 4D 75      JSR PR140
2864 7491 20 9F 74      JSR PRO70
2865 7494 86 D4          STX FA
2866 7496 20 4D 75      JSR PR140
2867 7499 20 9F 74      JSR PRO70
2868 749C 86 D3          STX SA
2869 749E 60            PRO60 RTS
2870 749F 20 55 75      PRO70 JSR PR150
2871 74A2 4C D4 48      JMP GETBYT

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LINE# LOC CODE LINE

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2872 74A5 A5 D3      OPENI  LDA SA
2873 74A7 30 F5      BMI PRO60
2874 74A9 A4 D1      LDY FNLEN
2875 74AB F0 F1      BEQ PRO60
2876 74AD 20 D5 70    JSR LISTN
2877 74B0 A5 D3      LDA SA
2878 74B2 09 F0      ORA ##FO
2879 74B4 20 43 71    OPENIB JSR SECND
2880 74B7 A5 96      LDA SATUS
2881 74B9 10 05      BPL OP35
2882 74BB A0 74      OP37  LDY #MS13-MS1
2883 74BD 4C AF 75    JMP ERMSG
2884 74C0 A5 D1      OP35  LDA FNLEN
2885 74C2 F0 0C      BEQ OP45
2886 74C4 A0 00      LDY #0
2887 74C6 B1 DA      OP40  LDA (FNADR)Y
2888 74C8 20 9E 71    JSR CIOUT
2889 74CB CB          INY
2890 74CC C4 D1      CPY FNLEN
2891 74CE D0 F6      BNE OP40
2892 74D0 4C B9 71    OP45  JMP UNLSN
2893 74D3 20 E5 75    FAF   JSR FAF
2894 74D6 F0 1D      BEQ FAF40
2895 74D8 A0 05      LDY #5
2896 74DA B4 B5      STY T2
2897 74DC A0 00      LDY #0
2898 74DE B4 B4      STY T1
2899 74E0 C4 D1      FAF20 CPY FNLEN
2900 74E2 F0 10      BEQ FAF30
2901 74E4 B1 DA      LDA (FNADR)Y
2902 74E6 A4 B5      LDY T2
2903 74E8 D1 D6      CMP (TBUF)Y
2904 74EA D0 E7      BNE FAF
2905 74EC E6 B4      INC T1
2906 74EE E6 B5      INC T2
2907 74F0 A4 B4      LDY T1
2908 74F2 D0 EC      BNE FAF20
2909 74F4 98          FAF30 TYA
2910 74F5 60          FAF40 RTS
2911 74F6 A9 01      VER   LDA #1
2912 74F8 B5 9D      STA VERCK
2913 74FA 20 05 74    JSR LD10
2914 74FD A5 96      LDA SATUS
2915 74FF 29 10      AND #SPERR
2916 7501 F0 05      BEQ VER10
2917 7503 A0 6E      LDY #MS12-MS1
2918 7505 4C AF 75    JMP ERMSG
2919 7508 A0 AA      VER10 LDY #MS1B-MS1
2920 750A 4C B5 71    JMP MSG
2921 750D              ;USES BASIC ROUTINES TO PARSE
2922 750D              ; OPEN, CLOSE
2923 750D              ; OPEN LFN (NO DEFAULT)
2924 750D              ;     DEV # (DFLT=1)
2925 750D              ;     2ND ADR (DFLT=0 OR NONE)
2926 750D              ;     FILE NM STRNG (DEF=NUL)

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LINE# LOC CODE LINE

2927	750D	A2 00	PARS2	LDX #0
2928	750F	86 D3		STX SA
2929	7511	86 96		STX SATUS
2930	7513	86 D1		STX FNLEN
2931	7515	E8		INX
2932	7516	86 D4		STX FA
2933	7518	20 58 75		JSR PR130
2934	751B	20 D4 48		JSR GETBYT
2935	751E	86 D2		STX LA
2936	7520	20 4D 75		JSR PR140
2937	7523	20 9F 74		JSR PRO70
2938	7526	86 D4		STX FA
2939	7528	E0 03		CPX #3
2940	752A	90 02		BCC PR100
2941	752C	C6 D3		DEC SA
2942	752E	20 4D 75	PR100	JSR PR140
2943	7531	20 9F 74		JSR PRO70
2944	7534	86 D3		STX SA
2945	7536	20 4D 75	PR111	JSR PR140
2946	7539	20 55 75		JSR PR150
2947	753C	20 98 3D	PR200	JSR FRMEVL
2948	753F	20 B5 47		JSR FRESTR
2949	7542	85 D1		STA FNLEN
2950	7544	A5 1F		LDA INDEX1
2951	7546	85 DA		STA FNADR
2952	7548	A5 20		LDA INDEX1+1
2953	754A	85 DB		STA FNADR+1
2954	754C	60		RTS
2955	754D	20 76 00	PR140	JSR CHRGOT
2956	7550	D0 02		BNE PR147
2957	7552	68		PLA
2958	7553	68		PLA
2959	7554	60	PR147	RTS
2960	7555	20 F5 3E	PR150	JSR CHKCOM
2961	7558	20 76 00	PR130	JSR CHRGOT
2962	755B	D0 F7		BNE PR147
2963	755D	4C 00 3F	PR135	JMP SNERR
2964	7560	20 0D 75	OPEN	JSR PARS2
2965	7563	A5 D2	OP94	LDA LA
2966	7565	F0 F6	FOPEN	BEQ PR135
2967	7567	A0 0E	OP98	LDY #MS2-MS1
2968	7569	20 C1 72		JSR JLTLK
2969	756C	F0 41		BEQ ERMSG
2970	756E	A6 AE	OP100	LDX LDTND
2971	7570	A0 00		LDY #0
2972	7572	84 96		STY SATUS
2973	7574	E0 0A		CPX #10
2974	7576	F0 37		BEQ ERMSG
2975	7578	E6 AE		INC LDTND
2976	757A		;STORE	OPEN FILE PARMS INTO TABLE
2977	757A	A5 D2		LDA LA
2978	757C	9D 51 02		STA LAT, X
2979	757F	A5 D3		LDA SA
2980	7581	09 60		ORA ##60
2981	7583	85 D3		STA SA

LINE# LOC CODE LINE

2982	7585	9D 65 02		STA SAT, X
2983	7588	A5 D4		LDA FA
2984	758A	9D 5B 02		STA FAT, X
2985	758D	F0 55		BEQ OP175
2986	758F	C9 03		CMP #3
2987	7591	F0 51		BEQ OP175
2988	7593	90 03		BCC OP150
2989	7595	4C A5 74		JMP OPENI
2990	7598	A5 D3	OP150	LDA SA
2991	759A	29 0F		AND ##F
2992	759C	D0 2B		BNE OP200
2993	759E	20 57 78		JSR CSTE1
2994	75A1	20 49 74		JSR LD300
2995	75A4	A5 D1		LDA FNLEN
2996	75A6	F0 1A		BEQ OP170
2997	75A8	20 D3 74		JSR FAF
2998	75AB	D0 24		BNE OP171
2999	75AD	A0 24	OP160	LDY #MS4-MS1
3000	75AF	20 A2 72	ERMSG	JSR CLALL
3001	75B2	A9 0D		LDA #D
3002	75B4	20 66 72		JSR BSCUT
3003	75B7	A9 3F		LDA ##3F
3004	75B9	20 66 72		JSR BSCUT
3005	75BC	20 85 71		JSR MSG
3006	75BF	4C ED 33		JMP TYPERR
3007	75C2	20 E5 75	OP170	JSR FAH
3008	75C5	F0 E6		BEQ OP160
3009	75C7	D0 08		BNE OP171
3010	75C9	20 8C 78	OP200	JSR CSTE2
3011	75CC	A9 04		LDA #BDFH
3012	75CE	20 19 76		JSR TAPEH
3013	75D1	A6 D4	OP171	LDX FA
3014	75D3	A9 BF		LDA #BUF5Z-1
3015	75D5	A4 D3		LDY SA
3016	75D7	C0 60		CPY ##60 ; OPEN FOR READ?
3017	75D9	F0 07		BEQ OP172
3018	75DB	A0 00		LDY #0
3019	75DD	A9 02		LDA #BDF
3020	75DF	91 D6		STA (TBUF)Y
3021	75E1	98		TYA
3022	75E2	95 BA	OP172	STA BUFPT-1, X
3023	75E4	60	OP175	RTS
3024	75E5			. FILE OB3SRC

LINE# LOC CODE LINE

3026	75E5	A5	9D	FAH	LDA	VERCK
3027	75E7	4B			PHA	
3028	75E8	20	9A 7B	FAH30	JSR	RBLK
3029	75EB	A0	00		LDY	#0
3030	75ED	B1	D6		LDA	(TBUF)Y
3031	75EF	C9	05		CMP	#E0T
3032	75F1	F0	21		BEQ	FAH40
3033	75F3	C9	01		CMP	#BLF
3034	75F5	F0	04		BEQ	FAH50
3035	75F7	C9	04		CMP	#BDFH
3036	75F9	D0	ED		BNE	FAH30
3037	75FB	AA		FAH50	TAX	
3038	75FC	20	51 73		JSR	TXTST
3039	75FF	D0	11		BNE	FAH45
3040	7601	A0	A3		LDY	#MS17-MS1
3041	7603	20	85 71		JSR	MSG
3042	7606	A0	05		LDY	#5
3043	7608	B1	D6	FAH55	LDA	(TBUF)Y
3044	760A	20	D2 FF		JSR	\$FFD2
3045	760D	C8			INY	
3046	760E	C0	15		CPY	#21
3047	7610	D0	F6		BNE	FAH55
3048	7612	A0	01	FAH45	LDY	#1
3049	7614	6B		FAH40	PLA	
3050	7615	85	9D		STA	VERCK
3051	7617	9B			TYA	
3052	7618	60			RTS	
3053	7619	85	B4	TAPEH	STA	T1
3054	761B	20	95 76		JSR	ZZZ
3055	761E	A5	FC		LDA	STAH
3056	7620	4B			PHA	
3057	7621	A5	FB		LDA	STAL
3058	7623	4B			PHA	
3059	7624	A5	CA		LDA	EAH
3060	7626	4B			PHA	
3061	7627	A5	C9		LDA	EAL
3062	7629	4B			PHA	
3063	762A	A0	BF		LDY	#BUFSZ-1
3064	762C	A9	20		LDA	#'
3065	762E	91	D6	BLNK2	STA	(TBUF)Y
3066	7630	8B			DEY	
3067	7631	D0	FB		BNE	BLNK2
3068	7633	A5	B4		LDA	T1
3069	7635	91	D6		STA	(TBUF)Y
3070	7637	C8			INY	
3071	7638	A5	FB		LDA	STAL
3072	763A	91	D6		STA	(TBUF)Y
3073	763C	C8			INY	
3074	763D	A5	FC		LDA	STAH
3075	763F	91	D6		STA	(TBUF)Y
3076	7641	C8			INY	
3077	7642	A5	C9		LDA	EAL
3078	7644	91	D6		STA	(TBUF)Y
3079	7646	C8			INY	
3080	7647	A5	CA		LDA	EAH

