

!A

LLOAD INCL.L,A\$4000

LLOAD VOLMGR.L,A\$4000

\*\*\* End of Pass 1

LLOAD INCL.L,A\$4000

LLOAD CODE1.L,A\$4000

LLOAD CODE2.L,A\$4000

LLOAD CODE3.L,A\$4000

LLOAD CODE4.L,A\$4000

LLOAD CODE5.L,A\$4000

LLOAD CODE6.L,A\$4000

LLOAD INPUT.L,A\$4000

LLOAD PRINT.L,A\$4000

LLOAD STRING.L,A\$4000

LLOAD DATA.L,A\$4000

LLOAD VOLMGR.L,A\$4000

\*\*\* End of Pass 2

```
0800      1          ttl "Volume Manager Source Code, VOLMGR.L"
0800      2          src "VOLMGR.L"
0800      3      ;
0800      4      ;
0800      5      ; VOLMGR.L
0800      6      ;
0800      7      ;
0800      8      ; Volume Manager Source Code
0800      9      ;
0800     10      ; 2024 February 14
0800     11      ;
0800     12      ;
0800     13      ; DOS 4.5, Build 06
0800     14      ;
0800     15      ; 2024 February 14
0800     16      ;
0800     17      ;
0800     18      ; Start of Source Code: 0x4000
0800     19      ; Start of Symbol List: 0x7800
0800     20      ;
0800     21      ;
0800     22      ; Copyright (c) 2024 February 14 by
0800     23      ; Walland Philip Vrbancic Jr
0800     24      ;
0800     25      ; 6223 East Peabody Street
0800     26      ; Long Beach, California 90808
0800     27      ; Unitied States of America
0800     28      ;
0800     29      ; All Rights Reserved
0800     30      ;
0800     31      ; This software is the confidential and
0800     32      ; proprietary intellectual property of
0800     33      ; Walland Philip Vrbancic Jr
0800     34      ;
0800     35      ;
0800     36          icl "INCL.L"
```

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LLOAD INCL.L,A$4000
```

```
0800          1          ttl "Volume Manager Source Code, INCL.L"
0800          2          ;
0800          3          ;
0800          4          ; INCL.L
0800          5          ;
0800          6          ;
0800          7          ; This file defines all the page zero locations, equates,
0800          8          ; memory locations, and parameters used by VOLMGR.
0800          9          ;
0800         10          ;
0000         11      LOC0          epz $00
0800         12          ;
001E         13      TEXTPTR      epz $1E
0800         14          ;
0020         15      WNDLFT        epz $20
0021         16      WNDWDTH      epz $21
0022         17      WNDTOP        epz $22
0023         18      WNDBTM        epz $23
0024         19      CH            epz $24
0025         20      CV            epz $25
0800         21          ;
0032         22      INVFLG        epz $32
0033         23      PROMPT        epz $33
0036         24      CSWL          epz $36
0800         25          ;
0076         26      ASRUN         epz $76
0800         27          ;
00D8         28      ASONERR       epz $D8
0800         29          ;
00CC         30      VALPTR        epz $CC
00CE         31      GENPTR        epz $CE
0800         32          ;
00EC         33      SLOTPTR      epz $EC
00EE         34      ROMPTR        epz $EE
0800         35          ;
00FA         36      DATAPTR      epz $FA
00FB         37      PRNTVAL       epz $FB
00FC         38      PRNTPTR      epz $FC
0800         39          ;
0800         40          enz
0800         41          ;
0000         42      ZERO          equ $00
0004         43      LBALEN        equ $04
0004         44      PARTLEN       equ $04
0004         45      TYPELEN       equ $04
0005         46      CDMSGLEN      equ $05
0006         47      DATELEN       equ $06
0006         48      DFLTIMAG      equ $06
0008         49      IDFRMLEN      equ $08
000E         50      VRSNLEN       equ $0E
000F         51      LBAMASK       equ $0F
000F         52      NIBLMASK      equ $0F
000F         53      SECMASKL      equ $0F
0010         54      SECMASKH      equ $10
0014         55      VSNLEN        equ $14
0014         56      IDSRLLEN      equ $14
0018         57      IDMDLLEN      equ $18
0018         58      NAMELEN       equ $18
00FF         59      NEGONE        equ $FF
0800         60          ;
```

```
0004      61  ERRORNDX equ $04
0800      62  ;
0000      63  MAINRAM equ $00
0001      64  HIGHRAM1 equ $01
0002      65  HIGHRAM2 equ $02
0800      66  ;
0001      67  RWTSREAD equ $01
0002      68  RWTSWRIT equ $02
0800      69  ;
000B      70  INITCMD equ $0B
0800      71  ;
0000      72  VTOCSEC equ $00
0011      73  VTOCTRK equ $11
0800      74  ;
0003      75  VOLXINC equ $03
0030      76  VOLYINC equ $30
0800      77  ;
0002      78  IDCYLOFF equ $02
0006      79  IDHDSOFF equ $06
000C      80  IDSPTOFF equ $0C      ; sectors/track
0014      81  IDSRLOFF equ $14
002E      82  IDFRMOFF equ $2E
0036      83  IDMDLOFF equ $36
0078      84  IDLBAOFF equ $78
0800      85  ;
0010      86  OFFSET0 equ $10
0018      87  IMAGSIZE equ $18
00D0      88  DRCATLBA equ $D0
0800      89  ;
0800      90  ;
0800      91  ; DOS installation values
0800      92  ;
0001      93  IMAG33 equ 1
0002      94  IMAG41L equ 2
0003      95  IMAG41H equ 3
0004      96  IMAG43H equ 4
0005      97  IMAG45L equ 5
0006      98  IMAG45H equ 6
0007      99  IMAGUSR1 equ 7
0008     100  IMAGUSR2 equ 8
0800     101  ;
0800     102  ;
0800     103  ; CFFA timing requirements
0800     104  ;
0004     105  WAIT100U equ $04
0007     106  WAIT225U equ $07
0011     107  WAIT001M equ $11
007C     108  WAIT040M equ $7C
00C5     109  WAIT100M equ $C5
0800     110  ;
0800     111  ;
0000     112  TEXTMODE equ $00
0001     113  GRPHMODE equ $01
0002     114  TX80MODE equ $02
0003     115  LV80MODE equ $03
0800     116  ;
0000     117  NORMDISP equ $00
0001     118  INVRDISP equ $01
0800     119  ;
0000     120  INITSCRN equ $00
0001     121  HOMESCRN equ $01
```

0800	122	;	
0000	123	EOLCLR	equ \$00
0001	124	EOPCLR	equ \$01
0800	125	;	
0000	126	DIRECT	equ \$00
0001	127	INDIRECT	equ \$01
0800	128	;	
0000	129	NOPAD	equ \$00
0020	130	HIGHLOW	equ \$20
0040	131	ZEROPAD	equ \$40
0080	132	SPCPAD	equ \$80
0800	133	;	
0004	134	NEXTLINE	equ \$04
0007	135	CHARCELL	equ \$07
0009	136	MAXPARTS	equ \$08+1
000F	137	PCMDMASK	equ \$0F
001F	138	CVMASK	equ \$1F
0028	139	MAXWDTH	equ \$28
0032	140	MAXTRKS	equ \$32
0050	141	MAXCH	equ \$50
0060	142	MINCV	equ \$60
0061	143	MAXCMD	equ \$60+1
007F	144	INVRMASK	equ \$7F
0080	145	ASCIFLAG	equ \$80
0080	146	MSBMASK	equ \$80
0800	147	;	
0050	148	RTNCMD	equ \$50
0051	149	MODECMD	equ \$51
0052	150	DISPCMD	equ \$52
0053	151	SCRNCMD	equ \$53
0054	152	CLRCMD	equ \$54
0055	153	CNTRCMD	equ \$55
0056	154	BUFRCMD	equ \$56
0057	155	NIBLCMD	equ \$57
0058	156	BYT1CMD	equ \$58
0059	157	BYT2CMD	equ \$59
005A	158	BYTNCMD	equ \$5A
005B	159	ADRCMD	equ \$5B
005C	160	DEC1CMD	equ \$5C
005D	161	DEC2CMD	equ \$5D
005E	162	DEC3CMD	equ \$5E
005F	163	DECNCMD	equ \$5F
0800	164	;	
0060	165	FLASH	equ \$60
0084	166	CTRLD	equ \$84
0087	167	BELLCHAR	equ \$87
0088	168	LARROW	equ \$88
008A	169	DARROW	equ \$8A
008B	170	UARROW	equ \$8B
008D	171	RETURN	equ \$8D
0091	172	CTRLQ	equ \$91
0095	173	RARROW	equ \$95
009B	174	ESCAPE	equ \$9B
00A0	175	SPACE	equ \$A0
00A5	176	PERCENT	equ \$A5
00AD	177	MINUS	equ \$AD
00AE	178	PERIOD	equ \$AE
00BF	179	QUESTION	equ \$BF
00DF	180	LWRMASK	equ \$DF
00E0	181	LWRCASE	equ \$E0
00FC	182	BAR	equ \$FC

```
00FF      183  DELETE      equ  $FF
0800      184  ;
0020      185  ATA_READ   equ  $20
0030      186  ATA_WRIT   equ  $30
00EC      187  ATA_ID     equ  $EC
0800      188  ;
0100      189  OFFSET1    equ  $100
0100      190  PAGESIZE   equ  $100
0100      191  STACK      equ  $100
0800      192  ;
0300      193  VOLSIZE    equ  $300
0300      194  DRVSIZ     equ  $300          ; divided by 0x100
0800      195  ;
03D0      196  DOSWARM     equ  $3D0
03D3      197  DOSCOLD     equ  $3D3
03D6      198  CALLFM      equ  $3D6
03D9      199  CALLRWTS    equ  $3D9
03DC      200  GETFMCB     equ  $3DC
03E1      201  RDCLKVSN    equ  $3E1
03EA      202  HOOKDOS     equ  $3EA
03E8      203  PRTERADR    equ  $3E8
0800      204  ;
07D0      205  LINE23      equ  $7D0
0800      206  ;
0045      207  DOS4VRSN    equ  $45          ; DOS 4.X build version
0006      208  DOS4BLD     equ  $06          ; DOS 4.X build number
0800      209  ;
BFF0      210  BLDVRSN     equ  $BFF0
BFF1      211  BLDNMBR     equ  $BFF1
BFF2      212  MNGDISK     equ  $BFF2          ; manage disk table
BFFA      213  INITVAL     equ  $BFFA          ; holds INITVALS address
0800      214  ;
0800      215  PAGE08      equ  $0800
0900      216  PAGE09      equ  $0900
C000      217  PAGEC0      equ  $C000
C800      218  PAGEC8      equ  $C800
0800      219  ;
C000      220  KEY         equ  $C000
C010      221  CLRKEY      equ  $C010
0800      222  ;
C010      223  CFHOOK      equ  $C010
C018      224  CFUHOOK     equ  $C018
0800      225  ;
C050      226  TXTCLR      equ  $C050
C051      227  TXTSET      equ  $C051
C052      228  MIXCLR      equ  $C052
C054      229  LOWSCR      equ  $C054
C057      230  HIRRES      equ  $C057
0800      231  ;
C030      232  VOLBOOT     equ  $C030
C04B      233  CFRWTS      equ  $C04B
0800      234  ;
C080      235  RAM2WP       equ  $C080
C082      236  ROM2WP      equ  $C082
CFFF      237  CLRROM      equ  $CFFF
0800      238  ;
C080      239  ATADATAH    equ  $C080
C081      240  SETCSMSK    equ  $C081
C082      241  CLRCSMSK    equ  $C082
C086      242  ATADEVCT    equ  $C086
C086      243  ATASTAT2    equ  $C086
```

C088	244	ATADATAL	equ	\$C088
C089	245	ATAERROR	equ	\$C089
C08A	246	ATASECCT	equ	\$C08A
C08B	247	ATASECTR	equ	\$C08B
C08C	248	ATACYLNL	equ	\$C08C
C08D	249	ATACYLNH	equ	\$C08D
C08E	250	ATAHEAD	equ	\$C08E
C08F	251	ATACMD	equ	\$C08F
C08F	252	ATASTAT	equ	\$C08F
0800	253	;		
F94A	254	PRBL2	equ	\$F94A
FB2F	255	INIT	equ	\$FB2F
FC22	256	VTAB	equ	\$FC22
FC42	257	CLREOP	equ	\$FC42
FC58	258	HOME	equ	\$FC58
FC9C	259	CLREOL	equ	\$FC9C
FD8E	260	CROUT	equ	\$FD8E
FDDA	261	PRBYTE	equ	\$FDDA
FDE3	262	PRHEX	equ	\$FDE3
FDED	263	COUT	equ	\$FDED
FE89	264	SETKBD	equ	\$FE89
FE93	265	SETVID	equ	\$FE93
FE95	266	OUTPORT	equ	\$FE95
FF3A	267	BELL	equ	\$FF3A
FF65	268	MONITOR	equ	\$FF65
0800	269	;		
0800	270	;		
0800	271		icl	"CODE1.L"

LLOAD CODE1.L,A\$4000

```
0800          1          ttl "Volume Manager Source Code, CODE1.L"
0800          2          ;
0800          3          ;
0800          4          ; CODE1.L
0800          5          ;
0800          6          ;
0000          7  GRAPHICS equ 0                      ; mode OFF
0000          8  DISPLAY equ TEXTMODE
0001          9  DEBUG   equ 1
0800         10          ;
0800         11          ;
0900         12          org PAGE09
0900         13          obj PAGE09
0900         14          usr
0900         15          ;
0900         16          ;
0900 D8       17          cld
0901         18          ;
0901 8D 82 C0  19          sta ROM2WP
0904         20          ;
0904 20 73 37  21          jsr PRINT
0907         22          .if DISPLAY=TEXTMODE
0907 51 00      23          byt MODECMD,TEXTMODE
0909         24          .fi
0909         25          .if DISPLAY=GRPHMODE
0909         26          byt RETURN
0909         27          byt MODECMD,GRPHMODE
0909         28          .fi
0909         29          .if DISPLAY=TX80MODE
0909         30          byt MODECMD,TX80MODE
0909         31          .fi
0909 52 00      32          byt DISPCMD,NORMDISP
090B 53 00      33          byt SCRNCMD,INITSCRN
090D 53 01      34          byt SCRNCMD,HOMESCRN
090F 50         35          byt RTNCMD
0910         36          ;
0910 20 EA 03   37          jsr HOOKDOS
0913         38          ;
0913 A9 00      39          lda #ZERO
0915 85 33      40          sta PROMPT
0917 85 76      41          sta ASRUN
0919         42          ;
0919 A9 FF      43          lda #NEGONE
091B 85 D8      44          sta ASONERR
091D         45          ;
091D 20 CD 13   46          jsr BANNER
0920         47          ;
0920 20 3F 35   48          jsr GETKEY
0923 B0 0A      49          bcs >0
0925         50          ;
0925 20 BE 0F   51          jsr FINDCF
0928 90 08      52          bcc START
092A         53          ;
092A         54          .if DEBUG
092A B0 06      55          bcs START
092C         56          .fi
092C         57          ;
092C 20 23 18   58          jsr NOCFFA
092F         59          ;
092F 4C 42 19   60          ^0          jmp QUIT
```

```

0932      61 ;
0932      62 ;
0932      63 START:
0932      64      .if DEBUG
0932      65      .el
0932      66      jsr DOHOOKON
0932      67      .fi
0932      68 ;
0932 20 5A 19      69      jsr GETROMER
0935      70 ;
0935      71      .if DEBUG
0935 A2 05      72      ldx #5 ; 8 GB card
0937 8E 24 40      73      stx CFINDEX
093A 20 AF 25      74      jsr EXTRAD
093D      75      .el
093D      76      jsr EXTRDATA
093D      77      .fi
093D      78 ;
093D      79 ;
093D 20 72 19      80 MAIN      jsr UNSETERR
0940      81 ;
0940 20 D4 15      82      jsr MAINMENU
0943      83 ;
0943 20 29 11      84 ^1      jsr OPTION
0946      85 ;
0946 20 1D 34      86      jsr GETDEC1
0949 B0 E4      87      bcs <0
094B      88 ;
094B AE 35 40      89      ldx DECVALS
094E      90 ;
094E E0 01      91      cpx #1
0950 90 F1      92      bcc <1
0952      93 ;
0952 E0 06      94      cpx #6
0954 F0 D9      95      beq <0
0956      96 ;
0956 B0 EB      97      bcs <1
0958      98 ;
0958 BD 66 09      99      lda MAINTBLL-1,X
095B 8D 65 09     100      sta MAINMOD+1
095E      101 ;
095E BD 6B 09     102      lda MAINTBLH-1,X
0961 8D 66 09     103      sta MAINMOD+2
0964      104 ;
0964 4C 00 00     105 MAINMOD      jmp *-*
0967      106 ;
0967      107 ;
0967      108 MAINTBLL:
0967 71      109      byt MNGFIRM
0968 5C      110      byt MNGCFFA
0969 A5      111      byt MNGDRVS
096A 5D      112      byt MNGVOLS
096B BC      113      byt MNGDOSI
096C      114 ;
096C      115 MAINTBLH:
096C 09      116      hby MNGFIRM
096D 0A      117      hby MNGCFFA
096E 0C      118      hby MNGDRVS
096F 0D      119      hby MNGVOLS
0970 0E      120      hby MNGDOSI
0971      121 ;

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```

0971      122 ;
0971 20 46 16 123 MNGFIRM jsr FIRMMENU
0974      124 ;
0974 20 29 11 125 ^1 jsr OPTION
0977      126 ;
0977 20 1D 34 127 jsr GETDEC1
097A B0 2C 128 bcs >2
097C      129 ;
097C AE 35 40 130 ldx DECVALS
097F      131 ;
097F E0 01 132 cpx #1
0981 90 F1 133 bcc <1
0983      134 ;
0983 E0 06 135 cpx #6
0985 F0 21 136 beq >2
0987      137 ;
0987 B0 EB 138 bcs <1
0989      139 ;
0989 BD AA 09 140 lda FIRMTBLL-1,X
098C 8D 9D 09 141 sta FIRMMOD+1
098F      142 ;
098F BD AF 09 143 lda FIRMTBLH-1,X
0992 8D 9E 09 144 sta FIRMMOD+2
0995      145 ;
0995 A2 A2 146 ldx #FIRMERR
0997 A9 09 147 lda /FIRMERR
0999      148 ;
0999 20 8A 19 149 jsr SETERROR
099C      150 ;
099C 20 00 00 151 FIRMMOD jsr *-*
099F      152 ;
099F 4C 71 09 153 jmp MNGFIRM
09A2      154 ;
09A2 20 95 11 155 FIRMERR jsr DISKERR
09A5      156 ;
09A5 4C 71 09 157 jmp MNGFIRM
09A8      158 ;
09A8 4C 3D 09 159 ^2 jmp MAIN
09AB      160 ;
09AB      161 ;
09AB      162 FIRMTBLL:
09AB B5 163 byt SAVEFIRM
09AC CE 164 byt LOADFIRM
09AD FF 165 byt LOADDOS
09AE 9C 166 byt RSTRDATA
09AF D4 167 byt RSTRFIRM
09B0      168 ;
09B0      169 FIRMTBLH:
09B0 09 170 hby SAVEFIRM
09B1 09 171 hby LOADFIRM
09B2 09 172 hby LOADDOS
09B3 33 173 hby RSTRDATA
09B4 33 174 hby RSTRFIRM
09B5      175 ;
09B5      176 ;
09B5 20 73 37 177 SAVEFIRM jsr PRINT
09B8 53 01 178 byt SCRNCMD,HOMESCRN
09BA 8D 55 01 179 byt RETURN,CNTRCMD,INDIRECT
09BD 05 3A 180 adr STR1.01 ; "Save CFFA Firmware to Disk"
09BF 50 181 byt RTNCMD
09C0      182 ;

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```

09C0 20 E8 26 183      jsr SELCDISK
09C3 B0 08 184      bcs >1
09C5 185 ;
09C5 20 97 27 186      jsr GETVRSN
09C8 B0 03 187      bcs >1
09CA 188 ;
09CA 20 1F 1C 189      jsr DOSAVFRM
09CD 190 ;
09CD 60 191 ^1      rts
09CE 192 ;
09CE 193 ;
09CE 20 73 37 194 LOADFIRM jsr PRINT
09D1 53 01 195      byt SCRNCMD,HOMESCRN
09D3 8D 55 01 196      byt RETURN,CNTRCMD,INDIRECT
09D6 20 3A 197      adr STR1.02 ; "Install CFFA ... from Disk"
09D8 50 198      byt RTNCMD
09D9 199 ;
09D9 20 8D 24 200      jsr CHKWPCF
09DC B0 20 201      bcs >2
09DE 202 ;
09DE 20 15 25 203      jsr EXTRDATA
09E1 B0 1B 204      bcs >2
09E3 205 ;
09E3 20 D9 28 206      jsr READCF
09E6 207 ;
09E6 A0 17 208      ldy #NAMELEN-1
09E8 209 ;
09E8 B9 18 45 210 ^1      lda CFNAME,Y
09EB 99 A5 40 211      sta CFOLDNAM,Y
09EE 212 ;
09EE 88 213      dey
09EF 10 F7 214      bpl <1
09F1 215 ;
09F1 20 E8 26 216      jsr SELCDISK
09F4 B0 08 217      bcs >2
09F6 218 ;
09F6 20 97 27 219      jsr GETVRSN
09F9 B0 03 220      bcs >2
09FB 221 ;
09FB 20 C1 1C 222      jsr DOLDFRM
09FE 223 ;
09FE 60 224 ^2      rts
09FF 225 ;
09FF 226 ;
09FF 20 73 37 227 LOADDOS jsr PRINT
0A02 53 01 228      byt SCRNCMD,HOMESCRN
0A04 8D 55 01 229      byt RETURN,CNTRCMD,INDIRECT
0A07 40 3A 230      adr STR1.03 ; "Install ... DOS from Disk"
0A09 50 231      byt RTNCMD
0A0A 232 ;
0A0A 20 8D 24 233      jsr CHKWPCF
0A0D B0 4C 234      bcs >1
0A0F 235 ;
0A0F 20 E8 26 236      jsr SELCDISK
0A12 B0 47 237      bcs >1
0A14 238 ;
0A14 20 DC 2D 239      jsr DOLDDOS
0A17 B0 42 240      bcs >1
0A19 241 ;
0A19 20 14 29 242      jsr READCFG
0A1C 243 ;

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```

0A1C A9 06      244      lda #DFLTIMAG
0A1E 8D 3C 45   245      sta DFLTBOOT
0A21           246      ;
0A21 20 73 37   247      jsr PRINT
0A24 53 01      248      byt SCRNCMD,HOMESCRN
0A26 8D 55 01   249      byt RETURN,CNTRCMD,INDIRECT
0A29 40 3A      250      adr STR1.03      ; "Install ... DOS from Disk"
0A2B 00 66      251      hex 0066
0A2D D3 E5 F4   252      asc "Setting default DOS boot image to "
0A30 F4 E9 EE
0A33 E7 A0 E4
0A36 E5 E6 E1
0A39 F5 EC F4
0A3C A0 C4 CF
0A3F D3 A0 E2
0A42 EF EF F4
0A45 A0 E9 ED
0A48 E1 E7 E5
0A4B A0 F4 EF
0A4E A0
0A4F 5C          253      byt DEC1CMD
0A50 3C 45      254      adr DFLTBOOT
0A52 50          255      byt RTNCMD
0A53           256      ;
0A53 20 F1 29   257      jsr WRITCFG
0A56 B0 03      258      bcs >1
0A58           259      ;
0A58 20 6C 11   260      jsr STATOKAY
0A5B           261      ;
0A5B 60         262      ^1      rts
0A5C           263      ;
0A5C           264      ;
0A5C 20 8B 16   265      MNGCFFA  jsr CFFAMENU
0A5F           266      ;
0A5F 20 29 11   267      ^1      jsr OPTION
0A62           268      ;
0A62 20 1D 34   269      jsr GETDEC1
0A65 B0 31      270      bcs >2
0A67           271      ;
0A67 AE 35 40   272      ldx DECVALS
0A6A           273      ;
0A6A E0 01      274      cpx #1
0A6C 90 F1      275      bcc <1
0A6E           276      ;
0A6E E0 07      277      cpx #7
0A70 F0 26      278      beq >2
0A72           279      ;
0A72 B0 EB      280      bcs <1
0A74           281      ;
0A74 BD 9A 0A   282      lda CFFATBLL-1,X
0A77 8D 8D 0A   283      sta CFFAMOD+1
0A7A           284      ;
0A7A BD A0 0A   285      lda CFFATBLH-1,X
0A7D 8D 8E 0A   286      sta CFFAMOD+2
0A80           287      ;
0A80 20 EA 24   288      jsr CHKFWCF
0A83 B0 D7      289      bcs MNGCFFA
0A85           290      ;
0A85 A2 92      291      ldx #CFFAERR
0A87 A9 0A      292      lda /CFFAERR
0A89           293      ;

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0A89 20 8A 19    294          jsr SETERROR
0A8C             295          ;
0A8C 20 00 00    296 CFFAMOD  jsr *-*
0A8F             297          ;
0A8F 4C 5C 0A    298          jmp MNGCFFA
0A92             299          ;
0A92 20 95 11    300 CFFAERR  jsr DISKERR
0A95             301          ;
0A95 4C 5C 0A    302          jmp MNGCFFA
0A98             303          ;
0A98 4C 3D 09    304 ^2      jmp MAIN
0A9B             305          ;
0A9B             306          ;
0A9B             307 CFFATBLL:
0A9B A7          308          byt DSPCFMEM
0A9C 08          309          byt DISPID
0A9D 1F          310          byt SAVEID
0A9E A9          311          byt SAVELBA
0A9F C8          312          byt RSTORLBA
0AA0 E7          313          byt CLRLBA
0AA1             314          ;
0AA1             315 CFFATBLH:
0AA1 0A          316          hby DSPCFMEM
0AA2 0B          317          hby DISPID
0AA3 0B          318          hby SAVEID
0AA4 0B          319          hby SAVELBA
0AA5 0B          320          hby RSTORLBA
0AA6 0B          321          hby CLRLBA
0AA7             322          ;
0AA7             323          ;
0AA7 20 73 37    324 DSPCFMEM jsr PRINT
0AAA 53 01       325          byt SCRNCMD,HOMESCRN
0AAC 55 01       326          byt CNTRCMD,INDIRECT
0AAE 5E 3A       327          adr STR1.04          ; "Display CF ... Utilization"
0AB0 03 63       328          hex 0363
0AB2 C3 C6 C6    329          asc "CFFA slot - "
0AB5 C1 A0 F3
0AB8 EC EF F4
0ABB A0 AD A0
0ABE 5C          330          byt DEC1CMD
0ABF 1D 40       331          adr CFSLOT
0AC1 50          332          byt RTNCMD
0AC2             333          ;
0AC2 20 14 29    334          jsr READCFG
0AC5             335          ;
0AC5 A0 17       336          ldy #NAMELEN-1
0AC7             337          ;
0AC7 B9 18 45    338 ^1      lda CFNAME,Y
0ACA 99 6E 3E    339          sta NAMEBUFR,Y
0ACD             340          ;
0ACD 88          341          dey
0ACE 10 F7       342          bpl <1
0AD0             343          ;
0AD0 20 73 37    344          jsr PRINT
0AD3 03 65       345          hex 0365
0AD5 C3 E1 F2    346          asc "Card name - "
0AD8 E4 A0 EE
0ADB E1 ED E5
0ADE A0 AD A0
0AE1 56 00       347          byt BUFRCMD,DIRECT
0AE3 6E 3E       348          adr NAMEBUFR

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0AE5 03 66      349      hex 0366
0AE7 C4 E1 F4   350      asc "Date/Time -"
0AEA E5 AF D4
0AED E9 ED E5
0AF0 A0 AD
0AF2 50          351      byt RTNCMD
0AF3            352      ;
0AF3 A0 30       353      ldy #CFDATE
0AF5 A9 45       354      lda /CFDATE
0AF7            355      ;
0AF7 20 5E 37    356      jsr PRINTIME
0AFA            357      ;
0AFA 20 15 25     358      jsr EXTRDATA
0AFD B0 08       359      bcs >2
0AFF            360      ;
0AFF 20 4B 2A     361      jsr SHOWCF
0B02 B0 03       362      bcs >2
0B04            363      ;
0B04 20 6C 11     364      jsr STATOKAY
0B07            365      ;
0B07 60          366      ^2      rts
0B08            367      ;
0B08            368      ;
0B08 20 73 37     369      DISPID  jsr PRINT
0B0B 53 01        370      byt SCRNCMD,HOMESCRN
0B0D 8D 55 01     371      byt RETURN,CNTRCMD,INDIRECT
0B10 7C 3A        372      adr STR1.05      ; "Display ...Device Contents"
0B12 50           373      byt RTNCMD
0B13            374      ;
0B13 20 15 25     375      jsr EXTRDATA
0B16 B0 06        376      bcs >1
0B18            377      ;
0B18 20 9F 17     378      jsr SHOWDATA
0B1B 20 6C 11     379      jsr STATOKAY
0B1E            380      ;
0B1E 60           381      ^1      rts
0B1F            382      ;
0B1F            383      ;
0B1F 20 73 37     384      SAVEID  jsr PRINT
0B22 53 01        385      byt SCRNCMD,HOMESCRN
0B24 8D 55 01     386      byt RETURN,CNTRCMD,INDIRECT
0B27 9D 3A        387      adr STR1.06      ; "Save ... Device to LBA 7"
0B29 50           388      byt RTNCMD
0B2A            389      ;
0B2A 20 05 2D     390      jsr READID
0B2D B0 57        391      bcs >1
0B2F            392      ;
0B2F 20 73 37     393      jsr PRINT
0B32 00 68        394      hex 0068
0B34 D3 F4 E1     395      asc "Status:  read Identify Device"
0B37 F4 F5 F3
0B3A BA A0 A0
0B3D F2 E5 E1
0B40 E4 A0 C9
0B43 E4 E5 EE
0B46 F4 E9 E6
0B49 F9 A0 C4
0B4C E5 F6 E9
0B4F E3 E5
0B51 50          396      byt RTNCMD
0B52            397      ;

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0B52 20 8D 21    398      jsr CLEARLBA
0B55              399      ;
0B55 A9 07      400      lda #7
0B57 8D 44 40    401      sta LBA+3
0B5A              402      ;
0B5A 20 75 2D    403      jsr WRITLBA2
0B5D B0 28      404      bcs >2
0B5F              405      ;
0B5F 20 73 37    406      jsr PRINT
0B62 00 6C      407      hex 006C
0B64 D3 F4 E1    408      asc "Status:  saved Identify Device"
0B67 F4 F5 F3
0B6A BA A0 A0
0B6D F3 E1 F6
0B70 E5 E4 A0
0B73 C9 E4 E5
0B76 EE F4 E9
0B79 E6 F9 A0
0B7C C4 E5 F6
0B7F E9 E3 E5
0B82 50          409      byt RTNCMD
0B83              410      ;
0B83 4C 6C 11    411      jmp STATOKAY
0B86              412      ;
0B86 60          413      ^1    rts
0B87              414      ;
0B87 20 73 37    415      ^2    jsr PRINT
0B8A 00 75      416      hex 0075
0B8C 56 00      417      byt BUFRCMD,DIRECT
0B8E 5B 3D      418      adr MSG3
0B90 F7 F2 E9    419      asc "write Identify Device"
0B93 F4 E5 A0
0B96 C9 E4 E5
0B99 EE F4 E9
0B9C E6 F9 A0
0B9F C4 E5 F6
0BA2 E9 E3 E5
0BA5 50          420      byt RTNCMD
0BA6              421      ;
0BA6 4C 1B 35    422      jmp PRESKEYS
0BA9              423      ;
0BA9              424      ;
0BA9              425      ;
0BA9              426      ;
0BA9 20 73 37    427      SAVELBA  jsr PRINT
0BAC 53 01      428      byt SCRNCMD,HOMESCRN
0BAE 8D 55 01    429      byt RETURN,CNTRCMD,INDIRECT
0BB1 BB 3A      430      adr STR1.07      ; "Save Selected LBA to Disk"
0BB3 50          431      byt RTNCMD
0BB4              432      ;
0BB4 20 E8 26    433      jsr SELCDISK
0BB7 B0 0E      434      bcs >1
0BB9              435      ;
0BB9 20 73 37    436      jsr PRINT
0BBC 02 6A      437      hex 026A
0BBE 50          438      byt RTNCMD
0BBF              439      ;
0BBF 20 42 11    440      jsr GETLBA
0BC2 B0 03      441      bcs >1
0BC4              442      ;
0BC4 20 27 1E    443      jsr DOSAVLBA

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0BC7          444 ;
0BC7 60       445 ^1      rts
0BC8          446 ;
0BC8          447 ;
0BC8 20 73 37 448 RSTORLBA jsr PRINT
0BCB 53 01     449          byt SCRNCMD,HOMESCRN
0BCD 8D 55 01 450          byt RETURN,CNTRCMD,INDIRECT
0BD0 D5 3A     451          adr STR1.08          ; "Restore ... LBA from Disk"
0BD2 50        452          byt RTNCMD
0BD3          453 ;
0BD3 20 E8 26 454          jsr SELCDISK
0BD6 B0 0E     455          bcs >1
0BD8          456 ;
0BD8 20 73 37 457          jsr PRINT
0BDB 02 6A     458          hex 026A
0BDD 50        459          byt RTNCMD
0BDE          460 ;
0BDE 20 42 11 461          jsr GETLBA
0BE1 B0 03     462          bcs >1
0BE3          463 ;
0BE3 20 6B 1D 464          jsr DOLDLBA
0BE6          465 ;
0BE6 60        466 ^1      rts
0BE7          467 ;
0BE7          468 ;
0BE7 20 73 37 469 CLRLBA   jsr PRINT
0BEA 53 01     470          byt SCRNCMD,HOMESCRN
0BEC 8D 55 01 471          byt RETURN,CNTRCMD,INDIRECT
0BEF F4 3A     472          adr STR1.09          ; "Clear Selected LBA Range"
0BF1 50        473          byt RTNCMD
0BF2          474 ;
0BF2 20 15 25 475          jsr EXTRDATA
0BF5 B0 56     476          bcs BCS01
0BF7          477 ;
0BF7 20 73 37 478 ^1      jsr PRINT
0BFA 00 66     479          hex 0066
0BFC 54 00     480          byt CLRCMD,EOLCLR
0BFE C5 EE F4 481          asc "Enter start LBA number - 0x"
0C01 E5 F2 A0
0C04 F3 F4 E1
0C07 F2 F4 A0
0C0A CC C2 C1
0C0D A0 EE F5
0C10 ED E2 E5
0C13 F2 A0 AD
0C16 A0 B0 F8
0C19 50        482          byt RTNCMD
0C1A          483 ;
0C1A 20 18 34 484          jsr GETHEX8
0C1D B0 72     485          bcs >7
0C1F          486 ;
0C1F 20 92 0C 487          jsr CHKHEX
0C22 B0 D3     488          bcs <1
0C24          489 ;
0C24 20 60 11 490          jsr GETLBA2
0C27          491 ;
0C27 20 73 37 492 ^3      jsr PRINT
0C2A 00 68     493          hex 0068
0C2C 54 00     494          byt CLRCMD,EOLCLR
0C2E A0 C5 EE 495          asc " Enter last LBA number - 0x"
0C31 F4 E5 F2

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0C34 A0 EC E1
0C37 F3 F4 A0
0C3A CC C2 C1
0C3D A0 EE F5
0C40 ED E2 E5
0C43 F2 A0 AD
0C46 A0 B0 F8
0C49 50          496      byt RTNCMD
0C4A          497      ;
0C4A 20 18 34    498      jsr GETHEX8
0C4D B0 42      499      BCS01 bcs >7
0C4F          500      ;
0C4F 20 92 0C    501      jsr CHKHEX
0C52 B0 D3      502      bcs <3
0C54          503      ;
0C54 A2 03      504      ldx #LBALEN-1
0C56          505      ;
0C56 BD 31 40    506      ^4   lda HEXVALS,X
0C59 9D 45 40    507      sta LASTLBA,X
0C5C          508      ;
0C5C CA          509      dex
0C5D 10 F7      510      bpl <4
0C5F          511      ;
0C5F A2 00      512      ldx #ZERO
0C61          513      ;
0C61 BD 41 40    514      ^5   lda LBA,X
0C64 DD 45 40    515      cmp LASTLBA,X
0C67 90 07      516      bcc >6
0C69          517      ;
0C69 D0 BC      518      bne <3
0C6B          519      ;
0C6B E8          520      inx
0C6C          521      ;
0C6C E0 04      522      cpx #LBALEN
0C6E D0 F1      523      bne <5
0C70          524      ;
0C70 20 73 37    525      ^6   jsr PRINT
0C73 00 6C      526      hex 006C
0C75 C3 EC E5    527      asc "Clear LBA range -"
0C78 E1 F2 A0
0C7B CC C2 C1
0C7E A0 F2 E1
0C81 EE E7 E5
0C84 A0 AD
0C86 50          528      byt RTNCMD
0C87          529      ;
0C87 20 F0 10    530      jsr GETYORN
0C8A B0 05      531      bcs >7
0C8C          532      ;
0C8C F0 03      533      beq >7
0C8E          534      ;
0C8E 20 BB 1E    535      jsr DOCLRLBA
0C91          536      ;
0C91 60          537      ^7   rts
0C92          538      ;
0C92          539      ;
0C92 A2 00      540      CHKHEX ldx #ZERO
0C94          541      ;
0C94 BD 31 40    542      ^1   lda HEXVALS,X
0C97 DD 51 40    543      cmp LASTFREE,X
0C9A 90 08      544      bcc >2

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0C9C          545 ;
0C9C D0 06    546      bne >2
0C9E          547 ;
0C9E E8       548      inx
0C9F          549 ;
0C9F E0 04    550      cpx #LBALEN
0CA1 D0 F1    551      bne <1
0CA3          552 ;
0CA3 18       553      clc
0CA4          554 ;
0CA4 60       555 ^2    rts
0CA5          556 ;
0CA5          557 ;
0CA5          558 MNGDRVS:
0CA5          559      .if DEBUG
0CA5          560      .el
0CA5          561      bit CFFAKEY
0CA5          562      bpl >2
0CA5          563      .fi
0CA5          564 ;
0CA5 20 DA 16 565      jsr DRVSMENU
0CA8          566 ;
0CA8 20 29 11 567 ^1    jsr OPTION
0CAB          568 ;
0CAB 20 1D 34 569      jsr GETDEC1
0CAE B0 31    570      bcs >2
0CB0          571 ;
0CB0 AE 35 40 572      ldx DECVALS
0CB3          573 ;
0CB3 E0 01    574      cpx #1
0CB5 90 F1    575      bcc <1
0CB7          576 ;
0CB7 E0 04    577      cpx #4
0CB9 F0 26    578      beq >2
0CBB          579 ;
0CBB B0 EB    580      bcs <1
0CBD          581 ;
0CBD BD E3 0C 582      lda DRVSTBLL-1,X
0CC0 8D D6 0C 583      sta DRVSMOD+1
0CC3          584 ;
0CC3 BD E6 0C 585      lda DRVSTBLH-1,X
0CC6 8D D7 0C 586      sta DRVSMOD+2
0CC9          587 ;
0CC9 20 EA 24 588      jsr CHKFWCF
0CCC B0 D7    589      bcs MNGDRVS
0CCE          590 ;
0CCE A2 DB    591      ldx #DRVSERR
0CD0 A9 0C    592      lda /DRVSERR
0CD2          593 ;
0CD2 20 8A 19 594      jsr SETERROR
0CD5          595 ;
0CD5 20 00 00 596 DRVSMOD jsr *-*
0CD8          597 ;
0CD8 4C A5 0C 598      jmp MNGDRVS
0CDB          599 ;
0CDB 20 95 11 600 DRVSEERR jsr DISKERR
0CDE          601 ;
0CDE 4C A5 0C 602      jmp MNGDRVS
0CE1          603 ;
0CE1 4C 3D 09 604 ^2    jmp MAIN
0CE4          605 ;

