

```
0002 ;
0003 ; ASMB SYSGENX.AAA HEX DATE=111585 TIME=220000 XREF WIDTH=132
0004 ; .Z80
0005 ;
0006 ; THIS PROGRAM PUTS THE CP/M SYSTEM ON DISKETTES FOR THE TRIPLE DENSE
0007 ; BIOS SYSTEM [THIS PROGRAM IS NOT SYSTEM SIZE DEPENDENT]
0008 ;
(0100) 0009 ORG 0100H
(000D) 0010 CR EQU 0DH ; EQUATE FOR CARRIAGE RETURN
(000A) 0011 LF EQU 0AH ; EQUATE FOR LINE FEED
(0005) 0012 BDOS EQU 0005H ; ADDRESS OF VECTOR TO BDOS IN PAGE 0
(0000) 0013 WBOOTV EQU 0000H ; ADDRESS OF VECTOR TO WBOOT IN PAGE 0
(0063) 0014 SELECT EQU 063H ; VERSAFLOPPY II DRIVE SELECT PORT
(0900) 0015 BOOTAD EQU 0900H ; ADDRESS OF BOOT IN CP/M MEMORY IMAGE
(1F00) 0016 BIOSM1 EQU 01F00H ; ADDRESS OF BIOS IN CP/M MEMORY IMAGE - 1
0017 ; SECTOR (080H BYTES)
(0980) 0018 CCPAD EQU 0980H ; ADDRESS OF THE START OF CCP AND BDOS IN THE
0019 ; CP/M MEMORY IMAGE
0020 ;
0100 C32603 0021 JP SYSGEN ; GO START SYSGEN
0022 ;
0103 434F5059 0023 DB 'COPYRIGHT (C) 1979, DIGITAL RESEARCH '
0128 00 0024 TKFLAG: DB 0 ; FLAG INDICATING TRACK NUMBER BEING WRITTEN
0025 ; 0=TRACK 0, 0FFH=TRACK 1
0129 00 0026 SEC1FG: DB 0 ; FLAG INDICATING THAT SECTOR 1 ON TRACK 0 IS
0027 ; BEING WRITTEN. 0FFH=SECTOR 1 TRACK 0
012A 02 0028 LTKP1: DB 02H ; NUMBER OF TRACKS SYSGEN1 WRITES
012B 1A 0029 SECPK: DB 01AH ; SECTORS PER TRACK TO READ/WRITE
012C 9201 0030 SKTBA: DW SDSKTB ; ADDRESS OF SECTOR SKEW TABLE TO USE
0031 ;
0032 ; DOUBLE DENSITY SECTOR SKEW TABLE
0033 ;
0034 ;DDSKTB: DB 001H,002H,007H,008H,00DH,00EH,013H,014H,019H,01AH,01FH,020H ;^
0035 ; DB 025H,026H,02BH,02CH,005H,006H,00BH,00CH,011H,012H,017H,018H ;^
0036 ; DB 01DH,01EH,023H,024H,029H,02AH,003H,004H,009H,00AH,00FH,010H ;^
0037 ; DB 015H,016H,01BH,01CH,021H,022H,027H,028H,000H ;^
0038 ;
012E 0102090A 0039 DDSKTB: DB 001H,002H,009H,00AH,011H,012H,019H,01AH,021H,022H,029H,02AH ;%
013A 03040BOC 0040 DB 003H,004H,00BH,00CH,013H,014H,01BH,01CH,023H,024H,02BH,02CH ;%
0146 05060DOE 0041 DB 005H,006H,00DH,00EH,015H,016H,01DH,01EH,025H,026H,02DH,02EH ;%
0152 07080F10 0042 DB 007H,008H,00FH,010H,017H,018H,01FH,020H,027H,028H,02FH,030H ;%
015E 3100 0043 DB 031H,000H ;%
0044 ;
0045 ; MAXIMUM DENSITY SECTOR SKEW TABLE
0046 ;
0047 ;MDSKTB: DB 001H,002H,003H,004H,005H,006H,007H,008H,011H,012H,013H,014H ;^
0048 ; DB 015H,016H,017H,018H,021H,022H,023H,024H,025H,026H,027H,028H ;^
0049 ; DB 009H,00AH,00BH,00CH,00DH,00EH,00FH,010H,019H,01AH,01BH,01CH ;^
0050 ; DB 01DH,01EH,01FH,020H,029H,02AH,02BH,02CH,000H ;^
0051 ;
0160 01020304 0052 MDSKTB: DB 001H,002H,003H,004H,005H,006H,007H,008H,011H,012H,013H,014H ;%
016C 15161718 0053 DB 015H,016H,017H,018H,021H,022H,023H,024H,025H,026H,027H,028H ;%
0178 090A0BOC 0054 DB 009H,00AH,00BH,00CH,00DH,00EH,00FH,010H,019H,01AH,01BH,01CH ;%
0184 1D1E1F20 0055 DB 01DH,01EH,01FH,020H,029H,02AH,02BH,02CH,02DH,02EH,02FH,030H ;%
0190 3100 0056 DB 031H,000H ;%
0057 ;
0058 ; SINGLE DENSITY SECTOR SKEW TABLE
0059 ;
0060 ;SDSKTB: DB 001H,003H,005H,007H,009H,00BH,00DH,00FH,011H,013H,015H,017H ;^
0061 ; DB 019H,002H,004H,006H,008H,00AH,00CH,00EH,010H,012H,014H,016H ;^
0062 ; DB 018H,01AH,000H ;^
0063 ;
0192 0105090D 0064 SDSKTB: DB 001H,005H,009H,00DH,011H,015H,019H,003H,007H,00BH,00FH,013H ;%
019E 1702060A 0065 DB 017H,002H,006H,00AH,00EH,012H,016H,01AH,004H,008H,00CH,010H ;%
01AA 141800 0066 DB 014H,018H,000H ;%
0067 ;
0068 ; THIS SUBROUTINE CONVERTS THE SECTOR OFFSET OF THE NEXT SECTOR TO THE OFFSET
0069 ; OF THAT SECTORS DATA FROM THE TRACK BASE ADDRESS TO READ TO/WRITE FROM
0070 ;
01AD 6F 0071 SOFTBO: LD L,A ; OFFSET OF CURRENT SECTOR TO L
01AE 2600 0072 LD H,000H ; HL NOW CONTAINS THE SECTOR OFFSET
01B0 29 0073 ADD HL,HL ; SHIFT SECTOR OFFSET LEFT 7 BITS I. E.