LINE# LOC CODE LINE

3081	7649	91 D6		STA (TBUF)Y
3082	764B	C8		INY
3083	764C	84 B5		STY T2
3084	764E	A0 00		LDY #0
3085	7650	84 B4		STY T1
3086	7652	A4 B4	TH20	LDY T1
3087	7654	C4 D1		CPY FNLEN
3088	7656	F0 0C		BEQ TH30
3089	7658	B1 DA		LDA (FNADR)Y
3090	765A	A4 B5		LDY T2
3091	765C	91 D6		STA (TBUF)Y
3092	765E	E6 B4		INC T1
3093	7660	E6 B5		INC T2
3094	7662	D0 EE		BNE TH20
3095	7664	20 AB 76	TH30	JSR LDAD1
3096	7667	A9 69		LDA ##69
3097	7669	85 C3		STA SHCNH
3098	766B	20 D5 78		JSR TWRT2
3099	766E	68		PLA
3100	766F	85 C9		STA EAL
3101	7671	68		PLA
3102	7672	85 CA		STA EAH
3103	7674	68		PLA
3104	7675	85 FB		STA STAL
3105	7677	68		PLA
3106	7678	85 FC		STA STAH
3107	767A	60		RTS
3108	767B	20 2B 79	LDAD2	JSR TWAIT
3109	767E	A2 00		LDX #0
3110	7680	A0 01		LDY #1
3111	7682	B1 D6	LDAD3	LDA (TBUF)Y
3112	7684	95 C7		STA SAL, X
3113	7686	E8		INX
3114	7687	C8		INY
3115	7688	E0 04		CPX #4
3116	768A	D0 F6		BNE LDAD3
3117	768C	A5 C7		LDA SAL
3118	768E	85 FB		STA STAL
3119	7690	A5 C8		LDA SAH
3120	7692	85 FC		STA STAH
3121	7694	60		RTS
3122	7695	A9 7A	ZZZ	LDA #<TAPE1
3123	7697	85 D6		STA TBUF
3124	7699	A9 02		LDA #>TAPE1
3125	769B	85 D7		STA TBUF+1
3126	769D	A5 D4		LDA FA
3127	769F	4A		LSR A
3128	76A0	B0 08		BCS ZZ10
3129	76A2	A9 3A		LDA #<TAPE2
3130	76A4	85 D6		STA TBUF
3131	76A6	A9 03		LDA #>TAPE2
3132	76A8	85 D7		STA TBUF+1
3133	76AA	60	ZZ10	RTS
3134	76AB	20 2B 79	LDAD1	JSR TWAIT
3135	76AE	20 95 76		JSR ZZZ

LINE# LOC CODE LINE

3136	76B1	A5 D6		LDA TBUF
3137	76B3	B5 FB		STA STAL
3138	76B5	18		CLC
3139	76B6	69 C0		ADC #BUFSZ
3140	76B8	B5 C9		STA EAL
3141	76BA	A5 D7		LDA TBUF+1
3142	76BC	B5 FC		STA STAH
3143	76BE	69 00		ADC #0
3144	76C0	B5 CA		STA EAH
3145	76C2	60		RTS
3146	76C3	20 B4 3D	SYS	JSR FRMNUM
3147	76C6	20 2D 49		JSR GETADR
3148	76C9	6C 11 00		JMP (LINNUM)
3149	76CC	A5 2A	SV60	LDA VARTAB
3150	76CE	B5 C9		STA EAL
3151	76D0	A5 2B		LDA VARTAB+1
3152	76D2	B5 CA		STA EAH
3153	76D4	A5 29		LDA TXTTAB+1
3154	76D6	B5 FC		STA STAH
3155	76D8	A5 2B		LDA TXTTAB
3156	76DA	B5 FB		STA STAL
3157	76DC	60		RTS
3158	76DD	20 7D 74	SAVE	JSR PARS1
3159	76E0	20 CC 76	SV3	JSR SV60
3160	76E3	A5 D4	SV5	LDA FA ***MONITOR ENTRY
3161	76E5	D0 05		BNE SV20
3162	76E7	A0 74	SV10	LDY #MS13-MS1
3163	76E9	4C AF 75		JMP ERMSG
3164	76EC	C9 03	SV20	CMP #3
3165	76EE	F0 F7		BEQ SV10
3166	76F0	90 50		BCC SV100
3167	76F2	A9 61		LDA #61
3168	76F4	B5 D3		STA SA
3169	76F6	A4 D1		LDY FNLEN
3170	76F8	D0 03		BNE **+5
3171	76FA	4C 00 3F		JMP SNERR
3172	76FD	20 A5 74		JSR OPENI
3173	7700	20 D5 70		JSR LISTN
3174	7703	A5 D3		LDA SA
3175	7705	20 43 71		JSR SECND
3176	7708	A0 00		LDY #0
3177	770A	20 BB 7B		JSR RD300
3178	770D	A5 C7		LDA SAL
3179	770F	20 9E 71		JSR CIOUT
3180	7712	A5 CB		LDA SAH
3181	7714	20 9E 71		JSR CIOUT
3182	7717	20 0B 7D	SV30	JSR WRT62
3183	771A	F0 10		BEQ SV50
3184	771C	B1 C7		LDA (SAL)Y
3185	771E	20 9E 71		JSR CIOUT
3186	7721	20 43 73		JSR STOP
3187	7724	E6 C7		INC SAL
3188	7726	D0 EF		BNE SV30
3189	7728	E6 C8		INC SAH
3190	772A	D0 EB		BNE SV30

LINE# LDC CODE LINE

3191	772C	20 B9 71	SV50	JSR UNLSN
3192	772F	24 D3	CLSEI	BIT SA
3193	7731	30 78		BMI UD65
3194	7733	20 D5 70		JSR LISTN
3195	7736	A5 D3		LDA SA
3196	7738	29 EF		AND #\$EF
3197	773A	09 E0		ORA #\$E0
3198	773C	20 43 71		JSR SECND
3199	773F	4C B9 71		JMP UNLSN
3200	7742	20 95 76	SV100	JSR ZZZ
3201	7745	20 8C 78		JSR CSTE2
3202	7748	20 51 73		JSR TXTST
3203	774B	D0 08		BNE SV105
3204	774D	A0 64		LDY #MS11-MS1
3205	774F	20 85 71		JSR MSG
3206	7752	20 5C 74		JSR LD105
3207	7755	A9 01	SV105	LDA #BLF
3208	7757	20 19 76		JSR TAPEH
3209	775A	20 CE 78		JSR TWRT
3210	775D	A5 D3		LDA SA
3211	775F	29 02		AND #2
3212	7761	F0 48		BEQ UD65
3213	7763	A9 05		LDA #E0T
3214	7765	4C 19 76		JMP TAPEH
3215	7768	E6 99	UDTIM	INC CRFAC
3216	776A	A5 99		LDA CRFAC
3217	776C	D0 02		BNE UD10
3218	776E	E6 9A		INC CRFAC+1
3219	7770	C9 6F	UD10	CMP #\$6F
3220	7772	D0 06		BNE UD20
3221	7774	A5 9A		LDA CRFAC+1
3222	7776	C9 02		CMP #2
3223	7778	F0 21		BEQ UD50
3224	777A	E6 8F	UD20	INC TIME+2
3225	777C	D0 06		BNE UD30
3226	777E	E6 8E		INC TIME+1
3227	7780	D0 02		BNE UD30
3228	7782	E6 8D		INC TIME
3229	7784	A2 00	UD30	LDX #0
3230	7786	B5 8D	UD40	LDA TIME, X
3231	7788	DD AC 77		CMP UD70, X
3232	778B	90 14		BCC UD60
3233	778D	E8		INX
3234	778E	E0 03		CPX #3
3235	7790	D0 F4		BNE UD40
3236	7792	A9 00		LDA #0
3237	7794	95 8C	UD45	STA TIME-1, X
3238	7796	CA		DEX
3239	7797	D0 FB		BNE UD45
3240	7799	F0 06		BEQ UD60
3241	779B	A9 00	UD50	LDA #0
3242	779D	85 99		STA CRFAC
3243	779F	B5 9A		STA CRFAC+1
3244	77A1	AD 12 E8	UD60	LDA PIAK
3245	77A4	CD 12 E8		CMP PIAK

LINE# LOC CODE LINE

3246	77A7	DO	FB		BNE	UD60
3247	77A9	85	9B		STA	STKEY
3248	77AB	60		UD65	RTS	
3249	77AC	4F		UD70	.BYT	\$4F, \$1A, 1
3249	77AD	1A				
3249	77AE	01				
3250	77AF				.FILE	OB4SRC