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0CE4          606 ;
0CE4          607 DRVSTBLL:
0CE4 EA       608          byt DISPDRVS
0CE5 32       609          byt DSRPDRVS
0CE6 49       610          byt MODDRVS
0CE7          611 ;
0CE7          612 DRVSTBLH:
0CE7 0C       613          hby DISPDRVS
0CE8 0D       614          hby DSRPDRVS
0CE9 0D       615          hby MODDRVS
0CEA          616 ;
0CEA          617 ;
0CEA 20 73 37 618 DISPDRVS jsr PRINT
0CED 53 01    619          byt SCRNCMD,HOMESCRN
0CEF 8D 55 01 620          byt RETURN,CNTRCMD,INDIRECT
0CF2 0D 3B    621          adr STR1.10          ; "List All Drives"
0CF4 63 01    622          hex 6301
0CF6 C4 F2 F6 623          asc "Drv Vols Name"
0CF9 A0 A0 D6
0CFC EF EC F3
0CFF A0 A0 CE
0D02 E1 ED E5
0D05 8D       624          byt RETURN
0D06 A0 AD AD 625          asc " --- ----"
0D09 AD A0 A0
0D0C AD AD AD
0D0F AD A0 A0
0D12 AD AD AD
0D15 AD AD AD
0D18 AD AD AD
0D1B AD AD AD
0D1E AD AD AD
0D21 AD AD AD
0D24 AD AD AD
0D27 AD AD AD
0D2A 8D       626          byt RETURN
0D2B 50       627          byt RTNCMD
0D2C          628 ;
0D2C 20 38 1F 629          jsr SHOWDRVS
0D2F          630 ;
0D2F 4C 22 35 631          jmp PRESKEY2
0D32          632 ;
0D32          633 ;
0D32 20 73 37 634 DSRPDRVS jsr PRINT
0D35 53 01    635          byt SCRNCMD,HOMESCRN
0D37 8D 55 01 636          byt RETURN,CNTRCMD,INDIRECT
0D3A 1D 3B    637          adr STR1.11          ; "Display Drive Information"
0D3C 50       638          byt RTNCMD
0D3D          639 ;
0D3D 20 82 10 640          jsr GETDRIVE
0D40 B0 06    641          bcs >1
0D42          642 ;
0D42 20 C4 1F 643          jsr SHOWDES
0D45          644 ;
0D45 4C 22 35 645          jmp PRESKEY2
0D48          646 ;
0D48 60       647 ^1          rts
0D49          648 ;
0D49          649 ;
0D49 20 73 37 650 MODDRVS jsr PRINT
0D4C 53 01    651          byt SCRNCMD,HOMESCRN

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0D4E 8D 55 01    652          byt RETURN,CNTRCMD,INDIRECT
0D51 37 3B      653          adr STR1.12          ; "Change Drive Information"
0D53 50         654          byt RTNCMD
0D54           655          ;
0D54 20 82 10    656          jsr GETDRIVE
0D57 B0 03      657          bcs >1
0D59           658          ;
0D59 20 65 20    659          jsr GETDRNFO
0D5C           660          ;
0D5C 60         661          ^1      rts
0D5D           662          ;
0D5D           663          ;
0D5D           664          MNGVOLS:
0D5D           665          .if DEBUG
0D5D           666          .el
0D5D           667          bit CFFAKEY
0D5D           668          bpl >2
0D5D           669          .fi
0D5D           670          ;
0D5D 20 0B 17    671          jsr VOLSMENU
0D60           672          ;
0D60 20 29 11    673          ^1      jsr OPTION
0D63           674          ;
0D63 20 1D 34    675          jsr GETDEC1
0D66 B0 31      676          bcs >2
0D68           677          ;
0D68 AE 35 40    678          ldx DECVALS
0D6B           679          ;
0D6B E0 01      680          cpx #1
0D6D 90 F1      681          bcc <1
0D6F           682          ;
0D6F E0 08      683          cpx #8
0D71 F0 26      684          beq >2
0D73           685          ;
0D73 B0 EB      686          bcs <1
0D75           687          ;
0D75 BD 9B 0D    688          lda VOLSTBLL-1,X
0D78 8D 8E 0D    689          sta VOLSMOD+1
0D7B           690          ;
0D7B BD A2 0D    691          lda VOLSTBLH-1,X
0D7E 8D 8F 0D    692          sta VOLSMOD+2
0D81           693          ;
0D81 20 EA 24    694          jsr CHKFWCF
0D84 B0 D7      695          bcs MNGVOLS
0D86           696          ;
0D86 A2 93      697          ldx #VOLSERR
0D88 A9 0D      698          lda /VOLSERR
0D8A           699          ;
0D8A 20 8A 19    700          jsr SETERROR
0D8D           701          ;
0D8D 20 00 00    702          VOLSMOD jsr *-*
0D90           703          ;
0D90 4C 5D 0D    704          jmp MNGVOLS
0D93           705          ;
0D93 20 95 11    706          VOLSERR jsr DISKERR
0D96           707          ;
0D96 4C 5D 0D    708          jmp MNGVOLS
0D99           709          ;
0D99 4C 3D 09    710          ^2      jmp MAIN
0D9C           711          ;
0D9C           712          ;

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0D9C          713  VOLSTBLL:
0D9C AA       714          byt  DISPVOLS
0D9D BE       715          byt  DISPVDOS
0D9E 07       716          byt  DISPVLBA
0D9F D2       717          byt  DISPVTOC
0DA0 EB       718          byt  DISPBMAP
0DA1 04       719          byt  INITVOL
0DA2 1D       720          byt  BOOTVOL
0DA3          721  ;
0DA3          722  VOLSTBLH:
0DA3 0D       723          hby  DISPVOLS
0DA4 0D       724          hby  DISPVDOS
0DA5 31       725          hby  DISPVLBA
0DA6 0D       726          hby  DISPVTOC
0DA7 0D       727          hby  DISPBMAP
0DA8 0E       728          hby  INITVOL
0DA9 0E       729          hby  BOOTVOL
0DAA          730  ;
0DAA          731  ;
0DAA 20 73 37 732  DISPVOLS  jsr  PRINT
0DAD 53 01     733          byt  SCRNCMD,HOMESCRN
0DAF 8D 55 01 734          byt  RETURN,CNTRCMD,INDIRECT
0DB2 50 3B     735          adr  STR1.13          ; "Display ... Catalog Size"
0DB4 50        736          byt  RTNCMD
0DB5          737  ;
0DB5 20 82 10 738          jsr  GETDRIVE
0DB8 B0 03     739          bcs  >1
0DBA          740  ;
0DBA 20 98 21 741          jsr  SHOWNCAT
0DBD          742  ;
0DBD 60        743  ^1      rts
0DBE          744  ;
0DBE          745  ;
0DBE 20 73 37 746  DISPVDOS  jsr  PRINT
0DC1 53 01     747          byt  SCRNCMD,HOMESCRN
0DC3 8D 55 01 748          byt  RETURN,CNTRCMD,INDIRECT
0DC6 DF 3C     749          adr  STR6.05          ; "Display Drive Volumes DOS"
0DC8 50        750          byt  RTNCMD
0DC9          751  ;
0DC9 20 82 10 752          jsr  GETDRIVE
0DCC B0 03     753          bcs  >1
0DCE          754  ;
0DCE 20 0E 32 755          jsr  SHOWIDOS
0DD1          756  ;
0DD1 60        757  ^1      rts
0DD2          758  ;
0DD2          759  ;
0DD2 20 73 37 760  DISPVTOC  jsr  PRINT
0DD5 53 01     761          byt  SCRNCMD,HOMESCRN
0DD7 8D 55 01 762          byt  RETURN,CNTRCMD,INDIRECT
0DDA 73 3B     763          adr  STR1.14          ; "Display ... Information"
0DDC 50        764          byt  RTNCMD
0DDD          765  ;
0DDD 20 82 10 766          jsr  GETDRIVE
0DE0 B0 08     767          bcs  >1
0DE2          768  ;
0DE2 20 BD 10 769          jsr  GETVOLUM
0DE5 B0 03     770          bcs  >1
0DE7          771  ;
0DE7 20 A8 19 772          jsr  SHOWVTOC
0DEA          773  ;

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0DEA 60          774  ^1      rts
0DEB            775  ;
0DEB            776  ;
0DEB 20 73 37    777  DISPBMAP jsr PRINT
0DEE 53 01        778          byt SCRNCMD,HOMESCRN
0DF0 8D 55 01     779          byt RETURN,CNTRCMD,INDIRECT
0DF3 93 3B        780          adr STR1.15          ; "Display ... Information"
0DF5 50           781          byt RTNCMD
0DF6            782  ;
0DF6 20 82 10     783          jsr GETDRIVE
0DF9 B0 08        784          bcs >1
0DFB            785  ;
0DFB 20 BD 10     786          jsr GETVOLUM
0DFE B0 03        787          bcs >1
0E00            788  ;
0E00 20 45 22     789          jsr SHOWBMAP
0E03            790  ;
0E03 60           791  ^1      rts
0E04            792  ;
0E04            793  ;
0E04 20 73 37     794  INITVOL jsr PRINT
0E07 53 01        795          byt SCRNCMD,HOMESCRN
0E09 8D 55 01     796          byt RETURN,CNTRCMD,INDIRECT
0E0C B5 3B        797          adr STR1.16          ; "Initialize a CF Volume"
0E0E 50           798          byt RTNCMD
0E0F            799  ;
0E0F 20 82 10     800          jsr GETDRIVE
0E12 B0 08        801          bcs >1
0E14            802  ;
0E14 20 BD 10     803          jsr GETVOLUM
0E17 B0 03        804          bcs >1
0E19            805  ;
0E19 20 42 12     806          jsr INITCFVL
0E1C            807  ;
0E1C 60           808  ^1      rts
0E1D            809  ;
0E1D            810  ;
0E1D 20 73 37     811  BOOTVOL jsr PRINT
0E20 53 01        812          byt SCRNCMD,HOMESCRN
0E22 8D 55 01     813          byt RETURN,CNTRCMD,INDIRECT
0E25 CC 3B        814          adr STR1.17          ; "Boot a CF Volume"
0E27 50           815          byt RTNCMD
0E28            816  ;
0E28 20 82 10     817          jsr GETDRIVE
0E2B B0 18        818          bcs >1
0E2D            819  ;
0E2D 20 BD 10     820          jsr GETVOLUM
0E30 B0 13        821          bcs >1
0E32            822  ;
0E32 AD 0F 40     823          lda NDRV
0E35 8D 39 3F     824          sta DRV
0E38            825  ;
0E38 AD 12 40     826          lda NVOL
0E3B 8D 3A 3F     827          sta VOL
0E3E            828  ;
0E3E A0 37        829          ldy #TBLTYPE
0E40 A9 3F        830          lda /TBLTYPE
0E42            831  ;
0E42 20 D9 03     832          jsr CALLRWTS
0E45            833  ;
0E45 B0 74        834  ^1      bcs >3

```

```

0E47      835      ;
0E47 AD 00 43 836      lda RWTSBUFR
0E4A C9 01    837      cmp #1
0E4C D0 28    838      bne >2
0E4E      839      ;
0E4E 20 73 37 840      jsr PRINT
0E51 00 6C    841      hex 006C
0E53 C2 EF EF 842      asc "Boot this Volume -"
0E56 F4 A0 F4
0E59 E8 E9 F3
0E5C A0 D6 EF
0E5F EC F5 ED
0E62 E5 A0 AD
0E65 50      843      byt RTNCMD
0E66      844      ;
0E66 20 F0 10 845      jsr GETYORN
0E69 B0 50    846      bcs >3
0E6B      847      ;
0E6B F0 4E    848      beq >3
0E6D      849      ;
0E6D AE 0F 40 850      ldx NDRV
0E70 AD 12 40 851      lda NVOL
0E73      852      ;
0E73 6C 28 3E 853      jmp (CFBOOT)
0E76      854      ;
0E76 20 73 37 855      ^2 jsr PRINT
0E79 00 70    856      hex 0070
0E7B D4 E8 E9 857      asc "This volume does not appear to contain"
0E7E F3 A0 F6
0E81 EF EC F5
0E84 ED E5 A0
0E87 E4 EF E5
0E8A F3 A0 EE
0E8D EF F4 A0
0E90 E1 F0 F0
0E93 E5 E1 F2
0E96 A0 F4 EF
0E99 A0 E3 EF
0E9C EE F4 E1
0E9F E9 EE
0EA1 8D      858      byt RETURN
0EA2 E1 A0 E2 859      asc "a bootable DOS image."
0EA5 EF EF F4
0EA8 E1 E2 EC
0EAB E5 A0 C4
0EAE CF D3 A0
0EB1 E9 ED E1
0EB4 E7 E5 AE
0EB7 50      860      byt RTNCMD
0EB8      861      ;
0EB8 20 22 35 862      jsr PRESKEY2
0EBB      863      ;
0EBB 60      864      ^3 rts
0EBC      865      ;
0EBC      866      ;
0EBC      867      MNGDOSI:
0EBC      868      .if DEBUG
0EBC      869      .el
0EBC      870      bit CFFAKEY
0EBC      871      bpl >2
0EBC      872      .fi

```

```

0EBC      873 ;
0EBC 20 64 17 874      jsr DOSIMENU
0EBF      875 ;
0EBF 20 29 11 876 ^1      jsr OPTION
0EC2      877 ;
0EC2 20 1D 34 878      jsr GETDEC1
0EC5 B0 2C      879      bcs >2
0EC7      880 ;
0EC7 AE 35 40 881      ldx DECVALS
0ECA      882 ;
0ECA E0 01      883      cpx #1
0ECC 90 F1      884      bcc <1
0ECE      885 ;
0ECE E0 05      886      cpx #5
0ED0 F0 21      887      beq >2
0ED2      888 ;
0ED2 B0 EB      889      bcs <1
0ED4      890 ;
0ED4 BD F5 0E 891      lda DOSITBLL-1,X
0ED7 8D E8 0E 892      sta DOSIMOD+1
0EDA      893 ;
0EDA BD F9 0E 894      lda DOSITBLH-1,X
0EDD 8D E9 0E 895      sta DOSIMOD+2
0EE0      896 ;
0EE0      897      .if DEBUG
0EE0      898      .el
0EE0      899      jsr CHKFWCF
0EE0      900      bcs MNGDOSI
0EE0      901      .fi
0EE0      902 ;
0EE0 A2 ED      903      ldx #DOSIERR
0EE2 A9 0E      904      lda /DOSIERR
0EE4      905 ;
0EE4 20 8A 19 906      jsr SETERROR
0EE7      907 ;
0EE7 20 00 00 908 DOSIMOD jsr *-*
0EEA      909 ;
0EEA 4C BC 0E 910      jmp MNGDOSI
0EED      911 ;
0EED 20 95 11 912 DOSIERR jsr DISKERR
0EF0      913 ;
0EF0 4C BC 0E 914      jmp MNGDOSI
0EF3      915 ;
0EF3 4C 3D 09 916 ^2      jmp MAIN
0EF6      917 ;
0EF6      918 ;
0EF6      919 DOSITBLL:
0EF6 FE      920      byt DISPDOSI
0EF7 11      921      byt SELCDOSI
0EF8 49      922      byt SHOWDOSI
0EF9 AC      923      byt GETDOSI
0EFA      924 ;
0EFA      925 DOSITBLH:
0EFA 0E      926      hby DISPDOSI
0EFB 0F      927      hby SELCDOSI
0EFC 2F      928      hby SHOWDOSI
0EFD 2F      929      hby GETDOSI
0EFE      930 ;
0EFE      931 ;
0EFE 20 73 37 932 DISPDOSI jsr PRINT
0F01 53 01      933      byt SCRNCMD,HOMESCRN

```

```

0F03 8D 55 01    934      byt RETURN,CNTRCMD,INDIRECT
0F06 DD 3B      935      adr STR1.18          ; "List Installed DOS Images"
0F08 00 66      936      hex 0066
0F0A 50         937      byt RTNCMD
0F0B           938      ;
0F0B 20 B9 2D   939      jsr LISTIMGs
0F0E           940      ;
0F0E 4C 22 35   941      jmp PRESKEY2
0F11           942      ;
0F11           943      ;
0F11 20 73 37   944      SELCDOSI jsr PRINT
0F14 53 01      945      byt SCRN CMD,HOMESCRN
0F16 8D 55 01   946      byt RETURN,CNTRCMD,INDIRECT
0F19 F7 3B      947      adr STR1.19          ; "Select DOS Image for Boot"
0F1B 00 66      948      hex 0066
0F1D 50         949      byt RTNCMD
0F1E           950      ;
0F1E 20 B9 2D   951      jsr LISTIMGs
0F21 20 14 29   952      jsr READCFG
0F24           953      ;
0F24 20 73 37   954      jsr PRINT
0F27 00 71      955      hex 0071
0F29 CF EC E4   956      asc "Old DOS Boot Image - "
0F2C A0 C4 CF
0F2F D3 A0 C2
0F32 EF EF F4
0F35 A0 C9 ED
0F38 E1 E7 E5
0F3B A0 AD A0
0F3E 5C         957      byt DEC1CMD
0F3F 3C 45      958      adr DFLTBOOT
0F41 50         959      byt RTNCMD
0F42           960      ;
0F42 20 73 37   961      ^1 jsr PRINT
0F45 00 73      962      hex 0073
0F47 54 01      963      byt CLRCMD,EOPCLR
0F49 CE E5 F7   964      asc "New DOS Boot Image - "
0F4C A0 C4 CF
0F4F D3 A0 C2
0F52 EF EF F4
0F55 A0 C9 ED
0F58 E1 E7 E5
0F5B A0 AD A0
0F5E 50         965      byt RTNCMD
0F5F           966      ;
0F5F 20 1D 34   967      jsr GETDEC1
0F62 B0 21      968      bcs >2
0F64           969      ;
0F64 AD 35 40   970      lda DECVALS
0F67 C9 01      971      cmp #1
0F69 90 D7      972      bcc <1
0F6B           973      ;
0F6B C9 09      974      cmp #9
0F6D B0 D3      975      bcs <1
0F6F           976      ;
0F6F 20 86 0F   977      jsr CHKIMAGE
0F72 B0 CE      978      bcs <1
0F74           979      ;
0F74 20 14 29   980      jsr READCFG
0F77           981      ;
0F77 AD FB 3E   982      lda DOSIMAGE

```

```

0F7A 8D 3C 45    983      sta DFLTBOOT
0F7D             984      ;
0F7D 20 F1 29    985      jsr WRITCFG
0F80 B0 03       986      bcs >2
0F82             987      ;
0F82 20 6C 11    988      jsr STATOKAY
0F85             989      ;
0F85 60          990      ^2      rts
0F86             991      ;
0F86             992      ;
0F86 8D FB 3E    993      CHKIMAGE sta DOSIMAGE
0F89             994      ;
0F89 20 61 2E    995      jsr GETIMAGE
0F8C             996      ;
0F8C             997      .if DEBUG
0F8C 18          998      clc
0F8D             999      .fi
0F8D            1000     ;
0F8D B0 2E       1001     bcs >1
0F8F            1002     ;
0F8F AD 00 41    1003     lda DESCBUFR
0F92            1004     ;
0F92            1005     .if DEBUG
0F92 F0 29       1006     beq >1
0F94            1007     .el
0F94            1008     bne >1
0F94            1009     .fi
0F94            1010     ;
0F94 20 73 37    1011     jsr PRINT
0F97 00 75       1012     hex 0075
0F99 D3 F4 E1    1013     asc "Status:  DOS image not installed"
0F9C F4 F5 F3
0F9F BA A0 A0
0FA2 C4 CF D3
0FA5 A0 E9 ED
0FA8 E1 E7 E5
0FAB A0 EE EF
0FAE F4 A0 E9
0FB1 EE F3 F4
0FB4 E1 EC EC
0FB7 E5 E4
0FB9 50          1014     byt RTNCMD
0FBA            1015     ;
0FBA 20 1B 35    1016     jsr PRESKEYS
0FBD            1017     ;
0FBD 60          1018     ^1      rts
0FBE            1019     ;
0FBE            1020     ;

```

BSAVE SEG01,A\$0900,B,L\$06BE

```

0FBE            1021     usr SEG01
0FBE            1022     ;
0FBE            1023     ;
0FBE            1024     icl "CODE2.L"

```

LLOAD CODE2.L,A\$4000

```

0FBE          1          ttl "Volume Manager Source Code, CODE2.L"
0FBE          2          ;
0FBE          3          ;
0FBE          4          ; CODE2.L
0FBE          5          ;
0FBE          6          ;
0FBE          7          obj PAGE09
0FBE          8          usr
0FBE          9          ;
0FBE         10          ;
0FBE A9 00      11 FINDCF   lda #ZERO
0FC0 8D 0D 40  12          sta CFFAKEY
0FC3          13          ;
0FC3 A9 07      14          lda #7
0FC5 8D 09 40  15          sta TEMP
0FC8          16          ;
0FC8 AD 09 40  17 ^1      lda TEMP
0FCB A2 00      18          ldx #ORIGSIG1-SIGBYTES
0FCD          19          ;
0FCD 20 60 10  20          jsr CHKSLOT
0FD0 90 24      21          bcc >3
0FD2          22          ;
0FD2 AD 09 40  23          lda TEMP
0FD5 A2 08      24          ldx #ORIGSIG2-SIGBYTES
0FD7          25          ;
0FD7 20 60 10  26          jsr CHKSLOT
0FDA 90 1A      27          bcc >3
0FDC          28          ;
0FDC AD 09 40  29          lda TEMP
0FDF A2 10      30          ldx #CFFASIG-SIGBYTES
0FE1          31          ;
0FE1 20 60 10  32          jsr CHKSLOT
0FE4 90 0D      33          bcc >2
0FE6          34          ;
0FE6 CE 09 40  35          dec TEMP
0FE9 D0 DD      36          bne <1
0FEB          37          ;
0FEB          38          .if DEBUG
0FEB A9 06      39          lda #6
0FED 8D 09 40  40          sta TEMP
0FF0 D0 04      41          bne >3
0FF2          42          .fi
0FF2          43          ;
0FF2 60         44          rts
0FF3          45          ;
0FF3 CE 0D 40  46 ^2      dec CFFAKEY
0FF6          47          ;
0FF6 AD 09 40  48 ^3      lda TEMP
0FF9          49          ;
0FF9 8D 1D 40  50          sta CFSLOT
0FFC 8D 4E 3F  51          sta FMSLOT
0FFF          52          ;
0FFF 09 C0     53          ora /PAGEC0
1001          54          ;
1001 8D 13 37  55          sta DOHOOK+2
1004 8D 16 37  56          sta DOUHOOK+2
1007 8D 22 40  57          sta CFPAGE
100A 8D 29 3E  58          sta CFBOOT+1
100D          59          ;
100D 0A        60          asl

```

```

100E 0A          61          asl
100F 0A          62          asl
1010 0A          63          asl
1011            64          ;
1011 8D 20 40    65          sta CFSLOT16
1014 8D 38 3F    66          sta SLOT16
1017            67          ;
1017 4C DF 2C    68          jmp CFRESET
101A            69          ;
101A            70          ;
101A A9 07      71  FINDISK  lda #7
101C 8D 09 40    72          sta TEMP
101F            73          ;
101F AD 09 40    74  ^1      lda TEMP
1022            75          ;
1022 A2 18      76          ldx #DISKSIG-SIGBYTES
1024            77          ;
1024 20 60 10    78          jsr CHKSLOT
1027 90 24      79          bcc >2
1029            80          ;
1029 AD 09 40    81          lda TEMP
102C            82          ;
102C A2 20      83          ldx #RAMDSIG-SIGBYTES
102E            84          ;
102E 20 60 10    85          jsr CHKSLOT
1031 90 1A      86          bcc >2
1033            87          ;
1033 AD 09 40    88          lda TEMP
1036            89          ;
1036 A2 28      90          ldx #RANASIG-SIGBYTES
1038            91          ;
1038 20 60 10    92          jsr CHKSLOT
103B 90 10      93          bcc >2
103D            94          ;
103D AD 09 40    95          lda TEMP
1040            96          ;
1040 A2 30      97          ldx #SIDERSIG-SIGBYTES
1042            98          ;
1042 20 60 10    99          jsr CHKSLOT
1045 90 06     100          bcc >2
1047            101         ;
1047 CE 09 40    102         dec TEMP
104A D0 D3      103         bne <1
104C            104         ;
104C 60         105         rts
104D            106         ;
104D AD 09 40    107  ^2      lda TEMP
1050 8D 1E 40    108         sta DISKSLOT
1053            109         ;
1053 09 C0      110         ora /PAGEC0
1055 8D 23 40    111         sta DISKPAGE
1058            112         ;
1058 0A         113         asl
1059 0A         114         asl
105A 0A         115         asl
105B 0A         116         asl
105C            117         ;
105C 8D 21 40    118         sta DSKSLT16
105F            119         ;
105F 60         120         rts
1060            121         ;

```

```

1060          122 ;
1060 09 C0      123 CHKSLOT ora #$C0
1062 85 ED      124 sta SLOTPTR+1
1064          125 ;
1064 A0 00      126 ldy #ZERO
1066 84 EC      127 sty SLOTPTR
1068          128 ;
1068 2C FF CF   129 bit CLRROM
106B          130 ;
106B B1 EC      131 ^1 lda (SLOTPTR),Y
106D DD 6F 3D   132 cmp SIGBYTES,X
1070 D0 0B      133 bne >2
1072          134 ;
1072 E8          135 inx
1073 C8          136 iny
1074          137 ;
1074 C0 08      138 cpy #SIGLEN
1076 D0 F3      139 bne <1
1078          140 ;
1078 2C FF CF   141 bit CLRROM
107B          142 ;
107B 18          143 clc
107C          144 ;
107C 60          145 rts
107D          146 ;
107D 2C FF CF   147 ^2 bit CLRROM
1080          148 ;
1080 38          149 sec
1081          150 ;
1081 60          151 rts
1082          152 ;
1082          153 ;
1082 20 73 37   154 GETDRIVE jsr PRINT
1085 01 66      155 hex 0166
1087 54 00      156 byt CLRCMD,EOLCLR
1089 C5 EE F4   157 asc "Enter Drive number - "
108C E5 F2 A0
108F C4 F2 E9
1092 F6 E5 A0
1095 EE F5 ED
1098 E2 E5 F2
109B A0 AD A0
109E 50          158 byt RTNCMD
109F          159 ;
109F 20 20 34   160 jsr GETDEC2
10A2 B0 18      161 bcs >2
10A4          162 ;
10A4 AE 13 40   163 ldx NVOLS
10A7          164 ;
10A7 AD 35 40   165 lda DECVALS
10AA F0 D6      166 beq GETDRIVE
10AC          167 ;
10AC CD 10 40   168 cmp NDRVS
10AF F0 04      169 beq >1
10B1          170 ;
10B1 B0 CF      171 bcs GETDRIVE
10B3          172 ;
10B3 A2 00      173 ldx #ZERO
10B5          174 ;
10B5 8D 0F 40   175 ^1 sta NDRV
10B8 8E 11 40   176 stx NVOLMAX

```

```

10BB      177 ;
10BB 18    178      clc
10BC      179 ;
10BC 60    180 ^2      rts
10BD      181 ;
10BD      182 ;
10BD 20 73 37 183 GETVOLUM jsr PRINT
10C0 00 68    184      hex 0068
10C2 C5 EE F4 185      asc "Enter Volume number - "
10C5 E5 F2 A0
10C8 D6 EF EC
10CB F5 ED E5
10CE A0 EE F5
10D1 ED E2 E5
10D4 F2 A0 AD
10D7 A0
10D8 50      186      byt RTNCMD
10D9      187 ;
10D9 20 23 34 188      jsr GETDEC3
10DC B0 11    189      bcs >2
10DE      190 ;
10DE AD 35 40 191      lda DECVALS
10E1      192 ;
10E1 AE 11 40 193      ldx NVOLMAX
10E4 F0 05    194      beq >1
10E6      195 ;
10E6 CD 11 40 196      cmp NVOLMAX
10E9 B0 D2    197      bcs GETVOLUM
10EB      198 ;
10EB 8D 12 40 199 ^1      sta NVOL
10EE      200 ;
10EE 18      201      clc
10EF      202 ;
10EF 60      203 ^2      rts
10F0      204 ;
10F0      205 ;
10F0 A5 24    206 GETYORN  lda CH
10F2 8D 00 40 207      sta SAVCH
10F5      208 ;
10F5 A2 00    209 ^0      ldx #ZERO
10F7      210 ;
10F7 BC 25 11 211 ^1      ldy YORNTBLL,X
10FA BD 27 11 212      lda YORNTBLH,X
10FD      213 ;
10FD 20 79 24 214      jsr SETPTR
1100      215 ;
1100 20 73 37 216      jsr PRINT
1103 A0      217      asc " "
1104 52 00    218 YORNMOD1 byt DISPCMD,NORMDISP
1106 CE      219      asc "N"
1107 52 00    220      byt DISPCMD,NORMDISP
1109 A0 A0    221      asc " "
110B 52 00    222 YORNMOD2 byt DISPCMD,NORMDISP
110D D9      223      asc "Y"
110E 52 00    224      byt DISPCMD,NORMDISP
1110 50      225      byt RTNCMD
1111      226 ;
1111 20 75 35 227      jsr SELCKEY
1114 B0 0D    228      bcs >3
1116      229 ;
1116 F0 0B    230      beq >3

```

```

1118      231 ;
1118 8A      232      txa
1119 10 02   233      bpl >2
111B      234 ;
111B A2 01   235      ldx #1
111D      236 ;
111D C9 02   237 ^2      cmp #2
111F D0 D6   238      bne <1
1121      239 ;
1121 F0 D2   240      beq <0
1123      241 ;
1123 8A      242 ^3      txa
1124      243 ;
1124 60      244      rts
1125      245 ;
1125      246 ;
1125      247 YORNTBLL:
1125 05      248      byt YORNMOD1+1
1126 0C      249      byt YORNMOD2+1
1127      250 ;
1127      251 YORNTBLH:
1127 11      252      hby YORNMOD1+1
1128 11      253      hby YORNMOD2+1
1129      254 ;
1129      255 ;
1129 20 73 37 256 OPTION   jsr PRINT
112C 00 76   257      hex 0076
112E 54 00   258      byt CLRCMD,EOLCLR
1130 D3 E5 EC 259      asc "Select Option:  "
1133 E5 E3 F4
1136 A0 CF F0
1139 F4 E9 EF
113C EE BA A0
113F A0
1140 50      260      byt RTNCMD
1141      261 ;
1141 60      262      rts
1142      263 ;
1142      264 ;
1142 20 73 37 265 GETLBA   jsr PRINT
1145 C5 EE F4 266      asc "Enter LBA number:  0x"
1148 E5 F2 A0
114B CC C2 C1
114E A0 EE F5
1151 ED E2 E5
1154 F2 BA A0
1157 A0 B0 F8
115A 50      267      byt RTNCMD
115B      268 ;
115B 20 18 34 269      jsr GETHEX8
115E B0 0B   270      bcs >2
1160      271 ;
1160 A2 03   272 GETLBA2   ldx #LBALEN-1
1162      273 ;
1162 BD 31 40 274 ^1      lda HEXVALS,X
1165 9D 41 40 275      sta LBA,X
1168      276 ;
1168 CA      277      dex
1169 10 F7   278      bpl <1
116B      279 ;
116B 60      280 ^2      rts

```

```

116C      281 ;
116C      282 ;
116C 20 73 37 283 STATOKAY jsr PRINT
116F 00 76    284          hex 0076
1171 54 01    285          byt CLRCMD,EOPCLR
1173 D3 F4 E1 286          asc "Status:  Okay, press any key"
1176 F4 F5 F3
1179 BA A0 A0
117C CF EB E1
117F F9 AC A0
1182 F0 F2 E5
1185 F3 F3 A0
1188 E1 EE F9
118B A0 EB E5
118E F9
118F 50      287          byt RTNCMD
1190      288 ;
1190 20 3F 35 289          jsr GETKEY
1193      290 ;
1193 EA      291          nop                      ; CLC
1194      292 ;
1194 60      293          rts
1195      294 ;
1195      295 ;
1195 8E 09 40 296 DISKERR stx TEMP
1198      297 ;
1198 20 73 37 298          jsr PRINT
119B 00 74    299          hex 0074
119D 54 01    300          byt CLRCMD,EOPCLR
119F D3 F4 E1 301          asc "Status:  "
11A2 F4 F5 F3
11A5 BA A0 A0
11A8 50      302          byt RTNCMD
11A9      303 ;
11A9 AE 09 40 304          ldx TEMP
11AC 20 A5 19 305          jsr PRTEROR
11AF      306 ;
11AF 4C 22 35 307          jmp PRESKEY2
11B2      308 ;
11B2      309 ;
11B2 20 8D 21 310 RDDRVLBA jsr CLEARLBA
11B5      311 ;
11B5 8D 0B 40 312          sta PAGE
11B8      313 ;
11B8 38      314          sec
11B9      315 ;
11B9 AD 0F 40 316          lda NDRV
11BC E9 01    317          sbc #1
11BE      318 ;
11BE 4A      319          lsr
11BF 6E 0B 40 320          ror PAGE
11C2      321 ;
11C2 69 D0    322          adc #DRCATLBA
11C4 8D 44 40 323          sta LBA+3
11C7      324 ;
11C7 20 38 2D 325          jsr READLBA2
11CA B0 0A    326          bcs >2
11CC      327 ;
11CC C6 CF    328          dec GENPTR+1
11CE      329 ;
11CE AD 0B 40 330          lda PAGE

```

```

11D1 D0 02      331      bne >1
11D3           332      ;
11D3 C6 CF      333      dec GENPTR+1
11D5           334      ;
11D5 60         335      ^1      rts
11D6           336      ;
11D6 20 73 37   337      ^2      jsr PRINT
11D9 00 74      338      hex 0074
11DB 56 00      339      byt BUFRCMD,DIRECT
11DD 5B 3D      340      adr MSG3
11DF F2 E5 E1   341      asc "read Drive Catalog"
11E2 E4 A0 C4
11E5 F2 E9 F6
11E8 E5 A0 C3
11EB E1 F4 E1
11EE EC EF E7
11F1 50         342      byt RTNCMD
11F2           343      ;
11F2 4C 1B 35   344      jmp PRESKEYS
11F5           345      ;
11F5           346      ;
11F5 20 73 37   347      SHOWDRVL jsr PRINT
11F8 04 64      348      hex 0464
11FA 54 01      349      byt CLRCMD,EOPCLR
11FC C4 F2 E9   350      asc "Drive - "
11FF F6 E5 A0
1202 AD A0
1204 5D         351      byt DEC2CMD
1205 0F 40      352      adr NDRV
1207 8D         353      byt RETURN
1208 02         354      hex 02
1209 D6 EF EC   355      asc "Volumes - "
120C F5 ED E5
120F F3 A0 AD
1212 A0
1213 50         356      byt RTNCMD
1214           357      ;
1214 AD 11 40   358      lda NVOLMAX
1217 D0 09      359      bne >1
1219           360      ;
1219 20 73 37   361      jsr PRINT
121C B2 B5 B6   362      asc "256"
121F 50         363      byt RTNCMD
1220           364      ;
1220 90 07      365      bcc >2      ; always taken
1222           366      ;
1222 20 73 37   367      ^1      jsr PRINT
1225 5E         368      byt DEC3CMD
1226 11 40      369      adr NVOLMAX
1228 50         370      byt RTNCMD
1229           371      ;
1229 60         372      ^2      rts
122A           373      ;
122A           374      ;
122A A0 00      375      CLRIMBUF ldy #DOSBUFR
122C A9 43      376      lda /DOSBUFR
122E           377      ;
122E 84 CE      378      sty GENPTR
1230 85 CF      379      sta GENPTR+1
1232           380      ;
1232 A2 30      381      ldx #IMAGSIZE*2

```

```

1234          382 ;
1234 A0 00    383      ldy #ZERO
1236 98      384      tya
1237          385 ;
1237 91 CE    386 ^1      sta (GENPTR),Y
1239          387 ;
1239 C8       388      iny
123A D0 FB    389      bne <1
123C          390 ;
123C E6 CF    391      inc GENPTR+1
123E          392 ;
123E CA       393      dex
123F D0 F6    394      bne <1
1241          395 ;
1241 60       396      rts
1242          397 ;
1242          398 ;
1242 20 F5 22  399 INITCFVL jsr SHOWDVOL
1245          400 ;
1245 AD 0F 40  401      lda NDRV
1248 8D 4D 3F  402      sta FMDRIVE
124B          403 ;
124B AD 12 40  404      lda NVOL
124E 8D 4C 3F  405      sta FMVOLUME
1251          406 ;
1251 20 73 37  407 ^1      jsr PRINT
1254 00 66     408      hex 0066
1256 54 00     409      byt CLRCMD,EOLCLR
1258 D6 EF EC  410      asc "Volume Title - "
125B F5 ED E5
125E A0 D4 E9
1261 F4 EC E5
1264 A0 AD A0
1267 50        411      byt RTNCMD
1268          412 ;
1268 A2 18     413      ldx #NAMELEN
126A          414 ;
126A A0 BE    415      ldy #VOLTITLE
126C A9 40    416      lda /VOLTITLE
126E          417 ;
126E 20 BB 27  418      jsr GETTEXTC
1271 B0 61     419      bcs RTN3
1273          420 ;
1273 AD BE 40  421      lda VOLTITLE
1276 F0 D9     422      beq <1
1278          423 ;
1278 20 93 28  424      jsr PADBUFR
127B          425 ;
127B 20 73 37  426      jsr PRINT
127E 03 67     427      hex 0367
1280 C4 E1 F4  428      asc "Date/Time -"
1283 E5 AF D4
1286 E9 ED E5
1289 A0 AD
128B 50        429      byt RTNCMD
128C          430 ;
128C A0 F0     431      ldy #FMDATE
128E A9 40     432      lda /FMDATE
1290          433 ;
1290 20 A1 19  434      jsr READCLK
1293          435 ;

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```

1293 A0 F0      436      ldy #FMDATE
1295 A9 40      437      lda /FMDATE
1297           438      ;
1297 20 5E 37    439      jsr PRINTIME
129A           440      ;
129A 20 73 37    441      jsr PRINT
129D 00 69      442      hex 0069
129F D6 EF EC    443      asc "Volume Tracks -"
12A2 F5 ED E5
12A5 A0 D4 F2
12A8 E1 E3 EB
12AB F3 A0 AD
12AE 50         444      byt RTNCMD
12AF           445      ;
12AF 20 68 23    446      jsr SELCTRK
12B2 B0 20      447      bcs RTN3
12B4           448      ;
12B4 BD 51 3E    449      lda TRKVLTLBL,X
12B7 8D 57 3F    450      sta ENDTRK
12BA           451      ;
12BA 20 73 37    452      jsr PRINT
12BD 00 6A      453      hex 006A
12BF D4 F2 E1    454      asc "Track Sectors -"
12C2 E3 EB A0
12C5 D3 E5 E3
12C8 F4 EF F2
12CB F3 A0 AD
12CE 50         455      byt RTNCMD
12CF           456      ;
12CF 20 B6 23    457      jsr SELCSEC
12D2 90 01      458      bcc >2
12D4           459      ;
12D4 60         460      RTN3      rts
12D5           461      ;
12D5 BD 55 3E    462      ^2      lda SECVLTBL,X
12D8 8D 4F 3F    463      sta FMFTYPE
12DB           464      ;
12DB 20 73 37    465      ^3      jsr PRINT
12DE 00 6C      466      hex 006C
12E0 54 00      467      byt CLRCMD,EOLCLR
12E2 C3 E1 F4    468      asc "Catalog Sectors (1-15) - "
12E5 E1 EC EF
12E8 E7 A0 D3
12EB E5 E3 F4
12EE EF F2 F3
12F1 A0 A8 B1
12F4 AD B1 B5
12F7 A9 A0 AD
12FA A0
12FB 50         469      byt RTNCMD
12FC           470      ;
12FC 20 20 34    471      jsr GETDEC2
12FF B0 D3      472      bcs RTN3
1301           473      ;
1301 AD 35 40    474      lda DECVALS
1304 C9 01      475      cmp #1
1306 90 D3      476      bcc <3
1308           477      ;
1308 C9 10      478      cmp #16
130A B0 CF      479      bcs <3
130C           480      ;