01B1 29 0074 ADD HL,HL ; MULTIPLY BY 128 TO COMPUTE THE OFFSET
01B2 29 0075 ADD HL,HL ; OF DATA FOR/FROM THE SECTOR FROM THE
01B3 29 0076 ADD HL,HL ; TRACK DATA STARTING ADDRESS
```

```

01B4 29      0077      ADD     HL,HL
01B5 29      0078      ADD     HL,HL
01B6 29      0079      ADD     HL,HL
01B7 C9      0080      RET
                0081      ;
                0082      ; THIS SUBROUTINE CALLS CP/M BDOS TO GET A CONSOLE CHARACTER AND RETURN IT IN
0083      ; A. IT THEN CONVERTS THE CHARACTER TO UPPER CASE IF REQUIRED
                0084      ;
01B8 0E01    0085  GETCON:   LD      C,001H      ; GET BDOS CONSOLE INPUT CODE
01BA CD0500  0086      CALL    BDOS          ; CALL BDOS TO GET NEXT CONSOLE CHARACTER
01BD E67F    0087      AND     07FH         ; ZERO PARITY BIT
01BF FE61    0088      CP      'a'          ; CHECK IF CHARACTER IS < 'a'
01C1 D8      0089      RET     C            ; RETURN IF < 'a', NO CONVERSION NEEDED
01C2 FE7B    0090      CP      'z'+1        ; CHECK IF CHARACTER IS > 'z'
01C4 D0      0091      RET     NC           ; RETURN IF > 'z', NO CONVERSION NEEDED
01C5 E65F    0092      AND     05FH         ; CONVERT LOWER CASE TO UPPER CASE
01C7 C9      0093      RET
                0094      ;
                0095      ; THIS SUBROUTINE CALLS CP/M BDOS TO OUTPUT THE CHARACTER IN A TO THE CONSOLE
                0096      ;
01C8 5F      0097  OCHRCN:   LD      E,A          ; CHARACTER TO E FOR CONSOLE OUTPUT
01C9 0E02    0098      LD      C,002H       ; GET BDOS CODE FOR CONSOLE OUTPUT
01CB CD0500  0099      CALL    BDOS          ; CALL BDOS TO OUTPUT CHARACTER TO CONSOLE
01CE C9      0100      RET
                0101      ;
                0102      ; THIS SUBROUTINE SENDS CARRIAGE RETURN AND LINE FEED TO THE CONSOLE
                0103      ;
01CF 3E0D    0104  CRLF:    LD      A,CR          ; GET CARRIAGE RETURN CHARACTER
01D1 CDC801  0105      CALL    OCHRCN       ; SEND CARRIAGE RETURN TO CONSOLE
01D4 3E0A    0106      LD      A,LF          ; GET LINE FEED CHARACTER
01D6 CDC801  0107      CALL    OCHRCN       ; SEND LINE FEED TO CONSOLE
01D9 C9      0108      RET
                0109      ;
                0110      ; THIS SUBROUTINE OUTPUTS CARRIAGE RETURN AND LINE FEED TO THE CONSOLE AND
0111      ; THEN OUTPUTS THE MESSAGE POINTED TO BY (HL). IT OUTPUTS CHARACTERS UNTIL IT
0112      ; ENCOUNTERS A 0 IN THE MESSAGE
                0113      ;
01DA E5      0114  OCRLFM:   PUSH   HL            ; SAVE MESSAGE ADDRESS ON THE STACK
01DB CDCF01  0115      CALL    CRLF          ; SEND CARRIAGE RETURN, LINE FEED TO CONSOLE
01DE E1      0116      POP     HL            ; GET MESSAGE ADDRESS ADDRESS
                0117      ;
                0118      ; THIS SUBROUTINE ENTRY POINT OUTPUTS CHARACTERS OF THE MESSAGE POINTED TO BY
0119      ; HL UNTIL A NULL CHARACTER (0) IS ENCOUNTERED.
                0120      ;
01DF 7E      0121  OHLMSG:   LD      A,(HL)        ; GET NEXT CHARACTER OF MESSAGE
01E0 B7      0122      OR      A            ; CHARACTER IS 0
01E1 C8      0123      RET     Z            ; RETURN IF ZERO, END OF TEXT
01E2 E5      0124      PUSH   HL            ; SAVE ADDRESS OF CHARACTER ON THE STACK
01E3 CDC801  0125      CALL    OCHRCN       ; SEND CHARACTER TO THE CONSOLE
01E6 E1      0126      POP     HL            ; GET ADDRESS OF MESSAGE CHARACTER
01E7 23      0127      INC     HL            ; INCREMENT ADDRESS TO NEXT CHARACTER
01E8 C3DF01  R 0128      JP      OHLMSG       ; GO SEND NEXT CHARACTER OF MESSAGE
                0129      ;
                0130      ; THIS SUBROUTINE SELECTS THE DRIVE SPECIFIED BY C. THEN IT USES THE DISK
0131      ; PARAMETER BLOCK TO DETERMINE THE DENSITY OF THE DISKETTE INSTALLED AND SETS
0132      ; A POINTER FOR THE PROPER SECTOR INTERLEVE TABLE BASED ON THE DENSITY
                0133      ;
01EB CD0F02  0134  SELDRV:   CALL    CSLDSK        ; SELECT DRIVE TO GET ADDRESS OF DISK PARAMETER
                0135      ; HEADER
01EE 110A00  0136      LD      DE,0000AH    ; GET OFFSET TO ADDRESS OF DISK PARAMETER BLOCK
01F1 19      0137      ADD     HL,DE         ; COMPUTE ADDRESS OF POINTER TO PARAMETER BLOCK
01F2 5E      0138      LD      E,(HL)       ; GET LOWER BYTE OF POINTER
01F3 23      0139      INC     HL            ; INCREMENT TO UPPER BYTE OF POINTER
01F4 56      0140      LD      D,(HL)       ; GET UPPER BYTE OF PARAMETER BLOCK POINTER
01F5 EB      0141      EX      DE,HL        ; PARAMETER BLOCK ADDRESS TO HL
01F6 7E      0142      LD      A,(HL)       ; GET # OF SECTORS PER TRACK FOR THE SELECTED
                0143      ; DISKETTE
01F7 FE48    0144      CP      048H         ; CHECK IF 72 (MAXIMUM DENSITY SINGLE SIDED)
01F9 CA0802  R 0145      JP      Z,SETSKT     ; GO SET POINTER TO MAXIMUM DENSITY SKEW TABLE
                0146      ; IF 72
01FC FE90    0147      CP      090H         ; CHECK IF 144 (MAXIMUM DENSITY DOUBLE SIDED)
01FE CA0802  R 0148      JP      Z,SETSKT     ; GO SET POINTER TO MAXIMUM DENSITY SKEW TABLE
                0149      ; IF 144
0201 212E01  0150      LD      HL,DDSKTB    ; GET ADDRESS OF DOUBLE DENSITY (26 256 BYTE
                0151      ; SECTORS PER TRACK) SKEW TABLE
0204 220903  0152      LD      (GTSKTB+1),HL ; PUT ADDRESS OF DOUBLE DENSITY SKEW TABLE IN