LINE# LOC CODE LINE

3252	77AF	48		CHKIN	PHA		
3253	77B0	8A			TXA		
3254	77B1	48			PHA		
3255	77B2	98			TYA		
3256	77B3	48			PHA		
3257	77B4	A9	00		LDA	#0	
3258	77B6	85	96		STA	SATUS	
3259	77B8	8A			TXA		
3260	77B9	20	C1	72	JSR	JLTLK	
3261	77BC	F0	05		BEQ	JX310	
3262	77BE	A0	17	JX300	LDY	#MS3-MS1	
3263	77C0	4C	AF	75	JX305	JMP	ERMSG
3264	77C3	20	CD	72	JX310	JSR	JZ100
3265	77C6	A5	D4		LDA	FA	
3266	77C8	F0	10		BEQ	JX320	
3267	77CA	C9	03		CMP	#3	
3268	77CC	F0	0C		BEQ	JX320	
3269	77CE	B0	0F		BCS	JX330	
3270	77D0	A6	D3		LDX	SA	
3271	77D2	E0	60		CPX	##60	
3272	77D4	F0	04		BEQ	JX320	
3273	77D6	A0	86		LDY	#MS15-MS1	
3274	77D8	D0	E6		BNE	JX305	
3275	77DA	85	AF	JX320	STA	DFLTN	
3276	77DC	4C	9C	72	JMP	RSTOR	
3277	77DF	48		JX330	PHA		
3278	77E0	20	E1	5B	JSR	OLDCLR	; KILL DS#
3279	77E3	20	D2	70	JX3301	JSR	TALK
3280	77E6	A5	D3		LDA	SA	
3281	77E8	10	06		BPL	JX340	
3282	77EA	20	98	71	JSR	TKATN	
3283	77ED	4C	F3	77	JMP	JX350	
3284	77F0	20	93	71	JX340	JSR	TKSA
3285	77F3	A5	96	JX350	LDA	SATUS	
3286	77F5	10	03		BPL	#+5	
3287	77F7	4C	BB	74	JMP	OP37	
3288	77FA	68			PLA		
3289	77FB	4C	DA	77	JMP	JX320	
3290	77FE				CHKOUT		
3291	77FE	48		CKOUT	PHA		
3292	77FF	8A			TXA		
3293	7800	48			PHA		
3294	7801	98			TYA		
3295	7802	48			PHA		
3296	7803	A9	00		LDA	#0	
3297	7805	85	96		STA	SATUS	
3298	7807	8A			TXA		
3299	7808	20	C1	72	JSR	JLTLK	
3300	780B	D0	B1		BNE	JX300	
3301	780D	20	CD	72	JSR	JZ100	
3302	7810	A5	D4		LDA	FA	
3303	7812	D0	04		BNE	CK10	
3304	7814	A0	94		LDY	#MS16-MS1	
3305	7816	D0	A8		BNE	JX305	
3306	7818	C9	03	CK10	CMP	#3	

LINE# LOC CODE LINE

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3307 781A F0 OC          BEQ JX360
3308 781C B0 OF          BCS JX370
3309 781E A6 D3          LDX SA
3310 7820 E0 60          CPX ##60
3311 7822 D0 04          BNE JX360
3312 7824 A0 94          LDY #MS16-MS1
3313 7826 D0 98          BNE JX305
3314 7828 B5 B0          JX360 STA DFLTD
3315 782A 4C 9C 72      JMP RSTOR
3316 782D 48            JX370 PHA
3317 782E 20 E1 5B      JSR OLDCLR          ; KILL DS#
3318 7831 20 D5 70      JX3701 JSR LISTN
3319 7834 A5 D3          LDA SA
3320 7836 10 05          BPL JX380
3321 7838 20 48 71      JSR SCATN
3322 783B D0 03          BNE JX390
3323 783D 20 43 71      JX380 JSR SECND
3324 7840 A5 96          JX390 LDA SATUS
3325 7842 10 03          BPL *+5
3326 7844 4C BB 74      JMP DP37
3327 7847 68            PLA
3328 7848 4C 28 78      JMP JX360
3329 784B 20 95 76      JTP20 JSR ZZZ
3330 784E A6 D4          LDX FA
3331 7850 F6 BA          INC BUFPT-1, X
3332 7852 B4 BA          LDY BUFPT-1, X
3333 7854 C0 C0          CPY #BUFSZ
3334 7856 60            RTS
3335 7857              ; STAYS IN ROUTINE TILL PLAY SWITCH
3336 7857 20 7A 78      CSTE1 JSR CS10
3337 785A F0 2F          BEQ CS25
3338 785C A0 41          LDY #MS7-MS1        ; "PRESS PLAY"
3339 785E 20 85 71      CS30 JSR MSG
3340 7861 A0 56          LDY #MS9-MS1        ; "ON CASSETTE #"
3341 7863 20 85 71      JSR MSG
3342 7866 A5 D4          LDA FA
3343 7868 09 30          ORA #'0
3344 786A 20 02 62      JSR PRT              ; PRINT CASSETTE #
3345 786D 20 35 79      CS40 JSR TSTOP        ; WATCH FOR STOP KEY
3346 7870 20 7A 78      JSR CS10              ; WATCH CASSETTE SWITCHES
3347 7873 D0 F8          BNE CS40
3348 7875 A0 AA          LDY #MS18-MS1       ; "OK"
3349 7877 4C 85 71      JMP MSG
3350 787A              ; SUBR RETURNS <> FOR CASSETTE SWITCH
3351 787A A9 10          CS10 LDA ##10         ; ASSUME CASSETTE #1
3352 787C A6 D4          LDX FA
3353 787E CA            DEX                  ; REALLY CASSETTE 1
3354 787F F0 02          BEQ CS20              ; YES. . .
3355 7881 A9 20          LDA ##20              ; NO. . . CASSETTE #2
3356 7883 2C 10 E8      CS20 BIT PIAL          ; CLOSED
3357 7886 D0 03          BNE CS25              ; NO. . .
3358 7888 2C 10 E8      BIT PIAL              ; CHECK AGAIN TO DEBOUNCE
3359 788B 60            CS25 RTS
3360 788C              ; CHECKS FOR PLAY & RECORD
3361 788C 20 7A 78      CSTE2 JSR CS10

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LINE# LOC CODE LINE

3362	78BF	F0 FA		BEQ CS25	
3363	7891	A0 41		LDY #MS7-MS1	; "PRESS PLAY AND"
3364	7893	20 85 71		JSR MSG	
3365	7896	A0 4D		LDY #MS8-MS1	; "RECORD"
3366	7898	D0 C4		BNE CS30	
3367	789A	A9 00	RBLK	LDA #0	
3368	789C	85 96		STA SATUS	
3369	789E	85 9D		STA VERCK	
3370	78A0	20 AB 76		JSR LDAD1	
3371	78A3	20 2B 79	TRD	JSR TWAIT	
3372	78A6	20 57 78		JSR CSTE1	
3373	78A9	78		SEI	
3374	78AA	A9 00		LDA #0	
3375	78AC	85 C2		STA RDFLG	
3376	78AE	85 CE		STA SNSW1	
3377	78B0	85 CB		STA CMPO	
3378	78B2	85 C0		STA PTR1	
3379	78B4	85 C1		STA PTR2	
3380	78B6	85 B2		STA DPSW	
3381	78BB	A6 D4		LDX FA	
3382	78BA	CA		DEX	
3383	78BB	F0 07		BEQ TRD2	
3384	78BD	A9 90		LDA #90	
3385	78BF	8D 4E EB		STA IER	
3386	78C2	D0 03		BNE TRD3	
3387	78C4	EE 11 EB	TRD2	INC PIAL1	
3388	78C7	A2 0E	TRD3	LDX #14	
3389	78C9	D0 15		BNE TAPE	
3390	78CB	20 AB 76	WBLK	JSR LDAD1	
3391	78CE	20 2B 79	TWRT	JSR TWAIT	
3392	78D1	A9 14		LDA #20	
3393	78D3	85 C3		STA SHCNH	
3394	78D5	20 BC 78	TWRT2	JSR CSTE2	
3395	78D8	78		SEI	
3396	78D9	A9 A0		LDA #A0	
3397	78DB	8D 4E EB		STA IER	
3398	78DE	A2 08		LDX #8	
3399	78E0	20 E0 7C	TAPE	JSR BSIV	
3400	78E3	A9 02		LDA #2	
3401	78E5	85 DE		STA FSBLK	
3402	78E7	20 C9 7B		JSR NEWCH	
3403	78EA	CE 13 EB		DEC PIAS	
3404	78ED	A6 D4		LDX FA	
3405	78EF	CA		DEX	
3406	78F0	D0 09		BNE TP20	
3407	78F2	A9 34		LDA #34	
3408	78F4	8D 13 EB		STA PIAS	
3409	78F7	85 F9		STA CAS1	
3410	78F9	D0 0A		BNE TP30	
3411	78FB	AD 40 EB	TP20	LDA PIA	
3412	78FE	86 FA		STX CAS2	
3413	7900	29 EF		AND #EF	
3414	7902	8D 40 EB		STA PIA	
3415	7905	A2 FF	TP30	LDX #FF	
3416	7907	A0 FF	TP32	LDY #FF	