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```

130C 8D 56 3F    481      sta SECVAL
130F           482      ;
130F 20 73 37    483      ^4      jsr PRINT
1312 09 6D       484      hex 096D
1314 D3 F5 E2    485      asc "Subject Value - 0x"
1317 EA E5 E3
131A F4 A0 D6
131D E1 EC F5
1320 E5 A0 AD
1323 A0 B0 F8
1326 50          486      byt RTNCMD
1327           487      ;
1327 20 12 34    488      jsr GETHEX4
132A B0 A8       489      bcs RTN3
132C           490      ;
132C 10 E1       491      bpl <4
132E           492      ;
132E AD 31 40    493      lda HEXVALS
1331 AE 32 40    494      ldx HEXVALS+1
1334           495      ;
1334 8E 58 3F    496      stx SUBJECT
1337 8D 59 3F    497      sta SUBJECT+1
133A           498      ;
133A A0 17       499      ldy #NAMELEN-1
133C           500      ;
133C A9 A0       501      lda #SPACE
133E           502      ;
133E 99 D7 40    503      ^5      sta BOOTFILE,Y
1341           504      ;
1341 88          505      dey
1342 10 FA       506      bpl <5
1344           507      ;
1344 20 73 37    508      jsr PRINT
1347 0B 6F       509      hex 0B6F
1349 D6 EF EC    510      asc "Volume Type -"
134C F5 ED E5
134F A0 D4 F9
1352 F0 E5 A0
1355 AD
1356 50          511      byt RTNCMD
1357           512      ;
1357 20 F0 23    513      jsr SELCTYP
135A B0 70       514      bcs >8
135C           515      ;
135C BD 57 3E    516      lda TYPVLTBL,X
135F F0 40       517      beq >7
1361           518      ;
1361 20 73 37    519      ^6      jsr PRINT
1364 00 71       520      hex 0071
1366 54 00       521      byt CLRCMD,EOLCLR
1368 C2 EF EF    522      asc "Boot Name - "
136B F4 A0 CE
136E E1 ED E5
1371 A0 AD A0
1374 50          523      byt RTNCMD
1375           524      ;
1375 A2 18       525      ldx #NAMELEN
1377           526      ;
1377 A0 D7       527      ldy #BOOTFILE
1379 A9 40       528      lda /BOOTFILE
137B           529      ;

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```

137B 20 BB 27 530 jsr GETTEXTC
137E B0 4C 531 bcs >8
1380 532 ;
1380 AD D7 40 533 lda BOOTFILE
1383 F0 DC 534 beq <6
1385 535 ;
1385 20 93 28 536 jsr PADBUFR
1388 537 ;
1388 20 73 37 538 jsr PRINT
138B 00 72 539 hex 0072
138D C2 EF EF 540 asc "Boot Type -"
1390 F4 A0 D4
1393 F9 F0 E5
1396 A0 AD
1398 50 541 byt RTNCMD
1399 542 ;
1399 20 28 24 543 jsr SELCBOOT
139C B0 2E 544 bcs >8
139E 545 ;
139E BD 59 3E 546 lda BOOTVTBL,X
13A1 547 ;
13A1 8D 49 3F 548 ^7 sta SUBCODE
13A4 549 ;
13A4 20 73 37 550 jsr PRINT
13A7 00 74 551 hex 0074
13A9 C9 EE E9 552 asc "Initialize this Volume -"
13AC F4 E9 E1
13AF EC E9 FA
13B2 E5 A0 F4
13B5 E8 E9 F3
13B8 A0 D6 EF
13BB EC F5 ED
13BE E5 A0 AD
13C1 50 553 byt RTNCMD
13C2 554 ;
13C2 20 F0 10 555 jsr GETYORN
13C5 B0 05 556 bcs >8
13C7 557 ;
13C7 F0 03 558 beq >8
13C9 559 ;
13C9 20 1D 2A 560 jsr WRITFM
13CC 561 ;
13CC 60 562 ^8 rts
13CD 563 ;
13CD 564 ;
13CD A0 00 565 BANNER ldy #ZERO
13CF 98 566 tya
13D0 567 ;
13D0 99 00 40 568 ^1 sta DATABUFR,Y
13D3 569 ;
13D3 C8 570 iny
13D4 D0 FA 571 bne <1
13D6 572 ;
13D6 A0 2D 573 ldy #VSNBUFR
13D8 A9 3E 574 lda /VSNBUFR
13DA 575 ;
13DA 20 9F 19 576 jsr READVSN
13DD 577 ;
13DD 20 73 37 578 jsr PRINT
13E0 53 01 579 byt SCRNCMD,HOMESCRN
13E2 68 580 hex 68

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```
13E3 55 00      581      byt CNTRCMD,DIRECT
13E5 D4 E8 E5   582      asc "The current operating system is"
13E8 A0 E3 F5
13EB F2 F2 E5
13EE EE F4 A0
13F1 EF F0 E5
13F4 F2 E1 F4
13F7 E9 EE E7
13FA A0 F3 F9
13FD F3 F4 E5
1400 ED A0 E9
1403 F3
1404 00 6C      583      hex 006C
1406 55 01      584      byt CNTRCMD,INDIRECT
1408 2D 3E      585      adr VSNBUFR
140A 50          586      byt RTNCMD
140B           587      ;
140B A2 08      588      ldx #8
140D 20 7D 2C   589      jsr WAIT
1410           590      ;
1410 20 2A 35   591      jsr PRESKEY
1413           592      ;
1413 20 73 37   593      jsr PRINT
1416 53 01      594      byt SCRNCMD,HOMESCRN
1418 8D 55 00   595      byt RETURN,CNTRCMD,DIRECT
141B C3 C6 C6   596      asc "CFFA Volume Manager"
141E C1 A0 D6
1421 EF EC F5
1424 ED E5 A0
1427 CD E1 EE
142A E1 E7 E5
142D F2
142E 8D 8D 55   597      byt RETURN,RETURN,CNTRCMD,DIRECT
1431 00
1432 C4 CF D3   598      asc "DOS 4.5, Build 06"
1435 A0 B4 AE
1438 B5 AC A0
143B C2 F5 E9
143E EC E4 A0
1441 B0 B6
1443 8D 8D 55   599      byt RETURN,RETURN,CNTRCMD,DIRECT
1446 00
1447 C3 EF F0   600      asc "Copyright (c) 2024 February 14"
144A F9 F2 E9
144D E7 E8 F4
1450 A0 A8 E3
1453 A9 A0 B2
1456 B0 B2 B4
1459 A0 C6 E5
145C E2 F2 F5
145F E1 F2 F9
1462 A0 B1 B4
1465 8D 8D 55   601      byt RETURN,RETURN,CNTRCMD,DIRECT
1468 00
1469 E2 F9      602      asc "by"
146B 8D 8D 55   603      byt RETURN,RETURN,CNTRCMD,DIRECT
146E 00
146F D7 E1 EC   604      asc "Walland Philip Vrbancic Jr"
1472 EC E1 EE
1475 E4 A0 D0
1478 E8 E9 EC
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147B E9 F0 A0
147E D6 F2 E2
1481 E1 EE E3
1484 E9 E3 A0
1487 CA F2
1489 8D 8D 8D    605      byt RETURN,RETURN,RETURN,CNTRCMD,DIRECT
148C 55 00
148E D5 F3 E5    606      asc "Use this CompactFlash For Apple"
1491 A0 F4 E8
1494 E9 F3 A0
1497 C3 EF ED
149A F0 E1 E3
149D F4 C6 EC
14A0 E1 F3 E8
14A3 A0 C6 EF
14A6 F2 A0 C1
14A9 F0 F0 EC
14AC E5
14AD 8D 55 00    607      byt RETURN,CNTRCMD,DIRECT
14B0 E9 EE F3    608      asc "installer and the accompanying"
14B3 F4 E1 EC
14B6 EC E5 F2
14B9 A0 E1 EE
14BC E4 A0 F4
14BF E8 E5 A0
14C2 E1 E3 E3
14C5 EF ED F0
14C8 E1 EE F9
14CB E9 EE E7
14CE 8D 55 00    609      byt RETURN,CNTRCMD,DIRECT
14D1 F3 EF E6    610      asc "software programs at your own risk."
14D4 F4 F7 E1
14D7 F2 E5 A0
14DA F0 F2 EF
14DD E7 F2 E1
14E0 ED F3 A0
14E3 E1 F4 A0
14E6 F9 EF F5
14E9 F2 A0 EF
14EC F7 EE A0
14EF F2 E9 F3
14F2 EB AE
14F4 8D 8D 55    611      byt RETURN,RETURN,CNTRCMD,DIRECT
14F7 00
14F8 D9 EF F5    612      asc "You are responsible for any damage or"
14FB A0 E1 F2
14FE E5 A0 F2
1501 E5 F3 F0
1504 EF EE F3
1507 E9 E2 EC
150A E5 A0 E6
150D EF F2 A0
1510 E1 EE F9
1513 A0 E4 E1
1516 ED E1 E7
1519 E5 A0 EF
151C F2
151D 8D 55 00    613      byt RETURN,CNTRCMD,DIRECT
1520 EC EF F3    614      asc "loss of productivity this installer or"
1523 F3 A0 EF
1526 E6 A0 F0
```

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1529 F2 EF E4
152C F5 E3 F4
152F E9 F6 E9
1532 F4 F9 A0
1535 F4 E8 E9
1538 F3 A0 E9
153B EE F3 F4
153E E1 EC EC
1541 E5 F2 A0
1544 EF F2
1546 8D 55 00    615      byt RETURN,CNTRCMD,DIRECT
1549 F4 E8 E5    616      asc "the accompanying software may cause."
154C A0 E1 E3
154F E3 EF ED
1552 F0 E1 EE
1555 F9 E9 EE
1558 E7 A0 F3
155B EF E6 F4
155E F7 E1 F2
1561 E5 A0 ED
1564 E1 F9 A0
1567 E3 E1 F5
156A F3 E5 AE
156D 8D 8D 55    617      byt RETURN,RETURN,CNTRCMD,DIRECT
1570 00
1571 D0 F2 E5    618      asc "Press any key to continue if"
1574 F3 F3 A0
1577 E1 EE F9
157A A0 EB E5
157D F9 A0 F4
1580 EF A0 E3
1583 EF EE F4
1586 E9 EE F5
1589 E5 A0 E9
158C E6
158D 8D 55 00    619      byt RETURN,CNTRCMD,DIRECT
1590 F9 EF F5    620      asc "you agree to these terms, or"
1593 A0 E1 E7
1596 F2 E5 E5
1599 A0 F4 EF
159C A0 F4 E8
159F E5 F3 E5
15A2 A0 F4 E5
15A5 F2 ED F3
15A8 AC A0 EF
15AB F2
15AC 8D 55 00    621      byt RETURN,CNTRCMD,DIRECT
15AF F0 F2 E5    622      asc "press ESC to exit this program now."
15B2 F3 F3 A0
15B5 C5 D3 C3
15B8 A0 F4 EF
15BB A0 E5 F8
15BE E9 F4 A0
15C1 F4 E8 E9
15C4 F3 A0 F0
15C7 F2 EF E7
15CA F2 E1 ED
15CD A0 EE EF
15D0 F7 AE
15D2 50          623      byt RTNCMD
15D3             624      ;
```

```

15D3 60          625          rts
15D4          626      ;
15D4          627      ;
15D4 20 73 37    628  MAINMENU jsr PRINT
15D7 53 01      629          byt SCRNCMD,HOMESCRN
15D9 8D 55 00    630          byt RETURN,CNTRCMD,DIRECT
15DC C3 C6 C6    631          asc "CFFA Volume Manager Main Menu"
15DF C1 A0 D6
15E2 EF EC F5
15E5 ED E5 A0
15E8 CD E1 EE
15EB E1 E7 E5
15EE F2 A0 CD
15F1 E1 E9 EE
15F4 A0 CD E5
15F7 EE F5
15F9 01 66      632          hex 0166
15FB B1 A0 AD    633          asc "1 - "
15FE A0
15FF 56 00      634          byt BUFRCMD,DIRECT
1601 11 3C      635          adr STR2.01          ; "Manage Firmware"
1603 01 68      636          hex 0168
1605 B2 A0 AD    637          asc "2 - "
1608 A0
1609 56 00      638          byt BUFRCMD,DIRECT
160B 21 3C      639          adr STR2.02          ; "Manage CompactFlash Card"
160D 01 6A      640          hex 016A
160F B3 A0 AD    641          asc "3 - "
1612 A0
1613 56 00      642          byt BUFRCMD,DIRECT
1615 3A 3C      643          adr STR2.03          ; "Manage Drives"
1617 01 6C      644          hex 016C
1619 B4 A0 AD    645          asc "4 - "
161C A0
161D 56 00      646          byt BUFRCMD,DIRECT
161F 48 3C      647          adr STR2.04          ; "Manage Volumes"
1621 01 6E      648          hex 016E
1623 B5 A0 AD    649          asc "5 - "
1626 A0
1627 56 00      650          byt BUFRCMD,DIRECT
1629 57 3C      651          adr STR2.05          ; "Manage User DOS Images"
162B 01 70      652          hex 0170
162D B6 A0 AD    653          asc "6 - Exit Volume Manager"
1630 A0 C5 F8
1633 E9 F4 A0
1636 D6 EF EC
1639 F5 ED E5
163C A0 CD E1
163F EE E1 E7
1642 E5 F2
1644 50          654          byt RTNCMD
1645          655      ;
1645 60          656          rts
1646          657      ;
1646          658      ;
1646 20 73 37    659  FIRMMENU jsr PRINT
1649 53 01      660          byt SCRNCMD,HOMESCRN
164B 8D 55 01    661          byt RETURN,CNTRCMD,INDIRECT
164E 11 3C      662          adr STR2.01          ; "Manage Firmware"
1650 01 66      663          hex 0166
1652 B1 A0 AD    664          asc "1 - "

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1655 A0
1656 56 00      665      byt BUFRCMD,DIRECT
1658 05 3A      666      adr STR1.01      ; "Save CFFA Firmware to Disk"
165A 01 68      667      hex 0168
165C B2 A0 AD   668      asc "2 - "
165F A0
1660 56 00      669      byt BUFRCMD,DIRECT
1662 20 3A      670      adr STR1.02      ; "Install CFFA ... from Disk"
1664 01 6A      671      hex 016A
1666 B3 A0 AD   672      asc "3 - "
1669 A0
166A 56 00      673      byt BUFRCMD,DIRECT
166C 40 3A      674      adr STR1.03      ; "Install ... DOS from Disk"
166E 01 6C      675      hex 016C
1670 B4 A0 AD   676      asc "4 - "
1673 A0
1674 56 00      677      byt BUFRCMD,DIRECT
1676 F9 3C      678      adr STR6.06      ; "Restore CF Firm ... Data"
1678 01 6E      679      hex 016E
167A B5 A0 AD   680      asc "5 - "
167D A0
167E 56 00      681      byt BUFRCMD,DIRECT
1680 12 3D      682      adr STR6.07      ; "Restore CF ... Firmware"
1682 01 70      683      hex 0170
1684 B6         684      asc "6"
1685 56 00      685      byt BUFRCMD,DIRECT
1687 2F 3D      686      adr MSG1
1689 50         687      byt RTNCMD
168A         688      ;
168A 60         689      rts
168B         690      ;
168B         691      ;
168B 20 73 37   692      CFFAMENU jsr PRINT
168E 53 01      693      byt SCRNCMD,HOMESCRN
1690 8D 55 01   694      byt RETURN,CNTRCMD,INDIRECT
1693 21 3C      695      adr STR2.02      ; "Manage CompactFlash Card"
1695 01 66      696      hex 0166
1697 B1 A0 AD   697      asc "1 - "
169A A0
169B 56 00      698      byt BUFRCMD,DIRECT
169D 5E 3A      699      adr STR1.04      ; "Display CF ... Utilization"
169F 01 68      700      hex 0168
16A1 B2 A0 AD   701      asc "2 - "
16A4 A0
16A5 56 00      702      byt BUFRCMD,DIRECT
16A7 7C 3A      703      adr STR1.05      ; "Display ...Device Contents"
16A9 01 6A      704      hex 016A
16AB B3 A0 AD   705      asc "3 - "
16AE A0
16AF 56 00      706      byt BUFRCMD,DIRECT
16B1 9D 3A      707      adr STR1.06      ; "Save ... Device to LBA 7"
16B3 01 6C      708      hex 016C
16B5 B4 A0 AD   709      asc "4 - "
16B8 A0
16B9 56 00      710      byt BUFRCMD,DIRECT
16BB BB 3A      711      adr STR1.07      ; "Save Selected LBA to Disk"
16BD 01 6E      712      hex 016E
16BF B5 A0 AD   713      asc "5 - "
16C2 A0
16C3 56 00      714      byt BUFRCMD,DIRECT
16C5 D5 3A      715      adr STR1.08      ; "Restore ... LBA from Disk"

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16C7 01 70      716      hex 0170
16C9 B6 A0 AD   717      asc "6 - "
16CC A0
16CD 56 00      718      byt BUFRCMD,DIRECT
16CF F4 3A      719      adr STR1.09      ; "Clear Selected LBA Range"
16D1 01 72      720      hex 0172
16D3 B7         721      asc "7"
16D4 56 00      722      byt BUFRCMD,DIRECT
16D6 2F 3D      723      adr MSG1
16D8 50         724      byt RTNCMD
16D9           725      ;
16D9 60         726      rts
16DA           727      ;
16DA           728      ;
16DA 20 73 37   729      DRVSMENU jsr PRINT
16DD 53 01      730      byt SCRNCMD,HOMESCRN
16DF 8D 55 01   731      byt RETURN,CNTRCMD,INDIRECT
16E2 3A 3C      732      adr STR2.03      ; "Manage Drives"
16E4 01 66      733      hex 0166
16E6 B1 A0 AD   734      asc "1 - "
16E9 A0
16EA 56 00      735      byt BUFRCMD,DIRECT
16EC 0D 3B      736      adr STR1.10      ; "List All Drives"
16EE 01 68      737      hex 0168
16F0 B2 A0 AD   738      asc "2 - "
16F3 A0
16F4 56 00      739      byt BUFRCMD,DIRECT
16F6 1D 3B      740      adr STR1.11      ; "Display Drive Information"
16F8 01 6A      741      hex 016A
16FA B3 A0 AD   742      asc "3 - "
16FD A0
16FE 56 00      743      byt BUFRCMD,DIRECT
1700 37 3B      744      adr STR1.12      ; "Change Drive Information"
1702 01 6C      745      hex 016C
1704 B4         746      asc "4"
1705 56 00      747      byt BUFRCMD,DIRECT
1707 2F 3D      748      adr MSG1
1709 50         749      byt RTNCMD
170A           750      ;
170A 60         751      rts
170B           752      ;
170B           753      ;
170B 20 73 37   754      VOLSMENU jsr PRINT
170E 53 01      755      byt SCRNCMD,HOMESCRN
1710 8D 55 01   756      byt RETURN,CNTRCMD,INDIRECT
1713 48 3C      757      adr STR2.04      ; "Manage Volumes"
1715 01 65      758      hex 0165
1717 B1 A0 AD   759      asc "1 - "
171A A0
171B 56 00      760      byt BUFRCMD,DIRECT
171D 50 3B      761      adr STR1.13      ; "Display ... Catalog Size"
171F 01 67      762      hex 0167
1721 B2 A0 AD   763      asc "2 - "
1724 A0
1725 56 00      764      byt BUFRCMD,DIRECT
1727 DF 3C      765      adr STR6.05      ; "Display Drive Volumes DOS"
1729 01 69      766      hex 0169
172B B3 A0 AD   767      asc "3 - "
172E A0
172F 56 00      768      byt BUFRCMD,DIRECT
1731 C6 3C      769      adr STR6.04      ; "Display Volume LBA Range"

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```

1733 01 6B      770      hex 016B
1735 B4 A0 AD   771      asc "4 - "
1738 A0
1739 56 00      772      byt BUFRCMD,DIRECT
173B 73 3B      773      adr STR1.14      ; "Display ... Information"
173D 01 6D      774      hex 016D
173F B5 A0 AD   775      asc "5 - "
1742 A0
1743 56 00      776      byt BUFRCMD,DIRECT
1745 93 3B      777      adr STR1.15      ; "Display ... Information"
1747 01 6F      778      hex 016F
1749 B6 A0 AD   779      asc "6 - "
174C A0
174D 56 00      780      byt BUFRCMD,DIRECT
174F B5 3B      781      adr STR1.16      ; "Initialize a CF Volume"
1751 01 71      782      hex 0171
1753 B7 A0 AD   783      asc "7 - "
1756 A0
1757 56 00      784      byt BUFRCMD,DIRECT
1759 CC 3B      785      adr STR1.17      ; "Boot a CF Volume"
175B 01 73      786      hex 0173
175D B8         787      asc "8"
175E 56 00      788      byt BUFRCMD,DIRECT
1760 2F 3D      789      adr MSG1
1762 50         790      byt RTNCMD
1763         791      ;
1763 60         792      rts
1764         793      ;
1764         794      ;
1764 20 73 37    795      DOSIMENU jsr PRINT
1767 53 01      796      byt SCRNCMD,HOMESCRN
1769 8D 55 01    797      byt RETURN,CNTRCMD,INDIRECT
176C 57 3C      798      adr STR2.05      ; "Manage User DOS Images"
176E 01 66      799      hex 0166
1770 B1 A0 AD   800      asc "1 - "
1773 A0
1774 56 00      801      byt BUFRCMD,DIRECT
1776 DD 3B      802      adr STR1.18      ; "List Installed DOS Images"
1778 01 68      803      hex 0168
177A B2 A0 AD   804      asc "2 - "
177D A0
177E 56 00      805      byt BUFRCMD,DIRECT
1780 F7 3B      806      adr STR1.19      ; "Select DOS Image for Boot"
1782 01 6A      807      hex 016A
1784 B3 A0 AD   808      asc "3 - "
1787 A0
1788 56 00      809      byt BUFRCMD,DIRECT
178A 82 3C      810      adr STR6.01      ; "Show DOS Image Description"
178C 01 6C      811      hex 016C
178E B4 A0 AD   812      asc "4 - "
1791 A0
1792 56 00      813      byt BUFRCMD,DIRECT
1794 9D 3C      814      adr STR6.02      ; "Modify DOS ... Description"
1796 01 6E      815      hex 016E
1798 B5         816      asc "5"
1799 56 00      817      byt BUFRCMD,DIRECT
179B 2F 3D      818      adr MSG1
179D 50         819      byt RTNCMD
179E         820      ;
179E 60         821      rts
179F         822      ;

```

```

179F      823 ;
179F 20 73 37 824 SHOWDATA jsr PRINT
17A2 04 65      825      hex 0465
17A4 C3 F9 EC   826      asc "Cylinders - "
17A7 E9 EE E4
17AA E5 F2 F3
17AD A0 AD A0
17B0 59      827      byt BYT2CMD
17B1 37 40      828      adr IDCYLNUM
17B3 08 67      829      hex 0867
17B5 C8 E5 E1   830      asc "Heads - "
17B8 E4 F3 A0
17BB AD A0
17BD 59      831      byt BYT2CMD
17BE 39 40      832      adr IDHDSNUM
17C0 00 69      833      hex 0069
17C2 D3 E5 E3   834      asc "Sectors/Track - "
17C5 F4 EF F2
17C8 F3 AF D4
17CB F2 E1 E3
17CE EB A0 AD
17D1 A0
17D2 59      835      byt BYT2CMD
17D3 3B 40      836      adr IDSPTNUM
17D5 02 6B      837      hex 026B
17D7 CD E1 F8   838      asc "Maximum LBA - "
17DA E9 ED F5
17DD ED A0 CC
17E0 C2 C1 A0
17E3 AD A0
17E5 57      839      byt NIBLCMD
17E6 3D 40      840      adr IDLBANUM
17E8 5A 03      841      byt BYTNCMD,3
17EA 3E 40      842      adr IDLBANUM+1
17EC 00 6D      843      hex 006D
17EE D3 E5 F2   844      asc "Serial Number - "
17F1 E9 E1 EC
17F4 A0 CE F5
17F7 ED E2 E5
17FA F2 A0 AD
17FD A0
17FE 56 00      845      byt BUFRCMD,DIRECT
1800 6E 40      846      adr IDSRLBUF
1802 05 6F      847      hex 056F
1804 C6 E9 F2   848      asc "Firmware - "
1807 ED F7 E1
180A F2 E5 A0
180D AD A0
180F 56 00      849      byt BUFRCMD,DIRECT
1811 83 40      850      adr IDFRMBUF
1813 08 71      851      hex 0871
1815 CD EF E4   852      asc "Model - "
1818 E5 EC A0
181B AD A0
181D 56 00      853      byt BUFRCMD,DIRECT
181F 8C 40      854      adr IDMDLBUF
1821 50      855      byt RTNCMD
1822      856 ;
1822 60      857      rts
1823      858 ;
1823      859 ;

```

```
1823 A2 00      860 NOCFFA    ldx #ZERO
1825           861 ;
1825 2C 00 00    862          bit *-*
1828           863          dfs !-2
1826           864 ;
1826           865 ;
1826 A2 05      866 NODISK    ldx #CDMSGLEN
1828           867 ;
1828 A0 00      868          ldy #ZERO
182A           869 ;
182A BD 87 3E    870 ^1      lda CFFAMSG,X
182D 99 55 40    871          sta CDMESG,Y
1830           872 ;
1830 E8          873          inx
1831 C8          874          iny
1832           875 ;
1832 C0 05      876          cpy #CDMSGLEN
1834 D0 F4      877          bne <1
1836           878 ;
1836 20 73 37    879          jsr PRINT
1839 53 01      880          byt SCRNCMD,HOMESCRN
183B 8D          881          byt RETURN
183C D4 E8 E5    882          asc "There is no "
183F F2 E5 A0
1842 E9 F3 A0
1845 EE EF A0
1848 56 00      883          byt BUFRCMD,DIRECT
184A 55 40      884          adr CDMESG
184C A0 E3 E1    885          asc " card installed at this"
184F F2 E4 A0
1852 E9 EE F3
1855 F4 E1 EC
1858 EC E5 E4
185B A0 E1 F4
185E A0 F4 E8
1861 E9 F3
1863 8D 8D      886          byt RETURN,RETURN
1865 F4 E9 ED    887          asc "time.  Please install your "
1868 E5 AE A0
186B A0 D0 EC
186E E5 E1 F3
1871 E5 A0 E9
1874 EE F3 F4
1877 E1 EC EC
187A A0 F9 EF
187D F5 F2 A0
1880 56 00      888          byt BUFRCMD,DIRECT
1882 55 40      889          adr CDMESG
1884 A0 E3 E1    890          asc " card in"
1887 F2 E4 A0
188A E9 EE
188C 8D 8D      891          byt RETURN,RETURN
188E E1 A0 F3    892          asc "a slot with the computer turned off."
1891 EC EF F4
1894 A0 F7 E9
1897 F4 E8 A0
189A F4 E8 E5
189D A0 E3 EF
18A0 ED F0 F5
18A3 F4 E5 F2
18A6 A0 F4 F5
```

```

18A9 F2 EE E5
18AC E4 A0 EF
18AF E6 E6 AE
18B2 8D 8D 8D      893      byt RETURN,RETURN,RETURN
18B5 CF EE E3      894      asc "Once the "
18B8 E5 A0 F4
18BB E8 E5 A0
18BE 56 00          895      byt BUFRCMD,DIRECT
18C0 55 40          896      adr CDMESG
18C2 A0 E3 E1      897      asc " card is installed VOLMGR"
18C5 F2 E4 A0
18C8 E9 F3 A0
18CB E9 EE F3
18CE F4 E1 EC
18D1 EC E5 E4
18D4 A0 D6 CF
18D7 CC CD C7
18DA D2
18DB 8D 8D          898      byt RETURN,RETURN
18DD F7 E9 EC      899      asc "will locate the card and allow you to"
18E0 EC A0 EC
18E3 EF E3 E1
18E6 F4 E5 A0
18E9 F4 E8 E5
18EC A0 E3 E1
18EF F2 E4 A0
18F2 E1 EE E4
18F5 A0 E1 EC
18F8 EC EF F7
18FB A0 F9 EF
18FE F5 A0 F4
1901 EF
1902 8D 8D          900      byt RETURN,RETURN
1904 ED E1 EE      901      asc "manage changes to the CFFA Firmware,"
1907 E1 E7 E5
190A A0 E3 E8
190D E1 EE E7
1910 E5 F3 A0
1913 F4 EF A0
1916 F4 E8 E5
1919 A0 C3 C6
191C C6 C1 A0
191F C6 E9 F2
1922 ED F7 E1
1925 F2 E5 AC
1928 8D 8D          902      byt RETURN,RETURN
192A C4 F2 E9      903      asc "Drives, and Volumes."
192D F6 E5 F3
1930 AC A0 E1
1933 EE E4 A0
1936 D6 EF EC
1939 F5 ED E5
193C F3 AE
193E 50              904      byt RTNCMD
193F                  905      ;
193F 4C 1B 35        906      jmp PRESKEYS
1942                  907      ;
1942                  908      ;
1942 20 73 37        909      QUIT      jsr PRINT
1945                  910      .if DISPLAY=GRPHMODE
1945                  911      byt MODECMD,TEXTMODE

```

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1945          912          .fi
1945          913          .if DISPLAY=TX80MODE
1945          914          byt MODECMD,LV80MODE
1945          915          .fi
1945 52 00      916          byt DISPCMD,NORMDISP
1947 53 00      917          byt SCRNCMD,INITSCRN
1949 8D         918          byt RETURN
194A 53 01      919          byt SCRNCMD,HOMESCRN
194C 50         920          byt RTNCMD
194D           921          ;
194D A9 A5      922          lda #PERCENT
194F 85 33      923          sta PROMPT
1951           924          ;
1951 A9 00      925          lda #ZERO
1953 85 76      926          sta ASRUN
1955 85 D8      927          sta ASONERR
1957           928          ;
1957 4C D0 03    929          jmp DOSWARM
195A           930          ;
195A           931          ;
195A AC FA BF    932  GETROMER ldy INITVAL
195D AD FB BF    933          lda INITVAL+1
1960           934          ;
1960 84 CE       935          sty GENPTR
1962 85 CF       936          sta GENPTR+1
1964           937          ;
1964 A0 04       938          ldy #ERRORNDX
1966           939          ;
1966 B1 CE       940          lda (GENPTR),Y
1968 8D 25 40    941          sta SAVROMER
196B           942          ;
196B C8         943          iny
196C           944          ;
196C B1 CE       945          lda (GENPTR),Y
196E 8D 26 40    946          sta SAVROMER+1
1971           947          ;
1971 60          948          rts
1972           949          ;
1972           950          ;
1972 AC FA BF    951  UNSETERR ldy INITVAL
1975 AD FB BF    952          lda INITVAL+1
1978           953          ;
1978 84 CE       954          sty GENPTR
197A 85 CF       955          sta GENPTR+1
197C           956          ;
197C A0 04       957          ldy #ERRORNDX
197E           958          ;
197E AD 25 40    959          lda SAVROMER
1981 91 CE       960          sta (GENPTR),Y
1983           961          ;
1983 C8         962          iny
1984           963          ;
1984 AD 26 40    964          lda SAVROMER+1
1987 91 CE       965          sta (GENPTR),Y
1989           966          ;
1989 60          967          rts
198A           968          ;
198A           969          ;
198A 48         970  SETERROR pha
198B           971          ;
198B AC FA BF    972          ldy INITVAL

```

```
198E AD FB BF 973 lda INITVAL+1
1991 974 ;
1991 84 CE 975 sty GENPTR
1993 85 CF 976 sta GENPTR+1
1995 977 ;
1995 A0 04 978 ldy #ERRORNDX
1997 979 ;
1997 8A 980 txa
1998 91 CE 981 sta (GENPTR),Y
199A 982 ;
199A C8 983 iny
199B 984 ;
199B 68 985 pla
199C 91 CE 986 sta (GENPTR),Y
199E 987 ;
199E 60 988 rts
199F 989 ;
199F 990 ;
199F 38 991 READVSN sec
19A0 992 ;
19A0 90 00 993 bcc *+2
19A2 994 dfs !-1
19A1 995 ;
19A1 18 996 READCLK clc
19A2 997 ;
19A2 6C E1 03 998 jmp (RDCLKVSN)
19A5 999 ;
19A5 6C E8 03 1000 PRTEROR jmp (PRTERADR)
19A8 1001 ;
19A8 1002 ;
```

BSAVE SEG02,A\$0900,B,L\$09EA

```
19A8 1003 usr SEG02
19A8 1004 ;
19A8 1005 ;
19A8 1006 icl "CODE3.L"
```

LLOAD CODE3.L,A\$4000

```

19A8          1          ttl "Volume Manger Source Code, CODE3.L"
19A8          2          ;
19A8          3          ;
19A8          4          ; CODE3.L
19A8          5          ;
19A8          6          ;
19A8          7          obj PAGE09
19A8          8          usr
19A8          9          ;
19A8         10          ;
19A8 20 F5 22   11  SHOWVTOC jsr SHOWDVOL
19AB         12          ;
19AB 20 8B 35   13          jsr GETVTOC2
19AE 90 03     14          bcc >1
19B0         15          ;
19B0 4C 1C 35   16          jmp PRESKEYA
19B3         17          ;
19B3 20 21 22   18  ^1      jsr INITVTOC
19B6         19          ;
19B6 AD 03 43   20          lda DOSVRSN
19B9         21          ;
19B9 4A        22          lsr
19BA 4A        23          lsr
19BB 4A        24          lsr
19BC 4A        25          lsr
19BD         26          ;
19BD 8D 05 40   27          sta SAVNUM
19C0         28          ;
19C0 20 73 37   29          jsr PRINT
19C3 00 65     30          hex 0065
19C5 B1 F3 F4   31          asc "1st Cat T/S    - 0x"
19C8 A0 C3 E1
19CB F4 A0 D4
19CE AF D3 A0
19D1 A0 A0 AD
19D4 A0 B0 F8
19D7 58        32          byt BYT1CMD
19D8 01 43     33          adr FRSTTRK
19DA AF B0 F8   34          asc "/0x"
19DD 58        35          byt BYT1CMD
19DE 02 43     36          adr FRSTSEC
19E0 8D        37          byt RETURN
19E1 C4 CF D3   38          asc "DOS Version    - "
19E4 A0 D6 E5
19E7 F2 F3 E9
19EA EF EE A0
19ED A0 A0 AD
19F0 A0
19F1 57        39          byt NIBLCMD
19F2 05 40     40          adr SAVNUM
19F4 AE        41          asc "."
19F5 57        42          byt NIBLCMD
19F6 03 43     43          adr DOSVRSN
19F8 8D        44          byt RETURN
19F9 C4 CF D3   45          asc "DOS Build      - "
19FC A0 C2 F5
19FF E9 EC E4
1A02 A0 A0 A0
1A05 A0 A0 AD
1A08 A0

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```

1A09 58          46          byt BYT1CMD
1A0A 04 43      47          adr DOSBUILD
1A0C 8D          48          byt RETURN
1A0D C4 CF D3   49          asc "DOS RAM      -  "
1A10 A0 D2 C1
1A13 CD A0 A0
1A16 A0 A0 A0
1A19 A0 A0 AD
1A1C A0
1A1D 50          50          byt RTNCMD
1A1E          51          ;
1A1E A2 91      52          ldx #DOSRAMH
1A20 A0 3E      53          ldy /DOSRAMH
1A22          54          ;
1A22 AD 05 43   55          lda DOSRAM
1A25          56          ;
1A25 C9 48      57          cmp #'H'
1A27 F0 16      58          beq >2
1A29          59          ;
1A29 C9 C8      60          cmp #"H"
1A2B F0 12      61          beq >2
1A2D          62          ;
1A2D A2 9D      63          ldx #DOSRAML
1A2F A0 3E      64          ldy /DOSRAML
1A31          65          ;
1A31 C9 4C      66          cmp #'L'
1A33 F0 0A      67          beq >2
1A35          68          ;
1A35 C9 CC      69          cmp #"L"
1A37 F0 06      70          beq >2
1A39          71          ;
1A39 A9 3F      72          lda #'?'
1A3B          73          ;
1A3B A2 A8      74          ldx #UNKNOWN
1A3D A0 3E      75          ldy /UNKNOWN
1A3F          76          ;
1A3F 20 40 37   77          ^2      jsr PRNTBUFT
1A42          78          ;
1A42 20 73 37   79          jsr PRINT
1A45 8D          80          byt RETURN
1A46 D6 EF EC   81          asc "Volm Number      - 0x"
1A49 ED A0 CE
1A4C F5 ED E2
1A4F E5 F2 A0
1A52 A0 A0 AD
1A55 A0 B0 F8
1A58 58          82          byt BYT1CMD
1A59 06 43      83          adr DISKVOL
1A5B A0 A8      84          asc " ("
1A5D 5E          85          byt DEC3CMD
1A5E 06 43      86          adr DISKVOL
1A60 A9          87          asc ")"
1A61 8D          88          byt RETURN
1A62 D6 EF EC   89          asc "Volm Type      -  "
1A65 ED A0 D4
1A68 F9 F0 E5
1A6B A0 A0 A0
1A6E A0 A0 AD
1A71 A0
1A72 50          90          byt RTNCMD
1A73          91          ;

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```

1A73 A2 B3      92      ldx #VOLTYPB
1A75 A0 3E      93      ldy /VOLTYPB
1A77           94      ;
1A77 AD 07 43   95      lda DISKTYPE
1A7A           96      ;
1A7A C9 42      97      cmp #'B'
1A7C F0 16      98      beq >3
1A7E           99      ;
1A7E C9 C2     100      cmp #"B"
1A80 F0 12     101      beq >3
1A82           102      ;
1A82 A2 C0     103      ldx #VOLTYPD
1A84 A0 3E     104      ldy /VOLTYPD
1A86           105      ;
1A86 C9 44     106      cmp #'D'
1A88 F0 0A     107      beq >3
1A8A           108      ;
1A8A C9 C4     109      cmp #"D"
1A8C F0 06     110      beq >3
1A8E           111      ;
1A8E A9 BF     112      lda #"? "
1A90           113      ;
1A90 A2 A8     114      ldx #UNKNOWN
1A92 A0 3E     115      ldy /UNKNOWN
1A94           116      ;
1A94 20 40 37  117      ^3 jsr PRNTBUFT
1A97           118      ;
1A97 A0 17     119      ldy #NAMELEN-1
1A99           120      ;
1A99 B9 08 43  121      ^4 lda DISKNAME,Y
1A9C 99 6E 3E  122      sta NAMEBUFR,Y
1A9F           123      ;
1A9F 88        124      dey
1AA0 10 F7     125      bpl <4
1AA2           126      ;
1AA2 20 73 37  127      jsr PRINT
1AA5 8D        128      byt RETURN
1AA6 D6 EF EC  129      asc "Volm Subject - 0x"
1AA9 ED A0 D3
1AAC F5 E2 EA
1AAF E5 E3 F4
1AB2 A0 A0 AD
1AB5 A0 B0 F8
1AB8 5B 01     130      byt ADRCMD,INDIRECT
1ABA 28 43     131      adr DISKSUBJ
1ABC A0 A8     132      asc " ("
1ABE 5F 00     133      byt DECNCMD,NOPAD
1AC0 28 43     134      adr DISKSUBJ
1AC2 A9        135      asc ")"
1AC3 8D        136      byt RETURN
1AC4 D6 EF EC  137      asc "Volm DiskName - "
1AC7 ED A0 C4
1ACA E9 F3 EB
1ACD CE E1 ED
1AD0 E5 A0 AD
1AD3 A0
1AD4 56 00     138      byt BUFRCMD,DIRECT
1AD6 6E 3E     139      adr NAMEBUFR
1AD8 D6 EF EC  140      asc "Volm DateTime -"
1ADB ED A0 C4
1ADE E1 F4 E5