                0153      ; LD INSTRUCTION IN THE READ/WRITE SUBROUTINE
                0154      ; NOTE: THIS INSTRUCTION MODIFIES CODE

```

```

0207 C9      0155      RET
0208 216001  0156  SETSKT:   LD      HL,MDSKTB      ; GET ADDRESS OF MAXIMUM DENSITY SKEW TABLE
020B 220903  0157      LD      (GTSKTB+1),HL ; PUT ADDRESS OF MAXIMUM DENSITY SKEW TABLE IN
                                0158      ; LD INSTRUCTION IN THE READ/WRITE SUBROUTINE
                                0159      ; NOTE: THIS INSTRUCTION MODIFIES CODE
020E C9      0160      RET
                                0161      ;
                                0162      ; THIS SUBROUTINE CALLS THE SELDSK BIOS SUBROUTINE TO SELECT THE DISK
                                0163      ; SPECIFIED IN A. SELDSK ALSO RETURNS THE ADDRESS OF THE DISK PARAMETER
                                0164      ; HEADER FOR THE SELECTED DRIVE
                                0165      ;
020F 4F      0166  CSLDSK:   LD      C,A          ; DRIVE TO SELECT TO C FOR SELDSK
0210 2A0100  0167      LD      HL,(WBOOTV+1) ; GET BASE ADDRESS OF BIOS VECTOR TABLE+3
0213 111800  0168      LD      DE,00018H    ; GET OFFSET OF VECTOR TO SELDSK
0216 19      0169      ADD     HL,DE          ; COMPUTE ADDRESS OF SELDSK VECTOR IN BIOS
0217 E9      0170      JP      (HL)      ; GO SELECT THE SPECIFIED DISK
                                0171      ;
                                0172      ; THIS SUBROUTINE CALLS THE SETTRK SUBROUTINE IN BIOS TO SET THE TRACK
                                0173      ; SPECIFIED IN BC
                                0174      ;
0218 2A0100  0175  CSTTRK:   LD      HL,(WBOOTV+1) ; GET BASE ADDRESS OF BIOS VECTOR TABLE+3
021B 111B00  0176      LD      DE,0001BH    ; GET OFFSET OF VECTOR TO SETTRK
021E 19      0177      ADD     HL,DE          ; COMPUTE ADDRESS OF SETTRK VECTOR IN BIOS
021F E9      0178      JP      (HL)      ; GO SET TRACK SPECIFIED IN BC
                                0179      ;
                                0180      ; THIS SUBROUTINE CALLS THE SETSEC SUBROUTINE IN BIOS TO SET THE SECTOR
                                0181      ; SPECIFIED IN BC
                                0182      ;
0220 2A0100  0183  CSTSEC:   LD      HL,(WBOOTV+1) ; GET BASE ADDRESS OF BIOS VECTOR TABLE+3
0223 111E00  0184      LD      DE,0001EH    ; GET OFFSET OF VECTOR TO SETSEC
0226 19      0185      ADD     HL,DE          ; COMPUTE ADDRESS OF SETSEC VECTOR IN BIOS
0227 E9      0186      JP      (HL)      ; GO SET THE SECTOR SPECIFIED IN BC
                                0187      ;
                                0188      ; THIS SUBROUTINE CALLS THE SETDMA SUBROUTINE IN BIOS TO THE DMA BUFFER
                                0189      ; ADDRESS SPECIFIED IN BC
                                0190      ;
0228 2A0100  0191  CSTDMA:   LD      HL,(WBOOTV+1) ; GET BASE ADDRESS OF BIOS VECTOR TABLE+3
022B 112100  0192      LD      DE,00021H    ; GET OFFSET OF VECTOR TO SETDMA
022E 19      0193      ADD     HL,DE          ; COMPUTE ADDRESS OF SETDMA VECTOR IN BIOS
022F E9      0194      JP      (HL)      ; GO SET THE DMA ADDRESS SPECIFIED IN BC
                                0195      ;
                                0196      ; THIS SUBROUTINE CALLS THE READ SUBROUTINE IN BIOS TO READ THE PREVIOUSLY
                                0197      ; SPECIFIED SECTOR ON THE PREVIOUSLY SPECIFIED TRACK INTO THE PREVIOUSLY
                                0198      ; SPECIFIED DMA ADDRESS
                                0199      ;
0230 2A0100  0200  CREAD:    LD      HL,(WBOOTV+1) ; GET BASE ADDRESS OF BIOS VECTOR TABLE+3
0233 112400  0201      LD      DE,00024H    ; GET OFFSET OF VECTOR TO READ
0236 19      0202      ADD     HL,DE          ; COMPUTE ADDRESS OF READ VECTOR IN BIOS
0237 E9      0203      JP      (HL)      ; GO READ THE SPECIFIED SECTOR
                                0204      ;
                                0205      ; THIS SUBROUTINE CALLS THE WRITE SUBROUTINE IN BIOS TO WRITE THE PREVIOUSLY
                                0206      ; SPECIFIED SECTOR ON THE PREVIOUSLY SPECIFIED TRACK FROM THE PREVIOUSLY
                                0207      ; SPECIFIED DMA ADDRESS
                                0208      ;
0238 0E02    0209  CWRITE:   LD      C,002H        ; SET BIOS WRITE CODE TO WRITE 1ST SECTOR OF
                                0210      ; A NEW DATA BLOCK I. E. TO WRITE TO AN
                                0211      ; UNALLOCATED BLOCK
023A 2A0100  0212      LD      HL,(WBOOTV+1) ; GET BASE ADDRESS OF BIOS VECTOR TABLE+3
023D 112700  0213      LD      DE,00027H    ; COMPUTE OFFSET OF VECTOR TO WRITE
0240 19      0214      ADD     HL,DE          ; COMPUTE ADDRESS OF WRITE VECTOR IN BIOS
0241 E9      0215      JP      (HL)      ; GO WRITE SPECIFIED SECTOR
                                0216      ;
                                0217      ; THIS SUBROUTINE CALLS THE READ SEQUENTIAL SUBROUTINE IN CP/M BDOS
                                0218      ;
0242 0E14    0219  CBRSEQ:   LD      C,014H        ; SET BDOS OPERATION CODE TO READ SEQUENTIAL
0244 C30500  0220      JP      BDOS          ; GO TO BDOS TO READ SEQUENTIAL
                                0221      ;
                                0222      ; THIS SUBROUTINE CALLS THE OPEN FILE SUBROUTINE IN CP/M BDOS