LINE# LOC CODE LINE

3417	7909	88		TP35	DEY
3418	790A	DO	FD		BNE TP35
3419	790C	CA			DEX
3420	790D	DO	F8		BNE TP32
3421	790F	8D	49 EB		STA T2H
3422	7912	58			CLI
3423	7913	A9	64	TP40	LDA #>KEY
3424	7915	C5	91		CMP CINV+1
3425	7917	F0	11		BEQ TP50
3426	7919	20	35 79		JSR TSTOP
3427	791C	2C	13 EB		BIT PIAS
3428	791F	10	F2		BPL TP40
3429	7921	2C	12 EB		BIT PIAK
3430	7924	20	68 77		JSR UDTIM
3431	7927	4C	13 79		JMP TP40
3432	792A	60		TP50	RTS
3433	792B	20	35 79	TWAIT	JSR TSTOP
3434	792E	A9	64		LDA #>KEY
3435	7930	C5	91		CMP CINV+1
3436	7932	DO	F7		BNE TWAIT
3437	7934	60			RTS
3438	7935	20	35 73	TSTOP	JSR STOP1
3439	7938	DO	08		BNE STOP3
3440	793A	20	CO 7C		JSR TNIF
3441	793D	20	B8 72		JSR JX770
3442	7940	85	10		STA CHANL
3443	7942	4C	C6 37	STOP3	JMP BSTOP
3444	7945	86	CC	STT1	STX TEMP
3445	7947	A5	CB		LDA CMPO
3446	7949	0A			ASL A
3447	794A	0A			ASL A
3448	794B	18			CLC
3449	794C	65	CB		ADC CMPO
3450	794E	18			CLC
3451	794F	65	CC		ADC TEMP
3452	7951	85	CC		STA TEMP
3453	7953	A9	00		LDA #0
3454	7955	24	CB		BIT CMPO
3455	7957	30	01		BMI STT2
3456	7959	2A			ROL A
3457	795A	06	CC	STT2	ASL TEMP
3458	795C	2A			ROL A
3459	795D	06	CC		ASL TEMP
3460	795F	2A			ROL A
3461	7960	AA			TAX
3462	7961	AD	48 EB	STT3	LDA T2L
3463	7964	C9	15		CMP #21
3464	7966	90	F9		BCC STT3
3465	7968	65	CC		ADC TEMP
3466	796A	8D	44 EB		STA TIL
3467	796D	8A			TXA
3468	796E	6D	49 EB		ADC T2H
3469	7971	8D	45 EB		STA TIH
3470	7974	58			CLI
3471	7975	60			RTS

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LINE# LOC CODE LINE

3472 7976

.FILE 0B5SRC

REC'D BY: [illegible]

LINE# LOC CODE LINE

3474	7976	AE 49 EB	READ	LDX T2H
3475	7979	A0 FF		LDY #FF
3476	797B	98		TYA
3477	797C	ED 48 EB		SBC T2L
3478	797F	EC 49 EB		CPX T2H
3479	7982	D0 F2		BNE READ
3480	7984	86 CC	RD1	STX TEMP
3481	7986	AA		TAX
3482	7987	8C 48 EB		STY T2L
3483	798A	8C 49 EB		STY T2H
3484	798D	98		TYA
3485	798E	E5 CC		SBC TEMP
3486	7990	86 CC		STX TEMP
3487	7992	4A		LSR A
3488	7993	66 CC		ROR TEMP
3489	7995	4A		LSR A
3490	7996	66 CC	RADS	ROR TEMP
3491	7998	A5 CB	RD3	LDA CMPO
3492	799A	18		CLC
3493	799B	69 3C		ADC #60
3494	799D	2C 40 EB		BIT PIA
3495	79A0	2C 10 EB		BIT PIAL
3496	79A3	C5 CC		CMP TEMP
3497	79A5	B0 4A		BCS RDBK
3498	79A7	A6 B2		LDX DPSW
3499	79A9	F0 03		BEQ RJDJ
3500	79AB	4C 9C 7A	JRADJ	JMP RADJ
3501	79AE	A6 B7	RJDJ	LDX PCNTR
3502	79B0	30 1B		BMI JRAD2
3503	79B2	A2 00		LDX #0
3504	79B4	69 30		ADC #48
3505	79B6	65 CB		ADC CMPO
3506	79B8	C5 CC		CMP TEMP
3507	79BA	B0 1C		BCS RADX2
3508	79BC	E8		INX
3509	79BD	69 26		ADC #38
3510	79BF	65 CB		ADC CMPO
3511	79C1	C5 CC		CMP TEMP
3512	79C3	B0 17		BCS RADL
3513	79C5	69 2C		ADC #44
3514	79C7	65 CB		ADC CMPO
3515	79C9	C5 CC		CMP TEMP
3516	79CB	90 03		BCC SRER
3517	79CD	4C 4C 7A	JRAD2	JMP RAD2
3518	79D0	A5 CE	SRER	LDA SNSW1
3519	79D2	F0 1D		BEQ RDBK
3520	79D4	85 BE		STA RER
3521	79D6	D0 19		BNE RDBK
3522	79D8	E6 BF	RADX2	INC REZ
3523	79DA	B0 02		BCS RAD5
3524	79DC	C6 BF	RADL	DEC REZ
3525	79DE	38	RAD5	SEC
3526	79DF	E9 13		SBC #19
3527	79E1	E5 CC		SBC TEMP
3528	79E3	65 9C		ADC SVXT

LINE# LOC CODE LINE

3529	79E5	85 9C		STA SVXT
3530	79E7	A5 B9		LDA FIRT
3531	79E9	49 01		EOR #1
3532	79EB	85 B9		STA FIRT
3533	79ED	F0 21		BEQ RAD3
3534	79EF	86 D9		STX DATA
3535	79F1	A5 CE	RDBK	LDA SNSW1
3536	79F3	F0 18		BEQ RADBK
3537	79F5	2C 4D	EB	BIT IFR
3538	79F8	50 13		BVC RADBK
3539	79FA	A9 00		LDA #0
3540	79FC	85 B9		STA FIRT
3541	79FE	A5 B7		LDA PCNTR
3542	7A00	10 31		BPL RAD4
3543	7A02	30 C9		BMI JRAD2
3544	7A04	A2 A6	RADP	LDX #166
3545	7A06	20 45	79	JSR STT1
3546	7A09	A5 B1		LDA PRTY
3547	7A0B	D0 C3		BNE SRER
3548	7A0D	4C 00	66	RADBK JMP PREND
3549	7A10	A5 9C	RAD3	LDA SVXT
3550	7A12	F0 08		BEQ ROUT1
3551	7A14	30 04		BMI ROUT2
3552	7A16	C6 CB		DEC CMPO
3553	7A18	C6 CB		DEC CMPO
3554	7A1A	E6 CB	ROUT2	INC CMPO
3555	7A1C	A9 00	ROUT1	LDA #0
3556	7A1E	85 9C		STA SVXT
3557	7A20	E4 D9		CPX DATA
3558	7A22	D0 0F		BNE RAD4
3559	7A24	8A		TXA
3560	7A25	D0 A9		BNE SRER
3561	7A27	A5 BF		LDA REZ
3562	7A29	30 C6		BMI RDBK
3563	7A2B	C9 10		CMP #16
3564	7A2D	90 C2		BCC RDBK
3565	7A2F	85 AB	RAD3G	STA SYND
3566	7A31	B0 BE		BCS RDBK
3567	7A33	8A	RAD4	TXA
3568	7A34	45 B1		EOR PRTY
3569	7A36	85 B1		STA PRTY
3570	7A38	A5 CE		LDA SNSW1
3571	7A3A	F0 D1		BEQ RADBK
3572	7A3C	C6 B7		DEC PCNTR
3573	7A3E	30 C4		BMI RADP
3574	7A40	46 D9		LSR DATA
3575	7A42	66 DF		RDR MYCH
3576	7A44	A2 DA		LDX #218
3577	7A46	20 45	79	JSR STT1
3578	7A49	4C 00	66	JMP PREND
3579	7A4C	A5 AB	RAD2	LDA SYND
3580	7A4E	F0 04		BEQ RAD2Y
3581	7A50	A5 CE		LDA SNSW1
3582	7A52	F0 07		BEQ RAD2X
3583	7A54	A5 B7	RAD2Y	LDA PCNTR

LINE# LOC CODE LINE

3584	7A56	30	03		BMI	RAD2X	
3585	7A58	4C	DC	79	JMP	RADL	
3586	7A5B	46	CC		RAD2X	LSR	TEMP
3587	7A5D	A9	93		LDA	#147	
3588	7A5F	38			SEC		
3589	7A60	E5	CC		SBC	TEMP	
3590	7A62	65	CB		ADC	CMPO	
3591	7A64	0A			ASL	A	
3592	7A65	AA			TAX		
3593	7A66	20	45	79	JSR	STT1	
3594	7A69	E6	B2		INC	DPSW	
3595	7A6B	A5	CE		RADQ	LDA	SNSW1
3596	7A6D	D0	11		BNE	RADQ2	
3597	7A6F	A5	AB		RADQ1	LDA	SYND
3598	7A71	F0	26		BEQ	RDBK2	
3599	7A73	85	BE		STA	RER	
3600	7A75	A9	00		LDA	#0	
3601	7A77	85	AB		STA	SYND	
3602	7A79	A9	C0		LDA	##C0	
3603	7A7B	8D	4E	EB	STA	IER	
3604	7A7E	85	CE		STA	SNSW1	
3605	7A80	A5	AB		RADQ2	LDA	SYND
3606	7A82	85	CF		STA	DIFF	
3607	7A84	F0	09		BEQ	RADK	
3608	7A86	A9	00		LDA	#0	
3609	7A88	85	CE		STA	SNSW1	
3610	7A8A	A9	40		LDA	##40	
3611	7A8C	8D	4E	EB	STA	IER	
3612	7A8F	A5	DF		RADK	LDA	MYCH
3613	7A91	85	DD		STA	OCHAR	
3614	7A93	A5	BE		LDA	RER	
3615	7A95	05	BF		RADR1	ORA	REZ
3616	7A97	85	D0		STA	PRP	
3617	7A99	4C	00	66	RDBK2	JMP	PREND
3618	7A9C	20	C9	7B	RADJ	JSR	NEWCH
3619	7A9F	85	B2		STA	DPSW	
3620	7AA1	A2	DA		LDX	#218	
3621	7AA3	20	45	79	JSR	STT1	
3622	7AA6	A5	DE		LDA	FSBLK	
3623	7AAB	F0	02		BEQ	RD15	
3624	7AAA	85	BD		STA	SHCNL	
3625	7AAC				SPERR=16		
3626	7AAC				CKERR=32		
3627	7AAC				SBERR=4		
3628	7AAC				LBERR=8		
3629	7AAC	A9	0F		RD15	LDA	##F
3630	7AAE	24	C2		BIT	RDFLG	
3631	7AB0	10	17		BPL	RD20	
3632	7AB2	A5	CF		LDA	DIFF	
3633	7AB4	D0	0C		BNE	RD12	
3634	7AB6	A6	DE		LDX	FSBLK	
3635	7AB8	CA			DEX		
3636	7AB9	D0	0B		BNE	RD10	
3637	7ABB				; LONG	BLOCK ERROR	
3638	7ABB	A9	08		LDA	##LBERR	