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```

1AE1 D4 E9 ED
1AE4 E5 A0 AD
1AE7 50          141      byt RTNCMD
1AE8          142      ;
1AE8 A0 20      143      ldy #INITIME
1AEA A9 43      144      lda /INITIME
1AEC          145      ;
1AEC 20 5E 37   146      jsr PRINTIME
1AEF          147      ;
1AEF 20 73 37   148      jsr PRINT
1AF2 8D          149      byt RETURN
1AF3 D6 D4 CF   150      asc "VTOC DateTime -"
1AF6 C3 A0 C4
1AF9 E1 F4 E5
1AFC D4 E9 ED
1AFF E5 A0 AD
1B02 50          151      byt RTNCMD
1B03          152      ;
1B03 A0 2A      153      ldy #VTOCTIME
1B05 A9 43      154      lda /VTOCTIME
1B07          155      ;
1B07 20 5E 37   156      jsr PRINTIME
1B0A          157      ;
1B0A 20 73 37   158      jsr PRINT
1B0D 8D          159      byt RETURN
1B0E D4 AF D3   160      asc "T/S Pairs      - 0x"
1B11 A0 D0 E1
1B14 E9 F2 F3
1B17 A0 A0 A0
1B1A A0 A0 AD
1B1D A0 B0 F8
1B20 58          161      byt BYT1CMD
1B21 27 43      162      adr NUMTSENT
1B23 A0 A8      163      asc " ("
1B25 5E          164      byt DEC3CMD
1B26 27 43      165      adr NUMTSENT
1B28 A9          166      asc ")"
1B29 8D          167      byt RETURN
1B2A CE E5 F8   168      asc "Next Track      - 0x"
1B2D F4 A0 D4
1B30 F2 E1 E3
1B33 EB A0 A0
1B36 A0 A0 AD
1B39 A0 B0 F8
1B3C 58          169      byt BYT1CMD
1B3D 30 43      170      adr NXTTOALC
1B3F A0 A8      171      asc " ("
1B41 5D          172      byt DEC2CMD
1B42 30 43      173      adr NXTTOALC
1B44 A9          174      asc ")"
1B45 8D          175      byt RETURN
1B46 D4 EB A0   176      asc "Tk Allocation - 0x"
1B49 C1 EC EC
1B4C EF E3 E1
1B4F F4 E9 EF
1B52 EE A0 AD
1B55 A0 B0 F8
1B58 50          177      byt RTNCMD
1B59          178      ;
1B59 A2 CD      179      ldx #ALLDIRN
1B5B A0 3E      180      ldy /ALLDIRN

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```

1B5D      181 ;
1B5D AD 31 43 182      lda ALLCDIR
1B60 C9 FF 183      cmp #NEGONE
1B62 F0 0C 184      beq >5
1B64      185 ;
1B64 A2 D9 186      ldx #ALLDIRP
1B66 A0 3E 187      ldy /ALLDIRP
1B68      188 ;
1B68 C9 01 189      cmp #1
1B6A F0 04 190      beq >5
1B6C      191 ;
1B6C A2 A8 192      ldx #UNKNOWN
1B6E A0 3E 193      ldy /UNKNOWN
1B70      194 ;
1B70 20 4C 37 195      jsr PRNTBUFH
1B73      196 ;
1B73 20 73 37 197      jsr PRINT
1B76 8D 198      byt RETURN
1B77 C3 EF EE 199      asc "Config/Lock - 0x"
1B7A E6 E9 E7
1B7D AF CC EF
1B80 E3 EB A0
1B83 A0 A0 AD
1B86 A0 B0 F8
1B89 58      200      byt BYT1CMD
1B8A 32 43      201      adr DOSCONFIG
1B8C AF B0 F8 202      asc "/0x"
1B8F 54 00      203      byt CLRCMD,EOLCLR
1B91 50      204      byt RTNCMD
1B92      205 ;
1B92 A2 EF      206      ldx #LOCKU
1B94 A0 3E      207      ldy /LOCKU
1B96      208 ;
1B96 AD 33 43 209      lda DISKLOCK
1B99 29 80      210      and #MSBMASK
1B9B 10 04      211      bpl >6
1B9D      212 ;
1B9D A2 E5      213      ldx #LOCKL
1B9F A0 3E      214      ldy /LOCKL
1BA1      215 ;
1BA1 20 4C 37 216      jsr PRNTBUFH
1BA4      217 ;
1BA4 20 73 37 218      jsr PRINT
1BA7 8D 219      byt RETURN
1BA8 D6 EF EC 220      asc "Volume Tracks - 0x"
1BAB F5 ED E5
1BAE A0 D4 F2
1BB1 E1 E3 EB
1BB4 F3 A0 AD
1BB7 A0 B0 F8
1BBA 58      221      byt BYT1CMD
1BBB 34 43      222      adr NUMTRKS
1BBD A0 A8      223      asc " ("
1BBF 5D      224      byt DEC2CMD
1BC0 34 43      225      adr NUMTRKS
1BC2 A9      226      asc ")"
1BC3 8D      227      byt RETURN
1BC4 D4 F2 E1 228      asc "Track Sectors - 0x"
1BC7 E3 EB A0
1BCA D3 E5 E3
1BCD F4 EF F2

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1BD0 F3 A0 AD
1BD3 A0 B0 F8
1BD6 58          229      byt  BYT1CMD
1BD7 35 43      230      adr  NUMSECS
1BD9 A0 A8      231      asc  " ("
1BDB 5D          232      byt  DEC2CMD
1BDC 35 43      233      adr  NUMSECS
1BDE A9          234      asc  ")"
1BDF 8D          235      byt  RETURN
1BE0 D4 F2 E1   236      asc  "Track Phases - 0x"
1BE3 E3 EB A0
1BE6 D0 E8 E1
1BE9 F3 E5 F3
1BEC A0 A0 AD
1BEF A0 B0 F8
1BF2 58          237      byt  BYT1CMD
1BF3 26 43      238      adr  VTOCPHAS
1BF5 A0 A8      239      asc  " ("
1BF7 5D          240      byt  DEC2CMD
1BF8 26 43      241      adr  VTOCPHAS
1BFA A9          242      asc  ")"
1BFB 8D          243      byt  RETURN
1BFC D3 E5 E3   244      asc  "Sector Bytes - 0x"
1BFF F4 EF F2
1C02 A0 C2 F9
1C05 F4 E5 F3
1C08 A0 A0 AD
1C0B A0 B0 F8
1C0E 57          245      byt  NIBLCMD
1C0F 37 43      246      adr  BYTPRSEC+1
1C11 58          247      byt  BYT1CMD
1C12 36 43      248      adr  BYTPRSEC
1C14 A0 A8      249      asc  " ("
1C16 5F 00      250      byt  DECNCMD,NOPAD
1C18 36 43      251      adr  BYTPRSEC
1C1A A9          252      asc  ")"
1C1B 50          253      byt  RTNCMD
1C1C          254      ;
1C1C 4C 2A 35   255      jmp  PRESKEY
1C1F          256      ;
1C1F          257      ;
1C1F 20 73 37   258      DOSAVFRM jsr  PRINT
1C22 00 6D      259      hex  006D
1C24 C6 E9 EC   260      asc  "Filenames - CFFA_SLOT_"
1C27 E5 EE E1
1C2A ED E5 F3
1C2D A0 AD A0
1C30 C3 C6 C6
1C33 C1 DF D3
1C36 CC CF D4
1C39 DF
1C3A 56 00      261      byt  BUFRCMD,DIRECT
1C3C 42 3E      262      adr  VERSION
1C3E 8D          263      byt  RETURN
1C3F 0C          264      hex  0C
1C40 C3 C6 C6   265      asc  "CFFA_ROM_"
1C43 C1 DF D2
1C46 CF CD DF
1C49 56 00      266      byt  BUFRCMD,DIRECT
1C4B 42 3E      267      adr  VERSION
1C4D 00 71      268      hex  0071

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1C4F D3 E1 F6      269      asc "Save Firmware -"
1C52 E5 A0 C6
1C55 E9 F2 ED
1C58 F7 E1 F2
1C5B E5 A0 AD
1C5E 50            270      byt RTNCMD
1C5F              271      ;
1C5F 20 F0 10      272      jsr GETYORN
1C62 B0 5C          273      bcs >1
1C64              274      ;
1C64 F0 5A          275      beq >1
1C66              276      ;
1C66 20 D9 28      277      jsr READCF
1C69              278      ;
1C69 20 73 37      279      jsr PRINT
1C6C 8D 84          280      byt RETURN,CTRLD
1C6E C2 D3 C1      281      asc "BSAVE CFFA_SLOT_"
1C71 D6 C5 A0
1C74 C3 C6 C6
1C77 C1 DF D3
1C7A CC CF D4
1C7D DF
1C7E 56 00          282      byt BUFRCMD,DIRECT
1C80 42 3E          283      adr VERSION
1C82 AC D3          284      asc ",S"
1C84 5C            285      byt DEC1CMD
1C85 1E 40          286      adr DISKSLOT
1C87 AC C4          287      asc ",D"
1C89 5C            288      byt DEC1CMD
1C8A 1F 40          289      adr DISKDRV
1C8C AC C1 A4       290      asc ",A$"
1C8F 5B 00          291      byt ADRCMD,DIRECT
1C91 00 43          292      adr SLOTBUFR
1C93 AC CC A4       293      asc ",L$100"
1C96 B1 B0 B0
1C99 8D 84          294      byt RETURN,CTRLD
1C9B C2 D3 C1      295      asc "BSAVE CFFA_ROM_"
1C9E D6 C5 A0
1CA1 C3 C6 C6
1CA4 C1 DF D2
1CA7 CF CD DF
1CAA 56 00          296      byt BUFRCMD,DIRECT
1CAC 42 3E          297      adr VERSION
1CAE AC C1 A4       298      asc ",A$"
1CB1 5B 00          299      byt ADRCMD,DIRECT
1CB3 00 45          300      adr ROMBUFR
1CB5 AC CC A4       301      asc ",L$800"
1CB8 B8 B0 B0
1CBB 8D            302      byt RETURN
1CBC 50            303      byt RTNCMD
1CBD              304      ;
1CBD 4C 6C 11      305      jmp STATOKAY
1CC0              306      ;
1CC0 60            307      ^1      rts
1CC1              308      ;
1CC1              309      ;
1CC1 20 73 37      310      DOLDFRM  jsr PRINT
1CC4 00 6D          311      hex 006D
1CC6 C6 E9 EC       312      asc "Filenames - CFFA_SLOT_"
1CC9 E5 EE E1
1CCC ED E5 F3

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1CCF A0 AD A0
1CD2 C3 C6 C6
1CD5 C1 DF D3
1CD8 CC CF D4
1CDB DF
1CDC 56 00      313      byt BUFRCMD,DIRECT
1CDE 42 3E      314      adr VERSION
1CE0 8D         315      byt RETURN
1CE1 0C         316      hex 0C
1CE2 C3 C6 C6   317      asc "CFFA_ROM_"
1CE5 C1 DF D2
1CE8 CF CD DF
1CEB 56 00      318      byt BUFRCMD,DIRECT
1CED 42 3E      319      adr VERSION
1CEF 00 71      320      hex 0071
1CF1 C9 EE F3   321      asc "Install Firmware -"
1CF4 F4 E1 EC
1CF7 EC A0 C6
1CFA E9 F2 ED
1CFD F7 E1 F2
1D00 E5 A0 AD
1D03 50         322      byt RTNCMD
1D04         323      ;
1D04 20 F0 10   324      jsr GETYORN
1D07 B0 61      325      bcs >1
1D09         326      ;
1D09 F0 5F      327      beq >1
1D0B         328      ;
1D0B 20 73 37   329      jsr PRINT
1D0E 8D 84      330      byt RETURN,CTRLD
1D10 C2 CC CF   331      asc "BLOAD CFFA_SLOT_"
1D13 C1 C4 A0
1D16 C3 C6 C6
1D19 C1 DF D3
1D1C CC CF D4
1D1F DF
1D20 56 00      332      byt BUFRCMD,DIRECT
1D22 42 3E      333      adr VERSION
1D24 AC D3      334      asc ",S"
1D26 5C         335      byt DEC1CMD
1D27 1E 40      336      adr DISKSLOT
1D29 AC C4      337      asc ",D"
1D2B 5C         338      byt DEC1CMD
1D2C 1F 40      339      adr DISKDRV
1D2E AC C1 A4   340      asc ",A$"
1D31 5B 00      341      byt ADRCMD,DIRECT
1D33 00 43      342      adr SLOTBUFR
1D35 8D 84      343      byt RETURN,CTRLD
1D37 C2 CC CF   344      asc "BLOAD CFFA_ROM_"
1D3A C1 C4 A0
1D3D C3 C6 C6
1D40 C1 DF D2
1D43 CF CD DF
1D46 56 00      345      byt BUFRCMD,DIRECT
1D48 42 3E      346      adr VERSION
1D4A AC C1 A4   347      asc ",A$"
1D4D 5B 00      348      byt ADRCMD,DIRECT
1D4F 00 45      349      adr ROMBUFR
1D51 8D         350      byt RETURN
1D52 50         351      byt RTNCMD
1D53         352      ;

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1D53 20 21 26      353      jsr MODROM
1D56 B0 12      354      bcs >1
1D58      355      ;
1D58 20 2F 29      356      jsr WRITCF
1D5B B0 0D      357      bcs >1
1D5D      358      ;
1D5D 20 72 33      359      jsr SAVECF
1D60 B0 08      360      bcs >1
1D62      361      ;
1D62 A9 FF      362      lda #NEGONE
1D64 8D 0D 40      363      sta CFFAKEY
1D67      364      ;
1D67 20 6C 11      365      jsr STATOKAY
1D6A      366      ;
1D6A 60      367      ^1      rts
1D6B      368      ;
1D6B      369      ;
1D6B 20 73 37      370      DOLDLBA      jsr PRINT
1D6E 08 6D      371      hex 086D
1D70 C6 E9 EC      372      asc "Filename - CFFA_LBA_"
1D73 E5 EE E1
1D76 ED E5 A0
1D79 AD A0 C3
1D7C C6 C6 C1
1D7F DF CC C2
1D82 C1 DF
1D84 57      373      byt NIBLCMD
1D85 41 40      374      adr LBA
1D87 5A 03      375      byt BYTNCMD,3
1D89 42 40      376      adr LBA+1
1D8B 00 6F      377      hex 006F
1D8D D2 E5 F3      378      asc "Restore this LBA -"
1D90 F4 EF F2
1D93 E5 A0 F4
1D96 E8 E9 F3
1D99 A0 CC C2
1D9C C1 A0 AD
1D9F 50      379      byt RTNCMD
1DA0      380      ;
1DA0 20 F0 10      381      jsr GETYORN
1DA3 B0 62      382      bcs >3
1DA5      383      ;
1DA5 F0 60      384      beq >3
1DA7      385      ;
1DA7 20 73 37      386      jsr PRINT
1DAA 8D 84      387      byt RETURN,CTRLD
1DAC C2 CC CF      388      asc "BLOAD CFFA_LBA_"
1DAF C1 C4 A0
1DB2 C3 C6 C6
1DB5 C1 DF CC
1DB8 C2 C1 DF
1DBB 57      389      byt NIBLCMD
1DBC 41 40      390      adr LBA
1DBE 5A 03      391      byt BYTNCMD,3
1DC0 42 40      392      adr LBA+1
1DC2 AC D3      393      asc ",S"
1DC4 5C      394      byt DEC1CMD
1DC5 1E 40      395      adr DISKSLOT
1DC7 AC C4      396      asc ",D"
1DC9 5C      397      byt DEC1CMD
1DCA 1F 40      398      adr DISKDRV

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1DCC AC C1 A4      399      asc ",A$"
1DCF 5B 00        400      byt ADRCMD,DIRECT
1DD1 00 43        401      adr LBABUFR
1DD3 8D          402      byt RETURN
1DD4 50          403      byt RTNCMD
1DD5          404      ;
1DD5 20 73 37    405      jsr PRINT
1DD8 00 72        406      hex 0072
1DDA D3 E1 F6    407      asc "Save to LBA number: 0x"
1DDD E5 A0 F4
1DE0 EF A0 CC
1DE3 C2 C1 A0
1DE6 EE F5 ED
1DE9 E2 E5 F2
1DEC BA A0 A0
1DEF B0 F8
1DF1 50          408      byt RTNCMD
1DF2          409      ;
1DF2 20 18 34    410      jsr GETHEX8
1DF5 B0 10        411      bcs >3
1DF7          412      ;
1DF7 AD 28 40    413      lda NENTRY
1DFA F0 03        414      beq >2
1DFC          415      ;
1DFC 20 60 11    416      jsr GETLBA2
1DFF          417      ;
1DFF 20 75 2D    418      ^2 jsr WRITLBA2
1E02 B0 04        419      bcs >4
1E04          420      ;
1E04 20 6C 11    421      jsr STATOKAY
1E07          422      ;
1E07 60          423      ^3 rts
1E08          424      ;
1E08 20 73 37    425      ^4 jsr PRINT
1E0B 00 74        426      hex 0074
1E0D 56 00        427      byt BUFRCMD,DIRECT
1E0F 5B 3D        428      adr MSG3
1E11 F7 F2 E9    429      asc "write selected LBA"
1E14 F4 E5 A0
1E17 F3 E5 EC
1E1A E5 E3 F4
1E1D E5 E4 A0
1E20 CC C2 C1
1E23 50          430      byt RTNCMD
1E24          431      ;
1E24 4C 1B 35    432      jmp PRESKEYS
1E27          433      ;
1E27          434      ;
1E27 20 73 37    435      DOSAVLBA jsr PRINT
1E2A 05 6D        436      hex 056D
1E2C C6 E9 EC    437      asc "Filename - CFFA_LBA_"
1E2F E5 EE E1
1E32 ED E5 A0
1E35 AD A0 C3
1E38 C6 C6 C1
1E3B DF CC C2
1E3E C1 DF
1E40 57          438      byt NIBLCMD
1E41 41 40        439      adr LBA
1E43 5A 03        440      byt BYTNCMD,3
1E45 42 40        441      adr LBA+1

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1E47 00 70      442      hex 0070
1E49 D3 E1 F6   443      asc "Save this LBA -"
1E4C E5 A0 F4
1E4F E8 E9 F3
1E52 A0 CC C2
1E55 C1 A0 AD
1E58 50          444      byt RTNCMD
1E59            445      ;
1E59 20 F0 10   446      jsr GETYORN
1E5C B0 5C      447      bcs >2
1E5E            448      ;
1E5E F0 5A      449      beq >2
1E60            450      ;
1E60 20 38 2D   451      jsr READLBA2
1E63 90 1E      452      bcc >1
1E65            453      ;
1E65 20 73 37   454      jsr PRINT
1E68 00 74      455      hex 0074
1E6A 56 00      456      byt BUFRCMD,DIRECT
1E6C 5B 3D      457      adr MSG3
1E6E F2 E5 E1   458      asc "read selected LBA"
1E71 E4 A0 F3
1E74 E5 EC E5
1E77 E3 F4 E5
1E7A E4 A0 CC
1E7D C2 C1
1E7F 50          459      byt RTNCMD
1E80            460      ;
1E80 4C 1B 35   461      jmp PRESKEYS
1E83            462      ;
1E83 20 73 37   463      ^1 jsr PRINT
1E86 8D 84      464      byt RETURN,CTRLD
1E88 C2 D3 C1   465      asc "BSAVE CFFA_LBA_"
1E8B D6 C5 A0
1E8E C3 C6 C6
1E91 C1 DF CC
1E94 C2 C1 DF
1E97 57          466      byt NIBLCMD
1E98 41 40      467      adr LBA
1E9A 5A 03      468      byt BYTNCMD,3
1E9C 42 40      469      adr LBA+1
1E9E AC D3      470      asc ",S"
1EA0 5C          471      byt DEC1CMD
1EA1 1E 40      472      adr DISKSLOT
1EA3 AC E4      473      asc ",d"
1EA5 5C          474      byt DEC1CMD
1EA6 1F 40      475      adr DISKDRV
1EA8 AC C1 A4   476      asc ",A$"
1EAB 5B 00      477      byt ADRCMD,DIRECT
1EAD 00 43      478      adr LBABUFR
1EAF AC CC A4   479      asc ",L$200"
1EB2 B2 B0 B0
1EB5 8D          480      byt RETURN
1EB6 50          481      byt RTNCMD
1EB7            482      ;
1EB7 20 6C 11   483      jsr STATOKAY
1EBA            484      ;
1EBA 60          485      ^2 rts
1EBB            486      ;
1EBB            487      ;
1EBB A0 00      488      DOCLRLBA ldy #ZERO

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1EBD 98          489      tya
1EBE            490      ;
1EBE 99 00 43    491      ^1      sta LBABUFR,Y
1EC1 99 00 44    492      sta LBABUFR+PAGESIZE,Y
1EC4            493      ;
1EC4 C8          494      iny
1EC5 D0 F7       495      bne <1
1EC7            496      ;
1EC7 20 73 37    497      jsr PRINT
1ECA 00 77       498      hex 0077
1ECC C3 EC E5    499      asc "Clearing LBA "
1ECF E1 F2 E9
1ED2 EE E7 A0
1ED5 CC C2 C1
1ED8 A0
1ED9 50          500      byt RTNCMD
1EDA            501      ;
1EDA 20 AB 28    502      ^2      jsr SHOWLBA
1EDD            503      ;
1EDD 20 75 2D    504      jsr WRITLBA2
1EE0 B0 37       505      bcs >5
1EE2            506      ;
1EE2 AD 41 40    507      lda LBA
1EE5 CD 45 40    508      cmp LASTLBA
1EE8 D0 18       509      bne >3
1EEA            510      ;
1EEA AD 42 40    511      lda LBA+1
1EED CD 46 40    512      cmp LASTLBA+1
1EF0 D0 10       513      bne >3
1EF2            514      ;
1EF2 AD 43 40    515      lda LBA+2
1EF5 CD 47 40    516      cmp LASTLBA+2
1EF8 D0 08       517      bne >3
1EFA            518      ;
1EFA AD 44 40    519      lda LBA+3
1EFD CD 48 40    520      cmp LASTLBA+3
1F00 F0 14       521      beq >4
1F02            522      ;
1F02 EE 44 40    523      ^3      inc LBA+3
1F05 D0 D3       524      bne <2
1F07            525      ;
1F07 EE 43 40    526      inc LBA+2
1F0A D0 CE       527      bne <2
1F0C            528      ;
1F0C EE 42 40    529      inc LBA+1
1F0F D0 C9       530      bne <2
1F11            531      ;
1F11 EE 41 40    532      inc LBA
1F14 D0 C4       533      bne <2
1F16            534      ;
1F16 4C 6C 11    535      ^4      jmp STATOKAY
1F19            536      ;
1F19 20 73 37    537      ^5      jsr PRINT
1F1C 00 74       538      hex 0074
1F1E 56 00       539      byt BUFRCMD,DIRECT
1F20 5B 3D       540      adr MSG3
1F22 E3 EC E5    541      asc "clear selected LBA"
1F25 E1 F2 A0
1F28 F3 E5 EC
1F2B E5 E3 F4
1F2E E5 E4 A0

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1F31 CC C2 C1
1F34 50          542          byt RTNCMD
1F35          543          ;
1F35 4C 1B 35   544          jmp PRESKEYS
1F38          545          ;
1F38          546          ;
1F38 A0 00      547 SHOWDRVS ldy #ZERO
1F3A          548          ;
1F3A 8C 12 40   549          sty NVOL
1F3D 8C 14 40   550          sty SHOWCNT
1F40          551          ;
1F40 C8         552          iny
1F41          553          ;
1F41 8C 0F 40   554          sty NDRV
1F44          555          ;
1F44 20 B2 11   556 ^1      jsr RDDRVLBA
1F47 B0 38      557          bcs >5
1F49          558          ;
1F49 AD 14 40   559          lda SHOWCNT
1F4C D0 08      560          bne >2
1F4E          561          ;
1F4E 20 73 37   562          jsr PRINT
1F51 00 65      563          hex 0065
1F53 54 01      564          byt CLRCMD,EOPCLR
1F55 50         565          byt RTNCMD
1F56          566          ;
1F56 20 82 1F   567 ^2      jsr SHOWDRV
1F59          568          ;
1F59 EE 14 40   569          inc SHOWCNT
1F5C          570          ;
1F5C AD 14 40   571          lda SHOWCNT
1F5F C9 10      572          cmp #16
1F61 90 08      573          bcc >3
1F63          574          ;
1F63 20 22 35   575          jsr PRESKEY2
1F66          576          ;
1F66 A9 00      577          lda #ZERO
1F68 8D 14 40   578          sta SHOWCNT
1F6B          579          ;
1F6B EE 0F 40   580 ^3      inc NDRV
1F6E          581          ;
1F6E AD 0F 40   582          lda NDRV
1F71 CD 10 40   583          cmp NDRVS
1F74 90 CE      584          bcc <1
1F76          585          ;
1F76 D0 08      586          bne >4
1F78          587          ;
1F78 AD 13 40   588          lda NVOLS
1F7B 8D 12 40   589          sta NVOL
1F7E          590          ;
1F7E B0 C4      591          bcs <1          ; always taken
1F80          592          ;
1F80 18         593 ^4      clc
1F81          594          ;
1F81 60         595 ^5      rts
1F82          596          ;
1F82          597          ;
1F82 38         598 SHOWDRV  sec
1F83          599          ;
1F83 AD 0F 40   600          lda NDRV
1F86 E9 01      601          sbc #1

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1F88      602 ;
1F88 29 0F      603      and #$0F
1F8A 69 04      604      adc #4
1F8C 85 25      605      sta CV
1F8E      606 ;
1F8E 20 22 FC    607      jsr VTAB
1F91      608 ;
1F91 20 73 37    609      jsr PRINT
1F94 02      610      hex 02
1F95 5D      611      byt DEC2CMD
1F96 0F 40      612      adr NDRV
1F98 A0 A0 A0    613      asc " "
1F9B 50      614      byt RTNCMD
1F9C      615 ;
1F9C AD 12 40    616      lda NVOL
1F9F D0 0B      617      bne >1
1FA1      618 ;
1FA1 20 73 37    619      jsr PRINT
1FA4 B2 B5 B6    620      asc "256 "
1FA7 A0 A0
1FA9 50      621      byt RTNCMD
1FAA      622 ;
1FAA 90 09      623      bcc >2 ; always taken
1FAC      624 ;
1FAC 20 73 37    625 ^1      jsr PRINT
1FAF 5E      626      byt DEC3CMD
1FB0 12 40      627      adr NVOL
1FB2 A0 A0      628      asc " "
1FB4 50      629      byt RTNCMD
1FB5      630 ;
1FB5 A0 00      631 ^2      ldz #DRVNAME
1FB7      632 ;
1FB7 B1 CE      633 ^3      lda (GENPTR),Y
1FB9 10 08      634      bpl >4
1FBB      635 ;
1FBB 20 ED FD    636      jsr COUT
1FBE      637 ;
1FBE C8      638      iny
1FBF      639 ;
1FBF C0 18      640      cpy #NAMELEN
1FC1 D0 F4      641      bne <3
1FC3      642 ;
1FC3 60      643 ^4      rts
1FC4      644 ;
1FC4      645 ;
1FC4 20 B2 11    646 SHOWDES jsr RDDRVLBA
1FC7 B0 FA      647      bcs <4
1FC9      648 ;
1FC9 20 F5 11    649      jsr SHOWDRVL
1FCC      650 ;
1FCC 20 73 37    651      jsr PRINT
1FCF 05 67      652      hex 0567
1FD1 CE E1 ED    653      asc "Name - "
1FD4 E5 A0 AD
1FD7 A0
1FD8 50      654      byt RTNCMD
1FD9      655 ;
1FD9 A0 00      656      ldz #ZERO
1FDB      657 ;
1FDB B1 CE      658 ^1      lda (GENPTR),Y
1FDD 10 08      659      bpl >2

```

```

1FDF      660 ;
1FDF 20 ED FD 661      jsr COUT
1FE2      662 ;
1FE2 C8      663      iny
1FE3      664 ;
1FE3 C0 18    665      cpy #NAMELEN
1FE5 D0 F4    666      bne <1
1FE7      667 ;
1FE7 20 73 37 668 ^2      jsr PRINT
1FEA 00 69    669      hex 0069
1FEC C4 E1 F4 670      asc "Date/Time -"
1FEF E5 AF D4
1FF2 E9 ED E5
1FF5 A0 AD
1FF7 50      671      byt RTNCMD
1FF8      672 ;
1FF8 A0 18    673      ldy #DRVDATE
1FFA A5 CF    674      lda GENPTR+1
1FFC      675 ;
1FFC 20 5E 37 676      jsr PRINTIME
1FFF      677 ;
1FFF 20 73 37 678      jsr PRINT
2002 00 6D    679      hex 006D
2004 54 01    680      byt CLRCMD,EOPCLR
2006 55 00    681      byt CNTRCMD,DIRECT
2008 C4 E5 F3 682      asc "Description"
200B E3 F2 E9
200E F0 F4 E9
2011 EF EE
2013 8D 8D    683      byt RETURN,RETURN
2015 50      684      byt RTNCMD
2016      685 ;
2016 A0 1E    686      ldy #DRVDESC
2018      687 ;
2018      688 ;
2018 8C 04 40 689 SHOWDESC sty SAVY
201B      690 ;
201B A5 CF    691      lda GENPTR+1
201D 8D 06 40 692      sta SAVPTR
2020      693 ;
2020 A2 00    694      ldx #ZERO
2022      695 ;
2022 B1 CE    696 ^1      lda (GENPTR),Y
2024 F0 15    697      beq >4
2026      698 ;
2026 E8      699      inx
2027      700 ;
2027 C8      701      iny
2028 D0 02    702      bne >2
202A      703 ;
202A E6 CF    704      inc GENPTR+1
202C      705 ;
202C C9 A0    706 ^2      cmp #SPACE
202E D0 03    707      bne >3
2030      708 ;
2030 8E 14 40 709      stx SHOWCNT
2033      710 ;
2033 E4 21    711 ^3      cpx WNDWDTH
2035 90 EB    712      bcc <1
2037      713 ;
2037 AE 14 40 714      ldx SHOWCNT

```

```

203A          715 ;
203A CA      716 dex
203B          717 ;
203B AC 04 40 718 ^4 ldy SAVY
203E          719 ;
203E AD 06 40 720 lda SAVPTR
2041 85 CF    721 sta GENPTR+1
2043          722 ;
2043 B1 CE    723 ^5 lda (GENPTR),Y
2045 F0 1D    724 beq RTN04
2047          725 ;
2047 20 ED FD 726 jsr COUT
204A          727 ;
204A C8       728 iny
204B D0 02    729 bne >6
204D          730 ;
204D E6 CF    731 inc GENPTR+1
204F          732 ;
204F CA      733 ^6 dex
2050 D0 F1    734 bne <5
2052          735 ;
2052 20 8E FD 736 jsr CROUT
2055          737 ;
2055 B1 CE    738 ^7 lda (GENPTR),Y
2057 F0 0B    739 beq RTN04
2059          740 ;
2059 C9 A0    741 cmp #SPACE
205B D0 BB    742 bne SHOWDESC
205D          743 ;
205D C8       744 iny
205E D0 F5    745 bne <7
2060          746 ;
2060 E6 CF    747 inc GENPTR+1
2062 D0 F1    748 bne <7 ; always taken
2064          749 ;
2064 60       750 RTN04 rts
2065          751 ;
2065          752 ;
2065 20 B2 11 753 GETDRNFO jsr RDDRVLBA
2068 B0 FA    754 bcs RTN04
206A          755 ;
206A 20 F5 11 756 jsr SHOWDRV
206D          757 ;
206D A0 17    758 ^1 ldy #NAMELEN-1
206F          759 ;
206F B1 CE    760 ^2 lda (GENPTR),Y
2071 99 6E 3E 761 sta NAMEBUFR,Y
2074          762 ;
2074 88       763 dey
2075 10 F8    764 bpl <2
2077          765 ;
2077 20 73 37 766 jsr PRINT
207A 04 67    767 hex 0467
207C 54 01    768 byt CLRCMD,EOPCLR
207E CF EC E4 769 asc "Old Name - "
2081 A0 CE E1
2084 ED E5 A0
2087 AD A0
2089 56 00    770 byt BUFRCMD,DIRECT
208B 6E 3E    771 adr NAMEBUFR
208D 04 68    772 hex 0468

```

```

208F CE E5 F7      773      asc "New Name - "
2092 A0 CE E1
2095 ED E5 A0
2098 AD A0
209A 50      774      byt RTNCMD
209B      775      ;
209B A2 18      776      ldx #NAMELEN
209D      777      ;
209D A0 6E      778      ldy #NAMEBUFR
209F A9 3E      779      lda /NAMEBUFR
20A1      780      ;
20A1 20 BB 27    781      jsr GETTEXTC
20A4 B0 66      782      bcs >7
20A6      783      ;
20A6 AD 6E 3E    784      lda NAMEBUFR
20A9 F0 0F      785      beq >5
20AB      786      ;
20AB 20 93 28    787      jsr PADBUFR
20AE      788      ;
20AE A0 17      789      ldy #NAMELEN-1
20B0      790      ;
20B0 B9 6E 3E    791      ^4      lda NAMEBUFR,Y
20B3 91 CE      792      sta (GENPTR),Y
20B5      793      ;
20B5 88      794      dey
20B6 10 F8      795      bpl <4
20B8      796      ;
20B8 30 B3      797      bmi <1      ; always taken
20BA      798      ;
20BA 20 73 37    799      ^5      jsr PRINT
20BD 00 68      800      hex 0068
20BF 54 00      801      byt CLRCMD,EOLCLR
20C1 03 69      802      hex 0369
20C3 C4 E1 F4    803      asc "Date/Time -"
20C6 E5 AF D4
20C9 E9 ED E5
20CC A0 AD
20CE 50      804      byt RTNCMD
20CF      805      ;
20CF A0 18      806      ldy #DRVDATE
20D1 A5 CF      807      lda GENPTR+1
20D3      808      ;
20D3 20 5E 37    809      jsr PRINTIME
20D6      810      ;
20D6 20 73 37    811      jsr PRINT
20D9 06 6A      812      hex 066A
20DB D5 F0 E4    813      asc "Update -"
20DE E1 F4 E5
20E1 A0 AD
20E3 50      814      byt RTNCMD
20E4      815      ;
20E4 20 F0 10    816      jsr GETYORN
20E7 B0 23      817      bcs >7
20E9      818      ;
20E9 F0 0A      819      beq >6
20EB      820      ;
20EB A0 18      821      ldy #DRVDATE
20ED A5 CF      822      lda GENPTR+1
20EF      823      ;
20EF 20 A1 19    824      jsr READCLK
20F2      825      ;

```

```

20F2 4C BA 20      826      jmp <5
20F5              827      ;
20F5 20 2D 21      828      ^6      jsr GETDRVDS
20F8 B0 12          829      bcs >7
20FA              830      ;
20FA 20 73 37      831      jsr PRINT
20FD 00 76          832      hex 0076
20FF 54 01          833      byt CLRCMD,EOPCLR
2101 50            834      byt RTNCMD
2102              835      ;
2102 20 EC 34      836      jsr SELECT
2105 B0 05          837      bcs >7
2107              838      ;
2107 20 75 2D      839      jsr WRITLBA2
210A B0 01          840      bcs >8
210C              841      ;
210C 60            842      ^7      rts
210D              843      ;
210D 20 73 37      844      ^8      jsr PRINT
2110 00 74          845      hex 0074
2112 56 00          846      byt BUFRCMD,DIRECT
2114 5B 3D          847      adr MSG3
2116 F7 F2 E9      848      asc "write Drive Catalog"
2119 F4 E5 A0
211C C4 F2 E9
211F F6 E5 A0
2122 C3 E1 F4
2125 E1 EC EF
2128 E7
2129 50            849      byt RTNCMD
212A              850      ;
212A 4C 1B 35      851      jmp PRESKEYS
212D              852      ;
212D              853      ;
212D 20 73 37      854      GETDRVDS jsr PRINT
2130 00 64          855      hex 0064
2132 54 01          856      byt CLRCMD,EOPCLR
2134 55 00          857      byt CNTRCMD,DIRECT
2136 CF F2 E9      858      asc "Original Description"
2139 E7 E9 EE
213C E1 EC A0
213F C4 E5 F3
2142 E3 F2 E9
2145 F0 F4 E9
2148 EF EE
214A 8D 8D          859      byt RETURN,RETURN
214C 50            860      byt RTNCMD
214D              861      ;
214D A0 1E          862      ldy #DRVDESC
214F 20 18 20      863      jsr SHOWDESC
2152              864      ;
2152 20 73 37      865      jsr PRINT
2155 00 6D          866      hex 006D
2157 55 01          867      byt CNTRCMD,INDIRECT
2159 72 3C          868      adr STR3.01      ; "New Description"
215B 00 6F          869      hex 006F
215D 50            870      byt RTNCMD
215E              871      ;
215E 20 FA 30      872      jsr CLRDESC
2161              873      ;
2161 A2 E1          874      ldx #DRVDSLEN-1

```

```

2163          875 ;
2163 A0 00      876      ldy #DESCBUFR
2165 A9 41      877      lda /DESCBUFR
2167          878 ;
2167 20 BB 27    879      jsr GETTEXTC
216A B0 20      880      bcs >4
216C          881 ;
216C AD 00 41    882      lda DESCBUFR
216F F0 0D      883      beq >3
2171          884 ;
2171 A2 00      885      ldx #ZERO
2173 A0 1E      886      ldy #DRVDESC
2175          887 ;
2175 BD 00 41    888 ^2      lda DESCBUFR,X
2178 91 CE      889      sta (GENPTR),Y
217A          890 ;
217A E8         891      inx
217B          892 ;
217B C8         893      iny
217C D0 F7      894      bne <2
217E          895 ;
217E 20 73 37    896 ^3      jsr PRINT
2181 00 6F      897      hex 006F
2183 54 01      898      byt CLRCMD,EOPCLR
2185 50         899      byt RTNCMD
2186          900 ;
2186 A0 1E      901      ldy #DRVDESC
2188 20 18 20    902      jsr SHOWDESC
218B          903 ;
218B 18         904      clc
218C          905 ;
218C 60         906 ^4      rts
218D          907 ;
218D          908 ;
218D A2 03      909 CLEARLBA ldx #LBALEN-1
218F          910 ;
218F A9 00      911      lda #ZERO
2191          912 ;
2191 9D 41 40    913 ^1      sta LBA,X
2194          914 ;
2194 CA         915      dex
2195 10 FA      916      bpl <1
2197          917 ;
2197 60         918      rts
2198          919 ;
2198          920 ;

```

BSAVE SEG03,A\$0900,B,L\$07F0

```

2198          921      usr SEG03
2198          922 ;
2198          923 ;
2198          924      icl "CODE4.L"

```

LLOAD CODE4.L,A\$4000

```

2198          1          ttl "Volume Manger Source Code, CODE4.L"
2198          2          ;
2198          3          ;
2198          4          ; CODE4.L
2198          5          ;
2198          6          ;
2198          7          obj PAGE09
2198          8          usr
2198          9          ;
2198         10          ;
2198 20 73 37         11  SHOWNCAT jsr PRINT
219B 00 63          12          hex 0063
219D 54 01          13          byt CLRCMD,EOPCLR
219F D3 E5 EC       14          asc "Selected Drive - "
21A2 E5 E3 F4
21A5 E5 E4 A0
21A8 C4 F2 E9
21AB F6 E5 A0
21AE AD A0
21B0 5D          15          byt DEC2CMD
21B1 0F 40       16          adr NDRV
21B3 00 65       17          hex 0065
21B5 D6 EF EC    18          asc "Vol|"
21B8 FC
21B9 50          19          byt RTNCMD
21BA          20          ;
21BA A9 F0       21          lda #!-16
21BC 8D 14 40    22          sta SHOWCNT
21BF          23          ;
21BF 20 73 37    24          ^1 jsr PRINT
21C2 A0          25          asc " "
21C3 57          26          byt NIBLCMD
21C4 14 40       27          adr SHOWCNT
21C6 50          28          byt RTNCMD
21C7          29          ;
21C7 EE 14 40    30          inc SHOWCNT
21CA D0 F3       31          bne <1
21CC          32          ;
21CC 20 8E FD    33          jsr CROUT
21CF          34          ;
21CF A0 25       35          ldy #37
21D1          36          ;
21D1 A9 AD       37          lda #MINUS
21D3          38          ;
21D3 20 ED FD    39          ^2 jsr COUT
21D6          40          ;
21D6 88          41          dey
21D7 D0 FA       42          bne <2
21D9          43          ;
21D9 20 73 37    44          ^3 jsr PRINT
21DC 8D          45          byt RETURN
21DD A0          46          asc " "
21DE 58          47          byt BYT1CMD
21DF 14 40       48          adr SHOWCNT
21E1 FC          49          asc "| "
21E2 50          50          byt RTNCMD
21E3          51          ;
21E3 A9 10       52          lda #16
21E5 8D 15 40    53          sta LINECNT
21E8          54          ;

```