                                0223      ;
0247 0E0F    0224  CBOFIL:   LD      C,00FH        ; SET BDOS OPERATION CODE TO OPEN FILE
0249 C30500  0225      JP      BDOS          ; GO TO BDOS TO OPEN FILE
                                0226      ;
                                0227      ; THIS SUBROUTINE IS USED TO READ AND WRITE THE TRIPLE DENSE CP/M SYSTEM TO
                                0228      ; AND FROM THE SPECIFIED DISK. IF RWFLAG IS 0, IT READS CP/M IN FROM TRACKS
                                0229      ; 0 AND 1. IF RWFLAG IS NON-ZERO, IT WRITES THE TRIPLE DENSE CP/M TO TRACKS 0
                                0230      ; AND 1
                                0231      ;
024C 3E00    0232  SYRDWT:   LD      A,000H

```

```

024E 322801    0233    LD      (TKFLAG),A      ; ZERO FLAG TO INDICATE TRACK 0 BEING
                                0234                        ; READ/WROTTEN
0251 322901    0235    LD      (SECF1G),A      ; ZERO FLAG TO INDICATE SECTOR 1 ON TRACK 0
                                0236                        ; BEING WRITTEN/READ
0254 219201    0237    LD      HL,SDSKTB      ; GET THE ADDRESS OF THE SINGLE DENSITY SECTOR
                                0238                        ; SKEW TABLE
0257 222C01    0239    LD      (SKTBA),HL     ; INITIALIZE POINTER TO SECTOR SKEW TABLE
025A 3E1A      0240    LD      A,01AH         ; GET NUMBER OF SECTORS PER SINGLE DENSITY TK
025C 322B01    0241    LD      (SECPK),A      ; INITIALIZE SECTORS PER TRACK TO READ/WRITE
025F 210009    0242    LD      HL,BOOTAD     ; GET ADDRESS OF BIOS BOOT SEGMENT
0262 22A605    0243    LD      (CDMA),HL      ; SET NEXT RAM ADDRESS TO READ/WRITE
0265 3EFF      0244    LD      A,OFFH        ;
0267 32A305    0245    LD      (CTRACK),A     ; SET TRACK # BEING WRITTEN/READ TO -1. INC AT
                                0246                        ; BEGINNING OF ROUTINE SETS IT TO 0 INITIALLY
026A D363      0247    OUT     (SELECT),A     ; DESELECT CURRENTLY SELECTED DRIVE
026C 21A305    0248    SYNTL: LD      HL,CTRACK   ; GET ADDRESS OF LAST TRACK # READ/WROTTEN
026F 34        0249    INC     (HL)           ; BUMP TO NEXT TRACK TO WRITE/READ
0270 3A2A01    0250    LD      A,(LTKP1)     ; GET # OF LAST SYSTEM TRACK+1
0273 BE        0251    CP      (HL)           ; CHECK IF ALL SYSTEM TRACKS READ/WROTTEN
0274 CA1103    0252    JP      Z,SYRWNT      ; GO READ/WRITE SECTOR 1 ON TRACK 2 IF FINISHED
0277 4E        0253    LD      C,(HL)        ; GET NEXT TRACK # TO READ/WRITE
0278 CD1802    0254    CALL   CSTTRK        ; CALL SETTRK TO SET IT AS CURRENT TRACK
027B 3EFF      0255    LD      A,OFFH        ; SET SECTOR COUNTER/SKEW TABLE INDEX TO OFFH
027D 32A405    0256    LD      (CSECT),A     ; SINCE IT WILL BE INITIALIZED TO 0 BY AN
                                0257                        ; INC (HL) STATEMENT WHICH FOLLOWS
0280 3A2B01    0258    SYNSL: LD      A,(SECPK) ; GET # OF SECTORS PER TRACK ON CURRENT TRACK
0283 21A405    0259    LD      HL,CSECT     ; GET ADDRESS OF SECTOR COUNTER
0286 34        0260    INC     (HL)          ; BUMP TO NEXT SECTOR I. E. BUMP SKEW TABLE
                                0261                        ; INDEX
0287 BE        0262    CP      (HL)          ; CHECK IF ALL SECTORS ON TRACK READ/WROTTEN
0288 CAF802    R 0263    JP      Z,SYNT1      ; GO SET UP FOR NEXT TRACK IF ALL READ/WROTTEN
028B 21A405    0264    LD      HL,CSECT     ; GET ADDRESS OF NEXT SECTOR #
028E 5E        0265    LD      E,(HL)        ; GET NEXT LOGICAL SECTOR NUMBER I. E. SKEW
                                0266                        ; TABLE OFFSET
028F 1600      0267    LD      D,000H        ; DE NOW CONTAINS THE SKEW TABLE OFFSET
0291 2A2C01    0268    LD      HL,(SKTBA)    ; GET BASE ADDRESS OF CURRENT SECTOR SKEW TABLE
0294 46        0269    LD      B,(HL)        ; NUMBER OF FIRST SECTOR IN TABLE TO B
0295 19        0270    ADD     HL,DE         ; COMPUTE ADDRESS OF NEXT SECTOR # TO
                                0271                        ; READ WRITE IN CURRENT SKEW TABLE
0296 4E        0272    LD      C,(HL)        ; GET NEXT SECTOR # TO READ/WRITE FROM CURRENT
                                0273                        ; SKEW TABLE
0297 C5        0274    PUSH   BC            ; SAVE SECTOR # ON STACK
0298 CD2002    0275    CALL   CSTSEC        ; CALL SETSEC SUBROUTINE IN BIOS TO MAKE NEXT
                                0276                        ; SECTOR TO READ/WRITE. NOTE: THIS CALL
                                0277                        ; PRESUMES SECTOR # IS IN C AND B IS NOT USED
029B C1        0278    POP     BC           ; GET CURRENT SECTOR # AND FIRST SECTOR #
029C 79        0279    LD      A,C          ; NEXT SECTOR # TO READ/WRITE TO A
029D 90        0280    SUB     B            ; COMPUTE SECTOR OFFSET FROM START
029E CDAD01    0281    CALL   SOFTBO        ; MULTIPLY BY 128 TO GET OFFSET OF DATA AREA
                                0282                        ; TO READ/WRITE AND PUT RESULT IN HL
02A1 EB        0283    EX     DE,HL         ; OFFSET OF DATA AREA TO READ TO/WRITE FROM
                                0284                        ; TO DE
02A2 2AA605    0285    LD      HL,(CDMA)     ; GET BASE ADDRESS TO READ TO/WRITE FROM