LINE# LOC CODE LINE

3639	7ABD	20 C4 7B		JSR UDST
3640	7ACO	D0 04		BNE RD10
3641	7AC2	A9 00	RD12	LDA #0
3642	7AC4	85 C2		STA RDFLG
3643	7AC6	4C 00 66	RD10	JMP PREND
3644	7AC9	70 31	RD20	BVS RD60
3645	7ACB	D0 18		BNE RD200
3646	7ACD	A5 CF		LDA DIFF
3647	7ACF	D0 F5		BNE RD10
3648	7AD1	A5 D0		LDA PRP
3649	7AD3	D0 F1		BNE RD10
3650	7AD5	A5 BD		LDA SHCNL
3651	7AD7	4A		LSR A
3652	7ADB	A5 DD		LDA OCHAR
3653	7ADA	30 03		BMI RD22
3654	7ADC	90 18		BCC RD40
3655	7ADE	18		CLC
3656	7ADF	B0 15	RD22	BCS RD40
3657	7AE1	29 0F		AND #5F
3658	7AE3	85 C2		STA RDFLG
3659	7AE5	C6 C2	RD200	DEC RDFLG
3660	7AE7	D0 DD		BNE RD10
3661	7AE9	A9 40		LDA #540
3662	7AEB	85 C2		STA RDFLG
3663	7AED	20 BB 7B		JSR RD300
3664	7AF0	A9 00		LDA #0
3665	7AF2	85 C3		STA SHCNH
3666	7AF4	F0 D0		BEQ RD10
3667	7AF6	A9 80	RD40	LDA #580
3668	7AF8	85 C2		STA RDFLG
3669	7AFA	D0 CA		BNE RD10
3670	7AFC	A5 CF	RD60	LDA DIFF
3671	7AFE	F0 0A		BEQ RD70
3672	7B00	A9 04		LDA #5BERR
3673	7B02		; SHORT	BLOCK ERROR
3674	7B02	20 C4 7B		JSR UDST
3675	7B05	A9 00		LDA #0
3676	7B07	4C 8B 7B		JMP RD161
3677	7B0A	20 0B 7D	RD70	JSR WRT62
3678	7B0D	D0 03		BNE ++5
3679	7B0F	4C 89 7B		JMP RD160
3680	7B12	A6 BD		LDX SHCNL
3681	7B14	CA		DEX
3682	7B15	F0 2D		BEQ RD58
3683	7B17	A5 9D		LDA VERCK
3684	7B19	F0 0C		BEQ RDS0
3685	7B1B	A0 00		LDY #0
3686	7B1D	A5 DD		LDA OCHAR
3687	7B1F	D1 C7		CMP (SAL)Y
3688	7B21	F0 04		BEQ RD80
3689	7B23	A9 01		LDA #1
3690	7B25	B5 D0		STA PRP
3691	7B27	A5 D0	RDB0	LDA PRP
3692	7B29	F0 4C		BEQ RD59
3693	7B2B	A2 3D		LDX #61

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3694	7B2D	E4	C0		CPX	PTR1
3695	7B2F	90	3F		BCC	RD55
3696	7B31	A6	C0	RD56	LDX	PTR1
3697	7B33	A5	C8		LDA	SAH
3698	7B35	9D	01	01	STA	BAD+1, X
3699	7B3B	A5	C7		LDA	SAL
3700	7B3A	9D	00	01	STA	BAD, X
3701	7B3D	EB			INX	
3702	7B3E	E8			INX	
3703	7B3F	86	C0		STX	PTR1
3704	7B41	4C	77	7B	JMP	RD59
3705	7B44	A6	C1	RD58	LDX	PTR2
3706	7B46	E4	C0		CPX	PTR1
3707	7B48	F0	37		BEQ	RD90
3708	7B4A	A5	C7		LDA	SAL
3709	7B4C	DD	00	01	CMP	BAD, X
3710	7B4F	D0	30		BNE	RD90
3711	7B51	A5	C8		LDA	SAH
3712	7B53	DD	01	01	CMP	BAD+1, X
3713	7B56	D0	29		BNE	RD90
3714	7B58	E6	C1		INC	PTR2
3715	7B5A	E6	C1		INC	PTR2
3716	7B5C	A5	9D		LDA	VERCK
3717	7B5E	F0	0C		BEQ	RD52
3718	7B60	A5	DD		LDA	OCHAR
3719	7B62	A0	00		LDY	#0
3720	7B64	D1	C7		CMP	(SAL)Y
3721	7B66	F0	19		BEQ	RD90
3722	7B68	A9	01		LDA	#1
3723	7B6A	85	D0		STA	PRP
3724	7B6C	A5	D0	RD52	LDA	PRP
3725	7B6E	F0	07		BEQ	RD59
3726	7B70				; SECOND PASS ERR	
3727	7B70	A9	10	RD55	LDA	#SPERR
3728	7B72	20	C4	7B	JSR	UDST
3729	7B75	D0	0A		BNE	RD90
3730	7B77	A5	9D	RD59	LDA	VERCK
3731	7B79	D0	06		BNE	RD90
3732	7B7B	A5	DD		LDA	OCHAR
3733	7B7D	A0	00		LDY	#0
3734	7B7F	91	C7		STA	(SAL)Y
3735	7B81	E6	C7	RD90	INC	SAL
3736	7B83	D0	33		BNE	RD180
3737	7B85	E6	C8		INC	SAH
3738	7B87	D0	2F		BNE	RD180
3739	7B89	A9	80	RD160	LDA	##80
3740	7B8B	85	C2	RD161	STA	RDFLG
3741	7B8D	A6	DE		LDX	FSBLK
3742	7B8F	CA			DEX	
3743	7B90	30	02		BMI	RD167
3744	7B92	86	DE		STX	FSBLK
3745	7B94	C6	BD	RD167	DEC	SHCNL
3746	7B96	F0	08		BEQ	RD175
3747	7B98	A5	C0		LDA	PTR1
3748	7B9A	D0	1C		BNE	RD180

LINE# LOC CODE LINE

3749	7B9C	85	DE		STA FSBLK
3750	7B9E	F0	18		BEQ RD180
3751	7BA0	20	C0 7C	RD175	JSR TNIF
3752	7BA3	20	BB 7B		JSR RD300
3753	7BA6	A0	00		LDY #0
3754	7BA8	84	C3		STY SHCNH
3755	7BAA	20	F9 7C		JSR VPRTY
3756	7BAD	A5	C3		LDA SHCNH
3757	7BAF	45	DD		EDR OCHAR
3758	7BB1	F0	05		BEQ RD180
3759	7BB3	A9	20		LDA #CKERR
3760	7BB5			; CHKSUM	ERROR
3761	7BB5	20	C4 7B		JSR UDST
3762	7BB8	4C	00 66	RD180	JMP PREND
3763	7BBB	A5	FC	RD300	LDA STAH
3764	7BBD	85	C8		STA SAH
3765	7BBF	A5	FB		LDA STAL
3766	7BC1	85	C7		STA SAL
3767	7BC3	60			RTS
3768	7BC4	05	96	UDST	ORA SATUS
3769	7BC6	85	96		STA SATUS
3770	7BC8	60			RTS
3771	7BC9	A9	08	NEWCH	LDA #B
3772	7BCB	85	B7		STA PCNTR
3773	7BCD	A9	00		LDA #0
3774	7BCF	85	B9		STA FIRT
3775	7BD1	85	BE		STA RER
3776	7BD3	85	B1		STA PRTY
3777	7BD5	85	BF		STA REZ
3778	7BD7	60			RTS
3779	7BD8				. FILE 0B6SRC

LINE# LOC CODE LINE

3781	7BD8	A5 DD		WRITE	LDA OCHAR
3782	7BDA	4A			LSR A
3783	7BDB	A9 60			LDA #96
3784	7BDD	90 02			BCC WRT1
3785	7BDF	A9 B0		WRTW	LDA #176
3786	7BE1	A2 00		WRT1	LDX #0
3787	7BE3	8D 48 E8		WRTX	STA T2L
3788	7BE6	8E 49 E8			STX T2H
3789	7BE9	AD 40 E8			LDA PIA
3790	7BEC	49 08			EOR #8
3791	7BEE	8D 40 E8			STA PIA
3792	7BF1	29 08			AND #8
3793	7BF3	60			RTS
3794	7BF4	38		WRTL3	SEC
3795	7BF5	66 C8			ROR SAH
3796	7BF7	30 3C			BMI WRT3
3797	7BF9	A5 BE		WRTN	LDA RER
3798	7BFB	D0 12			BNE WRTN1
3799	7BFD	A9 10			LDA #16
3800	7BFF	A2 01			LDX #1
3801	7C01	20 E3 7B			JSR WRTX
3802	7C04	D0 2F			BNE WRT3
3803	7C06	E6 BE			INC RER
3804	7C08	A5 C8			LDA SAH
3805	7C0A	10 29			BPL WRT3
3806	7C0C	4C 86 7C			JMP WRNC
3807	7C0F	A5 BF		WRTN1	LDA REZ
3808	7C11	D0 09			BNE WRTN2
3809	7C13	20 DF 7B			JSR WRTW
3810	7C16	D0 1D			BNE WRT3
3811	7C18	E6 BF			INC REZ
3812	7C1A	D0 19			BNE WRT3
3813	7C1C	20 D8 7B		WRTN2	JSR WRITE
3814	7C1F	D0 14			BNE WRT3
3815	7C21	A5 B9			LDA FIRT
3816	7C23	49 01			EOR #1
3817	7C25	85 B9			STA FIRT
3818	7C27	F0 0F			BEQ WRT2
3819	7C29	A5 DD			LDA OCHAR
3820	7C2B	49 01			EOR #1
3821	7C2D	85 DD			STA OCHAR
3822	7C2F	29 01			AND #1
3823	7C31	45 B1			EOR PRTY
3824	7C33	85 B1			STA PRTY
3825	7C35	4C 00 66		WRT3	JMP PREND
3826	7C38	46 DD		WRT2	LSR OCHAR
3827	7C3A	C6 B7			DEC PCNTR
3828	7C3C	A5 B7			LDA PCNTR
3829	7C3E	F0 3D			BEQ WRT4
3830	7C40	10 F3			BPL WRT3
3831	7C42	20 C9 7B		WRTS	JSR NEWCH
3832	7C45	58			CLI
3833	7C46	A5 BA			LDA CNTDN
3834	7C48	F0 12			BEQ WRT6
3835	7C4A	A2 00			LDX #0