```

21E8 AD 14 40      55 ^4      lda SHOWCNT
21EB              56 ;
21EB 20 8E 35      57      jsr GETVTOC
21EE B0 2E          58      bcs >6
21F0              59 ;
21F0 A2 00          60      ldx #ZERO
21F2              61 ;
21F2 AD 00 43      62      lda VTOCSB
21F5 D0 0A          63      bne >5
21F7              64 ;
21F7 AD 01 43      65      lda FRSTTRK
21FA C9 11          66      cmp #VTOCTRK
21FC D0 03          67      bne >5
21FE              68 ;
21FE AE 02 43      69      ldx FRSTSEC
2201              70 ;
2201 8E 05 40      71 ^5      stx SAVNUM
2204              72 ;
2204 20 73 37      73      jsr PRINT
2207 A0              74      asc " "
2208 57              75      byt NIBLCMD
2209 05 40          76      adr SAVNUM
220B 50              77      byt RTNCMD
220C              78 ;
220C EE 14 40      79      inc SHOWCNT
220F              80 ;
220F AD 14 40      81      lda SHOWCNT
2212 CD 11 40      82      cmp NVOLMAX
2215 F0 07          83      beq >6
2217              84 ;
2217 CE 15 40      85      dec LINECNT
221A D0 CC          86      bne <4
221C              87 ;
221C F0 BB          88      beq <3          ; always taken
221E              89 ;
221E 4C 2A 35      90 ^6      jmp PRESKEY
2221              91 ;
2221              92 ;
2221 AD 01 43      93 INITVTOC lda FRSTTRK
2224 F0 09          94      beq >1
2226              95 ;
2226 AD 03 43      96      lda DOSVRSN
2229 C9 10          97      cmp #$10
222B B0 05          98      bcs >2
222D              99 ;
222D A9 33          100     lda #$33
222F              101 ;
222F 8D 03 43      102 ^1      sta DOSVRSN
2232              103 ;
2232 AD 08 43      104 ^2      lda DISKNAME
2235 0D 09 43      105      ora DISKNAME+1
2238 D0 0A          106      bne >4
223A              107 ;
223A A0 17          108      ldy #NAMELEN-1
223C              109 ;
223C A9 A0          110      lda #SPACE
223E              111 ;
223E 99 08 43      112 ^3      sta DISKNAME,Y
2241              113 ;
2241 88              114      dey
2242 10 FA          115      bpl <3

```

```

2244      116 ;
2244 60      117 ^4      rts
2245      118 ;
2245      119 ;
2245 20 F5 22 120 SHOWBMAP jsr SHOWDVOL
2248      121 ;
2248 20 8B 35 122      jsr GETVTOC2
224B 90 03    123      bcc >1
224D      124 ;
224D 4C 1C 35 125      jmp PRESKEYA
2250      126 ;
2250 20 73 37 127 ^1      jsr PRINT
2253 00 66    128      hex 0066
2255 D4 F2 EB 129      asc "Trk|C840C840 C840C840 C840C840 C840C840"
2258 FC C3 B8
225B B4 B0 C3
225E B8 B4 B0
2261 A0 C3 B8
2264 B4 B0 C3
2267 B8 B4 B0
226A A0 C3 B8
226D B4 B0 C3
2270 B8 B4 B0
2273 A0 C3 B8
2276 B4 B0 C3
2279 B8 B4 B0
227C 8D      130      byt RETURN
227D CE F5 ED 131      asc "Num|FB73FB73 FB73FB73 FB73FB73 FB73FB73"
2280 FC C6 C2
2283 B7 B3 C6
2286 C2 B7 B3
2289 A0 C6 C2
228C B7 B3 C6
228F C2 B7 B3
2292 A0 C6 C2
2295 B7 B3 C6
2298 C2 B7 B3
229B A0 C6 C2
229E B7 B3 C6
22A1 C2 B7 B3
22A4 8D      132      byt RETURN
22A5 50      133      byt RTNCMD
22A6      134 ;
22A6 A0 27    135      ldy #39
22A8      136 ;
22A8 A9 AD    137      lda #MINUS
22AA      138 ;
22AA 20 ED FD 139 ^2      jsr COUT
22AD      140 ;
22AD 88      141      dey
22AE D0 FA    142      bne <2
22B0      143 ;
22B0 8C 14 40 144      sty SHOWCNT
22B3      145 ;
22B3 20 8E FD 146 ^3      jsr CROUT
22B6      147 ;
22B6 A9 04    148      lda #4
22B8 8D 15 40 149      sta LINECNT
22BB      150 ;
22BB 20 73 37 151      jsr PRINT
22BE A0      152      asc " "

```

```

22BF 58          153          byt BYT1CMD
22C0 14 40       154          adr SHOWCNT
22C2 50          155          byt RTNCMD
22C3             156          ;
22C3 A9 FC       157          lda #BAR
22C5             158          ;
22C5 20 ED FD    159          ^4 jsr COUT
22C8             160          ;
22C8 AD 14 40    161          lda SHOWCNT
22CB             162          ;
22CB 0A          163          asl
22CC 0A          164          asl
22CD             165          ;
22CD 69 38       166          adc #BITMAP
22CF 8D D7 22    167          sta SHOWMOD
22D2             168          ;
22D2 20 73 37    169          jsr PRINT
22D5 5A 04       170          byt BYTNCMD,4
22D7 00 43       171          SHOWMOD adr VTOCBUFR
22D9 50          172          byt RTNCMD
22DA             173          ;
22DA EE 14 40    174          inc SHOWCNT
22DD             175          ;
22DD AD 14 40    176          lda SHOWCNT
22E0 CD 34 43    177          cmp NUMTRKS
22E3 F0 0D       178          beq >5
22E5             179          ;
22E5 C9 32       180          cmp #MAXTRKS
22E7 F0 09       181          beq >5
22E9             182          ;
22E9 A9 A0       183          lda #SPACE
22EB             184          ;
22EB CE 15 40    185          dec LINECNT
22EE D0 D5       186          bne <4
22F0             187          ;
22F0 F0 C1       188          beq <3          ; always taken
22F2             189          ;
22F2 4C 22 35    190          ^5 jmp PRESKEY2
22F5             191          ;
22F5             192          ;
22F5 20 73 37    193          SHOWDVOL jsr PRINT
22F8 00 63       194          hex 0063
22FA 54 01       195          byt CLRCMD,EOPCLR
22FC D3 E5 EC    196          asc "Selected Drive/Volume - "
22FF E5 E3 F4
2302 E5 E4 A0
2305 C4 F2 E9
2308 F6 E5 AF
230B D6 EF EC
230E F5 ED E5
2311 A0 AD A0
2314 5D          197          byt DEC2CMD
2315 0F 40       198          adr NDRV
2317 AF          199          asc "/"
2318 5E          200          byt DEC3CMD
2319 12 40       201          adr NVOL
231B 50          202          byt RTNCMD
231C             203          ;
231C 60          204          rts
231D             205          ;
231D             206          ;

```

```

231D A5 24      207 SELCMEM  lda CH
231F 8D 00 40   208          sta SAVCH
2322           209 ;
2322 2C 00 00   210          bit *-*
2325           211          dfs !-2
2323           212 ;
2323 A2 00      213 ^0          ldx #ZERO
2325           214 ;
2325 BC 62 23   215 ^1          ldy SMEMADRL,X
2328 BD 65 23   216          lda SMEMADRH,X
232B           217 ;
232B 20 79 24   218          jsr SETPTR
232E           219 ;
232E 20 73 37   220          jsr PRINT
2331 A0          221          asc " "
2332 52 00      222 SMEEMOD1 byt DISPCMD,NORMDISP
2334 CD C1 C9   223          asc "MAIN"
2337 CE
2338 52 00      224          byt DISPCMD,NORMDISP
233A A0 A0      225          asc " "
233C 52 00      226 SMEEMOD2 byt DISPCMD,NORMDISP
233E D2 C1 CD   227          asc "RAM1"
2341 B1
2342 52 00      228          byt DISPCMD,NORMDISP
2344 A0 A0      229          asc " "
2346 52 00      230 SMEEMOD3 byt DISPCMD,NORMDISP
2348 D2 C1 CD   231          asc "RAM2"
234B B2
234C 52 00      232          byt DISPCMD,NORMDISP
234E 50          233          byt RTNCMD
234F           234 ;
234F 20 75 35   235          jsr SELCKEY
2352 B0 0D      236          bcs >3
2354           237 ;
2354 F0 0B      238          beq >3
2356           239 ;
2356 8A          240          txa
2357 10 02      241          bpl >2
2359           242 ;
2359 A2 02      243          ldx #2
235B           244 ;
235B C9 03      245 ^2          cmp #3
235D D0 C6      246          bne <1
235F           247 ;
235F F0 C2      248          beq <0          ; always taken
2361           249 ;
2361 60          250 ^3          rts
2362           251 ;
2362           252 ;
2362           253 SMEMADRL:
2362 33          254          byt SMEEMOD1+1
2363 3D          255          byt SMEEMOD2+1
2364 47          256          byt SMEEMOD3+1
2365           257 ;
2365           258 SMEMADRH:
2365 23          259          hby SMEEMOD1+1
2366 23          260          hby SMEEMOD2+1
2367 23          261          hby SMEEMOD3+1
2368           262 ;
2368           263 ;
2368 A5 24      264 SELCTRK  lda CH

```

```

236A 8D 00 40      265      sta SAVCH
236D              266      ;
236D A2 00        267      ^0      ldx #ZERO
236F              268      ;
236F BC AE 23    269      ^1      ldy TRKTBLL,X
2372 BD B2 23    270      lda TRKTBLH,X
2375              271      ;
2375 20 79 24    272      jsr SETPTR
2378              273      ;
2378 20 73 37    274      jsr PRINT
237B A0           275      asc " "
237C 52 00       276      TRKMOD1 byt DISPCMD,NORMDISP
237E B3 B5       277      asc "35"
2380 52 00       278      byt DISPCMD,NORMDISP
2382 A0 A0       279      asc " "
2384 52 00       280      TRKMOD2 byt DISPCMD,NORMDISP
2386 B3 B6       281      asc "36"
2388 52 00       282      byt DISPCMD,NORMDISP
238A A0 A0       283      asc " "
238C 52 00       284      TRKMOD3 byt DISPCMD,NORMDISP
238E B4 B0       285      asc "40"
2390 52 00       286      byt DISPCMD,NORMDISP
2392 A0 A0       287      asc " "
2394 52 00       288      TRKMOD4 byt DISPCMD,NORMDISP
2396 B4 B8       289      asc "48"
2398 52 00       290      byt DISPCMD,NORMDISP
239A 50          291      byt RTNCMD
239B              292      ;
239B 20 75 35    293      jsr SELCKEY
239E B0 0D       294      bcs >3
23A0              295      ;
23A0 F0 0B       296      beq >3
23A2              297      ;
23A2 8A          298      txa
23A3 10 02       299      bpl >2
23A5              300      ;
23A5 A2 03       301      ldx #3
23A7              302      ;
23A7 C9 04       303      ^2      cmp #4
23A9 D0 C4       304      bne <1
23AB              305      ;
23AB F0 C0       306      beq <0      ; always taken
23AD              307      ;
23AD 60          308      ^3      rts
23AE              309      ;
23AE              310      ;
23AE              311      TRKTBLL:
23AE 7D          312      byt TRKMOD1+1
23AF 85          313      byt TRKMOD2+1
23B0 8D          314      byt TRKMOD3+1
23B1 95          315      byt TRKMOD4+1
23B2              316      ;
23B2              317      TRKTBLH:
23B2 23          318      hby TRKMOD1+1
23B3 23          319      hby TRKMOD2+1
23B4 23          320      hby TRKMOD3+1
23B5 23          321      hby TRKMOD4+1
23B6              322      ;
23B6              323      ;
23B6 A5 24       324      SELCSEC lda CH
23B8 8D 00 40    325      sta SAVCH

```

```

23BB      326 ;
23BB A2 00  327 ^0      ldx #ZERO
23BD      328 ;
23BD BC EC 23 329 ^1      ldy SECTBLL,X
23C0 BD EE 23 330      lda SECTBLH,X
23C3      331 ;
23C3 20 79 24 332      jsr SETPTR
23C6      333 ;
23C6 20 73 37 334      jsr PRINT
23C9 A0      335      asc " "
23CA 52 00  336 SECMOD1  byt DISPCMD,NORMDISP
23CC B1 B6  337      asc "16"
23CE 52 00  338      byt DISPCMD,NORMDISP
23D0 A0 A0  339      asc " "
23D2 52 00  340 SECMOD2  byt DISPCMD,NORMDISP
23D4 B3 B2  341      asc "32"
23D6 52 00  342      byt DISPCMD,NORMDISP
23D8 50      343      byt RTNCMD
23D9      344 ;
23D9 20 75 35 345      jsr SELCKEY
23DC B0 0D  346      bcs >3
23DE      347 ;
23DE F0 0B  348      beq >3
23E0      349 ;
23E0 8A      350      txa
23E1 10 02  351      bpl >2
23E3      352 ;
23E3 A2 01  353      ldx #1
23E5      354 ;
23E5 C9 02  355 ^2      cmp #2
23E7 D0 D4  356      bne <1
23E9      357 ;
23E9 F0 D0  358      beq <0          ; always taken
23EB      359 ;
23EB 60      360 ^3      rts
23EC      361 ;
23EC      362 ;
23EC      363 SECTBLL:
23EC CB      364      byt SECMOD1+1
23ED D3      365      byt SECMOD2+1
23EE      366 ;
23EE      367 SECTBLH:
23EE 23      368      hby SECMOD1+1
23EF 23      369      hby SECMOD2+1
23F0      370 ;
23F0      371 ;
23F0 A5 24  372 SELCTYP  lda CH
23F2 8D 00 40 373      sta SAVCH
23F5      374 ;
23F5 A2 00  375 ^0      ldx #ZERO
23F7      376 ;
23F7 BC 24 24 377 ^1      ldy TYPTBLL,X
23FA BD 26 24 378      lda TYPTBLH,X
23FD      379 ;
23FD 20 79 24 380      jsr SETPTR
2400      381 ;
2400 20 73 37 382      jsr PRINT
2403 A0      383      asc " "
2404 52 00  384 TYPMOD1  byt DISPCMD,NORMDISP
2406 C2      385      asc "B"
2407 52 00  386      byt DISPCMD,NORMDISP

```

```

2409 A0 A0      387      asc  "  "
240B 52 00      388      TYPMOD2 byt  DISPCMD,NORMDISP
240D C4         389      asc  "D"
240E 52 00      390      byt  DISPCMD,NORMDISP
2410 50         391      byt  RTNCMD
2411          392      ;
2411 20 75 35    393      jsr  SELCKEY
2414 B0 0D      394      bcs  >3
2416          395      ;
2416 F0 0B      396      beq  >3
2418          397      ;
2418 8A         398      txa
2419 10 02      399      bpl  >2
241B          400      ;
241B A2 01      401      ldx  #1
241D          402      ;
241D C9 02      403      ^2    cmp  #2
241F D0 D6      404      bne  <1
2421          405      ;
2421 F0 D2      406      beq  <0      ; always taken
2423          407      ;
2423 60         408      ^3    rts
2424          409      ;
2424          410      ;
2424          411      TYPTBLL:
2424 05         412      byt  TYPMOD1+1
2425 0C         413      byt  TYPMOD2+1
2426          414      ;
2426          415      TYPTBLH:
2426 24         416      hby  TYPMOD1+1
2427 24         417      hby  TYPMOD2+1
2428          418      ;
2428          419      ;
2428 A5 24      420      SELCBOOT lda  CH
242A 8D 00 40    421      sta  SAVCH
242D          422      ;
242D A2 00      423      ^0    ldx  #ZERO
242F          424      ;
242F BC 73 24    425      ^1    ld  y  BOOTTBLL,X
2432 BD 76 24    426      lda  BOOTTBLH,X
2435          427      ;
2435 20 79 24    428      jsr  SETPTR
2438          429      ;
2438 20 73 37    430      jsr  PRINT
243B A0         431      asc  "  "
243C 52 00      432      BOOTMOD1 byt  DISPCMD,NORMDISP
243E C1 D0 D0    433      asc  "APPLESOFT"
2441 CC C5 D3
2444 CF C6 D4
2447 52 00      434      byt  DISPCMD,NORMDISP
2449 A0 A0      435      asc  "  "
244B 52 00      436      BOOTMOD2 byt  DISPCMD,NORMDISP
244D C2 C9 CE    437      asc  "BINARY"
2450 C1 D2 D9
2453 52 00      438      byt  DISPCMD,NORMDISP
2455 A0 A0      439      asc  "  "
2457 52 00      440      BOOTMOD3 byt  DISPCMD,NORMDISP
2459 C5 D8 C5    441      asc  "EXEC"
245C C3
245D 52 00      442      byt  DISPCMD,NORMDISP
245F 50         443      byt  RTNCMD

```

```

2460      444 ;
2460 20 75 35 445      jsr SELCKEY
2463 B0 0D    446      bcs >3
2465      447 ;
2465 F0 0B    448      beq >3
2467      449 ;
2467 8A      450      txa
2468 10 02    451      bpl >2
246A      452 ;
246A A2 02    453      ldx #2
246C      454 ;
246C C9 03    455 ^2      cmp #3
246E D0 BF    456      bne <1
2470      457 ;
2470 F0 BB    458      beq <0      ; always taken
2472      459 ;
2472 60      460 ^3      rts
2473      461 ;
2473      462 ;
2473      463 BOOTTBLL:
2473 3D      464      byt BOOTMOD1+1
2474 4C      465      byt BOOTMOD2+1
2475 58      466      byt BOOTMOD3+1
2476      467 ;
2476      468 BOOTTBLLH:
2476 24      469      hby BOOTMOD1+1
2477 24      470      hby BOOTMOD2+1
2478 24      471      hby BOOTMOD3+1
2479      472 ;
2479      473 ;
2479 8C 8A 24 474 SETPTR   sty PTRMOD+1
247C 8D 8B 24 475      sta PTRMOD+2
247F      476 ;
247F AD 00 40 477      lda SAVCH
2482 85 24    478      sta CH
2484      479 ;
2484 A9 01    480      lda #INVRDISP
2486      481 ;
2486 2C 00 00 482      bit *-*
2489      483      dfs !-2
2487      484 ;
2487 A9 00    485 CLRPTR   lda #NORMDISP
2489      486 ;
2489 8D 00 00 487 PTRMOD   sta *-*
248C      488 ;
248C 60      489      rts
248D      490 ;
248D      491 ;
248D A0 00    492 CHKWPCF  ldy #ZERO
248F 84 EC    493      sty SLOTPTR
2491      494 ;
2491 AD 22 40 495      lda CFPAGE
2494 85 ED    496      sta SLOTPTR+1
2496      497 ;
2496 2C FF CF 498      bit CLRROM
2499      499 ;
2499 B1 EC    500      lda (SLOTPTR),Y
249B 49 FF    501      eor #NEGONE
249D 91 EC    502      sta (SLOTPTR),Y
249F      503 ;
249F 48      504      pha

```

```

24A0          505 ;
24A0 A9 07    506      lda #WAIT225U
24A2 20 86 2C 507      jsr CFWAIT
24A5          508 ;
24A5 68       509      pla
24A6          510 ;
24A6 D1 EC    511      cmp (SLOTPTR),Y
24A8 D0 0E    512      bne >1
24AA          513 ;
24AA 49 FF    514      eor #NEGONE
24AC 91 EC    515      sta (SLOTPTR),Y
24AE          516 ;
24AE A9 07    517      lda #WAIT225U
24B0 20 86 2C 518      jsr CFWAIT
24B3          519 ;
24B3 2C FF CF 520      bit CLRROM
24B6          521 ;
24B6 18       522      clc
24B7          523 ;
24B7 60       524      rts
24B8          525 ;
24B8 2C FF CF 526      bit CLRROM
24BB          527 ;
24BB 20 73 37 528      jsr PRINT
24BE 00 74    529      hex 0074
24C0 54 01    530      byt CLRCMD,EOPCLR
24C2 D3 F4 E1 531      asc "Status:  CFFA ROM is write-protected"
24C5 F4 F5 F3
24C8 BA A0 A0
24CB C3 C6 C6
24CE C1 A0 D2
24D1 CF CD A0
24D4 E9 F3 A0
24D7 F7 F2 E9
24DA F4 E5 AD
24DD F0 F2 EF
24E0 F4 E5 E3
24E3 F4 E5 E4
24E6 50       532      byt RTNCMD
24E7          533 ;
24E7          534      .if DEBUG
24E7 4C 19 35 535      jmp PRESKEYC
24EA          536      .el
24EA          537      jmp PRESKEYS
24EA          538      .fi
24EA          539 ;
24EA          540 ;
24EA A9 00    541      CHKFWCF  lda #ZERO
24EC 85 EC    542      sta SLOTPTR
24EE          543 ;
24EE AD 22 40 544      lda CFPAGE
24F1 85 ED    545      sta SLOTPTR+1
24F3          546 ;
24F3 2C FF CF 547      bit CLRROM
24F6          548 ;
24F6 A2 00    549      ldx #ZERO
24F8 A0 00    550      ldy #ROMSIG-ROMBUFR
24FA          551 ;
24FA B1 EC    552      lda (SLOTPTR),Y
24FC          553 ;
24FC BD EC 3D 554      ^2      lda SIGNUM,X

```

```

24FF D9 00 C8      555      cmp PAGEC8,Y
2502 D0 0B        556      bne >3
2504              557      ;
2504 E8           558      inx
2505 C8           559      iny
2506              560      ;
2506 E0 04        561      cpx #SIGNUMLN
2508 D0 F2        562      bne <2
250A              563      ;
250A 2C FF CF     564      bit CLRROM
250D              565      ;
250D 18           566      clc
250E              567      ;
250E 60           568      RTN01 rts
250F              569      ;
250F 2C FF CF     570      ^3 bit CLRROM
2512              571      ;
2512              572      .if DEBUG
2512 4C 19 35      573      jmp PRESKEYC
2515              574      .el
2515              575      jsr PRINT
2515              576      hex 0074
2515              577      byt CLRCMD,EOPCLR
2515              578      asc "Status:  DOS 4.5 Firmware not installed"
2515              579      byt RTNCMD
2515              580      ;
2515              581      jmp PRESKEYS
2515              582      .fi
2515              583      ;
2515              584      ;
2515 20 05 2D      585      EXTRDATA jsr READID
2518 B0 F4         586      bcs RTN01
251A              587      ;
251A AE 02 43     588      ldx IDBUFR+IDCYLOFF
251D AD 03 43     589      lda IDBUFR+IDCYLOFF+1
2520              590      ;
2520 8D 37 40      591      sta IDCYLNUM
2523 8E 38 40      592      stx IDCYLNUM+1
2526              593      ;
2526 AE 06 43     594      ldx IDBUFR+IDHDSOFF
2529 AD 07 43     595      lda IDBUFR+IDHDSOFF+1
252C              596      ;
252C 8D 39 40      597      sta IDHDSNUM
252F 8E 3A 40      598      stx IDHDSNUM+1
2532              599      ;
2532 AE 0C 43     600      ldx IDBUFR+IDSPTOFF
2535 AD 0D 43     601      lda IDBUFR+IDSPTOFF+1
2538              602      ;
2538 8D 3B 40      603      sta IDSPTNUM
253B 8E 3C 40      604      stx IDSPTNUM+1
253E              605      ;
253E A2 00        606      ldx #ZERO
2540 A0 03        607      ldy #LBALEN-1
2542              608      ;
2542 B9 78 43      609      ^1 lda IDBUFR+IDLBAOFF,Y
2545 9D 3D 40      610      sta IDLBANUM,X
2548              611      ;
2548 E8           612      inx
2549              613      ;
2549 88           614      dey
254A 10 F6        615      bpl <1

```

```

254C          616 ;
254C A2 00    617     ldx #ZERO
254E A0 00    618     ldy #ZERO
2550          619 ;
2550 B9 14 43 620 ^2     lda IDBUFR+IDSRLOFF,Y
2553 99 5A 40 621     sta INSRLBUF,Y
2556          622 ;
2556 48        623     pha
2557          624 ;
2557 B9 15 43 625     lda IDBUFR+IDSRLOFF+1,Y
255A 99 5B 40 626     sta INSRLBUF+1,Y
255D          627 ;
255D 09 80     628     ora #ASCIFLAG
255F C9 A0     629     cmp #SPACE
2561 F0 04     630     beq >3
2563          631 ;
2563 9D 6E 40   632     sta IDSRLBUF,X
2566          633 ;
2566 E8         634     inx
2567          635 ;
2567 C8         636 ^3     iny
2568          637 ;
2568 68         638     pla
2569 09 80     639     ora #ASCIFLAG
256B          640 ;
256B C9 A0     641     cmp #SPACE
256D F0 04     642     beq >4
256F          643 ;
256F 9D 6E 40   644     sta IDSRLBUF,X
2572          645 ;
2572 E8         646     inx
2573          647 ;
2573 C8         648 ^4     iny
2574          649 ;
2574 C0 14      650     cpy #IDSRLLEN
2576 D0 D8      651     bne <2
2578          652 ;
2578 A0 00      653     ldy #ZERO
257A          654 ;
257A B9 2E 43   655 ^5     lda IDBUFR+IDFRMOFF,Y
257D 48        656     pha
257E          657 ;
257E B9 2F 43   658     lda IDBUFR+IDFRMOFF+1,Y
2581 09 80     659     ora #ASCIFLAG
2583 99 83 40   660     sta IDFRMBUF,Y
2586          661 ;
2586 C8         662     iny
2587          663 ;
2587 68         664     pla
2588 09 80     665     ora #ASCIFLAG
258A 99 83 40   666     sta IDFRMBUF,Y
258D          667 ;
258D C8         668     iny
258E          669 ;
258E C0 08      670     cpy #IDFRMLEN
2590 D0 E8      671     bne <5
2592          672 ;
2592 A0 00      673     ldy #ZERO
2594          674 ;
2594 B9 36 43   675 ^6     lda IDBUFR+IDMDLOFF,Y
2597 48        676     pha

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```

2598      677 ;
2598 B9 37 43 678      lda IDBUFR+IDMDLOFF+1,Y
259B 09 80 679      ora #ASCIFLAG
259D 99 8C 40 680      sta IDMDLBUF,Y
25A0      681 ;
25A0 C8 682      iny
25A1      683 ;
25A1 68 684      pla
25A2 09 80 685      ora #ASCIFLAG
25A4 99 8C 40 686      sta IDMDLBUF,Y
25A7      687 ;
25A7 C8 688      iny
25A8      689 ;
25A8 C0 18 690      cpy #IDMDLLEN
25AA D0 E8 691      bne <6
25AC      692 ;
25AC AE 24 40 693      ldx CFINDEX
25AF      694 ;
25AF      695 ;
25AF BD DA 3D 696 EXTRAD      lda CFSIZE,X
25B2 8D 0E 40 697      sta NSIZE
25B5      698 ;
25B5 BD E0 3D 699      lda CFDRIVES,X
25B8 8D 10 40 700      sta NDRVS
25BB      701 ;
25BB BD E6 3D 702      lda EXTRVOLS,X
25BE 8D 13 40 703      sta NVOLS
25C1      704 ;
25C1 18 705      clc
25C2      706 ;
25C2 AC 10 40 707      ldy NDRVS
25C5 88 708      dey ; last drive is not full
25C6      709 ;
25C6 A9 00 710      lda #ZERO
25C8 8D 4D 40 711      sta FRSTFREE
25CB 8D 50 40 712      sta FRSTFREE+3
25CE      713 ;
25CE 69 03 714 ^1      adc /DRVSIZE ; divided by 0x10000
25D0 90 04 715      bcc >2
25D2      716 ;
25D2 18 717      clc
25D3      718 ;
25D3 EE 4D 40 719      inc FRSTFREE
25D6      720 ;
25D6 88 721 ^2      dey
25D7 D0 F5 722      bne <1
25D9      723 ;
25D9 AA 724      tax
25DA      725 ;
25DA AC 13 40 726      ldy NVOLS
25DD      727 ;
25DD A9 01 728      lda #1 ; offset
25DF      729 ;
25DF 69 03 730 ^3      adc /VOLSIZE ; divided by 0x100
25E1 90 07 731      bcc >4
25E3      732 ;
25E3 18 733      clc
25E4      734 ;
25E4 E8 735      inx
25E5 D0 03 736      bne >4
25E7      737 ;

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25E7 EE 4D 40      738      inc FRSTFREE
25EA              739      ;
25EA 88           740      ^4      dey
25EB D0 F2        741      bne <3
25ED              742      ;
25ED 8E 4E 40     743      stx FRSTFREE+1
25F0 8D 4F 40     744      sta FRSTFREE+2
25F3              745      ;
25F3 38           746      sec
25F4              747      ;
25F4 AD 50 40     748      lda FRSTFREE+3
25F7 E9 01        749      sbc #1
25F9 8D 4C 40     750      sta LASTVOL+3
25FC              751      ;
25FC A2 02        752      ldx #2
25FE              753      ;
25FE BD 4D 40     754      ^5      lda FRSTFREE,X
2601 E9 00        755      sbc #ZERO
2603 9D 49 40     756      sta LASTVOL,X
2606              757      ;
2606 CA           758      dex
2607 10 F5        759      bpl <5
2609              760      ;
2609 38           761      sec
260A              762      ;
260A AD 40 40     763      lda IDLBANUM+3
260D E9 01        764      sbc #1
260F 8D 54 40     765      sta LASTFREE+3
2612              766      ;
2612 A2 02        767      ldx #2
2614              768      ;
2614 BD 3D 40     769      ^6      lda IDLBANUM,X
2617 E9 00        770      sbc #ZERO
2619 9D 51 40     771      sta LASTFREE,X
261C              772      ;
261C CA           773      dex
261D 10 F5        774      bpl <6
261F              775      ;
261F 18           776      clc
2620              777      ;
2620 60           778      rts
2621              779      ;
2621              780      ;
2621 20 73 37     781      MODROM      jsr PRINT
2624 00 66        782      hex 0066
2626 54 01        783      byt CLRCMD,EOPCLR
2628 D0 EC E5     784      asc "Please provide a name for this CF card."
262B E1 F3 E5
262E A0 F0 F2
2631 EF F6 E9
2634 E4 E5 A0
2637 E1 A0 EE
263A E1 ED E5
263D A0 E6 EF
2640 F2 A0 F4
2643 E8 E9 F3
2646 A0 C3 C6
2649 A0 E3 E1
264C F2 E4 AE
264F 00 69      785      hex 0069
2651 CF EC E4   786      asc "Old name - "

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```

2654 A0 EE E1
2657 ED E5 A0
265A AD A0
265C 56 00      787      byt BUFRCMD,DIRECT
265E A5 40      788      adr CFOLDNAM
2660 00 6B      789      hex 006B
2662 CE E5 F7   790      asc "New name - "
2665 A0 EE E1
2668 ED E5 A0
266B AD A0
266D 50          791      byt RTNCMD
266E           792      ;
266E A2 18      793      ldx #NAMELEN
2670           794      ;
2670 A0 18      795      ldy #CFNAME
2672 A9 45      796      lda /CFNAME
2674           797      ;
2674 20 BB 27   798      jsr GETTEXTC
2677 B0 40      799      bcs RTN02
2679           800      ;
2679 AD 18 45   801      lda CFNAME
267C D0 0B      802      bne >2
267E           803      ;
267E A0 17      804      ldy #NAMELEN-1
2680           805      ;
2680 B9 A5 40   806      ^1   lda CFOLDNAM,Y
2683 99 18 45   807      sta CFNAME,Y
2686           808      ;
2686 88         809      dey
2687 10 F7      810      bpl <1
2689           811      ;
2689 20 93 28   812      ^2   jsr PADBUFR
268C           813      ;
268C A0 30      814      ldy #CFDATE
268E A9 45      815      lda /CFDATE
2690           816      ;
2690 20 A1 19   817      jsr READCLK
2693           818      ;
2693 AE 24 40   819      ldx CFINDEX
2696           820      ;
2696 BD E0 3D   821      lda CFDRIVES,X
2699 8D 3A 45   822      sta CFMAXDRV
269C           823      ;
269C BD E6 3D   824      lda EXTRVOLS,X
269F 8D 3B 45   825      sta CFREMOVOL
26A2           826      ;
26A2 A2 03      827      ldx #LBALEN-1
26A4           828      ;
26A4 BD 3D 40   829      ^3   lda IDLBANUM,X
26A7 9D 36 45   830      sta CFLBANUM,X
26AA           831      ;
26AA CA        832      dex
26AB 10 F7      833      bpl <3
26AD           834      ;
26AD A0 13      835      ldy #IDSRLLEN-1
26AF           836      ;
26AF B9 5A 40   837      ^4   lda INSRLBUF,Y
26B2 99 04 45   838      sta CFSRLBUF,Y
26B5           839      ;
26B5 88         840      dey
26B6 10 F7      841      bpl <4

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26B8      842 ;
26B8 18    843      clc
26B9      844 ;
26B9 60    845 RTN02   rts
26BA      846 ;
26BA      847 ;
26BA 20 73 37 848 ^0    jsr PRINT
26BD 00 76    849      hex 0076
26BF D3 F4 E1 850      asc "Status:  No disk found, press any key"
26C2 F4 F5 F3
26C5 BA A0 A0
26C8 CE EF A0
26CB E4 E9 F3
26CE EB A0 E6
26D1 EF F5 EE
26D4 E4 AC A0
26D7 F0 F2 E5
26DA F3 F3 A0
26DD E1 EE F9
26E0 A0 EB E5
26E3 F9
26E4 50      851      byt RTNCMD
26E5      852 ;
26E5 20 3F 35 853      jsr GETKEY
26E8      854 ;
26E8 20 73 37 855 SELCDISK jsr PRINT
26EB 00 64    856      hex 0064
26ED 54 01    857      byt CLRCMD,EOPCLR
26EF 06 66    858      hex 0666
26F1 C5 EE F4 859      asc "Enter disk slot - "
26F4 E5 F2 A0
26F7 E4 E9 F3
26FA EB A0 F3
26FD EC EF F4
2700 A0 AD A0
2703 50      860      byt RTNCMD
2704      861 ;
2704 20 1D 34 862      jsr GETDEC1
2707 B0 B0    863      bcs RTN02          ; note, nearest RTS
2709      864 ;
2709 AD 35 40 865      lda DECVALS
270C F0 DA    866      beq SELCDISK
270E      867 ;
270E C9 08    868      cmp #8
2710 B0 D6    869      bcs SELCDISK
2712      870 ;
2712 A2 18    871      ldx #DISKSIG-SIGBYTES
2714      872 ;
2714 20 60 10 873      jsr CHKSLOT
2717 90 1E    874      bcc >1
2719      875 ;
2719 AD 35 40 876      lda DECVALS
271C      877 ;
271C A2 20    878      ldx #RAMDSIG-SIGBYTES
271E      879 ;
271E 20 60 10 880      jsr CHKSLOT
2721 90 14    881      bcc >1
2723      882 ;
2723 AD 35 40 883      lda DECVALS
2726      884 ;
2726 A2 28    885      ldx #RANASIG-SIGBYTES

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```

2728      886 ;
2728 20 60 10 887      jsr CHKSLOT
272B 90 0A    888      bcc >1
272D      889 ;
272D AD 35 40 890      lda DECVALS
2730      891 ;
2730 A2 30    892      ldx #SIDERSIG-SIGBYTES
2732      893 ;
2732 20 60 10 894      jsr CHKSLOT
2735 B0 83    895      bcs <0
2737      896 ;
2737 AD 35 40 897 ^1    lda DECVALS
273A 8D 1E 40 898      sta DISKSLOT
273D      899 ;
273D 0A      900      asl
273E 0A      901      asl
273F 0A      902      asl
2740 0A      903      asl
2741      904 ;
2741 8D 21 40 905      sta DSKSLT16
2744      906 ;
2744 A9 01    907      lda #1
2746 8D 1F 40 908      sta DISKDRV
2749      909 ;
2749 A9 01    910      lda #INVRDISP
274B 8D 6D 27 911      sta DRVMOD1+1
274E      912 ;
274E A9 00    913      lda #NORMDISP
2750 8D 74 27 914      sta DRVMOD2+1
2753      915 ;
2753 20 73 37 916 ^2    jsr PRINT
2756 04 68    917      hex 0468
2758 D3 E5 EC 918      asc "Select disk drive - "
275B E5 E3 F4
275E A0 E4 E9
2761 F3 EB A0
2764 E4 F2 E9
2767 F6 E5 A0
276A AD A0
276C 52 01    919  DRVMOD1  byt DISPCMD,INVRDISP
276E B1      920      asc "1"
276F 52 00    921      byt DISPCMD,NORMDISP
2771 A0 A0    922      asc " "
2773 52 00    923  DRVMOD2  byt DISPCMD,NORMDISP
2775 B2      924      asc "2"
2776 52 00    925      byt DISPCMD,NORMDISP
2778 50      926      byt RTNCMD
2779      927 ;
2779 20 3F 35 928      jsr GETKEY
277C B0 18    929      bcs >4
277E      930 ;
277E F0 15    931      beq >3
2780      932 ;
2780 AD 1F 40 933      lda DISKDRV
2783 49 03    934      eor #1|2
2785 8D 1F 40 935      sta DISKDRV
2788      936 ;
2788 AD 6D 27 937      lda DRVMOD1+1
278B 8D 74 27 938      sta DRVMOD2+1
278E      939 ;
278E 49 01    940      eor #NORMDISP|INVRDISP

```

```
2790 8D 6D 27    941          sta DRVMOD1+1
2793            942      ;
2793 10 BE        943          bpl <2                ; always taken
2795            944      ;
2795 18           945      ^3          clc
2796            946      ;
2796 60           947      ^4          rts
2797            948      ;
2797            949      ;
2797 20 73 37     950  GETVRSN  jsr PRINT
279A 00 6A       951          hex 006A
279C C5 EE F4    952          asc "Enter filename suffix - "
279F E5 F2 A0
27A2 E6 E9 EC
27A5 E5 EE E1
27A8 ED E5 A0
27AB F3 F5 E6
27AE E6 E9 F8
27B1 A0 AD A0
27B4 50          953          byt RTNCMD
27B5            954      ;
27B5 A2 0E       955          ldx #VRSNLEN
27B7            956      ;
27B7 A0 42       957          ldy #VERSION
27B9 A9 3E       958          lda /VERSION
27BB            959      ;
27BB            960      ;
```

BSAVE SEG04,A\$0900,B,L\$0623

```
27BB            961          usr SEG04
27BB            962      ;
27BB            963      ;
27BB            964          icl "CODE5.L"
```

LLOAD CODE5.L,A\$4000

```

27BB      1          ttl "Volume Manager Source Code, CODE5.L"
27BB      2      ;
27BB      3      ;
27BB      4      ; CODE5.L
27BB      5      ;
27BB      6      ;
27BB      7          obj PAGE09
27BB      8          usr
27BB      9      ;
27BB     10      ;
27BB 18     11      GETTEXTC clc
27BC     12      ;
27BC 8E 09 40 13      GETTEXT stx TEMP
27BF     14      ;
27BF 84 1E     15          sty TEXTPTR
27C1 85 1F     16          sta TEXTPTR+1
27C3     17      ;
27C3 A5 24     18          lda CH
27C5 8D 00 40 19          sta SAVCH
27C8     20      ;
27C8 A0 00     21          ldy #ZERO
27CA     22      ;
27CA 8C 0C 40 23          sty FLAG
27CD 8C 0B 40 24          sty PAGE
27D0     25      ;
27D0 90 06     26          bcc >1
27D2     27      ;
27D2 CE 0C 40 28          dec FLAG
27D5 CE 0B 40 29          dec PAGE
27D8     30      ;
27D8 B9 46 3D 31      ^1      lda MSG2,Y
27DB F0 06     32          beq >2
27DD     33      ;
27DD 99 D4 07 34          sta LINE23+4,Y
27E0     35      ;
27E0 C8        36          iny
27E1 D0 F5     37          bne <1
27E3     38      ;
27E3 A8        39      ^2      tay
27E4     40      ;
27E4     41      ;
27E4     42      ; GETTEXT main loop.
27E4     43      ;
27E4 A9 00     44      ^1      lda #ZERO
27E6 91 1E     45          sta (TEXTPTR),Y
27E8     46      ;
27E8 20 59 28 47          jsr SHOWYREG
27EB     48      ;
27EB 20 53 35 49      ^2      jsr READKEY
27EE B0 5E     50          bcs >9
27F0     51      ;
27F0 F0 5C     52          beq >9
27F2     53      ;
27F2 C9 FF     54          cmp #DELETE
27F4 F0 04     55          beq >3
27F6     56      ;
27F6 C9 88     57          cmp #LARROW
27F8 D0 26     58          bne >5
27FA     59      ;
27FA A6 24     60      ^3      ldx CH

```