02A5 19        0286    ADD     HL,DE         ; COMPUTE ADDRESS OF DATA FOR/FROM SECTOR
02A6 44        0287    LD      B,H          ; DMA ADDRESS
02A7 4D        0288    LD      C,L          ;
                                0289                        ; TO BC
02A8 CD2802    0289    CALL   CSTDMA        ; CALL SETDMA TO SET DMA ADDRESS TO READ/WRITE
02AB AF        0290    XOR     A            ; ZERO READ/WRITE
02AC 32A805    0291    LD      (RETRYC),A    ; ATTEMPT COUNT
02AF 3AA805    0292    SYCRTY: LD      A,(RETRYC) ; GET READ/WRITE ATTEMPT COUNT
02B2 FE0A      0293    CP      00AH         ; CHECK IF 10 TRIES TO READ/WRITE
02B4 DACB02    R 0294    JP      C,SYRTRY     ; GO TRY SECTOR READ/WRITE IF NOT
02B7 211405    0295    LD      HL,PEMSG     ; GET ADDRESS OF PERMANENT ERROR MESSAGE
02BA CDDF01    0296    CALL   OHLMSG        ; DISPLAY 'PERMANENT ERROR, TYPE RETURN TO
                                0297                        ; IGNORE' ON THE CONSOLE
02BD CDB801    0298    CALL   GETCON        ; GET OPERATOR RESPONSE TO ERROR MESSAGE
02C0 FE0D      0299    CP      CR           ; CHECK IF CARRIAGE RETURN
02C2 C21A04    0300    JP      NZ,RBOOT     ; GO SET SELECTED DRIVE TO 0 AND REBOOT IF NOT
02C5 CDCF01    0301    CALL   CRLF          ; SEND CARRIAGE RETURN AND LINE FEED TO CONSOLE
02C8 C38002    R 0302    JP      SYNSL        ; GO SET UP TO TRY TO READ/WRITE AGAIN
02CB 3C        0303    SYRTRY: INC     A          ; INCREMENT COUNT OF READ/WRITE ATTEMPTS
02CC 32A805    0304    LD      (RETRYC),A    ; SAVE NEW READ/WRITE ATTEMPT COUNT
02CF 3AA505    0305    LD      A,(RWFLAG)   ; GET READ/WRITE FLAG
02D2 D7        0306    OR     A            ; CHECK IF READING CP/M SYSTEM IN
02D3 CADC02    R 0307    JP      Z,SYRNS      ; GO READ NEXT SECTOR IF READING CP/M IN
02D6 CD3802    0308    CALL   CWRITE        ; CALL BIOS WRITE SUBROUTINE TO WRITE NEXT
                                0309                        ; SECTOR
02D9 C3DF02    R 0310    JP      SYCST        ; GO CHECK OPERATION STATUS

```

```

02DC CD3002      0311 SYRNS:      CALL   CREAD          ; CALL BIOS READ SUBROUTINE TO READ NEXT
                                0312                                ; SECTOR
02DF B7          0313 SYCST:      OR     A              ; CHECK IF AN ERROR OCCURRED ON THE READ/WRITE
02E0 C2AF02     R 0314 JP     NZ,SYCRTY     ; GO CHECK IF ANOTHER ATTEMPT POSSIBLE IF ERROR
02E3 3A2901     0315 LD     A,(SEC1FG)   ; GET SECTOR 1 TRACK 0 FLAG
02E6 B7         0316 OR     A              ; CHECK IF SECTOR 1 ON TRACK 0 WAS JUST
                                0317                                ; READ/WITTEN
02E7 C28002     R 0318 JP     NZ,SYNSL     ; GO CHECK IF MORE SECTORS TO READ/WRITE IF NOT
02EA 3EFF       0319 LD     A,OFFH       ; SET FLAG INDICATING THAT SECTOR 1 ON TRACK 0
02EC 322901     0320 LD     (SEC1FG),A   ; HAS BEEN READ/WITTEN
02EF 21001F     0321 LD     HL,BIOSM1    ; GET BASE ADDRESS OF BIOS-080H. THIS IS USED
                                0322                                ; BECAUSE THE CURRENT SECTOR - STARTING SECTOR
                                0323                                ; IS USED TO COMPUTE THE BASE ADDRESS OFFSET OF
                                0324                                ; OF THE DATA FOR THAT SECTOR. SINCE BIOS ON
                                0325                                ; TRACK 0 STARTS AT SECTOR 2, THE BIAS -80H
                                0326                                ; MUST BE APPLIED TO THE TRACK BASE ADDRESS
02F2 22A605     0327 LD     (CDMA),HL    ; SAVE NEW SECTOR DATA BASE ADDRESS
02F5 C38002     R 0328 JP     SYNSL         ; GO READ/WRITE REST OF TRACK 0
02F8 3EFF       0329 SYNT1:   LD     A,OFFH       ; SET FLAG INDICATING THAT TRACK 0 HAS BEEN
02FA 322801     0330 LD     (TKFLAG),A   ; WRITTEN/READ
02FD 218009     0331 LD     HL,CCPAD     ; GET STARTING ADDRESS OF CCP AND BDOS
0300 22A605     0332 LD     (CDMA),HL    ; MAKE IT THE NEW SECTOR DATA BASE ADDRESS
                                0333 ; LD     A,02CH      ; GET NUMBER OF SECTORS IN BDOS AND CCP (44) ^
0303 3E31       0334 SYNS1:   LD     A,031H      ; GET NUMBER OF SECTORS IN BDOS AND CCP %
                                0335                                ; NOTE: THIS CHANGE MAKES THE NUMBER OF %
                                0336                                ; SECTORS TO READ/WRITE MODIFIABLE. FOR %
                                0337                                ; WRITING, THE NUMBER OF SECTORS %
                                0338                                ; IN BDOS AND CCP ROUNDED UP TO THE NEAREST %
                                0339                                ; MULTIPLE OF 8 PLUS 1. OR TO PUT IT ANOTHER %
                                0340                                ; WAY, (((B/C # OF SEC)/8)+1)*8)+1. THIS %
                                0341                                ; INSURES THE WRITE BUFFER USED BY THE SECTOR %
                                0342                                ; BLOCKING ALGORITHM IN BIOS IS FLUSHED IN %
                                0343                                ; CASE A MAXIMUM DENSITY SYSTEM IS BEING %
                                0344                                ; WRITTEN. THIS INSURES THE LAST SET OF CP/M %