LINE# LOC CODE LINE

3836	7C4C	86 D9		STX DATA
3837	7C4E	C6 BA	WRTS1	DEC CNTDN
3838	7C50	A6 DE		LDX FSBLK
3839	7C52	E0 02		CPX #2
3840	7C54	D0 02		BNE WRT61
3841	7C56	09 80		ORA #80
3842	7C58	85 DD	WRT61	STA OCHAR
3843	7C5A	D0 D9		BNE WRT3
3844	7C5C	20 0B 7D	WRT6	JSR WRT62
3845	7C5F	90 0A		BCC WRT7
3846	7C61	D0 91		BNE WRTL3
3847	7C63	E6 C8		INC SAH
3848	7C65	A5 D9		LDA DATA
3849	7C67	85 DD		STA OCHAR
3850	7C69	B0 CA		BCS WRT3
3851	7C6B	A0 00	WRT7	LDY #0
3852	7C6D	B1 C7		LDA (SAL)Y
3853	7C6F	85 DD		STA OCHAR
3854	7C71	45 D9		EOR DATA
3855	7C73	85 D9		STA DATA
3856	7C75	E6 C7		INC SAL
3857	7C77	D0 BC		BNE WRT3
3858	7C79	E6 C8		INC SAH
3859	7C7B	D0 B8		BNE WRT3
3860	7C7D	A5 B1	WRT4	LDA PRTY
3861	7C7F	49 01		EOR #1
3862	7C81	85 DD		STA OCHAR
3863	7C83	4C 00 66	WRTBK	JMP PREND
3864	7C86	C6 DE	WRNC	DEC FSBLK
3865	7C88	D0 03		BNE WREND
3866	7C8A	20 EB 7C		JSR TNOF
3867	7C8D	A9 50	WREND	LDA #80
3868	7C8F	85 BD		STA SHCNL
3869	7C91	A2 08		LDX #8
3870	7C93	78		SEI
3871	7C94	20 E0 7C		JSR BSIV
3872	7C97	D0 EA		BNE WRTBK
3873	7C99	A9 78	WRTZ	LDA #120
3874	7C9B	20 E1 7B		JSR WRT1
3875	7C9E	D0 E3		BNE WRTBK
3876	7CA0	C6 BD		DEC SHCNL
3877	7CA2	D0 DF		BNE WRTBK
3878	7CA4	20 C9 7B		JSR NEWCH
3879	7CA7	C6 C3		DEC SHCNH
3880	7CA9	10 D8		BPL WRTBK
3881	7CAB	A2 0A		LDX #10
3882	7CAD	20 E0 7C		JSR BSIV
3883	7CB0	58		CLI
3884	7CB1	E6 C3		INC SHCNH
3885	7CB3	A5 DE		LDA FSBLK
3886	7CB5	F0 24		BEQ STKY
3887	7CB7	20 BB 7B		JSR RD300
3888	7CBA	A2 09		LDX #9
3889	7CBC	86 BA		STX CNTDN
3890	7CBE	D0 B2		BNE WRTS

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3891	7CC0	08		TNIF	PHP
3892	7CC1	7B			SEI
3893	7CC2	20 EB 7C			JSR TNOF
3894	7CC5	A9 7F			LDA #7F
3895	7CC7	8D 4E EB			STA IER
3896	7CCA	A9 3C			LDA #3C
3897	7CCC	8D 11 EB			STA PIAL1
3898	7CCF	A9 3D			LDA #3D
3899	7CD1	8D 13 EB			STA PIAS
3900	7CD4	A2 0C			LDX #12
3901	7CD6	20 E0 7C			JSR BSIV
3902	7CD9	28			PLP
3903	7CDA	60			RTS
3904	7CDB	20 C0 7C	STKY	JSR TNIF	
3905	7CDE	F0 A3			BEQ WRBKB
3906	7CE0	8D 4C 7D	BSIV	LDA BSIT, X	
3907	7CE3	85 90			STA CINV
3908	7CE5	8D 4D 7D			LDA BSIT+1, X
3909	7CE8	85 91			STA CINV+1
3910	7CEA	60			RTS
3911	7CEB	A9 3C	TNOF	LDA #3C	
3912	7CED	8D 13 EB			STA PIAS
3913	7CF0	AD 40 EB			LDA PIA
3914	7CF3	09 10			ORA #10
3915	7CF5	8D 40 EB			STA PIA
3916	7CF8	60			RTS
3917	7CF9	B1 C7	VPRTY	LDA (SAL)Y	
3918	7CFB	45 C3			EOR SHCNH
3919	7CFD	85 C3			STA SHCNH
3920	7CFF	E6 C7			INC SAL
3921	7D01	D0 02			BNE VP10
3922	7D03	E6 C8			INC SAH
3923	7D05	20 0B 7D	VP10	JSR WRT62	
3924	7D08	D0 EF			BNE VPRTY
3925	7D0A	60			RTS
3926	7D0B	A5 C8	WRT62	LDA SAH	
3927	7D0D	C5 CA			CMP EAH
3928	7D0F	D0 04			BNE WRT64
3929	7D11	A5 C7			LDA SAL
3930	7D13	C5 C9			CMP EAL
3931	7D15	60	WRT64	RTS	
3932	7D16	A2 FF	START	LDX #FF	
3933	7D18	78			SEI
3934	7D19	9A			TXS
3935	7D1A	D8			CLD
3936	7D1B	20 00 60			JSR CINT
3937	7D1E	A9 FF			LDA #<READY
3938	7D20	85 94			STA NMINV
3939	7D22	A9 33			LDA #>READY
3940	7D24	85 95			STA NMINV+1
3941	7D26	A9 78			LDA #<BRKE
3942	7D28	85 92			STA CBINV
3943	7D2A	A9 54			LDA #>BRKE
3944	7D2C	85 93			STA CBINV+1
3945	7D2E	A9 A4			LDA #<ERROPR

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3946	7D30	8D FA 03	STA USRCMD
3947	7D33	A9 57	LDA #>ERROPR
3948	7D35	8D FB 03	STA USRCMD+1
3949	7D38	A9 00	LDA #*00 ; SET TIMEOUT FLAG
3950	7D3A	8D FC 03	STA BOB
3951	7D3D	58	CLI
3952	7D3E	AD 10 E8	LDA PIAL
3953	7D41	30 03	BMI **+5
3954	7D43	4C 72 54	JMP CALLE
3955	7D46	4C B6 53	JMP INIT
3956	7D49	6C 94 00	NMI JMP (NMINV)
3957	7D4C	00 00	BSIT . WOR 0, 0, 0, 0 ; BSY11, BCI1. 0, BCI2
3957	7D4E	00 00	
3957	7D50	00 00	
3957	7D52	00 00	
3958	7D54	99 7C	. WOR WRTZ, WRTN, KEY, READ
3958	7D56	F9 7B	
3958	7D58	55 64	
3958	7D5A	76 79	
3959	7D5C		. FIL 0B7SRC
3960	7D5C	00	CKSUMF . BYT 0 ; D-PAGE CHECKSUM
3961	7D5D		*=#7F93+OFFSET
3962	7F93	4C C7 5A	JMP CONCAT
3963	7F96	4C 42 59	JMP DOPEN
3964	7F99	4C 07 5A	JMP DCLOSE
3965	7F9C	4C AF 57	JMP RECORD
3966	7F9F	4C D2 59	JMP FORMAT
3967	7FA2	4C 65 5A	JMP COLECT
3968	7FA5	4C 7E 5A	JMP BACKUP
3969	7FA8	4C A7 5A	JMP COPY
3970	7FAB	4C 77 59	JMP APPEND
3971	7FAE	4C 0D 5B	JMP DSAVE
3972	7FB1	4C 3A 5B	JMP DLOAD
3973	7FB4	4C 73 5B	JMP CATLOG
3974	7FB7	4C 55 5B	JMP RENAME
3975	7FBA	4C 66 5B	JMP SCRATCH
3976	7FBD	4C 95 59	JMP GETDS
3977	7FC0	4C 60 75	JMP OPEN
3978	7FC3	4C DD 72	JMP CLOSE
3979	7FC6	4C AF 77	JMP CHKIN
3980	7FC9	4C FE 77	JMP CKOUT
3981	7FCC	4C A6 72	JMP CLRCH
3982	7FCF	4C 15 72	JMP BASIN
3983	7FD2	4C 66 72	JMP BSOUT
3984	7FD5	4C 01 74	JMP LOAD
3985	7FD8	4C DD 76	JMP SAVE
3986	7FDB	4C F6 74	JMP VER
3987	7FDE	4C C3 76	JMP SYS
3988	7FE1	4C 43 73	JMP STOP
3989	7FE4	4C 05 72	JMP GETIN
3990	7FE7	4C A2 72	JMP CLALL
3991	7FEA	4C 6B 77	JMP UDTIM
3992	7FED		*=#FFFA
3993	FFFA	49 7D	. WOR NMI
3994	FFFC	16 7D	. WOR START