```

27FC EC 00 40      61      cpx SAVCH
27FF F0 EA        62      beq <2
2801              63      ;
2801 88           64      dey
2802              65      ;
2802 C0 FF        66      cpy #NEGONE
2804 D0 0F        67      bne >4
2806              68      ;
2806 2C 0C 40     69      bit FLAG
2809 10 D9        70      bpl <1
280B              71      ;
280B 2C 0B 40     72      bit PAGE
280E 30 D4        73      bmi <1
2810              74      ;
2810 C6 1F        75      dec TEXTPTR+1
2812              76      ;
2812 CE 0B 40     77      dec PAGE
2815              78      ;
2815 C6 24        79      ^4    dec CH
2817              80      ;
2817 A9 A0        81      lda #SPACE
2819 20 ED FD     82      jsr COUT
281C              83      ;
281C C6 24        84      dec CH
281E 10 C4        85      bpl <1      ; always taken
2820              86      ;
2820 C9 A0        87      ^5    cmp #SPACE
2822 90 C7        88      bcc <2
2824              89      ;
2824 91 1E        90      sta (TEXTPTR),Y
2826              91      ;
2826 20 ED FD     92      jsr COUT
2829              93      ;
2829 A6 24        94      ldx CH
282B E8           95      inx
282C              96      ;
282C E4 21        97      cpx WNDWDTH
282E 90 03        98      bcc >6
2830              99      ;
2830 20 8E FD    100      jsr CROUT
2833              101     ;
2833 C8           102     ^6    iny
2834              103     ;
2834 CC 09 40    104      cpy TEMP
2837 D0 0A       105      bne >7
2839              106     ;
2839 2C 0C 40    107      bit FLAG
283C 10 0F       108      bpl >8
283E              109     ;
283E 2C 0B 40    110      bit PAGE
2841 10 0A       111      bpl >8
2843              112     ;
2843 98           113     ^7    tya
2844 D0 9E       114      bne <1
2846              115     ;
2846 EE 0B 40    116      inc PAGE
2849              117     ;
2849 E6 1F       118      inc TEXTPTR+1
284B D0 97       119      bne <1      ; always taken
284D              120     ;
284D 18           121     ^8    clc

```

```

284E      122 ;
284E 08    123 ^9      php
284F      124 ;
284F 20 73 37 125      jsr PRINT
2852 00 77    126      hex 0077
2854 54 00    127      byt CLRCMD,EOLCLR
2856 50      128      byt RTNCMD
2857      129 ;
2857 28      130      plp
2858      131 ;
2858 60      132      rts
2859      133 ;
2859      134 ;
2859 8C 04 40 135 SHOWYREG sty SAVY
285C      136 ;
285C A0 00    137      ldy #ZERO
285E      138 ;
285E 2C 0C 40 139      bit FLAG
2861 10 06    140      bpl >1
2863      141 ;
2863 2C 0B 40 142      bit PAGE
2866 10 01    143      bpl >1
2868      144 ;
2868 C8      145      iny
2869      146 ;
2869 84 CD    147 ^1      sty VALPTR+1
286B      148 ;
286B 38      149      sec
286C      150 ;
286C AD 09 40 151      lda TEMP
286F ED 04 40 152      sbc SAVY
2872 85 CC    153      sta VALPTR
2874      154 ;
2874 A5 CD    155      lda VALPTR+1
2876 E9 00    156      sbc #ZERO
2878 85 CD    157      sta VALPTR+1
287A      158 ;
287A 20 1D 37 159      jsr HEX2DEC
287D      160 ;
287D AD 2C 3E 161      lda VALBUF+2
2880 8D D0 07 162      sta LINE23
2883      163 ;
2883 AD 2B 3E 164      lda VALBUF+1
2886 8D D1 07 165      sta LINE23+1
2889      166 ;
2889 AD 2A 3E 167      lda VALBUF
288C 8D D2 07 168      sta LINE23+2
288F      169 ;
288F AC 04 40 170      ldy SAVY
2892      171 ;
2892 60      172      rts
2893      173 ;
2893      174 ;
2893 A0 00    175 PADBUFR ldy #ZERO
2895      176 ;
2895 B1 1E    177 ^1      lda (TEXTPTR),Y
2897 F0 07    178      beq >2
2899      179 ;
2899 C8      180      iny
289A      181 ;
289A CC 09 40 182      cpy TEMP

```

```

289D D0 F6      183      bne <1
289F           184      ;
289F 60         185      rts
28A0           186      ;
28A0 A9 A0     187      ^2      lda #SPACE
28A2           188      ;
28A2 91 1E     189      ^3      sta (TEXTPTR),Y
28A4           190      ;
28A4 C8        191      iny
28A5           192      ;
28A5 CC 09 40  193      cpy TEMP
28A8 D0 F8     194      bne <3
28AA           195      ;
28AA 60        196      rts
28AB           197      ;
28AB           198      ;
28AB AD 41 40  199      SHOWLBA  lda LBA
28AE 20 EA 35  200      jsr SPLITHEX
28B1           201      ;
28B1 8C DD 07  202      sty LINE23+13
28B4           203      ;
28B4 AD 42 40  204      lda LBA+1
28B7 20 EA 35  205      jsr SPLITHEX
28BA           206      ;
28BA 8E DE 07  207      stx LINE23+14
28BD 8C DF 07  208      sty LINE23+15
28C0           209      ;
28C0 AD 43 40  210      lda LBA+2
28C3 20 EA 35  211      jsr SPLITHEX
28C6           212      ;
28C6 8E E0 07  213      stx LINE23+16
28C9 8C E1 07  214      sty LINE23+17
28CC           215      ;
28CC AD 44 40  216      lda LBA+3
28CF 20 EA 35  217      jsr SPLITHEX
28D2           218      ;
28D2 8E E2 07  219      stx LINE23+18
28D5 8C E3 07  220      sty LINE23+19
28D8           221      ;
28D8 60        222      rts
28D9           223      ;
28D9           224      ;
28D9           225      ; CFFA ROM is disabled by any access to locations 0xCFEF
28D9           226      ; and 0xCFFF. Care must be taken to avoid location 0xCFEF.
28D9           227      ;
28D9 A0 00     228      READCF  ldy #ZERO
28DB 84 EC     229      sty SLOTPTR
28DD 84 EE     230      sty ROMPTR
28DF 84 FA     231      sty DATAPTR
28E1           232      ;
28E1 AD 22 40  233      lda CFPAGE
28E4 85 ED     234      sta SLOTPTR+1
28E6           235      ;
28E6 2C FF CF  236      bit CLRROM
28E9           237      ;
28E9 B1 EC     238      lda (SLOTPTR),Y
28EB           239      ;
28EB A9 C8     240      lda /PAGEC8
28ED 85 EF     241      sta ROMPTR+1
28EF           242      ;
28EF A9 45     243      lda /ROMBUFR

```

```

28F1 85 FB      244      sta DATAPTR+1
28F3           245      ;
28F3 A2 08      246      ldx #8
28F5           247      ;
28F5 B1 EE      248      ^1   lda (ROMPTR),Y
28F7 91 FA      249      sta (DATAPTR),Y
28F9           250      ;
28F9 C8         251      iny
28FA D0 F9      252      bne <1
28FC           253      ;
28FC E6 EF      254      inc ROMPTR+1
28FE E6 FB      255      inc DATAPTR+1
2900           256      ;
2900 CA         257      dex
2901 D0 F2      258      bne <1
2903           259      ;
2903 A0 0E      260      ldy #$0E
2905           261      ;
2905 B1 EC      262      lda (SLOTPTR),Y
2907           263      ;
2907 B9 F0 CF    264      ^2   lda $CFF0,Y
290A 99 F0 4C    265      sta ROMBUFR+$7F0,Y
290D           266      ;
290D 88         267      dey
290E 10 F7      268      bpl <2
2910           269      ;
2910 2C FF CF    270      bit CLRROM
2913           271      ;
2913 60         272      rts
2914           273      ;
2914           274      ;
2914           275      ; Read the configuration data for this CF card.
2914           276      ;
2914 A0 00      277      READCFG ldy #ZERO
2916 84 EC      278      sty SLOTPTR
2918           279      ;
2918 AD 22 40    280      lda CFPAGE
291B 85 ED      281      sta SLOTPTR+1
291D           282      ;
291D 2C FF CF    283      bit CLRROM
2920           284      ;
2920 B1 EC      285      lda (SLOTPTR),Y
2922           286      ;
2922 B9 00 C8     287      ^1   lda PAGEC8,Y
2925 99 00 45    288      sta ROMBUFR,Y
2928           289      ;
2928 C8         290      iny
2929 D0 F7      291      bne <1
292B           292      ;
292B 2C FF CF    293      bit CLRROM
292E           294      ;
292E 60         295      rts
292F           296      ;
292F           297      ;
292F A0 00      298      WRITCF ldy #ZERO
2931 84 EC      299      sty SLOTPTR
2933 84 EE      300      sty ROMPTR
2935 84 FA      301      sty DATAPTR
2937           302      ;
2937 AD 22 40    303      lda CFPAGE
293A 85 ED      304      sta SLOTPTR+1

```

```

293C      305 ;
293C 2C FF CF 306      bit CLRROM
293F      307 ;
293F B9 00 43 308 ^1      lda SLOTBUFR,Y
2942 91 EC 309      sta (SLOTPTR),Y
2944      310 ;
2944 A9 07 311      lda #WAIT225U
2946 20 86 2C 312      jsr CFWAIT
2949      313 ;
2949 C8 314      iny
294A D0 F3 315      bne <1
294C      316 ;
294C B9 00 43 317 ^2      lda SLOTBUFR,Y
294F D1 EC 318      cmp (SLOTPTR),Y
2951 D0 6A 319      bne DERROR
2953      320 ;
2953 C8 321      iny
2954 D0 F6 322      bne <2
2956      323 ;
2956 A9 C8 324      lda /PAGEC8
2958 85 EF 325      sta ROMPTR+1
295A      326 ;
295A A9 45 327      lda /ROMBUFR
295C 85 FB 328      sta DATAPTR+1
295E      329 ;
295E A2 08 330      ldx #8
2960      331 ;
2960 B1 FA 332 ^3      lda (DATAPTR),Y
2962 91 EE 333      sta (ROMPTR),Y
2964      334 ;
2964 A9 07 335      lda #WAIT225U
2966 20 86 2C 336      jsr CFWAIT
2969      337 ;
2969 C8 338      iny
296A D0 F4 339      bne <3
296C      340 ;
296C E6 EF 341      inc ROMPTR+1
296E E6 FB 342      inc DATAPTR+1
2970      343 ;
2970 CA 344      dex
2971 D0 ED 345      bne <3
2973      346 ;
2973 A0 0E 347      ldY #$0E
2975      348 ;
2975 B1 EC 349      lda (SLOTPTR),Y
2977      350 ;
2977 B9 F0 4C 351 ^4      lda ROMBUFR+$7F0,Y
297A 99 F0 CF 352      sta $CFF0,Y
297D      353 ;
297D A9 07 354      lda #WAIT225U
297F 20 86 2C 355      jsr CFWAIT
2982      356 ;
2982 88 357      dey
2983 10 F2 358      bpl <4
2985      359 ;
2985 A9 C8 360      lda /PAGEC8
2987 85 EF 361      sta ROMPTR+1
2989      362 ;
2989 A9 45 363      lda /ROMBUFR
298B 85 FB 364      sta DATAPTR+1
298D      365 ;

```

```

298D A2 07      366      ldx #7
298F A0 00      367      ldy #ZERO
2991           368      ;
2991 B1 FA      369      ^5      lda (DATAPTR),Y
2993 D1 EE      370      cmp (ROMPTR),Y
2995 D0 26      371      bne DERROR
2997           372      ;
2997 C8         373      iny
2998 D0 F7      374      bne <5
299A           375      ;
299A E6 EF      376      inc ROMPTR+1
299C E6 FB      377      inc DATAPTR+1
299E           378      ;
299E CA         379      dex
299F D0 F0      380      bne <5
29A1           381      ;
29A1 B1 FA      382      ^6      lda (DATAPTR),Y
29A3 D1 EE      383      cmp (ROMPTR),Y
29A5 D0 16      384      bne DERROR
29A7           385      ;
29A7 C8         386      iny
29A8           387      ;
29A8 C0 EF      388      cpy #$EF
29AA D0 F5      389      bne <6
29AC           390      ;
29AC C8         391      iny
29AD           392      ;
29AD B1 FA      393      ^7      lda (DATAPTR),Y
29AF D1 EE      394      cmp (ROMPTR),Y
29B1 D0 0A      395      bne DERROR
29B3           396      ;
29B3 C8         397      iny
29B4           398      ;
29B4 C0 FF      399      cpy #NEGONE
29B6 D0 F5      400      bne <7
29B8           401      ;
29B8 2C FF CF   402      bit CLRROM
29BB           403      ;
29BB 18         404      clc
29BC           405      ;
29BC 60         406      rts
29BD           407      ;
29BD           408      ;
29BD 2C FF CF   409      DERROR bit CLRROM
29C0           410      ;
29C0 20 73 37   411      jsr PRINT
29C3 00 74      412      hex 0074
29C5 54 01      413      byt CLRCMD,EOPCLR
29C7 D3 F4 E1   414      asc "Status:  written data does not compare"
29CA F4 F5 F3
29CD BA A0 A0
29D0 F7 F2 E9
29D3 F4 F4 E5
29D6 EE A0 E4
29D9 E1 F4 E1
29DC A0 E4 EF
29DF E5 F3 A0
29E2 EE EF F4
29E5 A0 E3 EF
29E8 ED F0 E1
29EB F2 E5

```

```

29ED 50          415          byt RTNCMD
29EE            416          ;
29EE            417          .if DEBUG
29EE 4C 19 35    418          jmp PRESKEYC
29F1            419          .el
29F1            420          jmp PRESKEYS
29F1            421          .fi
29F1            422          ;
29F1            423          ;
29F1 A0 00      424 WRITCFG   ldy #ZERO
29F3 84 EC      425          sty SLOTPTR
29F5            426          ;
29F5 AD 22 40   427          lda CFPAGE
29F8 85 ED      428          sta SLOTPTR+1
29FA            429          ;
29FA 2C FF CF   430          bit CLRROM
29FD            431          ;
29FD B1 EC      432          lda (SLOTPTR),Y
29FF            433          ;
29FF B9 00 45   434 ^1      lda ROMBUFR,Y
2A02 99 00 C8   435          sta PAGEC8,Y
2A05            436          ;
2A05 A9 07      437          lda #WAIT225U
2A07 20 86 2C   438          jsr CFWAIT
2A0A            439          ;
2A0A C8         440          iny
2A0B D0 F2      441          bne <1
2A0D            442          ;
2A0D B9 00 45   443 ^2      lda ROMBUFR,Y
2A10 D9 00 C8   444          cmp PAGEC8,Y
2A13 D0 A8      445          bne DERROR
2A15            446          ;
2A15 C8         447          iny
2A16 D0 F5      448          bne <2
2A18            449          ;
2A18 2C FF CF   450          bit CLRROM
2A1B            451          ;
2A1B 18         452          clc
2A1C            453          ;
2A1C 60         454          rts
2A1D            455          ;
2A1D            456          ;
2A1D 20 EA 03   457 WRITFM   jsr HOOKDOS
2A20            458          ;
2A20 20 DC 03   459          jsr GETFMCB
2A23            460          ;
2A23 84 CE      461          sty GENPTR
2A25 85 CF      462          sta GENPTR+1
2A27            463          ;
2A27 A0 11      464          ldy #FMPLN-1
2A29            465          ;
2A29 B9 48 3F   466 ^1      lda FMVALS,Y
2A2C 91 CE      467          sta (GENPTR),Y
2A2E            468          ;
2A2E 88         469          dey
2A2F 10 F8      470          bpl <1
2A31            471          ;
2A31 A2 00      472          ldx #ZERO          ; allocate file
2A33            473          ;
2A33 20 D6 03   474          jsr CALLFM
2A36 B0 03      475          bcs >2

```

```

2A38      476 ;
2A38 4C 6C 11 477      jmp STATOKAY
2A3B      478 ;
2A3B A0 11    479 ^2      ldy #FMPLN-1
2A3D      480 ;
2A3D B1 CE    481 ^3      lda (GENPTR),Y
2A3F 99 48 3F 482      sta FMVALS,Y
2A42      483 ;
2A42 88      484      dey
2A43 10 F8    485      bpl <3
2A45      486 ;
2A45 AE 52 3F 487      ldx RTNCODE
2A48      488 ;
2A48 4C 95 11 489      jmp DISKERR
2A4B      490 ;
2A4B      491 ;
2A4B 20 73 37 492 SHOWCF jsr PRINT
2A4E 01 68    493      hex 0168
2A50 CC C2 C1 494      asc "LBA sectors - 0x"
2A53 A0 F3 E5
2A56 E3 F4 EF
2A59 F2 F3 A0
2A5C AD A0 B0
2A5F F8
2A60 57      495      byt NIBLCMD
2A61 3D 40    496      adr IDLBANUM
2A63 5A 03    497      byt BYTNCMD,3
2A65 3E 40    498      adr IDLBANUM+1
2A67 A0 A8    499      asc " ("
2A69 50      500      byt RTNCMD
2A6A      501 ;
2A6A AD 0E 40 502      lda NSIZE
2A6D 10 1E    503      bpl >2
2A6F      504 ;
2A6F C9 81    505      cmp #$81
2A71 D0 0D    506      bne >1
2A73      507 ;
2A73 20 73 37 508      jsr PRINT
2A76 B2 B5 B6 509      asc "256 MB)"
2A79 A0 CD C2
2A7C A9
2A7D 50      510      byt RTNCMD
2A7E      511 ;
2A7E 90 18    512      bcc >3 ; always taken
2A80      513 ;
2A80 20 73 37 514 ^1      jsr PRINT
2A83 B5 B1 B2 515      asc "512 MB)"
2A86 A0 CD C2
2A89 A9
2A8A 50      516      byt RTNCMD
2A8B      517 ;
2A8B 90 0B    518      bcc >3 ; always taken
2A8D      519 ;
2A8D 20 73 37 520 ^2      jsr PRINT
2A90 5C      521      byt DEC1CMD
2A91 0E 40    522      adr NSIZE
2A93 A0 C7 C2 523      asc " GB)"
2A96 A9
2A97 50      524      byt RTNCMD
2A98      525 ;
2A98 20 73 37 526 ^3      jsr PRINT

```

2A9B	00	6A	527	hex 006A
2A9D	D4	EF F4	528	asc "Total drives - "
2AA0	E1	EC A0		
2AA3	E4	F2 E9		
2AA6	F6	E5 F3		
2AA9	A0	AD A0		
2AAC	5E		529	byt DEC3CMD
2AAD	10	40	530	adr NDRVS
2AAF	A0	AB A0	531	asc " + "
2AB2	5E		532	byt DEC3CMD
2AB3	13	40	533	adr NVOLS
2AB5	A0	E5 F8	534	asc " extra volumes"
2AB8	F4	F2 E1		
2ABB	A0	F6 EF		
2ABE	EC	F5 ED		
2AC1	E5	F3		
2AC3	00	6C	535	hex 006C
2AC5	B0	B0 B0	536	asc "0000000-0000001 = Not used"
2AC8	B0	B0 B0		
2ACB	B0	AD B0		
2ACE	B0	B0 B0		
2AD1	B0	B0 B1		
2AD4	A0	BD A0		
2AD7	CE	EF F4		
2ADA	A0	F5 F3		
2ADD	E5	E4		
2ADF	8D		537	byt RETURN
2AE0	B0	B0 B0	538	asc "0000002-0000002 = Saved Slot Firmware"
2AE3	B0	B0 B0		
2AE6	B2	AD B0		
2AE9	B0	B0 B0		
2AEC	B0	B0 B2		
2AEF	A0	BD A0		
2AF2	D3	E1 F6		
2AF5	E5	E4 A0		
2AF8	D3	EC EF		
2AFB	F4	A0 C6		
2AFE	E9	F2 ED		
2B01	F7	E1 F2		
2B04	E5			
2B05	8D		539	byt RETURN
2B06	B0	B0 B0	540	asc "0000003-0000006 = Saved ROM Firmware"
2B09	B0	B0 B0		
2B0C	B3	AD B0		
2B0F	B0	B0 B0		
2B12	B0	B0 B6		
2B15	A0	BD A0		
2B18	D3	E1 F6		
2B1B	E5	E4 A0		
2B1E	D2	CF CD		
2B21	A0	C6 E9		
2B24	F2	ED F7		
2B27	E1	F2 E5		
2B2A	8D		541	byt RETURN
2B2B	B0	B0 B0	542	asc "0000007-0000007 = Saved Identify Device"
2B2E	B0	B0 B0		
2B31	B7	AD B0		
2B34	B0	B0 B0		
2B37	B0	B0 B7		
2B3A	A0	BD A0		
2B3D	D3	E1 F6		

```
2B40 E5 E4 A0
2B43 C9 E4 E5
2B46 EE F4 E9
2B49 E6 F9 A0
2B4C C4 E5 F6
2B4F E9 E3 E5
2B52 8D          543      byt RETURN
2B53 B0 B0 B0    544      asc "0000008-000000F = DOS Descriptions (8)"
2B56 B0 B0 B0
2B59 B8 AD B0
2B5C B0 B0 B0
2B5F B0 B0 C6
2B62 A0 BD A0
2B65 C4 CF D3
2B68 A0 C4 E5
2B6B F3 E3 F2
2B6E E9 F0 F4
2B71 E9 EF EE
2B74 F3 A0 A8
2B77 B8 A9
2B79 8D          545      byt RETURN
2B7A B0 B0 B0    546      asc "0000010-00000CF = DOS Images (8)"
2B7D B0 B0 B1
2B80 B0 AD B0
2B83 B0 B0 B0
2B86 B0 C3 C6
2B89 A0 BD A0
2B8C C4 CF D3
2B8F A0 C9 ED
2B92 E1 E7 E5
2B95 F3 A0 A8
2B98 B8 A9
2B9A 8D          547      byt RETURN
2B9B B0 B0 B0    548      asc "00000D0-00000FF = Drive Descriptions"
2B9E B0 B0 C4
2BA1 B0 AD B0
2BA4 B0 B0 B0
2BA7 B0 C6 C6
2BAA A0 BD A0
2BAD C4 F2 E9
2BB0 F6 E5 A0
2BB3 C4 E5 F3
2BB6 E3 F2 E9
2BB9 F0 F4 E9
2BBC EF EE F3
2BBF 8D          549      byt RETURN
2BC0 B0 B0 B0    550      asc "0000100-"
2BC3 B0 B1 B0
2BC6 B0 AD
2BC8 57          551      byt NIBLCMD
2BC9 49 40        552      adr LASTVOL
2BCB 5A 03        553      byt BYTNCMD,3
2BCD 4A 40        554      adr LASTVOL+1
2BCF A0 BD A0     555      asc " = Drives and Volumes"
2BD2 C4 F2 E9
2BD5 F6 E5 F3
2BD8 A0 E1 EE
2BDB E4 A0 D6
2BDE EF EC F5
2BE1 ED E5 F3
2BE4 8D          556      byt RETURN
```

```

2BE5 50          557          byt RTNCMD
2BE6          558          ;
2BE6 A2 03      559          ldx #LBALEN-1
2BE8          560          ;
2BE8 BD 3D 40   561          ^4      lda IDLBANUM,X
2BEB DD 4D 40   562          cmp FRSTFREE,X
2BEE D0 05      563          bne >5
2BF0          564          ;
2BF0 CA        565          dex
2BF1 10 F5      566          bpl <4
2BF3          567          ;
2BF3 30 1E      568          bmi >6          ; always taken
2BF5          569          ;
2BF5 20 73 37   570          ^5      jsr PRINT
2BF8 57         571          byt NIBLCMD
2BF9 4D 40      572          adr FRSTFREE
2BFB 5A 03      573          byt BYTNCMD,3
2BFD 4E 40      574          adr FRSTFREE+1
2BFF AD        575          asc "-"
2C00 57         576          byt NIBLCMD
2C01 51 40      577          adr LASTFREE
2C03 5A 03      578          byt BYTNCMD,3
2C05 52 40      579          adr LASTFREE+1
2C07 A0 BD A0   580          asc " = Not used"
2C0A CE EF F4
2C0D A0 F5 F3
2C10 E5 E4
2C12 50          581          byt RTNCMD
2C13          582          ;
2C13 A2 03      583          ^6      ldx #LBALEN-1
2C15          584          ;
2C15 BD 51 40   585          ^7      lda LASTFREE,X
2C18 9D 41 40   586          sta LBA,X
2C1B          587          ;
2C1B CA        588          dex
2C1C 10 F7      589          bpl <7
2C1E          590          ;
2C1E 20 38 2D   591          jsr READLBA2
2C21 B0 12      592          bcs >9
2C23          593          ;
2C23 A2 03      594          ldx #LBALEN-1
2C25          595          ;
2C25 BD 3D 40   596          ^8      lda IDLBANUM,X
2C28 9D 41 40   597          sta LBA,X
2C2B          598          ;
2C2B CA        599          dex
2C2C 10 F7      600          bpl <8
2C2E          601          ;
2C2E 20 38 2D   602          jsr READLBA2
2C31 90 02      603          bcc >9
2C33          604          ;
2C33 18         605          clc
2C34          606          ;
2C34 60         607          rts
2C35          608          ;
2C35          609          .if DEBUG
2C35 4C 19 35   610          ^9      jmp PRESKEYC
2C38          611          .el
2C38          612          ^9      jsr PRINT
2C38          613          hex 0074
2C38          614          asc "Status:  cannot verify CF memory"

```

```

2C38          615          byt RTNCMD
2C38          616      ;
2C38          617          jmp PRESKEYS
2C38          618          .fi
2C38          619      ;
2C38          620      ;
2C38 A0 C8      621 CFBUSY      ldy #200          ; get loop count
2C3A          622      ;
2C3A BD 8F C0   623 ^1          lda ATASTAT,X          ; get CF status
2C3D 10 0D      624          bpl >2          ; status clear if branch
2C3F          625      ;
2C3F A9 11      626          lda #WAIT001M          ; wait 1 msec
2C41 20 86 2C   627          jsr CFWAIT
2C44          628      ;
2C44 88          629          dey
2C45 D0 F3      630          bne <1          ; not zero if branch
2C47          631      ;
2C47 20 F1 2C   632          jsr DOATARST          ; do software reset
2C4A          633      ;
2C4A 38          634          sec
2C4B          635      ;
2C4B 60          636          rts          ; return with error
2C4C          637      ;
2C4C 18          638 ^2          clc
2C4D          639      ;
2C4D 60          640          rts          ; return with no error
2C4E          641      ;
2C4E          642      ;
2C4E BD 82 C0   643 CFREADY      lda CLRCMSK,X          ; enable 6502 pre-fetch
2C51          644      ;
2C51 A9 E0      645          lda #%11100000          ; 1,LBA,1,DRV
2C53 9D 8E C0   646          sta ATAHEAD,X          ; set drive to zero
2C56          647      ;
2C56 A0 FA      648          ldy #250          ; get loop count
2C58          649      ;
2C58 BD 8F C0   650 ^1          lda ATASTAT,X          ; get CF status
2C5B 29 D0      651          and #%11010000          ; mask BUSY, RDY, DSC
2C5D          652      ;
2C5D C9 50      653          cmp #%01010000          ; RDY, DSC
2C5F F0 0A      654          beq >2          ; BUSY and RDY set if branch
2C61          655      ;
2C61 A9 7C      656          lda #WAIT040M          ; wait 40 msec
2C63 20 86 2C   657          jsr CFWAIT
2C66          658      ;
2C66 88          659          dey
2C67 D0 EF      660          bne <1          ; not zero if branch
2C69          661      ;
2C69 38          662          sec
2C6A          663      ;
2C6A 60          664          rts          ; return with error
2C6B          665      ;
2C6B 18          666 ^2          clc
2C6C          667      ;
2C6C 60          668          rts          ; return with no error
2C6D          669      ;
2C6D          670      ;
2C6D BD 8F C0   671 CFSTATUS      lda ATASTAT,X          ; get CF status
2C70 29 01      672          and #%00000001          ; mask out ERR state
2C72 D0 07      673          bne >1          ; ERR=1 if branch
2C74          674      ;
2C74 BD 8F C0   675          lda ATASTAT,X          ; recall CF status

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2C77 29 08      676      and #%00001000      ; mask out DRQ state
2C79           677      ;
2C79 18         678      clc
2C7A           679      ;
2C7A 60         680      rts      ; return with no error
2C7B           681      ;
2C7B 38         682      ^1      sec
2C7C           683      ;
2C7C 60         684      rts      ; return with error
2C7D           685      ;
2C7D           686      ;
2C7D A9 00      687      WAIT     lda #ZERO
2C7F           688      ;
2C7F 20 86 2C   689      jsr CFWAIT
2C82           690      ;
2C82 CA         691      dex
2C83 D0 F8      692      bne WAIT
2C85           693      ;
2C85 60         694      rts
2C86           695      ;
2C86           696      ;
2C86 38         697      CFWAIT    sec      ; set for subtraction
2C87           698      ;
2C87 48         699      ^1      pha      ; save value
2C88           700      ;
2C88 E9 01      701      ^2      sbc #1      ; inner loop subtraction
2C8A D0 FC      702      bne <2      ; not zero if branch
2C8C           703      ;
2C8C 68         704      pla      ; recall value
2C8D           705      ;
2C8D E9 01      706      sbc #1      ; outer loop subtraction
2C8F D0 F6      707      bne <1      ; not zero if branch
2C91           708      ;
2C91 60         709      rts      ; return to caller
2C92           710      ;
2C92           711      ;
2C92 20 38 2C   712      CFCHECK   jsr CFBUSY      ; wait for BUSY=0
2C95 B0 03      713      bcs >1      ; error if branch
2C97           714      ;
2C97 20 6D 2C   715      jsr CFSTATUS      ; get ERR and DRQ state
2C9A           716      ;
2C9A 60         717      ^1      rts      ; return to caller
2C9B           718      ;
2C9B           719      ;
2C9B AE 20 40   720      LOADLBA   ldx CFSLOT16      ; get CF SLOT*16
2C9E           721      ;
2C9E 20 38 2C   722      jsr CFBUSY      ; BUSY bit must be clear
2CA1 B0 21      723      bcs >1      ; error if branch
2CA3           724      ;
2CA3 A9 01      725      lda #1      ; set for one sector I/O
2CA5 9D 8A C0   726      sta ATASECCT,X
2CA8           727      ;
2CA8 AD 44 40   728      lda LBA+3      ; load LBA LSB
2CAB 9D 8B C0   729      sta ATASECTR,X
2CAE           730      ;
2CAE AD 43 40   731      lda LBA+2      ; load LBA LSB+1
2CB1 9D 8C C0   732      sta ATACYLNL,X
2CB4           733      ;
2CB4 AD 42 40   734      lda LBA+1      ; load LBA MSB-1
2CB7 9D 8D C0   735      sta ATACYLNH,X
2CBA           736      ;

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2CBA AD 41 40    737          lda LBA          ; load LBA MSB
2CBD 29 0F      738          and #LBAMASK      ; mask bits 27:24
2CBF           739          ;
2CBF 09 E0      740          ora #%11100000    ; LBA=1, DRV=0
2CC1 9D 8E C0    741          sta ATAHEAD,X
2CC4           742          ;
2CC4 60         743          ^1 rts
2CC5           744          ;
2CC5           745          ;
2CC5 9D 8F C0    746          LOADCMD sta ATACMD,X
2CC8           747          ;
2CC8 20 38 2C    748          jsr CFBUSY        ; wait for BUSY=0
2CCB B0 11      749          bcs >3           ; error if branch
2CCD           750          ;
2CCD A0 C8      751          ldy #200          ; get loop count
2CCF           752          ;
2CCF A9 04      753          ^1 lda #WAIT100U    ; wait 100 usec
2CD1 20 86 2C    754          jsr CFWAIT
2CD4           755          ;
2CD4 20 6D 2C    756          jsr CFSTATUS      ; get ERR and DRQ state
2CD7 B0 02      757          bcs >2           ; ERR=1 if branch
2CD9           758          ;
2CD9 D0 03      759          bne >3           ; DRQ=1 if branch
2CDB           760          ;
2CDB 88         761          ^2 dey
2CDC D0 F1      762          bne <1           ; not zero if branch
2CDE           763          ;
2CDE 60         764          ^3 rts           ; return to caller
2CDF           765          ;
2CDF           766          ;
2CDF AE 20 40    767          CFRESET ldx CFSLOT16 ; get CF SLOT*16
2CE2           768          ;
2CE2 20 38 2C    769          jsr CFBUSY        ; wait for BUSY=0
2CE5           770          ;
2CE5 20 4E 2C    771          jsr CFREADY      ; wait for RDY=1
2CE8 B0 06      772          bcs >1           ; error if branch
2CEA           773          ;
2CEA 20 F1 2C    774          jsr DOATARST     ; do reset
2CED           775          ;
2CED 20 92 2C    776          jsr CFCHECK     ; get ERR and DRQ state
2CF0           777          ;
2CF0 60         778          ^1 rts           ; return to caller
2CF1           779          ;
2CF1           780          ;
2CF1 A9 0E      781          DOATARST lda #%00001110 ; 1,SRST,nIEN,0
2CF3 9D 86 C0    782          sta ATADEVCT,X    ; set device
2CF6           783          ;
2CF6 A9 04      784          lda #WAIT100U    ; wait for 100 usec
2CF8 20 86 2C    785          jsr CFWAIT
2CFB           786          ;
2CFB A9 0A      787          lda #%00001010    ; nIEN=1 to disable intrupts
2CFD 9D 86 C0    788          sta ATADEVCT,X    ; set device
2D00           789          ;
2D00 A9 7C      790          lda #WAIT040M    ; wait for 40 msec
2D02           791          ;
2D02 4C 86 2C    792          jmp CFWAIT      ; and return to caller
2D05           793          ;
2D05           794          ;
2D05 20 8D 21    795          READID jsr CLEARLBA ; set LBA=0
2D08           796          ;
2D08 20 9B 2C    797          jsr LOADLBA     ; load LBA

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2D0B B0 28      798      bcs >3      ; error if branch
2D0D            799      ;
2D0D A9 EC      800      lda #ATA_ID      ; set CF to read ID
2D0F            801      ;
2D0F 20 C5 2C    802      jsr LOADCMD      ; load command
2D12 B0 21      803      bcs >3      ; error if branch
2D14            804      ;
2D14 A0 00      805      ld y #IDBUFR
2D16 A9 43      806      lda /IDBUFR
2D18            807      ;
2D18 84 CE      808      sty GENPTR
2D1A 85 CF      809      sta GENPTR+1
2D1C            810      ;
2D1C 20 4C 2D    811      jsr READBUFR
2D1F B0 14      812      bcs >3
2D21            813      ;
2D21 A2 05      814      ld x #5
2D23            815      ;
2D23 AD 7A 43    816      lda IDBUFR+IDLBAOFF+2 ; reverse order
2D26            817      ;
2D26 DD D4 3D    818      ^1      cmp TOPMEM,X
2D29 F0 05      819      beq >2
2D2B            820      ;
2D2B CA          821      dex
2D2C 10 F8      822      bpl <1
2D2E            823      ;
2D2E 30 05      824      bmi >3
2D30            825      ;
2D30 8E 24 40    826      ^2      stx CFINDEX
2D33            827      ;
2D33 18          828      clc
2D34            829      ;
2D34 60          830      rts
2D35            831      ;
2D35            832      .if DEBUG
2D35 4C 19 35    833      ^3      jmp PRESKEYC
2D38            834      .el
2D38            835      ^3      jsr PRINT
2D38            836      hex 0073
2D38            837      byt CLRCMD,EOPCLR
2D38            838      byt RETURN,RETURN
2D38            839      byt BUFRCMD,DIRECT
2D38            840      adr MSG3
2D38            841      asc "read Identify Device"
2D38            842      byt RTNCMD
2D38            843      ;
2D38            844      jmp PRESKEYS
2D38            845      .fi
2D38            846      ;
2D38            847      ;
2D38 A0 00      848      READLBA2 ld y #LBABUFR
2D3A A9 43      849      lda /LBABUFR
2D3C            850      ;
2D3C 84 CE      851      READLBA  sty GENPTR
2D3E 85 CF      852      sta GENPTR+1
2D40            853      ;
2D40 20 9B 2C    854      jsr LOADLBA
2D43 B0 2F      855      bcs >3
2D45            856      ;
2D45 A9 20      857      lda #ATA_READ
2D47            858      ;

```

```

2D47 20 C5 2C      859          jsr LOADCMD
2D4A B0 28         860          bcs >3
2D4C              861          ;
2D4C              862          ;
2D4C BD 82 C0      863 READBUFR lda CLRCMSK,X
2D4F              864          ;
2D4F A0 00         865          ldy #ZERO
2D51              866          ;
2D51 BD 88 C0      867 ^1      lda ATADATAL,X
2D54 91 CE         868          sta (GENPTR),Y
2D56              869          ;
2D56 C8           870          iny
2D57              871          ;
2D57 BD 80 C0      872          lda ATADATAH,X
2D5A 91 CE         873          sta (GENPTR),Y
2D5C              874          ;
2D5C C8           875          iny
2D5D D0 F2         876          bne <1
2D5F              877          ;
2D5F E6 CF         878          inc GENPTR+1
2D61              879          ;
2D61 BD 88 C0      880 ^2      lda ATADATAL,X
2D64 91 CE         881          sta (GENPTR),Y
2D66              882          ;
2D66 C8           883          iny
2D67              884          ;
2D67 BD 80 C0      885          lda ATADATAH,X
2D6A 91 CE         886          sta (GENPTR),Y
2D6C              887          ;
2D6C C8           888          iny
2D6D D0 F2         889          bne <2
2D6F              890          ;
2D6F E6 CF         891          inc GENPTR+1
2D71              892          ;
2D71 20 92 2C      893          jsr CFCHECK          ; get ERR and DRQ state
2D74              894          ;
2D74 60           895 ^3      rts          ; return to caller
2D75              896          ;
2D75              897          ;
2D75 A0 00         898 WRITLBA2 ldy #LBABUFR
2D77 A9 43         899          lda /LBABUFR
2D79              900          ;
2D79 84 CE         901 WRITLBA1 sty GENPTR
2D7B 85 CF         902          sta GENPTR+1
2D7D              903          ;
2D7D 20 9B 2C      904 WRITLBA  jsr LOADLBA
2D80 B0 36         905          bcs >3
2D82              906          ;
2D82 A9 30         907          lda #ATA_WRIT
2D84              908          ;
2D84 20 C5 2C      909          jsr LOADCMD
2D87 B0 2F         910          bcs >3
2D89              911          ;
2D89              912          ;
2D89 BD 81 C0      913 WRITBUFR lda SETCMSK,X
2D8C              914          ;
2D8C A0 00         915          ldy #ZERO
2D8E              916          ;
2D8E B1 CE         917 ^1      lda (GENPTR),Y
2D90 48           918          pha
2D91              919          ;

```

```
2D91 C8          920          iny
2D92            921          ;
2D92 B1 CE       922          lda (GENPTR),Y
2D94 9D 80 C0    923          sta ATADATAH,X
2D97            924          ;
2D97 68          925          pla
2D98 9D 88 C0    926          sta ATADATAL,X
2D9B            927          ;
2D9B C8          928          iny
2D9C D0 F0       929          bne <1
2D9E            930          ;
2D9E E6 CF       931          inc GENPTR+1
2DA0            932          ;
2DA0 B1 CE       933          ^2    lda (GENPTR),Y
2DA2 48          934          pha
2DA3            935          ;
2DA3 C8          936          iny
2DA4            937          ;
2DA4 B1 CE       938          lda (GENPTR),Y
2DA6 9D 80 C0    939          sta ATADATAH,X
2DA9            940          ;
2DA9 68          941          pla
2DAA 9D 88 C0    942          sta ATADATAL,X
2DAD            943          ;
2DAD C8          944          iny
2DAE D0 F0       945          bne <2
2DB0            946          ;
2DB0 E6 CF       947          inc GENPTR+1
2DB2            948          ;
2DB2 BD 82 C0    949          lda CLRCMSK,X
2DB5            950          ;
2DB5 20 92 2C    951          jsr CFCHECK          ; get ERR and DRQ state
2DB8            952          ;
2DB8 60          953          ^3    rts          ; return to caller
2DB9            954          ;
2DB9            955          ;
```

BSAVE SEG05,A\$0900,B,L\$05FE