                                0345                                ; RECORDS IS WRITTEN WHEN GENERATING A MAXIMUM%
                                0346                                ; DENSITY SYSTEM DISKETTE. FOR READING IN %
                                0347                                ; THE SYSTEM, THE NUMBER OF SECTORS TO READ %
                                0348                                ; IS SET TO THE EXACT NUMBER OF SECTORS IN %
                                0349                                ; BDOS AND CCP %
0305 322B01     0350 LD     (SECPK),A    ; MAKE IT THE NEW NUMBER OF SECTORS ON THE
                                0351                                ; TRACK TO READ/WRITE
0308 212E01     0352 GTSKTB:  LD     HL,DDSKTB   ; GET ADDRESS OF DOUBLE DENSITY SKEW TABLE TO
                                0353                                ; USE TO WRITE NEXT TRACK. NOTE: THE ADDRESS
                                0354                                ; FIELD OF THIS INSTRUCTION WAS MODIFIED BY THE
                                0355                                ; SELDRV SUBROUTINE BASED ON DRIVE PARAMETERS
                                0356                                ; I. E. WHETHER A DOUBLE OR MAXIMUM DENSITY
                                0357                                ; DISKETTE IS IN THE SELECTED DRIVE
030B 222C01     0358 LD     (SKTBA),HL   ; SET SECTOR SKEW TABLE ADDRESS TO USE FOR NEXT
                                0359                                ; READ/WRITE
030E C36C02     0360 JP     SYNTL        ; GO SET UP TO READ/WRITE FIRST SECTOR FROM
                                0361                                ; NEXT TRACK
0311 010200     0362 SYRWNT:  LD     BC,00002H ; SET TRACK NUMBER TO 2
0314 CD1802     0363 CALL   CSTTRK       ; CALL SETTRK IN BIOS TO SET TRACK # TO 2
0317 0E01       0364 LD     C,001H       ; SET SECTOR NUMBER TO 1
0319 CD2002     0365 CALL   CSTSEC       ; CALL SETSEC IN BIOS TO SET SECTOR # TO 1
031C 018000     0366 LD     BC,00080H    ; GET CP/M DEFAULT BUFFER ADDRESS
031F CD2802     0367 CALL   CSTDMA       ; CALL SETDMA TO SET 080H AS DMA ADDRESS
0322 CD3002     0368 CALL   CREAD        ; CALL READ TO READ SECTOR 1 FROM TRACK 2 INTO
                                0369                                ; ADDRESS 080H
0325 C9         0370 RET
                                0371 ;
                                0372 ; THIS IS THE START OF THE SYSGEN PROGRAM WHICH WRITES THE BOOT LOADER, BIOS
                                0373 ; BDOS AND CCP ONTO TRACKS 0 AND 1 OF THE SPECIFIED DISKETTE
                                0374 ;
0326 31C905     0375 SYSGEN:  LD     SP,STACK ; SET STACK POINTER TO BEGINNING OF STACK
0329 212C04     0376 LD     HL,M83SP     ; GET THE ADDRESS OF THE 83 SPACES MESSAGE
032C CDDF01     0377 CALL   OHLMSG       ; OUTPUT 83 SPACES TO THE CONSOLE
032F 3A5D00     0378 LD     A,(0005DH)   ; GET THE ADDRESS OF THE DEFAULT FILE CONTROL
                                0379                                ; BLOCK
0332 FE20       0380 CP     ' '          ; CHECK IF FIRST CHARACTER OF FILE NAME IS
                                0381                                ; A SPACE (OPERATOR DID NOT SPECIFY FILE NAME)
0334 CA8303     R 0382 JP     Z,SGSRC      ; GO DISPLAY SOURCE DRIVE NAME CUE IF SPACE
0337 115C00     0383 LD     DE,0005CH    ; GET DEFAULT FILE CONTROL BLOCK ADDRESS
033A CD4702     0384 CALL   CBOFIL       ; CALL BDOS TO OPEN FILE NAMED IN (DE)
033D 3C         0385 INC     A           ; CHECK IF FILE WAS FOUND
033E C24A03     R 0386 JP     NZ,SGRDF     ; GO READ FILE IF IT WAS OPENED
0341 217405     0387 LD     HL,NOFMG     ; GET ADDRESS OF NO FILE MESSAGE
0344 CDDA01     0388 CALL   OCRLFM       ; DISPLAY 'NO SOURCE FILE ON DISK' ON CONSOLE

```

```

0347 C31A04      0389      JP      RBOOT      ; GO SELECT DRIVE 0 AND REBOOT
034A AF          0390      SGRDF:  XOR      A      ; ZERO CURRENT RECORD
034B 327C00     0391      LD      (0007CH),A  ;
034E 0E10       0392      LD      C,010H     ; GET NUMBER OF RECORDS IN FRONT OF BOOT WHICH
                                0393      ; MUST BE DISCARDED. NOTE: SYSGEN PRESUMES
                                0394      ; SYSTEM WAS WRITTEN TO FILE VIA SAVE WHICH
                                0395      ; WRITES FROM 0100H. SINCE BOOT FOR SYSGEN
                                0396      ; PURPOSES LOADS AT 0900H, AND SYSGEN RESIDES
                                0397      ; AT 0100H TO 08FFH, THE FIRST 16 RECORDS MUST
                                0398      ; BE DISCARDED
0350 C5          0399      SGDSL:  PUSH     BC      ; SAVE COUNT OF RECORDS LEFT TO DISCARD
0351 115C00     0400      LD      DE,0005CH  ; GET ADDRESS OF DEFAULT FILE CONTROL BLOCK
0354 CD4202     0401      CALL   CBRSEQ     ; CALL BDOS TO DO A SEQUENTIAL READ OF NEXT
                                0402      ; RECORD
0357 C1          0403      POP     BC      ; GET COUNT OF RECORDS LEFT TO DISCARD
0358 C27A03     R 0404      JP      NZ,SGFLIC  ; GO DISPLAY FILE INCOMPLETE IF EOF BEFORE
                                0405      ; BOOT WAS ENCOUNTERED
035B 0D          0406      DEC     C      ; DECREMENT COUNT OF RECORDS LEFT TO DISCARD
035C C25003     R 0407      JP      NZ,SGDSL:  ; GO DISCARD NEXT IF MORE LEFT