LINE# LOC CODE LINE

3995 FFFE 42 64 .WOR PULS
 3996 0000 .END

ERRORS = 0000

SYMBOL TABLE

SYMBOL VALUE

A4	5627	A5	5629	A9	5631	ACC	0203
ACPOO	71CD	ACPO1	71D2	ACPO3	71EE	ACPO5	71F9
ACPTR	71CO	ACR	EB4B	ADRH	554C	ADRL	5554
AL2	5606	AL3	5618	ALTM	561D	ALTR	55FB
ALTRIT	5579	ANSBYE	5BD6	ANSNO	5BCB	ANSYES	5BD5
APEN	0041	APPEND	5977	ASC1	5741	ASCII	573A
AB	5491	B5	54AC	BACKUP	5A7E	BAD	0100
BADDIS	5BD7	BASIN	7215	BBACK	5A8A	BDF	0002
BDFH	0004	BEQS1	55F5	BERRO	5AB7	BK1	623F
BK2	624A	BKLN	61DE	BKLN1	61EA	BLF	0001
BLKL	6434	BLKLN	6421	BLNCT	00A8	BLNK2	762E
BLNON	00AA	BLNSW	00A7	BN10	7224	BN20	7231
BN30	725C	BN32	7262	BN35	7263	BO10	7271
BO20	7277	BO21	7278	BOB	03FC	BOBREC	5A31
BRKE	5478	BS1T	7D4C	BSIV	7CE0	BSOUR	00A5
BSOUT	7266	BSTOP	37C6	BUF	0200	BUFPT	00BB
BUFSZ	00C0	BY3	551D	BYTE	550B	C3PO	00A0
CALLE	5472	CAS1	00F9	CAS2	00FA	CATALG	587D
CAT8LD	5889	CATLOG	5873	CBINV	0092	CHANL	0010
CHAR	660B	CHK1	5804	CHK2	580B	CHK3	5818
CHK4	581D	CHK5	5824	CHK6	582E	CHKCLS	3EEF
CHKCOM	3EF5	CHKER1	5808	CHKIN	77AF	CHKOPN	3EF2
CHKOUT	77FE	CHRGET	0070	CHRGDT	0076	CI2	71A6
CI4	71AB	CINT	6000	CINV	0090	CIOUT	719E
CK10	7818	CKERR	0020	CKIS1	64CE	CKIT	64DE
CKIT1	64E9	CKOUT	77FE	CKSUMD	5E9D	CKSUME	667D
CKSUMF	7D5C	CKUT	64DD	CLALL	72A2	CLOS10	72E7
CLOS5	72E2	CLOSE	72DD	CLP1	6158	CLP2	6141
CLP21	6156	CLP2A	6153	CLP5	60F2	CLP6	60FB
CLP7	6166	CLRCH	72A6	CLRCHN	72A6	CLSEI	772F
CLSR	604B	CMDS	5544	CMPO	00CB	CNC3	6254
CNC3X	6230	CNTDN	00BA	COLECT	5A65	CONCAT	5AC7
CQNT	5E8F	COPCON	5ABD	COPY	5AA7	COPY2	5AB7
COPY3	5AC0	COUNT	0341	CR	000D	CRFAC	0099
CRLF	5534	CRSW	00AC	CS10	787A	CS20	7883
CS25	788B	CS30	785E	CS40	786D	CSTE1	7857
CSTE2	788C	D2	5589	DAPPEN	5984	DATA	00D9
DBACKU	5A91	DCLALL	5A1B	DCLBYE	5A30	DCLLP	5A1F
DCL0SE	5A07	DCLSE	5A11	DCOLLO	5A7A	DCOLLE	5A6B
DDIREC	5B99	DELIM1	5D96	DELIM2	5E0F	DFLTN	00AF
DFLTO	00B0	DEFORMA	59E1	DIDCHK	033D	DIFF	00CF
DISKID	033F	DLOAD	5B3A	DLOAD2	5B47	DLOERR	5B44
DM	54F7	DM1	54FB	DONE	5E23	DONE1	5D03
DONER	57FE	DOPEN	5942	DOPEN2	594F	DOSPAR	5C68

SYMBOL TABLE

SYMBOL VALUE

DPSW	00B2	DREBLD	5A43	DRECG	5A3D	DREN1	5B5F
DRIVE1	033B	DRIVE2	033C	DRV1	5D15	DRV2	5DD0
DSAVE	5B0D	DSAVE2	5B1A	DSCRAT	5B6C	DSDESC	000D
DSP1	55D2	DSPLYM	55BC	DSPLYR	5587	DSPP	6606
DXCRO	5B9D	EAH	00CA	EAL	00C9	ECHKS	59AB
ENTRYO	592F	ENTRY1	5931	ENTRY2	5935	EDT	0005
ER001	7175	EREA	59B3	ERMSG	75AF	ERRO1	7167
ERRCHL	5991	ERREND	59CB	ERRFC	0035	ERRL	5672
ERRLEN	5E74	ERRLS	00B0	ERRQPR	57A4	ERROR	33CF
ERRP0	7165	ERRP1	7170	ERRP7	716C	ERRS1	55F8
ERRS3	7151	ERRS4	715B	EXIT	566B	FA	00D4
FAF	74D3	FAF20	74E0	FAF30	74F4	FAF40	74F5
FAH	75E5	FAH30	75E8	FAH40	7614	FAH45	7612
FAH50	75FB	FAH55	7608	FAT	025B	FBUILD	59EA
FCLOSE	72E2	FCONT	59F5	FERRO	59DE	FERRP	5A04
FERRS	59F8	FINI	34AD	FIRT	00B9	FLGS	0202
FLOAD	360B	FNADR	00DA	FNADR2	00FD	FNLEN	00D1
FNLEN2	033A	FOPEN	7565	FORMAT	59D2	FRESTR	47B5
FRMEVL	3D98	FRMNUM	3D84	FSBLK	00DE	G1	5646
GDBLN	00A9	GETADR	492D	GETBYT	48D4	GETDS	5995
GETIN	7205	GETSPA	461D	GETVAL	5E87	GD	5633
GTVL2	5E8A	HEX09	5797	HEXIT	578D	IDCON	5D41
IDENT	5D37	IEEI	E820	IEEIS	E821	IEEO	E822
IEE0S	E823	IER	E84E	IFR	E84D	INCTMP	5539
INDEX1	001F	INDX	00A1	INIT	5386	INS1	62D5
INS2	62D7	INS3	62CE	INSRT	00DC	INVH	0207
INVL	0208	ISOUR	7109	ISRO	7128	ISR1	711E
ISR2	712D	ISR3	7138	JLP2	6340	JLTLK	72C1
JPL3	628C	JPL4	6275	JRAD2	79CD	JRADJ	79AB
JSTS	6185	JSTS1	619F	JSTS2	61CD	JSTX	61B3
JSTXB	61BD	JTG10	7259	JTG35	7243	JTGET	7249
JTP10	7298	JTP20	784B	JTS2	61BE	JX120	7315
JX150	7318	JX170	7334	JX300	77BE	JX305	77C0
JX310	77C3	JX320	77DA	JX330	77DF	JX3301	77E3
JX340	77F0	JX350	77F3	JX360	7828	JX370	782D
JX3701	7831	JX380	783D	JX390	7840	JX600	72C3
JX750	72AF	JX770	72B8	JZ100	72CD	JZ101	72DC
KEY	6455	KEY3	6495	KEY4	6474	KEY5	6470
KEYD	026F	KEYF	6509	KL1	64BF	KL2	649E
KL22	64B5	KL23	64A9	KL24	649B	KL25	64B2
KN1	64FD	L1	5688	L10	56D2	L11	56D6
L12	56E3	L13	56F0	L14	5709	L2	5695
L20	5700	L3	5697	L4	56A9	L5	56AD
L6	56B1	L7	56BD	L8	56C2	L9	56CB
LA	00D2	LASTWR	5472	LAT	0251	LBERR	0008
LD	5675	LD10	7405	LD100	73D4	LD105	745C
LD11	740D	LD110	7462	LD112	73DD	LD115	746C
LD120	73E6	LD15	7356	LD150	73E9	LD170	73EE
LD20	735A	LD205	7443	LD209	7425	LD210	742E
LD30	738C	LD300	7449	LD40	738F	LD400	746D
LD410	7475	LD50	73B3	LD60	73B5	LD64	73BB
LD65	73C6	LD90	73C1	LDAD1	76AB	LDAD2	767B
LDAD3	7682	LDTB1	00E0	LDTB2	665B	LDTND	00AE
LEAV	595D	LEAV1	5970	LENCHK	5E6C	LINNUM	0011
LINPRT	4F83	LIST1	70D7	LIST2	70FA	LIST4	70FF