```
2DB9            956          usr SEG05
2DB9            957          ;
2DB9            958          ;
2DB9            959          icl "CODE6.L"
```

LLOAD CODE6.L,A\$4000

```

2DB9          1          ttl "Volume Manager Source Code, CODE6.L"
2DB9          2          ;
2DB9          3          ;
2DB9          4          ; CODE6.L
2DB9          5          ;
2DB9          6          ;
2DB9          7          obj PAGE09
2DB9          8          usr
2DB9          9          ;
2DB9         10          ;
2DB9 A2 01      11 LISTIMGS ldx #1
2DBB          12          ;
2DBB 8E FB 3E   13 ^1      stx DOSIMAGE
2DBE          14          ;
2DBE 8A         15          txa
2DBF 09 B0      16          ora #"0"
2DC1 8D C4 3C   17          sta MOD6.03
2DC4          18          ;
2DC4 20 73 37   19          jsr PRINT
2DC7 56 00      20          byt BUFRCMD,DIRECT
2DC9 BA 3C      21          adr STR6.03          ; "DOS Image n"
2DCB A0 AD A0   22          asc " - "
2DCE 50         23          byt RTNCMD
2DCF          24          ;
2DCF 38         25          sec
2DD0          26          ;
2DD0 20 1D 2E   27          jsr PUTINAME
2DD3          28          ;
2DD3 AE FB 3E   29          ldx DOSIMAGE
2DD6 E8         30          inx
2DD7          31          ;
2DD7 E0 09      32          cpx #9
2DD9 D0 E0      33          bne <1
2ddb          34          ;
2ddb 60         35          rts
2DDC          36          ;
2DDC          37          ;
2DDC A2 43      38 DOLDDOS ldx #PUTIERR
2DDE A9 2F      39          lda /PUTIERR
2DE0          40          ;
2DE0 20 8A 19   41          jsr SETERROR
2DE3          42          ;
2DE3 20 73 37   43          jsr PRINT
2DE6 00 6B      44          hex 006B
2DE8 C4 CF D3   45          asc "DOS Images -"
2DEB A0 C9 ED
2DEE E1 E7 E5
2DF1 F3 A0 AD
2DF4 50         46          byt RTNCMD
2DF5          47          ;
2DF5 A2 01      48          ldx #1
2DF7          49          ;
2DF7 8E FB 3E   50 ^1      stx DOSIMAGE
2DFA          51          ;
2DFA A9 0D      52          lda #13
2DFC 85 24      53          sta CH
2DFE          54          ;
2DFE 18         55          clc
2DFF          56          ;
2DFF 20 1D 2E   57          jsr PUTINAME

```

```

2E02          58 ;
2E02 AE FB 3E 59      ldx DOSIMAGE
2E05 E8       60      inx
2E06          61 ;
2E06 E0 07    62      cpx #7
2E08 D0 ED    63      bne <1
2E0A          64 ;
2E0A A2 01    65      ldx #1
2E0C          66 ;
2E0C 8E FB 3E 67 ^2    stx DOSIMAGE
2E0F          68 ;
2E0F 20 92 2E 69      jsr SELCIMAG
2E12 B0 08    70      bcs >3
2E14          71 ;
2E14 AE FB 3E 72      ldx DOSIMAGE
2E17 E8       73      inx
2E18          74 ;
2E18 E0 07    75      cpx #7
2E1A D0 F0    76      bne <2
2E1C          77 ;
2E1C 60       78 ^3    rts
2E1D          79 ;
2E1D          80 ;
2E1D 08       81 PUTINAME php
2E1E          82 ;
2E1E AD FB 3E 83      lda DOSIMAGE
2E21 0A       84      asl
2E22 AA       85      tax
2E23          86 ;
2E23 BC FC 3E 87      ldy DOSIMTBL-2,X
2E26 BD FD 3E 88      lda DOSIMTBL-1,X
2E29          89 ;
2E29 8C FC 3E 90      sty DOSINAME
2E2C 8D FD 3E 91      sta DOSINAME+1
2E2F          92 ;
2E2F 20 73 37 93      jsr PRINT
2E32 C4 CF D3 94      asc "DOS"
2E35 56 01    95      byt BUFRCMD,INDIRECT
2E37 FC 3E    96      adr DOSINAME
2E39 50       97      byt RTNCMD
2E3A          98 ;
2E3A 28       99      plp
2E3B 90 18    100     bcc >2
2E3D          101 ;
2E3D 20 61 2E 102     jsr GETIMAGE
2E40 B0 05    103     bcs >1
2E42          104 ;
2E42 AD 00 41 105     lda DESCBUFR
2E45 D0 0E    106     bne >2
2E47          107 ;
2E47 20 73 37 108 ^1   jsr PRINT
2E4A A0 A8 C2 109     asc " (Blank)"
2E4D EC E1 EE
2E50 EB A9
2E52 8D       110     byt RETURN
2E53 50       111     byt RTNCMD
2E54          112 ;
2E54 60       113     rts
2E55          114 ;
2E55 20 73 37 115 ^2   jsr PRINT
2E58 A0 C9 CD 116     asc " IMAGE"

```

```

2E5B C1 C7 C5
2E5E 8D          117          byt RETURN
2E5F 50          118          byt RTNCMD
2E60          119          ;
2E60 60          120          rts
2E61          121          ;
2E61          122          ;
2E61 20 8D 21    123 GETIMAGE jsr CLEARLBA          ; LBA=0
2E64          124          ;
2E64 AE FB 3E    125          ldx DOSIMAGE
2E67          126          ;
2E67 BD EF 3D    127          lda IMAGLBA-1,X
2E6A 8D 44 40    128          sta LBA+3
2E6D          129          ;
2E6D A0 00       130          ldy #DESCBUFR
2E6F A9 41       131          lda /DESCBUFR
2E71          132          ;
2E71 20 3C 2D    133          jsr READLBA
2E74 B0 01       134          bcs >1
2E76          135          ;
2E76 60          136          rts
2E77          137          ;
2E77 20 73 37    138 ^1      jsr PRINT
2E7A 00 74       139          hex 0074
2E7C 56 00       140          byt BUFRCMD,DIRECT
2E7E 5B 3D       141          adr MSG3
2E80 F2 E5 E1    142          asc "read DOS image"
2E83 E4 A0 C4
2E86 CF D3 A0
2E89 E9 ED E1
2E8C E7 E5
2E8E 50          143          byt RTNCMD
2E8F          144          ;
2E8F 4C 1B 35    145          jmp PRESKEYS
2E92          146          ;
2E92          147          ;
2E92 AD FB 3E    148 SELCIMAG lda DOSIMAGE
2E95 0A          149          asl
2E96 AA          150          tax
2E97          151          ;
2E97 BC FC 3E    152          ldy DOSIMTBL-2,X
2E9A BD FD 3E    153          lda DOSIMTBL-1,X
2E9D          154          ;
2E9D 8C FC 3E    155          sty DOSINAME
2EA0 8D FD 3E    156          sta DOSINAME+1
2EA3          157          ;
2EA3 20 73 37    158          jsr PRINT
2EA6 00 73       159          hex 0073
2EA8 54 01       160          byt CLRCMD,EOPCLR
2EAA C9 EE F3    161          asc "Install DOS "
2EAD F4 E1 EC
2EB0 EC A0 C4
2EB3 CF D3 A0
2EB6 56 01       162          byt BUFRCMD,INDIRECT
2EB8 FC 3E       163          adr DOSINAME
2EBA A0 C9 CD    164          asc " IMAGE - "
2EBD C1 C7 C5
2EC0 A0 AD A0
2EC3 50          165          byt RTNCMD
2EC4          166          ;
2EC4 20 F0 10    167          jsr GETYORN

```

```

2EC7 B0 02      168      bcs >1
2EC9            169      ;
2EC9 D0 01      170      bne >2
2ECB            171      ;
2ECB 60         172      ^1      rts
2ECC            173      ;
2ECC 20 2A 12   174      ^2      jsr CLRIMBUF
2ECF            175      ;
2ECF 20 73 37   176      jsr PRINT
2ED2 8D 84      177      byt RETURN,CTRLD
2ED4 C2 CC CF   178      asc "BLOAD DOS"
2ED7 C1 C4 A0
2EDA C4 CF D3
2EDD 56 01      179      byt BUFRCMD,INDIRECT
2EDF FC 3E      180      adr DOSINAME
2EE1 A0 C9 CD   181      asc " IMAGE,S"
2EE4 C1 C7 C5
2EE7 AC D3
2EE9 5C         182      byt DEC1CMD
2EEA 1E 40      183      adr DISKSLOT
2EEC AC C4      184      asc ",D"
2EEE 5C         185      byt DEC1CMD
2EEF 1F 40      186      adr DISKDRV
2EF1 AC C1 A4   187      asc ",A$"
2EF4 5B 00      188      byt ADRCMD,DIRECT
2EF6 00 43      189      adr DOSBUFR
2EF8 8D         190      byt RETURN
2EF9 50         191      byt RTNCMD
2EFA            192      ;
2EFA 20 8D 21   193      jsr CLEARLBA          ; LBA=0
2EFD            194      ;
2EFD AE FB 3E   195      ldx DOSIMAGE
2F00            196      ;
2F00 BD EF 3D   197      lda IMAGLBA-1,X
2F03 8D 44 40   198      sta LBA+3
2F06            199      ;
2F06 A9 18      200      lda #IMAGSIZE
2F08 8D 16 40   201      sta PAGECNT
2F0B            202      ;
2F0B A0 00      203      ldy #DOSBUFR
2F0D A9 43      204      lda /DOSBUFR
2F0F            205      ;
2F0F 84 CE      206      sty GENPTR
2F11 85 CF      207      sta GENPTR+1
2F13            208      ;
2F13 20 7D 2D   209      ^3      jsr WRITLBA
2F16 B0 0B      210      bcs >4
2F18            211      ;
2F18 EE 44 40   212      inc LBA+3
2F1B            213      ;
2F1B CE 16 40   214      dec PAGECNT
2F1E D0 F3      215      bne <3
2F20            216      ;
2F20 4C 6C 11   217      jmp STATOKAY
2F23            218      ;
2F23 20 73 37   219      ^4      jsr PRINT
2F26 00 75      220      hex 0075
2F28 56 00      221      byt BUFRCMD,DIRECT
2F2A 5B 3D      222      adr MSG3
2F2C F7 F2 E9   223      asc "write DOS partition"
2F2F F4 E5 A0

```

```

2F32 C4 CF D3
2F35 A0 F0 E1
2F38 F2 F4 E9
2F3B F4 E9 EF
2F3E EE
2F3F 50          224          byt RTNCMD
2F40          225          ;
2F40 4C 1B 35    226          jmp PRESKEYS
2F43          227          ;
2F43          228          ;
2F43 20 95 11    229 PUTIERR jsr DISKERR
2F46          230          ;
2F46 4C DC 2D    231          jmp DOLDDOS
2F49          232          ;
2F49          233          ;
2F49 20 73 37    234 SHOWDOSI jsr PRINT
2F4C 53 01        235          byt SCRNCMD,HOMESCRN
2F4E 8D 55 01    236          byt RETURN,CNTRCMD,INDIRECT
2F51 82 3C        237          adr STR6.01          ; "Show DOS Image Description"
2F53 00 66        238          hex 0066
2F55 50          239          byt RTNCMD
2F56          240          ;
2F56 20 B9 2D    241          jsr LISTIMGS
2F59          242          ;
2F59 20 73 37    243 ^1      jsr PRINT
2F5C 00 71        244          hex 0071
2F5E 54 01        245          byt CLRCMD,EOPCLR
2F60 D3 E5 EC    246          asc "Select DOS Image to Display - "
2F63 E5 E3 F4
2F66 A0 C4 CF
2F69 D3 A0 C9
2F6C ED E1 E7
2F6F E5 A0 F4
2F72 EF A0 C4
2F75 E9 F3 F0
2F78 EC E1 F9
2F7B A0 AD A0
2F7E 50          247          byt RTNCMD
2F7F          248          ;
2F7F 20 1D 34    249          jsr GETDEC1
2F82 B0 27        250          bcs >2
2F84          251          ;
2F84 AD 35 40    252          lda DECVALS
2F87 C9 01        253          cmp #1
2F89 90 CE        254          bcc <1
2F8B          255          ;
2F8B C9 09        256          cmp #9
2F8D B0 CA        257          bcs <1
2F8F          258          ;
2F8F 20 86 0F    259          jsr CHKIMAGE
2F92 B0 C5        260          bcs <1
2F94          261          ;
2F94 20 C3 30    262          jsr READDESC
2F97 B0 12        263          bcs >2
2F99          264          ;
2F99 20 73 37    265          jsr PRINT
2F9C 00 64        266          hex 0064
2F9E 54 01        267          byt CLRCMD,EOPCLR
2FA0 50          268          byt RTNCMD
2FA1          269          ;
2FA1 A0 00        270          ldy #DOSBUFR

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```

2FA3 A9 43      271      lda /DOSBUFR
2FA5           272      ;
2FA5 20 A9 30   273      jsr SHOWIMAG
2FA8 20 6C 11   274      jsr STATOKAY
2FAB           275      ;
2FAB 60         276      ^2      rts
2FAC           277      ;
2FAC           278      ;
2FAC 20 73 37   279      GETDOSI  jsr PRINT
2FAF 53 01      280      byt SCRNCMD,HOMESCRN
2FB1 8D 55 01   281      byt RETURN,CNTRCMD,INDIRECT
2FB4 9D 3C      282      adr STR6.02      ; "Modify DOS ... Description"
2FB6 00 66      283      hex 0066
2FB8 50         284      byt RTNCMD
2FB9           285      ;
2FB9 20 B9 2D   286      jsr LISTIMGS
2FBC           287      ;
2FBC 20 73 37   288      ^1      jsr PRINT
2FBF 00 71      289      hex 0071
2FC1 54 01      290      byt CLRCMD,EOPCLR
2FC3 D3 E5 EC   291      asc "Select DOS Image to Modify - "
2FC6 E5 E3 F4
2FC9 A0 C4 CF
2FCC D3 A0 C9
2FCF ED E1 E7
2FD2 E5 A0 F4
2FD5 EF A0 CD
2FD8 EF E4 E9
2FDB E6 F9 A0
2FDE AD A0
2FE0 50         292      byt RTNCMD
2FE1           293      ;
2FE1 20 1D 34   294      jsr GETDEC1
2FE4 B0 15      295      bcs >2
2FE6           296      ;
2FE6 AD 35 40   297      lda DECVALS
2FE9 C9 01      298      cmp #1
2FEB 90 CF      299      bcc <1
2FED           300      ;
2FED C9 09      301      cmp #9
2FEF B0 CB      302      bcs <1
2FF1           303      ;
2FF1 20 86 0F   304      jsr CHKIMAGE
2FF4 B0 C6      305      bcs <1
2FF6           306      ;
2FF6 20 C3 30   307      jsr READDESC
2FF9 90 01      308      bcc >3
2FFB           309      ;
2FFB 60         310      ^2      rts
2FFC           311      ;
2FFC 20 58 FC   312      ^3      jsr HOME
2FFF 20 FA 30   313      jsr CLRDESC
3002           314      ;
3002 A0 00      315      ldy #DOSBUFR
3004 A9 43      316      lda /DOSBUFR
3006           317      ;
3006 20 A9 30   318      jsr SHOWIMAG
3009           319      ;
3009 A6 22      320      ldx WNDTOP
300B A4 23      321      ldy WNDBTM
300D           322      ;

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300D 8E 07 40    323      stx SAVTOP
3010 8C 08 40    324      sty SAVBTM
3013              325      ;
3013 20 73 37    326      jsr PRINT
3016 00 72        327      hex 0072
3018 55 01        328      byt CNTRCMD,INDIRECT
301A 72 3C        329      adr STR3.01      ; "New Description"
301C 8D          330      byt RETURN
301D 50          331      byt RTNCMD
301E              332      ;
301E A2 13        333      ldx #19
3020 A0 16        334      ldy #22
3022              335      ;
3022 86 22        336      stx WNDTOP
3024 84 23        337      sty WNDBTM
3026              338      ;
3026 20 58 FC     339      jsr HOME
3029              340      ;
3029 38           341      sec
302A              342      ;
302A A2 FF        343      ldx #NEGONE
302C              344      ;
302C A0 00        345      ldy #DESCBUFR
302E A9 41        346      lda /DESCBUFR
3030              347      ;
3030 20 BC 27     348      jsr GETTEXT
3033              349      ;
3033 AE 07 40     350      ldx SAVTOP
3036 AC 08 40     351      ldy SAVBTM
3039              352      ;
3039 86 22        353      stx WNDTOP
303B 84 23        354      sty WNDBTM
303D              355      ;
303D B0 45        356      bcs >4
303F              357      ;
303F 20 73 37     358      jsr PRINT
3042 53 01        359      byt SCRNCMD,HOMESCRN
3044 8D 55 01     360      byt RETURN,CNTRCMD,INDIRECT
3047 9D 3C        361      adr STR6.02      ; "Modify DOS ... Description"
3049 00 64        362      hex 0064
304B 50           363      byt RTNCMD
304C              364      ;
304C A0 00        365      ldy #DESCBUFR
304E A9 41        366      lda /DESCBUFR
3050              367      ;
3050 20 A9 30     368      jsr SHOWIMAG
3053              369      ;
3053 20 73 37     370      jsr PRINT
3056 00 74        371      hex 0074
3058 D3 E1 F6     372      asc "Save this DOS description -"
305B E5 A0 F4
305E E8 E9 F3
3061 A0 C4 CF
3064 D3 A0 E4
3067 E5 F3 E3
306A F2 E9 F0
306D F4 E9 EF
3070 EE A0 AD
3073 50           373      byt RTNCMD
3074              374      ;
3074 20 F0 10     375      jsr GETYORN

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3077 B0 0B      376      bcs >4
3079           377      ;
3079 F0 09      378      beq >4
307B           379      ;
307B A0 00      380      ldy #DESCBUFR
307D A9 41      381      lda /DESCBUFR
307F           382      ;
307F 20 79 2D   383      jsr WRITLBA1
3082 B0 03      384      bcs >5
3084           385      ;
3084 4C 6C 11    386      ^4      jmp STATOKAY
3087           387      ;
3087 20 73 37    388      ^5      jsr PRINT
308A 00 74      389      hex 0074
308C 56 00      390      byt BUFRCMD,DIRECT
308E 5B 3D      391      adr MSG3
3090 F7 F2 E9    392      asc "write DOS description"
3093 F4 E5 A0
3096 C4 CF D3
3099 A0 E4 E5
309C F3 E3 F2
309F E9 F0 F4
30A2 E9 EF EE
30A5 50          393      byt RTNCMD
30A6           394      ;
30A6 4C 1B 35    395      jmp PRESKEYS
30A9           396      ;
30A9           397      ;
30A9 84 CE      398      SHOWIMAG sty GENPTR
30AB 85 CF      399      sta GENPTR+1
30AD           400      ;
30AD AD FB 3E    401      lda DOSIMAGE
30B0 09 B0      402      ora #"0"
30B2 8D C4 3C    403      sta MOD6.03
30B5           404      ;
30B5 20 73 37    405      jsr PRINT
30B8 55 01      406      byt CNTRCMD,INDIRECT
30BA BA 3C      407      adr STR6.03      ; "DOS Image n"
30BC 8D          408      byt RETURN
30BD 50          409      byt RTNCMD
30BE           410      ;
30BE A0 00      411      ldy #ZERO
30C0           412      ;
30C0 4C 18 20    413      jmp SHOWDESC
30C3           414      ;
30C3           415      ;
30C3 20 8D 21    416      READDESC jsr CLEARLBA      ; LBA=0
30C6           417      ;
30C6 18          418      clc
30C7           419      ;
30C7 AD FB 3E    420      lda DOSIMAGE
30CA 69 07      421      adc #7
30CC 8D 44 40    422      sta LBA+3
30CF           423      ;
30CF A0 00      424      ldy #DOSBUFR
30D1 A9 43      425      lda /DOSBUFR
30D3           426      ;
30D3 20 3C 2D    427      jsr READLBA
30D6 B0 01      428      bcs >1
30D8           429      ;
30D8 60          430      rts

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```

30D9          431 ;
30D9 20 73 37 432 ^1      jsr PRINT
30DC 00 74     433          hex 0074
30DE 56 00     434          byt BUFRCMD,DIRECT
30E0 5B 3D     435          adr MSG3
30E2 F2 E5 E1 436          asc "read DOS description"
30E5 E4 A0 C4
30E8 CF D3 A0
30EB E4 E5 F3
30EE E3 F2 E9
30F1 F0 F4 E9
30F4 EF EE
30F6 50        437          byt RTNCMD
30F7          438 ;
30F7 4C 1B 35 439          jmp PRESKEYS
30FA          440 ;
30FA          441 ;
30FA A0 00     442 CLRDESC ldy #ZERO
30FC 98        443          tya
30FD          444 ;
30FD 99 00 41 445 ^1      sta DESCBUFR,Y
3100 99 00 42 446          sta DESCBUFR+PAGESIZE,Y
3103          447 ;
3103 C8        448          iny
3104 D0 F7     449          bne <1
3106          450 ;
3106 60        451          rts
3107          452 ;
3107          453 ;
3107 20 73 37 454 DISPVLBA jsr PRINT
310A 53 01     455          byt SCRNCMD,HOMESCRN
310C 8D 55 01 456          byt RETURN,CNTRCMD,INDIRECT
310F C6 3C     457          adr STR6.04 ; "Display Volume LBA Range"
3111 50        458          byt RTNCMD
3112          459 ;
3112 20 82 10 460          jsr GETDRIVE
3115 B0 08     461          bcs RTN1
3117          462 ;
3117 20 BD 10 463          jsr GETVOLUM
311A B0 03     464          bcs RTN1
311C          465 ;
311C 20 20 31 466          jsr SHOWVLBA
311F          467 ;
311F 60        468 RTN1      rts
3120          469 ;
3120          470 ;
3120 20 F5 22 471 SHOWVLBA jsr SHOWDVOL
3123          472 ;
3123 A9 00     473          lda #ZERO
3125 8D 17 40 474          sta SECTOR
3128 8D 19 40 475          sta TRACK
312B 8D 1A 40 476          sta VOLUME
312E          477 ;
312E AD 0F 40 478          lda NDRV
3131 8D 1B 40 479          sta DRIVE
3134          480 ;
3134 20 00 36 481          jsr DVTS2LBA
3137          482 ; bcs RTN1 ; NDRV already verified
3137          483 ;
3137 AD 41 40 484          lda LBA
313A 8D 45 40 485          sta LASTLBA

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313D      486 ;
313D AD 42 40 487      lda LBA+1
3140 69 03 488      adc /DRVSIZ     ; size of DRIVE/0x10000
3142 8D 46 40 489      sta LASTLBA+1
3145      490 ;
3145 AD 44 40 491      lda LBA+3
3148 E9 00 492      sbc #ZERO
314A 8D 48 40 493      sta LASTLBA+3
314D      494 ;
314D AD 43 40 495      lda LBA+2
3150 E9 00 496      sbc #ZERO
3152 8D 47 40 497      sta LASTLBA+2
3155      498 ;
3155 AD 46 40 499      lda LASTLBA+1
3158 E9 00 500      sbc #ZERO
315A 8D 46 40 501      sta LASTLBA+1
315D      502 ;
315D AD 45 40 503      lda LASTLBA
3160 E9 00 504      sbc #ZERO
3162 8D 45 40 505      sta LASTLBA
3165      506 ;
3165 A2 00 507      ldx #ZERO
3167      508 ;
3167 BD 45 40 509 ^1      lda LASTLBA,X
316A DD 49 40 510      cmp LASTVOL,X
316D 90 12 511      bcc >4
316F      512 ;
316F D0 05 513      bne >2
3171      514 ;
3171 E8 515      inx
3172      516 ;
3172 E0 04 517      cpx #LBALEN
3174 D0 F1 518      bne <1
3176      519 ;
3176 A2 03 520 ^2      ldx #LBALEN-1
3178      521 ;
3178 BD 49 40 522 ^3      lda LASTVOL,X
317B 9D 45 40 523      sta LASTLBA,X
317E      524 ;
317E CA 525      dex
317F 10 F7 526      bpl <3
3181      527 ;
3181 20 73 37 528 ^4      jsr PRINT
3184 02 6A 529      hex 026A
3186 C4 F2 E9 530      asc "Drive "
3189 F6 E5 A0
318C 5D 531      byt DEC2CMD
318D 0F 40 532      adr NDRV
318F 8D 533      byt RETURN
3190 02 534      hex 02
3191 CC C2 C1 535      asc "LBA range: 0x"
3194 A0 F2 E1
3197 EE E7 E5
319A BA A0 A0
319D B0 F8
319F 57 536      byt NIBLCMD
31A0 41 40 537      adr LBA
31A2 5A 03 538      byt BYTNCMD,3
31A4 42 40 539      adr LBA+1
31A6 AD B0 F8 540      asc "-0x"
31A9 57 541      byt NIBLCMD

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31AA 45 40      542      adr LASTLBA
31AC 5A 03      543      byt BYTNCMD,3
31AE 46 40      544      adr LASTLBA+1
31B0 50         545      byt RTNCMD
31B1           546      ;
31B1 AD 12 40   547      lda NVOL
31B4 8D 1A 40   548      sta VOLUME
31B7           549      ;
31B7 20 00 36   550      jsr DVTS2LBA
31BA           551      bcs >5          ; NVOL already verified
31BA           552      ;
31BA AD 44 40   553      lda LBA+3
31BD 69 FF      554      adc #VOLSIZE-1
31BF 8D 48 40   555      sta LASTLBA+3
31C2           556      ;
31C2 AD 43 40   557      lda LBA+2
31C5 69 02      558      adc /VOLSIZE-1
31C7 8D 47 40   559      sta LASTLBA+2
31CA           560      ;
31CA AD 42 40   561      lda LBA+1
31CD 69 00      562      adc #ZERO
31CF 8D 46 40   563      sta LASTLBA+1
31D2           564      ;
31D2 AD 41 40   565      lda LBA
31D5 69 00      566      adc #ZERO
31D7 8D 45 40   567      sta LASTLBA
31DA           568      ;
31DA 20 73 37   569      jsr PRINT
31DD 02 6E      570      hex 026E
31DF D6 EF EC   571      asc "Volume "
31E2 F5 ED E5
31E5 A0
31E6 5E         572      byt DEC3CMD
31E7 12 40      573      adr NVOL
31E9 8D         574      byt RETURN
31EA 02         575      hex 02
31EB CC C2 C1   576      asc "LBA range: 0x"
31EE A0 F2 E1
31F1 EE E7 E5
31F4 BA A0 A0
31F7 B0 F8
31F9 57         577      byt NIBLCMD
31FA 41 40      578      adr LBA
31FC 5A 03      579      byt BYTNCMD,3
31FE 42 40      580      adr LBA+1
3200 AD B0 F8   581      asc "-0x"
3203 57         582      byt NIBLCMD
3204 45 40      583      adr LASTLBA
3206 5A 03      584      byt BYTNCMD,3
3208 46 40      585      adr LASTLBA+1
320A 50         586      byt RTNCMD
320B           587      ;
320B 4C 2A 35   588      jmp PRESKEY
320E           589      ;
320E           590      ;^5      rts
320E           591      ;
320E           592      ;
320E 20 73 37   593      SHOWIDOS jsr PRINT
3211 00 63      594      hex 0063
3213 54 01      595      byt CLRCMD,EOPCLR
3215 D3 E5 EC   596      asc "Selected Drive - "

```

```

3218 E5 E3 F4
321B E5 E4 A0
321E C4 F2 E9
3221 F6 E5 A0
3224 AD A0
3226 5D          597      byt DEC2CMD
3227 0F 40       598      adr NDRV
3229 00 67       599      hex 0067
322B 55 00       600      byt CNTRCMD,DIRECT
322D C4 CF D3    601      asc "DOS Found Table"
3230 A0 C6 EF
3233 F5 EE E4
3236 A0 D4 E1
3239 E2 EC E5
323C 8D          602      byt RETURN
323D 55 00       603      byt CNTRCMD,DIRECT
323F AD AD AD    604      asc "-----"
3242 AD AD AD
3245 AD AD AD
3248 AD AD AD
324B AD AD AD
324E AD AD AD
3251 AD AD AD
3254 AD AD AD
3257 AD AD AD
325A 8D 8D       605      byt RETURN,RETURN
325C 09          606      hex 09
325D B0 A0 AD    607      asc "0 - no DOS image found"
3260 A0 EE EF
3263 A0 C4 CF
3266 D3 A0 E9
3269 ED E1 E7
326C E5 A0 E6
326F EF F5 EE
3272 E4
3273 8D          608      byt RETURN
3274 50          609      byt RTNCMD
3275           610      ;
3275 A2 01       611      ldx #1
3277           612      ;
3277 8E FB 3E    613      ^1 stx DOSIMAGE
327A           614      ;
327A 8A          615      txa
327B 0A          616      asl
327C AA          617      tax
327D           618      ;
327D BC FC 3E    619      ldy DOSIMTBL-2,X
3280 BD FD 3E    620      lda DOSIMTBL-1,X
3283           621      ;
3283 8C FC 3E    622      sty DOSINAME
3286 8D FD 3E    623      sta DOSINAME+1
3289           624      ;
3289 20 73 37    625      jsr PRINT
328C 09          626      hex 09
328D 57          627      byt NIBLCMD
328E FB 3E       628      adr DOSIMAGE
3290 A0 AD A0    629      asc " - DOS "
3293 C4 CF D3
3296 A0
3297 56 01       630      byt BUFRCMD,INDIRECT
3299 FC 3E       631      adr DOSINAME

```

```

329B 8D          632          byt RETURN
329C 50          633          byt RTNCMD
329D            634          ;
329D AE FB 3E    635          ldx DOSIMAGE
32A0 E8          636          inx
32A1            637          ;
32A1 E0 09       638          cpx #9
32A3 D0 D2       639          bne <1
32A5            640          ;
32A5 20 73 37    641          jsr PRINT
32A8 09          642          hex 09
32A9 B9 A0 AD    643          asc "9 - unknown DOS image"
32AC A0 F5 EE
32AF EB EE EF
32B2 F7 EE A0
32B5 C4 CF D3
32B8 A0 E9 ED
32BB E1 E7 E5
32BE 50          644          byt RTNCMD
32BF            645          ;
32BF 20 2A 35    646          jsr PRESKEY
32C2            647          ;
32C2 20 73 37    648          jsr PRINT
32C5 00 65       649          hex 0065
32C7 54 01       650          byt CLRCMD,EOPCLR
32C9 D6 EF EC    651          asc "Vol|"
32CC FC
32CD 50          652          byt RTNCMD
32CE            653          ;
32CE A9 F0       654          lda #!-16
32D0 8D 14 40    655          sta SHOWCNT
32D3            656          ;
32D3 20 73 37    657          ^2 jsr PRINT
32D6 A0          658          asc " "
32D7 57          659          byt NIBLCMD
32D8 14 40       660          adr SHOWCNT
32DA 50          661          byt RTNCMD
32DB            662          ;
32DB EE 14 40    663          inc SHOWCNT
32DE D0 F3       664          bne <2
32E0            665          ;
32E0 20 8E FD    666          jsr CROUT
32E3            667          ;
32E3 A0 25       668          ldy #37
32E5            669          ;
32E5 A9 AD       670          lda #MINUS
32E7            671          ;
32E7 20 ED FD    672          ^3 jsr COUT
32EA            673          ;
32EA 88          674          dey
32EB D0 FA       675          bne <3
32ED            676          ;
32ED 20 73 37    677          ^4 jsr PRINT
32F0 8D          678          byt RETURN
32F1 A0          679          asc " "
32F2 58          680          byt BYT1CMD
32F3 14 40       681          adr SHOWCNT
32F5 FC          682          asc "| "
32F6 50          683          byt RTNCMD
32F7            684          ;
32F7 A9 10       685          lda #16

```

```

32F9 8D 15 40    686          sta LINECNT
32FC            687          ;
32FC AD 14 40    688      ^5    lda SHOWCNT
32FF            689          ;
32FF 20 8E 35    690          jsr GETVTOC
3302 B0 33      691          bcs >7
3304            692          ;
3304 A2 00      693          ldx #ZERO
3306            694          ;
3306 AD 00 43    695          lda VTOCSB
3309 D0 0F      696          bne >6
330B            697          ;
330B AD 01 43    698          lda FRSTTRK
330E C9 11      699          cmp #VTOCTRK
3310 D0 08      700          bne >6
3312            701          ;
3312 AD 02 43    702          lda FRSTSEC
3315 F0 03      703          beq >6
3317            704          ;
3317 20 3A 33    705          jsr SELCNDOS
331A            706          ;
331A 8E 05 40    707      ^6    stx SAVNUM
331D            708          ;
331D 20 73 37    709          jsr PRINT
3320 A0          710          asc " "
3321 57          711          byt NIBLCMD
3322 05 40      712          adr SAVNUM
3324 50          713          byt RTNCMD
3325            714          ;
3325 EE 14 40    715          inc SHOWCNT
3328            716          ;
3328 AD 14 40    717          lda SHOWCNT
332B CD 11 40    718          cmp NVOLMAX
332E F0 07      719          beq >7
3330            720          ;
3330 CE 15 40    721          dec LINECNT
3333 D0 C7      722          bne <5
3335            723          ;
3335 F0 B6      724          beq <4          ; always taken
3337            725          ;
3337 4C 2A 35    726      ^7    jmp PRESKEY
333A            727          ;
333A            728          ;
333A            729          ; The DOSBUILD entry in NDOSTBL is ignored for now.
333A            730          ;
333A A2 A7      731  SELCNDOS ldx #NDOSTBL
333C A9 3D      732          lda /NDOSTBL
333E            733          ;
333E 86 CC      734          stx VALPTR
3340 85 CD      735          sta VALPTR+1
3342            736          ;
3342 A9 2D      737          lda #NDOSLEN
3344            738          ;
3344 8D 09 40    739      ^1    sta TEMP
3347            740          ;
3347 A0 01      741          ldy #1          ; get DOS index
3349            742          ;
3349 B1 CC      743          lda (VALPTR),Y
334B AA          744          tax
334C            745          ;
334C C8          746          iny          ; point to DOSVRSN

```

```

334D          747 ;
334D B1 CC    748      lda (VALPTR),Y
334F CD 03 43 749      cmp DOSVRSN
3352 D0 09    750      bne >2
3354          751 ;
3354 C8        752      iny                ; point to DOSBUILD
3355 C8        753      iny                ; point to DOSRAM
3356          754 ;
3356 B1 CC    755      lda (VALPTR),Y
3358 CD 05 43 756      cmp DOSRAM
335B F0 14    757      beq >4
335D          758 ;
335D 18        759 ^2      clc                ; next entry
335E          760 ;
335E A5 CC    761      lda VALPTR
3360 69 05    762      adc #NDOSIZE
3362 85 CC    763      sta VALPTR
3364 90 02    764      bcc >3
3366          765 ;
3366 E6 CD    766      inc VALPTR+1
3368          767 ;
3368 38        768 ^3      sec                ; decrement entry
3369          769 ;
3369 AD 09 40 770      lda TEMP
336C E9 05    771      sbc #NDOSIZE
336E D0 D4    772      bne <1
3370          773 ;
3370 E8        774      inx                ; no matching DOS parms
3371          775 ;
3371 60        776 ^4      rts
3372          777 ;
3372          778 ;
3372          779 ; Save the CF SLOT firmware to LBA 2 and the ROM firmware
3372          780 ; to LBA 3:6. The CF firmware configuration data is found
3372          781 ; in LBA 3 in bytes 04:3C.
3372          782 ;
3372 20 8D 21 783 SAVECF  jsr CLEARLBA
3375          784 ;
3375 A8        785      tay
3376          786 ;
3376 99 00 44 787 ^1      sta SLOTBUFR+PAGESIZE,Y
3379          788 ;
3379 C8        789      iny
337A D0 FA    790      bne <1
337C          791 ;
337C A0 00    792      ldy #SLOTBUFR
337E A9 43    793      lda /SLOTBUFR
3380          794 ;
3380 84 CE    795      sty GENPTR
3382 85 CF    796      sta GENPTR+1
3384          797 ;
3384 A9 02    798      lda #2
3386 8D 44 40 799      sta LBA+3
3389          800 ;
3389 A9 05    801      lda #5
338B 8D 09 40 802      sta TEMP
338E          803 ;
338E 20 7D 2D 804 ^2      jsr WRITLBA
3391 B0 08    805      bcs >3
3393          806 ;
3393 EE 44 40 807      inc LBA+3

```

```

3396      808 ;
3396 CE 09 40 809      dec TEMP
3399 D0 F3    810      bne <2
339B      811 ;
339B 60      812 ^3    rts
339C      813 ;
339C      814 ;
339C 20 73 37 815 RSTRDATA jsr PRINT
339F 53 01    816      byt SCRNCMD,HOMESCRN
33A1 8D 55 01 817      byt RETURN,CNTRCMD,INDIRECT
33A4 F9 3C    818      adr STR6.06      ; "Restore CF ... Data"
33A6 00 6C    819      hex 006C
33A8 50      820      byt RTNCMD
33A9      821 ;
33A9 20 EC 34 822      jsr SELECT
33AC B0 25    823      bcs >2
33AE      824 ;
33AE 20 8D 21 825      jsr CLEARLBA
33B1      826 ;
33B1 A9 03    827      lda #3
33B3 8D 44 40 828      sta LBA+3
33B6      829 ;
33B6 20 38 2D 830      jsr READLBA2
33B9 B0 18    831      bcs >2
33BB      832 ;
33BB 20 14 29 833      jsr READCFG
33BE      834 ;
33BE A0 04    835      ldy #4
33C0      836 ;
33C0 B9 00 43 837 ^1    lda LBABUFR,Y
33C3 99 00 45 838      sta ROMBUFR,Y
33C6      839 ;
33C6 C8      840      iny
33C7      841 ;
33C7 C0 3D    842      cpy #$3C+1
33C9 D0 F5    843      bne <1
33CB      844 ;
33CB 20 F1 29 845      jsr WRITCFG
33CE B0 03    846      bcs >2
33D0      847 ;
33D0 20 6C 11 848      jsr STATOKAY
33D3      849 ;
33D3 60      850 ^2    rts
33D4      851 ;
33D4      852 ;
33D4 20 73 37 853 RSTRFIRM jsr PRINT
33D7 53 01    854      byt SCRNCMD,HOMESCRN
33D9 8D 55 01 855      byt RETURN,CNTRCMD,INDIRECT
33DC 12 3D    856      adr STR6.07      ; "Restore CF ... Firmware"
33DE 00 6C    857      hex 006C
33E0 50      858      byt RTNCMD
33E1      859 ;
33E1 20 EC 34 860      jsr SELECT
33E4 B0 28    861      bcs >2
33E6      862 ;
33E6 20 8D 21 863      jsr CLEARLBA
33E9      864 ;
33E9 A0 00    865      ldy #SLOTBUFR
33EB A9 43    866      lda /SLOTBUFR
33ED      867 ;
33ED 84 CE    868      sty GENPTR

```

```
33EF 85 CF      869      sta GENPTR+1
33F1           870      ;
33F1 A9 02      871      lda #2
33F3 8D 44 40   872      sta LBA+3
33F6           873      ;
33F6 A9 05      874      lda #5
33F8 8D 09 40   875      sta TEMP
33FB           876      ;
33FB 20 3C 2D   877      ^1      jsr READLBA
33FE           878      ;
33FE EE 44 40   879      inc LBA+3
3401           880      ;
3401 CE 09 40   881      dec TEMP
3404 D0 F5      882      bne <1
3406           883      ;
3406 20 2F 29   884      jsr WRITCF
3409 B0 03      885      bcs >2
340B           886      ;
340B 20 6C 11   887      jsr STATOKAY
340E           888      ;
340E 60         889      ^2      rts
340F           890      ;
340F           891      ;
```

BSAVE SEG06,A\$0900,B,L\$0656