035F 210009     0408      LD      HL,BOOTAD  ; GET BASE ADDRESS TO LOAD BOOT AND CP/M
0362 E5          0409      SGFLP:  PUSH     HL      ; SAVE NEXT RECORD LOAD ADDRESS ON STACK
0363 44          0410      LD      B,H      ; RECORD LOAD ADDRESS TO
0364 4D          0411      LD      C,L      ;
                                0412      ; BC FOR SETDMA
0365 CD2802     0412      CALL   CSTDMA     ; CALL SETDMA TO SET ADDRESS TO LOAD RECORD
0368 115C00     0413      LD      DE,0005CH  ; GET DEFAULT FCB ADDRESS
036B CD4202     0414      CALL   CBRSEQ     ; CALL BDOS TO DO A SEQUENTIAL READ FROM FILE
036E E1          0415      POP     HL      ; RESTORE RECORD LOAD ADDRESS
036F B7          0416      OR      A      ; CHECK IF END OF FILE
0370 C2CE03     R 0417      JP      NZ,SGDDRV  ; GO DISPLAY DESTINATION DRIVE CUE IF END
0373 118000     0418      LD      DE,00080H  ; GET OFFSET TO STORE NEXT RECORD
0376 19          0419      ADD    HL,DE     ; COMPUTE ADDRESS TO STORE NEXT RECORD
0377 C36203     R 0420      JP      SGFLP     ; GO LOAD NEXT RECORD FROM CP/M SYSTEM FILE
037A 218B05     0421      SGFLIC: LD      HL,FICMG ; GET ADDRESS OF SOURCE FILE INCOMPLETE MESSAGE
037D CDDA01     0422      CALL   OCRLF      ; DISPLAY CR, LF, 'SOURCE FILE INCOMPLETE'
0380 C31A04     0423      JP      RBOOT     ; GO SELECT DRIVE 0 AND REBOOT
0383 218004     0424      SGSRC:  LD      HL,SDRMG ; GET ADDRESS OF SOURCE DRIVE NAME MESSAGE
0386 CDDA01     0425      CALL   OCRLF      ; DISPLAY CR, LF, 'SOURCE DRIVE NAME (OR RETURN
                                0426      ; TO SKIP' ON THE CONSOLE
0389 CDB801     0427      CALL   GETCON     ; GET OPERATOR RESPONSE TO CUE
038C FE0D       0428      CP      CR      ; CHECK IF CARRIAGE RETURN
038E CACE03     R 0429      JP      Z,SGDDRV  ; GO DISPLAY DESTINATION DRIVE NAME MESSAGE IF
                                0430      ; CARRIAGE RETURN
0391 D641       0431      SUB    'A'      ; CONVERT ENTRY TO DRIVE NUMBER
0393 FE04       0432      CP      004H     ; CHECK IF VALID DRIVE ENTERED
0395 DA9E03     R 0433      JP      C,SGSODR  ; GO DISPLAY SOURCE ON MESSAGE IF VALID
0398 CD2504     0434      CALL   DIVDR     ; DISPLAY INVALID DRIVE NAME MESSAGE ON CONSOLE
039B C38303     R 0435      JP      SGSRC     ; GO DISPLAY SOURCE DRIVE NAME MESSAGE AGAIN
039E C641       0436      SGSODR: ADD    A,'A' ; CONVERT DRIVE ENTRY BACK TO ASCII
03A0 32B004     0437      LD      (SODNMG),A ; STORE IN SOURCE ON... MESSAGE
03A3 D641       0438      SUB    'A'      ; CONVERT BACK TO DRIVE NUMBER
03A5 CDEB01     0439      CALL   SELDRV    ; SELECT SPECIFIED DRIVE AND SET UP SKEW TABLE
                                0440      ; ADDRESS
03A8 CDCF01     0441      CALL   CRLF      ; SEND CARRIAGE RETURN AND LINE FEED TO CONSOLE
03AB 21A604     0442      LD      HL,SOMG   ; GET ADDRESS OF SOURCE ON .... MESSAGE
03AE CDDF01     0443      CALL   OHLMSG    ; DISPLAY 'SOURCE ON X, THEN TYPE RETURN'
03B1 CDB801     0444      CALL   GETCON     ; GET OPERATOR RESPONSE TO CONSOLE CUE
03B4 FE0D       0445      CP      CR      ; CHECK IF CARRIAGE RETURN
03B6 C21A04     R 0446      JP      NZ,RBOOT  ; GO SELECT DRIVE 0 AND REBOOT IF NOT
03B9 CDCF01     0447      CALL   CRLF      ; SEND CARRIAGE RETURN AND LINE FEED TO CONSOLE
03BC AF         0448      XOR    A      ; ZERO READ/WRITE FLAG TO INDICATE CP/M READ
03BD 32A505     0449      LD      (RWFLAG),A ; FOR THE READ/WRITE SUBROUTINE
03C0 3E2C       0450      LD      A,02CH   ; GET # OF SECTORS IN BDOS AND CCP (44) %
03C2 320403     0451      LD      (SYNS1+1),A ; SET # OF SECTORS TO READ FOR SYRDWT %
03C5 CD4C02     0452      CALL   SYRDWT    ; CALL READ/WRITE TO READ CP/M FROM SPECIFIED
                                0453      ; DISKETTE
03C8 213B05     0454      LD      HL,FCCMG  ; GET ADDRESS OF FUNCTION COMPLETE MESSAGE
03CB CDDF01     0455      CALL   OHLMSG    ; DISPLAY 'FUNCTION COMPLETE' ON CONSOLE
03CE 21C404     0456      SGDDRV: LD      HL,DDRMG ; GET ADDRESS OF DESTINATION DRIVE MESSAGE
03D1 CDDA01     0457      CALL   OCRLF      ; DISPLAY CR, LF, 'DESTINATION DRIVE NAME OR)
                                0458      ; RETURN TO REBOOT)' ON CONSOLE
03D4 CDB801     0459      CALL   GETCON     ; GET OPERATOR RESPONSE TO CUE
03D7 FE0D       0460      CP      CR      ; CHECK IF CARRIAGE RETURN
03D9 CA1A04     R 0461      JP      Z,RBOOT  ; GO SELECT DRIVE 0 AND REBOOT IF CARRIAGE
                                0462      ; RETURN
03DC D641       0463      SUB    'A'      ; CONVERT DRIVE LETTER TO DRIVE NUMBER
03DE FE04       0464      CP      004H     ; CHECK IF VALID DRIVE ENTERED
03E0 DAE903     R 0465      JP      C,SGDDON  ; GO DISPLAY DESTINATION ON... IF VALID
03E3 CD2504     0466      CALL   DIVDR     ; DISPLAY INVALID DRIVE NAME MESSAGE ON CONSOLE

```

```

03E6 C3CE03 R 0467 JP SGDRV ; GO DISPLAY DESTINATION DRIVE MESSAGE AGAIN
03E9 C641 0468 SGDDON: ADD A,'A' ; CONVERT DRIVE NUMBER BACK TO DRIVE LETTER
03EB 320005 0469 LD (DDONNM),A ; STORE IN DESTINATION ON.... MESSAGE
03EE D641 0470 SUB 'A' ; CONVERT DRIVE LETTER BACK TO DRIVE NUMBER
03F0 CDEB01 0471 CALL SELDRV ; SELECT SPECIFIED DRIVE AND SET UP SKEW TABLE
0472 ; ADDRESS
03F3 21F104 0473 LD HL,DDONMG ; GET ADDRESS OF DESTINATION ON... MESSAGE
03F6 CDDA01 0474 CALL OCRLFM ; DISPLAY CR, LF, 'DESTINATION ON X, THEN TYPE