SYMBOL TABLE

SYMBOL VALUE

LISTN	70D5	LNMX	00D5	LOAD	7401	LOADNP	7408
LOGADR	5C8D	LOOP1	59BF	LOOP2	61A6	LOOP3	60BF
LOOP4	60BC	LOOP5	6116	LOOP6	5D77	LOP2	61AE
LOP5	611E	LOP51	6124	LOP52	6134	LOP53	6138
LOP54	612E	LP1	60AC	LP2	60A7	LP21	60D3
LP22	60EA	LP23	60DF	LPS1	604F	LPS2	605D
LPS3	605E	LPS4	606A	LRECL	033D	LSTP	00A4
LSTX	0097	LSXP	00A3	MLP1	6382	MLP2	639B
MLP4	63D2	MLP41	63D5	MLP42	63DF	MS1	7000
MS10	705F	MS11	7064	MS12	706E	MS13	7074
MS15	7086	MS16	7094	MS17	70A3	MS18	70AA
MS19	70AE	MS2	700E	MS20	7039	MS21	706D
MS22	7060	MS3	7017	MS4	7024	MS5	7032
MS6	703D	MS7	7041	MS8	704D	MS9	7056
MSG	7185	MSG1	7000	MSG30	70B6	MSG31	70C5
MYCH	00DF	NAMCON	5B85	NAME1	5D60	NAME11	5D06
NAME2	5DF8	NC1	625D	NC2	6264	NC3	617A
NC3W	6257	NCMDS	0008	NCX2	627A	NCZ2	6277
NDX	009E	NELL	6414	NEWCH	7BC9	NEWL1	63F5
NEWLA	6401	NEWLN	63E2	NEWLX	63F3	NEWNAM	5E49
NEXT3	5D45	NEXT4	5D4B	NEXT5	5E81	NEXT6	5DAB
NEXT6A	5DAF	NEXT7	5CB2	NJT1	621D	NMI	7D49
NMINV	0094	NTCN	6229	NTCN1	6250	NTCN2	61F3
NUMADR	57DB	NUMBYE	5B98	NUMERC	5E9A	NUMLP	5B87
NUMPRT	5B93	NUMSCR	5B78	NVS	617C	NVS1	6182
NXLN	6343	NXLN1	6350	NXLN2	6348	NXT1	6359
NXT2	6322	NXT3	6176	NXT33	6174	NXT6	632A
NXT61	6339	NXTD	6079	NXTX	62A4	NXTX1	62AC
NXX5	5E82	NXXT5	5E79	NXXX	5D9E	OCHAR	00DD
OFFSET	0000	OLDCL1	5BF1	OLDCLR	5BE1	ON	5E2C
ON1	5D09	ON2	5DEC	ONTK	0091	OP100	756E
OP150	7598	OP160	75AD	OP170	75C2	OP171	75D1
OP172	75E2	OP175	75E4	OP200	75C9	OP35	74C0
OP37	74BB	OP40	74C6	OP45	74D0	OP94	7563
OP98	7567	OPEN	7560	OPENI	74A5	OPENIB	74B4
P2DA	E843	P2DB	E842	PARCHK	033E	PARNXT	5C9F
PARS1	747D	PARS2	750D	PARSE1	5C89	PARSE2	5DB6
PCH	0200	PCL	0201	PCNTR	00B7	PCR	E84C
PIA	E840	PIAK	E812	PIAL	E810	PIAL1	E811
PIAS	E813	PNT	00C4	PNTR	00C6	POINT	00C5
POKER	0011	POS	033A	PRO60	749E	PRO70	749F
PR100	752E	PR111	7536	PR130	7558	PR135	755D
PR140	754D	PR147	7554	PR150	7555	PR200	753C
PREND	6600	PRENDO	650B	PRP	00D0	PRT	6202
PRT1	62BF	PRT2	6297	PRTY	00B1	PTCH	00B8
PTR1	00C0	PTR2	00C1	PULS	6442	PULS1	6452
PUTP	54EC	PX1	6009	QTSW	00CD	QTSWC	6167
QTSWL	6173	QTYER1	5801	QTYER2	5D34	QTYERR	5E27
RAD2	7A4C	RAD2X	7A5B	RAD2Y	7A54	RAD3	7A10
RAD3G	7A2F	RAD4	7A33	RAD5	79DE	RADBK	7A0D
RADJ	7A9C	RADK	7A8F	RADL	79DC	RADP	7A04
RADQ	7A6B	RADQ1	7A6F	RADQ2	7A80	RADR1	7A95
RADS	7996	RADX2	79DB	RBLK	789A	RCNT	00B5
RD1	7984	RD10	7AC6	RD12	7AC2	RD15	7AAC
RD160	7B89	RD161	7B8B	RD167	7B94	RD175	7BA0

SYMBOL TABLE

SYMBOL VALUE

RD180	7BB8	RD20	7AC9	RD200	7AE5	RD22	7ADF
RD3	799B	RD300	7BBB	RD40	7AF6	RD52	7B6C
RD55	7B70	RD56	7B31	RD58	7B44	RD59	7B77
RD60	7AFC	RD70	7B0A	RD80	7B27	RD90	7B81
RDBK	79F1	RDBK2	7A99	RDEXIT	5762	RDFLG	00C2
RDFN	5AE1	RDMOV	5AEA	RDOA	5754	RDOA2	575B
RDOB	5763	RDOB1	576B	RDOB2	5778	RDOB3	5785
RDOC	5798	RDRTO	5AF8	RDRT1	5AF9	READ	7976
READY	33FF	RECLCK	595B	RECLEN	5CD8	RECON	5CF8
RECOO	5CEA	RECORD	57AF	REGK	555C	RENAME	5B55
RER	00BE	REXNEX	57E1	REZ	00BF	RFOUND	593F
RID	5AFD	RJDJ	79AE	ROUT1	7A1C	ROUT2	7A1A
RPLCE	5C46	RSFN	5AD4	RSTOR	729C	RUNTB	6674
RUSUR1	5BA3	RUSUR2	5BAB	RUSURE	5B9E	RVS	009F
RWRT	5C57	RWRT1	5C60	RWRTS	5C67	RXD1	5C34
RXD2	5C3D	RXDD	5C44	RXFN1	5COD	RXFN2	5C14
RXID	5C24	RXREC	5C1B	RXWRT	5C2B	SO	54D4
S1	54D6	S2	54E6	SA	00D3	SAH	00C8
SAL	00C7	SAT	0265	SATUS	0096	SAVE	76DD
SAVLDO	5823	SAVL D1	5B32	SAVNAM	0209	SAVX	00B4
SBERR	0004	SCATN	7148	SCRL	61C4	SCRL1	637B
SCRL3	63B5	SCRL4	63A7	SCRL5	63AB	SCRDL	6369
SCRTCH	5B66	SECND	7143	SENDP	5BFA	SENDP1	5BFC
SENDP2	5C02	SETR	5523	SETWR	5543	SFDX	00A6
SFST	0098	SHCNH	00C3	SHCNL	00BD	SKIPB	58D2
SNER1	5CBA	SNER2	5DCD	SNER3	5E20	SNERB	5DB3
SNERR	3F00	SNSW	00A2	SNSW1	00CE	SP	0206
SPAC2	552E	SPACE	5531	SPCK	64DB	SPERR	0010
SPMSG	7349	SR	E84A	SRER	79D0	ST1	54C9
STAH	00FC	STAL	00FB	START	7D16	STKEY	009B
STKY	7CDB	STOP	7343	STOP1	7335	STOP2	7342
STOP3	7942	STRT	548A	STT1	7945	STT2	795A
STT3	7961	STUPR	60A6	STUPT	607F	STUPZ	609C
STXTPT	3622	SUBA	591A	SUBB	5923	SUBBR	592E
SV10	76E7	SV100	7742	SV105	7755	SV20	76EC
SV3	76E0	SV30	7717	SV5	76E3	SV50	772C
SV60	76CC	SVXT	009C	SYNC	E841	SYNC1	E84F
SYNCHR	3EF7	SYNERR	57AC	SYNO	00AB	SYS	76C3
T1	00B4	T2	00B5	T2H	E849	T2L	E848
T2T2	5744	T2T21	5746	T3	00B6	TABLD	5838
TALK	70D2	TAPE	78E0	TAPE1	027A	TAPE2	033A
TAPEH	7619	TBLX	00D8	TBUF	00D6	TBUF2	0342
TBUFF	0353	TEMP	00CC	TH20	7652	TH30	7664
TIH	E845	TIL	E844	TILH	E847	TILL	E846
TIME	00BD	TKATN	7198	TKSA	7193	TMPO	00FB
TMP2	00FD	TMPC	00B5	TMFC2	00B6	TNIF	7CC0
TNOF	7CEB	TOTK	00A4	TP20	78FB	TP30	7905
TP32	7907	TP35	7909	TP40	7913	TP50	792A
TRANR	5C4C	TRANS	5A98	TRANS1	5A9B	TRD	78A3
TRD2	78C4	TRD3	78C7	TSTOP	7935	TWAIT	792B
TWRT	78CE	TWRT2	78D5	TXTPTR	0077	TXTRT	7355
TXTST	7351	TXTTAB	0028	TYPERR	33ED	UD10	7770
UD20	777A	UD30	7784	UD40	7786	UD45	7794
UD50	779B	UD60	77A1	UD65	77AB	UD70	77AC
UDST	7BC4	UDTIM	7768	UNIT	5E33	UNIT1	5D0F

SYMBOL TABLE

SYMBOL VALUE

UNIT2	5DF2	UNLSN	71B9	UNTLK	71AE	UP1	6303
UP2	62F3	UP3	6312	UP5	62BA	UP6	62EE
UP9	62EA	USRCMD	03FA	VARTAB	002A	VER	74F6
VER10	7508	VERCK	009D	VP10	7D05	VPRTY	7CF9
WBLK	78CB	WG220	58A5	WG230	5912	WG235	5911
WG240	5905	WG250	58DB	WG255	58FE	WRAP	00DE
WREND	7C8D	WRITE	7BDB	WRNC	7C86	WROA	5717
WROA1	5719	WROB	5722	WRT1	7BE1	WRT2	7C3B
WRT3	7C35	WRT4	7C7D	WRT6	7C5C	WRT61	7C58
WRT62	7DOB	WRT64	7D15	WRT7	7C6B	WRTBK	7CB3
WRTL3	7BF4	WRTN	7BF9	WRTN1	7C0F	WRTN2	7C1C
WRTS	7C42	WRTS1	7C4E	WRTW	7BDF	WRTWO	5731
WRTX	7BE3	WRTZ	7C99	WSW	00B3	XD1	00D1
XD2	00D2	XFN1	00F1	XFN2	00F2	XID	00D0
XR	0204	XREC	00E0	XSAV	00AD	XWRT	00E1
YR	0205	ZZ1	561C	ZZ10	76AA	ZZ2	55FA
ZZ3	5586	ZZ4	55BB	ZZ5	5632	ZZ6	566A
ZZ7	5674	ZZ8	5674	ZZZ	7695	ZZZ1	0209

END OF ASSEMBLY