0475 ; RETURN' ON CONSOLE
03F9 CDB801 0476 CALL GETCON ; GET OPERATOR RESPONSE TO DESTINATION CUE
03FC FE0D 0477 CP CR ; CHECK IF CARRIAGE RETURN
03FE C21A04 R 0478 JP NZ,RBOOT ; GO SELECT DRIVE 0 AND REBOOT IF NOT
0401 CDCF01 0479 CALL CRLF ; SEND CARRIAGE RETURN AND LINE FEED TO CONSOLE
0404 21A505 0480 LD HL,RWFLAG ; GET ADDRESS OF READ/WRITE FLAG
0407 3601 0481 LD (HL),001H ; SET NON-ZERO TO INDICATE CP/M SYSTEM WRITE
0482 ; TO SYRDWT
0409 3E31 0483 LD A,031H ; GET NUMBER OF SECTORS TO WRITE (49) I.E. %
0484 ; (# OF SECTORS IN BDOS AND CCP ROUNDED UP TO %
0485 ; THE NEAREST MULTIPLE OF 8) + 1 %
040B 320403 0486 LD (SYNS1+1),A ; SET NUMBER OF SECTORS TO WRITE FOR SYRDWT %
040E CD4C02 0487 CALL SYRDWT ; WRITE CP/M SYSTEM TO SPECIFIED DRIVE
0411 213B05 0488 LD HL,FCCMG ; GET ADDRESS OF FUNCTION COMPLETE MESSAGE
0414 CDDF01 0489 CALL OHLMSG ; DISPLAY 'FUNCTION COMPLETE' ON CONSOLE
0417 C3CE03 R 0490 JP SGDRV ; GO REDISPLAY DESTINATION DRIVE NAME MESSAGE
041A 3E00 0491 RBOOT: LD A,000H ; SET DRIVE TO SELECT TO 0
041C CDEB01 0492 CALL SELDRV ; GO CALL SELDSK TO SELECT DRIVE 0
041F CDCF01 0493 CALL CRLF ; SEND CARRIAGE RETURN AND LINE FEED TO CONSOLE
0422 C30000 0494 JP WBOOTV ; GO REBOOT CP/M
0495 ;
0496 ; THIS SUBROUTINE DISPLAYS THE INVALID DRIVE NAME MESSAGE ON THE CONSOLE
0497 ;
0425 214D05 0498 DIVDR: LD HL,IVDRMG ; GET ADDRESS OF INVALID DRIVE NAME MESSAGE
0428 CDDA01 0499 CALL OCRLFM ; DISPLAY CR, LF, 'INVALID DRIVE NAME (USE A,
0500 ; B, C, OR D)' ON CONSOLE
042B C9 0501 RET
0502 ;
0503 ; THE FOLLOWING MESSAGES ARE DISPLAYED ON THE CONSOLE BY SYSGEN1
0504 ;
042C 20202020 0505 M83SP: DB ' '
0454 20202020 0506 DB ' ',0
0480 534F5552 0507 SDRMG: DB 'SOURCE DRIVE NAME (OR RETURN TO SKIP)',0
04A6 534F5552 0508 SOMG: DB 'SOURCE ON '
04B0 E12C2054 0509 SODNMG: DB '0ELH,', THEN TYPE RETURN',0
04C4 44455354 0510 DDRMG: DB 'DESTINATION DRIVE NAME (OR RETURN TO REBOOT)',0
04F1 44455354 0511 DDONMG: DB 'DESTINATION ON '
0500 012C2054 0512 DDONNM: DB '1,', THEN TYPE RETURN',0
0514 5045524D 0513 PEMSG: DB 'PERMANENT ERROR, TYPE RETURN TO IGNORE',0
053B 46554E43 0514 FCCMG: DB 'FUNCTION COMPLETE',0
054D 494E5641 0515 IVDRMG: DB 'INVALID DRIVE NAME (USE A, B, C, OR D)',0
0574 4E4F2053 0516 NOFMG: DB 'NO SOURCE FILE ON DISK',0
058B 534F5552 0517 FICMG: DB 'SOURCE FILE INCOMPLETE',0
05A2 00 0518 DB 0
0519 ;
0520 ; THE FOLLOWING DATA CELLS ARE USED BY SYSGEN
0521 ;
05A3 00 0522 CTRACK: DB 0 ; TRACK # BEING READ/WITTEN
05A4 00 0523 CSECT: DB 0 ; NUMBER OF CURRENT SECTOR TO READ/WRITE ON THE
0524 ; CURRENT TRACK. ALSO SERVES AS INDEX INTO THE
0525 ; SPECIFIED SECTOR TRANSLATION TABLE
05A5 00 0526 RWFLAG: DB 0 ; FLAG INDICATING WHETHER SYRDWT WRITES A CP/M
0527 ; SYSTEM OUT OR READS A CP/M SYSTEM IN. 0=READ
05A6 0000 0528 CDMA: DW 0 ; NEXT ADDRESS TO WRITE FROM/READ TO
05A8 00 0529 RETRYC: DB 0 ; READ/WRITE ATTEMPT COUNT FOR ERROR RETRY
05A9 (0020) 0530 DS 020H ; SYSGEN1 STACK
0531
05C9 (0000) 0532 END

```

```

Errors 0
Range Count 26

```

Symbol	Value	Defn	References
BDOS	0005	0012	0086 0099 0220 0225
BIOSM1	1F00	0016	0321
BOOTAD	0900	0015	0242 0408
CBOFIL	0247	0224	0384
CBRSEQ	0242	0219	0401 0414
CCPAD	0980	0018	0331

CDMA	05A6	0528	0243	0285	0327	0332			
CR	000D	0010	0104	0299	0428	0445	0460	0477	
CREAD	0230	0200	0311	0368					
CRLF	01CF	0104	0115	0301	0441	0447	0479	0493	
CSECT	05A4	0523	0256	0259	0264				
CSLDSK	020F	0166	0134						
CSTDMA	0228	0191	0289	0367	0412				
CSTSEC	0220	0183	0275	0365					
CSTRK	0218	0175	0254	0363					
CTRACK	05A3	0522	0245	0248					
CWRITE	0238	0209	0308						
DDONMG	04F1	0511	0473						
DDONNM	0500	0512	0469						
DDRMG	04C4	0510	0456						
DDSKTB	012E	0039	0150	0352					
DIVDR	0425	0498	0434	0466					
FCCMG	053B	0514	0454	0488					
FICMG	058B	0517	0421						
GETCON	01B8	0085	0298	0427	0444	0459	0476		
GTSKTB	0308	0352	0152	0157					
IVDRMG	054D	0515	0498						
LF	000A	0011	0106						
LTKP1	012A	0028	0250						
M83SP	042C	0505	0376						
MDSKTB	0160	0052	0156						
NOFMG	0574	0516	0387						
OCHRCN	01C8	0097	0105	0107	0125				
OCRLFM	01DA	0114	0388	0422	0425	0457	0474	0499	
OHLMSG	01DF	0121	0128	0296	0377	0443	0455	0489	
PEMSG	0514	0513	0295						
RBOOT	041A	0491	0300	0389	0423	0446	0461	0478	
RETRYC	05A8	0529	0291	0292	0304				
RWFLAG	05A5	0526	0305	0449	0480				
SDRMG	0480	0507	0424						
SDSKTB	0192	0064	0030	0237					
SECLFG	0129	0026	0235	0315	0320				
SECPK	012B	0029	0241	0258	0350				
SELDRV	01EB	0134	0439	0471	0492				
SELECT	0063	0014	0247						
SETSKT	0208	0156	0145	0148					
SGDON	03E9	0468	0465						
SGDDRV	03CE	0456	0417	0429	0467	0490			
SGDSLP	0350	0399	0407						
SGFLIC	037A	0421	0404						
SGFLLP	0362	0409	0420						
SGRDF	034A	0390	0386						
SGSODR	039E	0436	0433						
SGSRC	0383	0424	0382	0435					
SKTBA	012C	0030	0239	0268	0358				
SODNMG	04B0	0509	0437						
SOFTBO	01AD	0071	0281						
SOMG	04A6	0508	0442						
STACK	05C9	0531	0375						
SYCRTY	02AF	0292	0314						
SYCST	02DF	0313	0310						
SYNS1	0303	0334	0451	0486					
SYNSL	0280	0258	0302	0318	0328				
SYNT1	02F8	0329	0263						
SYNTL	026C	0248	0360						
SYRDWT	024C	0232	0452	0487					
SYRNS	02DC	0311	0307						
SYRTRY	02CB	0303	0294						
SYRWNT	0311	0362	0252						
SYSGEN	0326	0375	0021						
TKFLAG	0128	0024	0233	0330					
WBOOTV	0000	0013	0167	0175	0183	0191	0200	0212	0494