```
340F           892      usr SEG06
340F           893      ;
340F           894      ;
340F           895      icl "INPUT.L"
```

LLOAD INPUT.L,A\$4000

```

340F          1          ttl "Volume Manager Source Code, INPUT.L"
340F          2          ;
340F          3          ;
340F          4          ; INPUT.L
340F          5          ;
340F          6          ;
340F          7          obj PAGE09
340F          8          usr
340F          9          ;
340F         10          ;
340F A9 02      11      GETHEX2  lda #2
3411         12          ;
3411 2C 00 00   13          bit *-*
3414         14          dfs !-2
3412         15          ;
3412 A9 04      16      GETHEX4  lda #4
3414         17          ;
3414 2C 00 00   18          bit *-*
3417         19          dfs !-2
3415         20          ;
3415 A9 06      21      GETHEX6  lda #6
3417         22          ;
3417 2C 00 00   23          bit *-*
341A         24          dfs !-2
3418         25          ;
3418 A9 08      26      GETHEX8  lda #8
341A         27          ;
341A 38         28          sec
341B B0 0C     29          bcs >1
341D         30          ;
341D         31          ;
341D A9 01      32      GETDEC1  lda #1
341F         33          ;
341F 2C 00 00   34          bit *-*
3422         35          dfs !-2
3420         36          ;
3420 A9 02      37      GETDEC2  lda #2
3422         38          ;
3422 2C 00 00   39          bit *-*
3425         40          dfs !-2
3423         41          ;
3423 A9 03      42      GETDEC3  lda #3
3425         43          ;
3425 2C 00 00   44          bit *-*
3428         45          dfs !-2
3426         46          ;
3426 A9 05      47      GETDEC5  lda #5
3428         48          ;
3428 18         49          clc
3429         50          ;
3429 08         51      ^1      php
342A         52          ;
342A 8D 27 40   53          sta NNUMS
342D         54          ;
342D A9 00      55          lda #ZERO
342F         56          ;
342F A0 0E      57          ldy #ENTRLEN-1
3431         58          ;
3431 99 28 40   59      ^2      sta NENTRY,Y
3434         60          ;

```

```

3434 88          61          dey
3435 10 FA       62          bpl <2
3437           63          ;
3437 20 53 35    64  NUMLOOP jsr READKEY
343A 90 03       65          bcc >3
343C           66          ;
343C 28         67          plp
343D           68          ;
343D 38         69          sec
343E           70          ;
343E 60         71          rts
343F           72          ;
343F D0 0A      73  ^3      bne >4
3441           74          ;
3441 AC 28 40    75          ldY NENTRY
3444 D0 4B      76          bne NUMPROC
3446           77          ;
3446 28         78          plp
3447           79          ;
3447 A9 00      80          lda #ZERO
3449           81          ;
3449 18         82          clc
344A           83          ;
344A 60         84          rts
344B           85          ;
344B C9 88      86  ^4      cmp #LARROW
344D F0 06      87          beq >5
344F           88          ;
344F C9 FF      89          cmp #DELETE
3451 D0 0F      90          bne >6
3453           91          ;
3453 A9 88      92          lda #LARROW
3455           93          ;
3455 AC 28 40    94  ^5      ldY NENTRY
3458 F0 DD      95          beq NUMLOOP
345A           96          ;
345A 20 69 35    97          jsr PRNTCHAR
345D           98          ;
345D CE 28 40    99          dec NENTRY
3460 10 D5      100         bpl NUMLOOP          ; always taken
3462           101         ;
3462 C9 E0      102  ^6      cmp #LWRCASE
3464 90 02      103         bcc >7
3466           104         ;
3466 29 DF      105         and #LWRMASK
3468           106         ;
3468 AC 28 40    107  ^7      ldY NENTRY
346B CC 27 40    108         cpy NNUMS
346E B0 C7      109         bcs NUMLOOP
3470           110         ;
3470 AA         111         tax
3471           112         ;
3471 E9 AF      113         sbc #"0"-1
3473 30 C2      114         bmi NUMLOOP
3475           115         ;
3475 C9 0A      116         cmp #10
3477 90 0C      117         bcc >8
3479           118         ;
3479 28         119         plp
347A 08         120         php
347B           121         ;

```

```

347B 90 BA      122      bcc NUMLOOP
347D           123      ;
347D E9 11      124      sbc #17
347F           125      ;
347F C9 06      126      cmp #6
3481 B0 B4      127      bcs NUMLOOP
3483           128      ;
3483 69 0A      129      adc #10
3485           130      ;
3485 99 29 40    131      ^8      sta NUMVALS,Y
3488           132      ;
3488 8A          133      txa
3489           134      ;
3489 20 69 35    135      jsr PRNTCHAR
348C           136      ;
348C EE 28 40    137      inc NENTRY
348F D0 A6      138      bne NUMLOOP      ; always taken
3491           139      ;
3491 28          140      NUMPROC  plp
3492 90 2F      141      bcc DECPROC
3494           142      ;
3494 CC 27 40    143      HEXPROC  cpy NNUMS
3497 B0 13      144      bcs >2
3499           145      ;
3499 A2 06      146      ldx #6
349B           147      ;
349B BD 29 40    148      ^1      lda NUMVALS,X
349E 9D 2A 40    149      sta NUMVALS+1,X
34A1           150      ;
34A1 CA          151      dex
34A2 10 F7      152      bpl <1
34A4           153      ;
34A4 A9 00      154      lda #ZERO
34A6 8D 29 40    155      sta NUMVALS
34A9           156      ;
34A9 C8          157      iny
34AA D0 E8      158      bne HEXPROC
34AC           159      ;
34AC A2 06      160      ^2      ldx #6
34AE A0 03      161      ldy #3
34B0           162      ;
34B0 BD 29 40    163      ^3      lda NUMVALS,X
34B3           164      ;
34B3 0A          165      asl
34B4 0A          166      asl
34B5 0A          167      asl
34B6 0A          168      asl
34B7           169      ;
34B7 1D 2A 40    170      ora NUMVALS+1,X
34BA 99 31 40    171      sta HEXVALS,Y
34BD           172      ;
34BD CA          173      dex
34BE CA          174      dex
34BF           175      ;
34BF 88          176      dey
34C0 10 EE      177      bpl <3
34C2           178      ;
34C2 60          179      rts
34C3           180      ;
34C3 AE 28 40    181      DECPROC  ldx NENTRY
34C6 CA          182      dex

```

```

34C7      183 ;
34C7 A0 00      184      ldy #ZERO
34C9      185 ;
34C9 BD 29 40   186 ^1      lda NUMVALS,X
34CC F0 19      187      beq >3
34CE      188 ;
34CE AD 35 40   189 ^2      lda DECVALS
34D1 79 62 3E   190      adc DECTBLL,Y
34D4 8D 35 40   191      sta DECVALS
34D7      192 ;
34D7 AD 36 40   193      lda DECVALS+1
34DA 79 67 3E   194      adc DECTBLH,Y
34DD 8D 36 40   195      sta DECVALS+1
34E0      196 ;
34E0 B0 09      197      bcs >4
34E2      198 ;
34E2 DE 29 40   199      dec NUMVALS,X
34E5 D0 E7      200      bne <2
34E7      201 ;
34E7 C8         202 ^3      iny
34E8      203 ;
34E8 CA         204      dex
34E9 10 DE      205      bpl <1
34EB      206 ;
34EB 60         207 ^4      rts
34EC      208 ;
34EC      209 ;
34EC 20 73 37   210 SELECT jsr PRINT
34EF 55 00      211      byt CNTRCMD,DIRECT
34F1 D0 F2 E5   212      asc "Press Any Key to Accept, ESC to Abort"
34F4 F3 F3 A0
34F7 C1 EE F9
34FA A0 CB E5
34FD F9 A0 F4
3500 EF A0 C1
3503 E3 E3 E5
3506 F0 F4 AC
3509 A0 C5 D3
350C C3 A0 F4
350F EF A0 C1
3512 E2 EF F2
3515 F4
3516 50         213      byt RTNCMD
3517      214 ;
3517 90 26      215      bcc GETKEY          ; always taken
3519      216 ;
3519      217 ;
3519 18         218 PRESKEYC clc
351A      219 ;
351A B0 00      220      bcs *+2
351C      221      dfs !-1
351B      222 ;
351B 38         223 PRESKEYS sec
351C      224 ;
351C 08         225 PRESKEYA php
351D      226 ;
351D 20 22 35   227      jsr PRESKEY2
3520      228 ;
3520 28         229      plp
3521      230 ;
3521 60         231      rts

```

```

3522      232 ;
3522      233 ;
3522 20 73 37 234 PRESKEY2 jsr PRINT
3525 00 76 235      hex 0076
3527 54 01 236      byt CLRCMD,EOPCLR
3529 50 237      byt RTNCMD
352A      238 ;
352A      239 ;
352A 20 73 37 240 PRESKEY  jsr PRINT
352D 00 77 241      hex 0077
352F 55 00 242      byt CNTRCMD,DIRECT
3531 D0 F2 E5 243      asc "Press Any Key"
3534 F3 F3 A0
3537 C1 EE F9
353A A0 CB E5
353D F9
353E 50      244      byt RTNCMD
353F      245 ;
353F      246 ;
353F 2C 10 C0 247 GETKEY  bit CLRKEY
3542      248 ;
3542 AD 00 C0 249 ^1      lda KEY
3545      250 ;
3545 EA      251      nop
3546      252 ;
3546 10 FA      253      bpl <1
3548      254 ;
3548 2C 10 C0 255      bit CLRKEY
354B      256 ;
354B C9 9B      257      cmp #ESCAPE
354D F0 03      258      beq >1
354F      259 ;
354F C9 8D      260      cmp #RETURN
3551      261 ;
3551 18      262      clc
3552      263 ;
3552 60      264 ^1      rts
3553      265 ;
3553      266 ;
3553 A9 60      267 READKEY  lda #FLASH
3555 20 ED FD 268      jsr COUT
3558      269 ;
3558 C6 24      270      dec CH
355A      271 ;
355A 20 3F 35 272      jsr GETKEY
355D      273 ;
355D 08      274      php
355E 48      275      pha
355F      276 ;
355F A9 A0      277      lda #SPACE
3561 20 ED FD 278      jsr COUT
3564      279 ;
3564 C6 24      280      dec CH
3566      281 ;
3566 68      282      pla
3567 28      283      plp
3568      284 ;
3568 60      285      rts
3569      286 ;
3569      287 ;
3569 8D 6C 3E 288 PRNTCHAR sta CHARBUFR

```

```

356C      289 ;
356C 20 73 37 290      jsr PRINT
356F 56 00 291      byt BUFRCMD,DIRECT
3571 6C 3E 292      adr CHARBUFR
3573 50 293      byt RTNCMD
3574      294 ;
3574 60 295      rts
3575      296 ;
3575      297 ;
3575 20 87 24 298 SELCKEY jsr CLRPTR
3578      299 ;
3578 20 3F 35 300      jsr GETKEY
357B B0 0D 301      bcs >3
357D      302 ;
357D C9 88 303      cmp #LARROW
357F D0 01 304      bne >1
3581      305 ;
3581 CA 306      dex
3582      307 ;
3582 C9 95 308 ^1      cmp #RARROW
3584 D0 01 309      bne >2
3586      310 ;
3586 E8 311      inx
3587      312 ;
3587 C9 8D 313 ^2      cmp #RETURN
3589      314 ;
3589 18 315      clc
358A      316 ;
358A 60 317 ^3      rts
358B      318 ;
358B      319 ;
358B AD 12 40 320 GETVTOC2 lda NVOL
358E      321 ;
358E 8D 1A 40 322 GETVTOC sta VOLUME
3591      323 ;
3591 AD 0F 40 324      lda NDRV
3594 8D 1B 40 325      sta DRIVE
3597      326 ;
3597 A9 00 327      lda #VTOCSEC
3599 8D 17 40 328      sta SECTOR
359C      329 ;
359C A9 11 330      lda #VTOCTRK
359E 8D 19 40 331      sta TRACK
35A1      332 ;
35A1 20 00 36 333      jsr DVTS2LBA
35A4 B0 0A 334      bcs >1
35A6      335 ;
35A6 A0 00 336      ldy #VTOCBUFR
35A8 A9 43 337      lda /VTOCBUFR
35AA      338 ;
35AA 20 3C 2D 339      jsr READLBA
35AD B0 21 340      bcs >2
35AF      341 ;
35AF 60 342      rts
35B0      343 ;
35B0 20 73 37 344 ^1      jsr PRINT
35B3 00 74 345      hex 0074
35B5 56 00 346      byt BUFRCMD,DIRECT
35B7 5B 3D 347      adr MSG3
35B9 E3 EF EE 348      asc "convert DVTS to LBA"
35BC F6 E5 F2

```

```

35BF F4 A0 C4
35C2 D6 D4 D3
35C5 A0 F4 EF
35C8 A0 CC C2
35CB C1
35CC 50          349      byt RTNCMD
35CD          350      ;
35CD 4C 1B 35    351      jmp PRESKEYS
35D0          352      ;
35D0 20 73 37    353      ^2      jsr PRINT
35D3 00 74      354      hex 0074
35D5 56 00      355      byt BUFRCMD,DIRECT
35D7 5B 3D      356      adr MSG3
35D9 F2 E5 E1   357      asc "read VTOC LBA"
35DC E4 A0 D6
35DF D4 CF C3
35E2 A0 CC C2
35E5 C1
35E6 50          358      byt RTNCMD
35E7          359      ;
35E7 4C 1B 35    360      jmp PRESKEYS
35EA          361      ;
35EA          362      ;
35EA 48          363      SPLITHEX pha
35EB          364      ;
35EB 4A          365      lsr
35EC 4A          366      lsr
35ED 4A          367      lsr
35EE 4A          368      lsr
35EF          369      ;
35EF 20 F4 35    370      jsr ASCIHEX
35F2          371      ;
35F2 AA          372      tax
35F3          373      ;
35F3 68          374      pla
35F4          375      ;
35F4 29 0F      376      ASCIHEX and #NIBLMASK
35F6          377      ;
35F6 09 B0      378      ora #"0"
35F8          379      ;
35F8 C9 BA      380      cmp #"9"+1
35FA 90 02      381      bcc >1
35FC          382      ;
35FC 69 06      383      adc #6
35FE          384      ;
35FE A8          385      ^1      tay
35FF          386      ;
35FF 60          387      RTN03    rts
3600          388      ;
3600          389      ;
3600 38          390      DVTS2LBA sec
3601          391      ;
3601 AE 1B 40    392      ldx DRIVE
3604          393      ;
3604 CA          394      dex
3605 30 F8      395      bmi RTN03
3607          396      ;
3607 8E 1C 40    397      stx DRIVE2
360A          398      ;
360A A9 00      399      lda #ZERO
360C 8D 41 40    400      sta LBA

```

```

360F          401 ;
360F AD 17 40 402      lda SECTOR
3612 29 0F    403      and #SECMASKL
3614 8D 18 40 404      sta SECTOR2
3617          405 ;
3617 AD 17 40 406      lda SECTOR
361A 29 10    407      and #SECMASKH
361C 8D 0B 40 408      sta PAGE
361F          409 ;
361F AD 19 40 410      lda TRACK
3622          411 ;
3622 0A       412      asl
3623 0A       413      asl
3624 0A       414      asl
3625 0A       415      asl
3626          416 ;
3626 0D 18 40 417      ora SECTOR2
3629 8D 44 40 418      sta LBA+3
362C          419 ;
362C AD 1A 40 420      lda VOLUME
362F 29 0F    421      and #NIBLMASK
3631          422 ;
3631 AA       423      tax
3632          424 ;
3632 AD 1A 40 425      lda VOLUME
3635          426 ;
3635 4A       427      lsr
3636 4A       428      lsr
3637 4A       429      lsr
3638 4A       430      lsr
3639          431 ;
3639 A8       432      tay
363A          433 ;
363A AD 19 40 434      lda TRACK
363D          435 ;
363D 4A       436      lsr
363E 4A       437      lsr
363F 4A       438      lsr
3640 4A       439      lsr
3641          440 ;
3641 18       441      clc
3642          442 ;
3642 69 01    443      adc /OFFSET1
3644 7D F8 3D 444      adc VOLXTBL,X
3647 79 08 3E 445      adc VOLYTBLH,Y
364A          446 ;
364A 8D 43 40 447      sta LBA+2
364D          448 ;
364D 08       449      php
364E          450 ;
364E B9 18 3E 451      lda VOLYTBLH,Y
3651 48       452      pha
3652          453 ;
3652 AD 1C 40 454      lda DRIVE2
3655 29 0F    455      and #NIBLMASK
3657          456 ;
3657 AA       457      tax
3658          458 ;
3658 AD 1C 40 459      lda DRIVE2
365B          460 ;
365B 4A       461      lsr

```

```

365C 4A          462          lsr
365D 4A          463          lsr
365E 4A          464          lsr
365F            465          ;
365F A8          466          tay
3660            467          ;
3660 68          468          pla
3661 28          469          plp
3662            470          ;
3662 7D F8 3D     471          adc DRVXTBL,X
3665 79 08 3E     472          adc DRVYTBL,Y
3668            473          ;
3668 8D 42 40     474          sta LBA+1
366B            475          ;
366B AD 41 40     476          lda LBA
366E 69 00        477          adc #ZERO
3670 8D 41 40     478          sta LBA
3673            479          ;
3673 CD 49 40     480          cmp LASTVOL
3676 90 1C        481          bcc >1
3678            482          ;
3678 D0 1A        483          bne >1
367A            484          ;
367A AD 42 40     485          lda LBA+1
367D CD 4A 40     486          cmp LASTVOL+1
3680 90 12        487          bcc >1
3682            488          ;
3682 D0 10        489          bne >1
3684            490          ;
3684 AD 43 40     491          lda LBA+2
3687 CD 4B 40     492          cmp LASTVOL+2
368A 90 08        493          bcc >1
368C            494          ;
368C D0 06        495          bne >1
368E            496          ;
368E AD 44 40     497          lda LBA+3
3691 CD 4B 40     498          cmp LASTVOL+2
3694            499          ;
3694 60           500          ^1 rts
3695            501          ;
3695            502          ;
3695 AD F0 BF     503          DOHOOKON lda BLDVRSN
3698 C9 45        504          cmp #DOS4VRSN
369A D0 29        505          bne HOOKERR
369C            506          ;
369C AD F1 BF     507          lda BLDNMBR
369F C9 06        508          cmp #DOS4BLD
36A1 D0 22        509          bne HOOKERR
36A3            510          ;
36A3            511          ;
36A3            512          ; Get current disk table entry for slot CFSLOT.
36A3            513          ;
36A3 A9 00        514          lda #ZERO
36A5            515          ;
36A5 AE 1D 40     516          ldx CFSLOT
36A8 20 19 37     517          jsr GETDISKS
36AB            518          ;
36AB C0 4B        519          cpy #CFRWTS
36AD D0 05        520          bne >1
36AF            521          ;
36AF CD 22 40     522          cmp CFPAGE

```

```

36B2 F0 10      523      beq HOKONRTN
36B4           524      ;
36B4 2C 0D 40   525      ^1      bit CFFAKEY
36B7 10 03      526      bpl >2
36B9           527      ;
36B9 4C 11 37   528      jmp DOHOOK
36BC           529      ;
36BC A0 4B      530      ^2      ldy #CFRWTS
36BE AD 22 40   531      lda CFPAGE
36C1           532      ;
36C1 20 19 37   533      jsr GETDISKS
36C4           534      ;
36C4 60         535      HOKONRTN rts
36C5           536      ;
36C5           537      ;
36C5 20 73 37   538      HOOKERR jsr PRINT
36C8 00 74      539      hex 0074
36CA 54 01      540      byt CLRCMD,EOPCLR
36CC 56 00      541      byt BUFRCMD,DIRECT
36CE 5B 3D      542      adr MSG3
36D0 F6 E5 F2   543      asc "verify DOS DISKTBL"
36D3 E9 E6 F9
36D6 A0 C4 CF
36D9 D3 A0 C4
36DC C9 D3 CB
36DF D4 C2 CC
36E2 50         544      byt RTNCMD
36E3           545      ;
36E3 4C 1B 35   546      jmp PRESKEYS
36E6           547      ;
36E6           548      ;
36E6 AD F0 BF   549      DOHOOKOF lda BLDVRSN
36E9 C9 45      550      cmp #DOS4VRSN
36EB D0 D8      551      bne HOOKERR
36ED           552      ;
36ED AD F1 BF   553      lda BLDNMBR
36F0 C9 06      554      cmp #DOS4BLD
36F2 D0 D1      555      bne HOOKERR
36F4           556      ;
36F4 A9 00      557      lda #ZERO
36F6           558      ;
36F6 AE 1D 40   559      ldx CFSLOT
36F9 20 19 37   560      jsr GETDISKS
36FC           561      ;
36FC C0 4B      562      cpy #CFRWTS
36FE D0 10      563      bne HOKOFRTN
3700           564      ;
3700 CD 22 40   565      cmp CFPAGE
3703 D0 0B      566      bne HOKOFRTN
3705           567      ;
3705 2C 0D 40   568      bit CFFAKEY
3708 10 03      569      bpl >1
370A           570      ;
370A 4C 14 37   571      jmp DOUHOOK
370D           572      ;
370D 20 17 37   573      ^1      jsr GETDISKC
3710           574      ;
3710 60         575      HOKOFRTN rts
3711           576      ;
3711           577      ;
3711 4C 10 C0   578      DOHOOK jmp CFHOOK

```

```
3714          579 ;
3714 4C 18 C0  580 DOUHOOK  jmp CFUHOOK
3717          581 ;
3717 18       582 GETDISKC clc
3718          583 ;
3718 B0 00     584          bcs *+2
371A          585          dfs !-1
3719          586 ;
3719 38       587 GETDISKS sec
371A          588 ;
371A 6C F2 BF 589          jmp (MNGDISK)
371D          590 ;
371D          591 ;
371D          592          icl "PRINT.L"
```

```
LLOAD PRINT.L,A$4000
```

```

371D          1          ttl "Volume Manager Source Code, PRINT.L"
371D          2          ;
371D          3          ;
371D          4          ; PRINT.L
371D          5          ;
371D          6          ;
371D A2 03      7  HEX2DEC   ldx #3
371F          8          ;
371F A0 B0      9  ^1       ldy #"0"
3721         10         ;
3721 38        11         sec
3722         12         ;
3722 A5 CC     13  ^2       lda VALPTR
3724 FD 61 3E  14         sbc DECTBLL-1,X
3727 48        15         pha
3728         16         ;
3728 A5 CD     17         lda VALPTR+1
372A FD 66 3E  18         sbc DECTBLH-1,X
372D 90 08     19         bcc >3
372F         20         ;
372F 85 CD     21         sta VALPTR+1
3731         22         ;
3731 68        23         pla
3732 85 CC     24         sta VALPTR
3734         25         ;
3734 C8        26         iny
3735 D0 EB     27         bne <2
3737         28         ;
3737 68        29  ^3       pla
3738         30         ;
3738 98        31         tya
3739 9D 29 3E  32         sta VALBUF-1,X
373C         33         ;
373C CA        34         dex
373D D0 E0     35         bne <1
373F         36         ;
373F 60        37         rts
3740         38         ;
3740         39         ;
3740 8E 5A 37   40  PRNTBUFT stx BUFRMOD
3743 8C 5B 37   41         sty BUFRMOD+1
3746         42         ;
3746 20 ED FD   43         jsr COUT
3749         44         ;
3749 4C 55 37   45         jmp PRNTBUF
374C         46         ;
374C 8E 5A 37   47  PRNTBUFH stx BUFRMOD
374F 8C 5B 37   48         sty BUFRMOD+1
3752         49         ;
3752 20 DA FD   50         jsr PRBYTE
3755         51         ;
3755 20 73 37   52  PRNTBUF  jsr PRINT
3758 56 00      53         byt BUFRCMD,DIRECT
375A A8 3E     54  BUFRMOD  adr UNKNOWN
375C 50        55         byt RTNCMD
375D         56         ;
375D 60        57         rts
375E         58         ;
375E         59         ;
375E 84 FC     60  PRINTIME sty PRNTPTR

```

```

3760 85 FD      61          sta PRNTPTR+1
3762           62      ;
3762 A0 05      63          ldy #DATELEN-1
3764           64      ;
3764 B9 5C 3E    65      ^1    lda DATIMSEP,Y
3767 20 ED FD    66          jsr COUT
376A           67      ;
376A B1 FC      68          lda (PRNTPTR),Y
376C 20 DA FD    69          jsr PRBYTE
376F           70      ;
376F 88         71          dey
3770 10 F2      72          bpl <1
3772           73      ;
3772 60         74          rts
3773           75      ;
3773           76      ;
3773 8D 5D 38    77 PRINT    sta PRNTSAVA+1
3776 8E 5B 38    78          stx PRNTSAVX+1
3779 8C 59 38    79          sty PRNTSAVY+1
377C           80      ;
377C 68         81          pla
377D 85 FC      82          sta PRNTPTR
377F           83      ;
377F 68         84          pla
3780 85 FD      85          sta PRNTPTR+1
3782           86      ;
3782 E6 FC      87 PRNTLOOP inc PRNTPTR
3784 D0 02      88          bne >1
3786           89      ;
3786 E6 FD      90          inc PRNTPTR+1
3788           91      ;
3788 A0 00      92      ^1    ldy #ZERO
378A           93      ;
378A B1 FC      94          lda (PRNTPTR),Y
378C 10 10      95          bpl >3
378E           96      ;
378E C9 A0      97          cmp #SPACE
3790 90 06      98          bcc >2
3792           99      ;
3792 20 F7 37   100          jsr PRNTOUT
3795          101      ;
3795 4C 82 37   102          jmp PRNTLOOP
3798          103      ;
3798 20 FB 37   104      ^2    jsr PRNTOUT2
379B          105      ;
379B 4C 82 37   106          jmp PRNTLOOP
379E          107      ;
379E C9 50     108      ^3    cmp #MAXCH
37A0 B0 04     109          bcs >4
37A2           110      ;
37A2 85 24     111          sta CH
37A4           112      ;
37A4 90 DC     113          bcc PRNTLOOP
37A6           114      ;
37A6 C9 60     115      ^4    cmp #MINCV
37A8 90 0A     116          bcc >5
37AA           117      ;
37AA 29 1F     118          and #CVMASK
37AC 85 25     119          sta CV
37AE           120      ;
37AE 20 22 FC  121 PRNTMOD1 jsr VTAB

```

```

37B1      122 ;
37B1 4C 82 37 123      jmp PRNTLOOP
37B4      124 ;
37B4 29 0F 125 ^5      and #PCMDMASK
37B6 AA 126      tax
37B7      127 ;
37B7 BD 1D 38 128      lda PRNTBL,X
37BA 8D CA 37 129      sta PRNTMOD2+1
37BD      130 ;
37BD BD 2D 38 131      lda PRNTBLL,X
37C0 8D F2 37 132      sta PRNTMOD3+1
37C3      133 ;
37C3 BD 3D 38 134      lda PRNTBLH,X
37C6 8D F3 37 135      sta PRNTMOD3+2
37C9      136 ;
37C9 90 23 137 PRNTMOD2 bcc PRNTBR6
37CB      138 ;
37CB C8 139 PRNTBR1 iny
37CC      140 ;
37CC B1 FC 141      lda (PRNTPTR),Y
37CE 8D 1C 38 142      sta FRMTVAL
37D1 D0 08 143      bne PRNTBR3
37D3      144 ;
37D3 F0 10 145      beq PRNTBR5
37D5      146 ;
37D5 C8 147 PRNTBR2 iny
37D6      148 ;
37D6 B1 FC 149      lda (PRNTPTR),Y
37D8 8D 1C 38 150      sta FRMTVAL
37DB      151 ;
37DB C8 152 PRNTBR3 iny
37DC      153 ;
37DC B1 FC 154      lda (PRNTPTR),Y
37DE 85 FA 155      sta DATAPTR
37E0      156 ;
37E0 C8 157 PRNTBR4 iny
37E1      158 ;
37E1 B1 FC 159      lda (PRNTPTR),Y
37E3 85 FB 160      sta DATAPTR+1 ; equated to PRNTVAL
37E5      161 ;
37E5 98 162 PRNTBR5 tya
37E6      163 ;
37E6 65 FC 164      adc PRNTPTR
37E8 85 FC 165      sta PRNTPTR
37EA 90 02 166      bcc PRNTBR6
37EC      167 ;
37EC E6 FD 168      inc PRNTPTR+1
37EE      169 ;
37EE 18 170 PRNTBR6 clc
37EF      171 ;
37EF A0 00 172      ldy #ZERO
37F1      173 ;
37F1 20 00 00 174 PRNTMOD3 jsr *-*
37F4      175 ;
37F4 4C 82 37 176      jmp PRNTLOOP
37F7      177 ;
37F7      178 ;
37F7      179 PRNTOUT:
37F7 09 00 180 OUTMOD1 ora #ZERO
37F9 49 00 181 OUTMOD2 eor #ZERO
37FB      182 ;

```

```

37FB 4C ED FD      183  PRNTOUT2 jmp COUT
37FE              184  ;
37FE              185  ;
37FE              186  ; Notes on DISPCMD as index
37FE              187  ;
37FE              188  ; 0 - Normal display
37FE              189  ; 1 - Inverse display
37FE              190  ;
37FE 80 40        191  OUTTBL1  hex 8040                ; TEXT
3800 80 00        192              hex 8000                ; GRPH
3802 80 00        193              hex 8000                ; TX80
3804              194  ;
3804 00 C0        195  OUTTBL2  hex 00C0
3806 00 80        196              hex 0080
3808 00 00        197              hex 0000
380A              198  ;
380A FF 3F        199  OUT80COL hex FF3F
380C              200  ;
380C              201  ;
380C 22 FC        202  VTABADRS  adr VTAB
380E 5F 38        203              adr PRINTRTN
3810 22 FC        204              adr VTAB
3812              205  ;
3812              206  ;
3812 ED FD        207  OUTADRS   adr COUT
3814 05 3A        208              adr PRNTGRPH
3816 ED FD        209              adr COUT
3818              210  ;
3818 00           211  PRNTSAV   hex 00
3819 00 00        212  PRNTNUM   hex 0000
381B              213  ;
381B              214  ;
381B              215  ; Notes on MODEVAL and FRMTVAL
381B              216  ;
381B              217  ; 0 - 40 column TEXT mode
381B              218  ; 1 - GRAPHICS mode
381B              219  ; 2 - 80 column TEXT mode
381B              220  ; 3 - exit 80 TEXT, enter 40 TEXT
381B              221  ;
381B              222  ; 0x00 - no left padding
381B              223  ; 0x20 - data in high/low order, otherwise low/high order
381B              224  ; 0x40 - zero left padding
381B              225  ; 0x80 - space left padding
381B              226  ;
381B 00           227  MODEVAL   hex 00
381C 00           228  FRMTVAL   hex 00
381D              229  ;
381D              230  ;
381D              231  ; Branch table of command routines.
381D              232  ;
381D              233  PRNTBL:
381D 23           234              byt PRNTBR6-PRNTBR1 ; 50
381E 15           235              byt PRNTBR4-PRNTBR1 ; 51
381F 15           236              byt PRNTBR4-PRNTBR1 ; 52
3820 15           237              byt PRNTBR4-PRNTBR1 ; 53
3821 15           238              byt PRNTBR4-PRNTBR1 ; 54
3822 00           239              byt PRNTBR1-PRNTBR1 ; 55
3823 0A           240              byt PRNTBR2-PRNTBR1 ; 56
3824 10           241              byt PRNTBR3-PRNTBR1 ; 57
3825 10           242              byt PRNTBR3-PRNTBR1 ; 58
3826 10           243              byt PRNTBR3-PRNTBR1 ; 59

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```

3827 0A      244      byt PRNTBR2-PRNTBR1 ; 5A
3828 0A      245      byt PRNTBR2-PRNTBR1 ; 5B
3829 10      246      byt PRNTBR3-PRNTBR1 ; 5C
382A 10      247      byt PRNTBR3-PRNTBR1 ; 5D
382B 10      248      byt PRNTBR3-PRNTBR1 ; 5E
382C 0A      249      byt PRNTBR2-PRNTBR1 ; 5F
382D        250      ;
382D        251      ;
382D        252      ; Address tables of command routines.
382D        253      ;
382D        254      PRNTBLL:
382D 4D      255      byt PRNTRTN          ; 50
382E 60      256      byt PRNTMODE         ; 51
382F AB      257      byt PRNTDISP         ; 52
3830 CA      258      byt PRNTSCRN         ; 53
3831 DA      259      byt PRNTCLR          ; 54
3832 E4      260      byt PRNTCNTR         ; 55
3833 06      261      byt PRNTBUFR         ; 56
3834 22      262      byt PRNTNIBL         ; 57
3835 2B      263      byt PRNT1BYT         ; 58
3836 2E      264      byt PRNT2BYT         ; 59
3837 27      265      byt PRNTNBYT         ; 5A
3838 3A      266      byt PRNTADR          ; 5B
3839 52      267      byt PRNT1DEC         ; 5C
383A 58      268      byt PRNT2DEC         ; 5D
383B 65      269      byt PRNT3DEC         ; 5E
383C 6F      270      byt PRNTNDEC         ; 5F
383D        271      ;
383D        272      PRNTBLH:
383D 38      273      hby PRNTRTN          ; 50
383E 38      274      hby PRNTMODE         ; 51
383F 38      275      hby PRNTDISP         ; 52
3840 38      276      hby PRNTSCRN         ; 53
3841 38      277      hby PRNTCLR          ; 54
3842 38      278      hby PRNTCNTR         ; 55
3843 39      279      hby PRNTBUFR         ; 56
3844 39      280      hby PRNTNIBL         ; 57
3845 39      281      hby PRNT1BYT         ; 58
3846 39      282      hby PRNT2BYT         ; 59
3847 39      283      hby PRNTNBYT         ; 5A
3848 39      284      hby PRNTADR          ; 5B
3849 39      285      hby PRNT1DEC         ; 5C
384A 39      286      hby PRNT2DEC         ; 5D
384B 39      287      hby PRNT3DEC         ; 5E
384C 39      288      hby PRNTNDEC         ; 5F
384D        289      ;
384D        290      ;
384D        291      ; RTNCMD (0x50)
384D        292      ;
384D BA      293      PRNTRTN    tsx
384E        294      ;
384E A5 FC   295      lda PRNTPTR
3850 9D 01 01 296      sta STACK+1,X
3853        297      ;
3853 A5 FD   298      lda PRNTPTR+1
3855 9D 02 01 299      sta STACK+2,X
3858        300      ;
3858 A0 00   301      PRNTSAVY ldy #ZERO
385A A2 00   302      PRNTSAVX ldx #ZERO
385C A9 00   303      PRNTSAVA lda #ZERO
385E        304      ;

```

```

385E 18          305          clc
385F          306          ;
385F 60          307  PRINTRTN rts
3860          308          ;
3860          309          ;
3860          310          ; MODECMD (0x51)
3860          311          ;
3860          312          ; 0 - 40 column TEXT mode
3860          313          ; 1 - GRAPHICS mode
3860          314          ; 2 - 80 column TEXT mode
3860          315          ; 3 - exit 80 TEXT, enter 40 TEXT
3860          316          ;
3860 A5 FB       317  PRNTMODE lda PRNTVAL          ; display mode
3862 29 03       318          and #3
3864          319          ;
3864 C9 02       320          cmp #TX80MODE
3866 D0 09       321          bne >1
3868          322          ;
3868 A9 B3       323          lda #"3"
386A 20 95 FE    324          jsr OUTPORT
386D          325          ;
386D A9 02       326          lda #TX80MODE
386F D0 1A       327          bne >2
3871          328          ;
3871 C9 03       329  ^1      cmp #LV80MODE
3873 D0 16       330          bne >2
3875          331          ;
3875 AD 0A 38    332          lda OUT80COL
3878 85 32       333          sta INVFLG
387A          334          ;
387A A9 9B       335          lda #ESCAPE
387C 20 ED FD    336          jsr COUT
387F          337          ;
387F A9 91       338          lda #CTRLQ
3881 20 ED FD    339          jsr COUT
3884          340          ;
3884 A9 B0       341          lda #"0"
3886 20 95 FE    342          jsr OUTPORT
3889          343          ;
3889 A9 00       344          lda #TEXTMODE
388B          345          ;
388B 8D 1B 38    346  ^2      sta MODEVAL
388E          347          ;
388E 0A          348          asl
388F A8          349          tay
3890          350          ;
3890 B9 0C 38    351          lda VTABADRS,Y
3893 8D AF 37    352          sta PRNTMOD1+1
3896          353          ;
3896 B9 0D 38    354          lda VTABADRS+1,Y
3899 8D B0 37    355          sta PRNTMOD1+2
389C          356          ;
389C B9 12 38    357          lda OUTADRS,Y
389F 8D FC 37    358          sta PRNTOUT2+1
38A2          359          ;
38A2 B9 13 38    360          lda OUTADRS+1,Y
38A5 8D FD 37    361          sta PRNTOUT2+2
38A8          362          ;
38A8 4C EA 03    363          jmp HOOKDOS
38AB          364          ;
38AB          365          ;

```

```

38AB      366 ; DISPCMD (0x52)
38AB      367 ;
38AB      368 ; 0 - Normal display
38AB      369 ; 1 - Inverse display
38AB      370 ;
38AB A4 FB 371 PRNTDISP ldy PRNTVAL ; display mode
38AD      372 ;
38AD AD 1B 38 373 lda MODEVAL
38B0 C9 02 374 cmp #TX80MODE
38B2 D0 05 375 bne >1
38B4      376 ;
38B4 BE 0A 38 377 ldx OUT80COL,Y
38B7 86 32 378 stx INVFLG
38B9      379 ;
38B9 0A 380 ^1 asl ; clears C-flag
38BA 65 FB 381 adc PRNTVAL
38BC      382 ;
38BC A8 383 tay
38BD      384 ;
38BD B9 FE 37 385 lda OUTTBL1,Y
38C0 8D F8 37 386 sta OUTMOD1+1
38C3      387 ;
38C3 B9 04 38 388 lda OUTTBL2,Y
38C6 8D FA 37 389 sta OUTMOD2+1
38C9      390 ;
38C9 60 391 rts
38CA      392 ;
38CA      393 ;
38CA      394 ; SCRNCMD (0x53)
38CA      395 ;
38CA      396 ; 0 - INIT
38CA      397 ; 1 - HOME
38CA      398 ;
38CA 2C 54 C0 399 PRNTSCRN bit LOWSCR
38CD      400 ;
38CD      401 .if DISPLAY=GRPHMODE
38CD      402 ;
38CD      403 lda MODEVAL
38CD      404 cmp #GRPHMODE
38CD      405 bne >2
38CD      406 ;
38CD      407 lda PRNTVAL
38CD      408 bne >1
38CD      409 ;
38CD      410 jmp SCRNNINIT
38CD      411 ;
38CD      412 ^1 jmp SCRNHOME
38CD      413 ;
38CD      414 .fi
38CD      415 ;
38CD A5 FB 416 ^2 lda PRNTVAL
38CF D0 06 417 bne >3
38D1      418 ;
38D1 2C 51 C0 419 bit TXTSET
38D4      420 ;
38D4 4C 2F FB 421 jmp INIT
38D7      422 ;
38D7 4C 58 FC 423 ^3 jmp HOME
38DA      424 ;
38DA      425 ;
38DA      426 ; CLRCMD (0x54)

```

```

38DA      427 ;
38DA      428 ; 0 - EOL
38DA      429 ; 1 - EOP
38DA      430 ;
38DA      431 PRNTCLR:
38DA      432     .if DISPLAY=GRPHMODE
38DA      433 ;
38DA      434     lda MODEVAL
38DA      435     cmp #GRPHMODE
38DA      436     bne >2
38DA      437 ;
38DA      438     lda PRNTVAL
38DA      439     bne >1
38DA      440 ;
38DA      441     jmp SCRNEOL
38DA      442 ;
38DA      443 ^1     jmp SCRNEOP
38DA      444 ;
38DA      445     .fi
38DA      446 ;
38DA A5 FB      447 ^2     lda PRNTVAL
38DC D0 03      448     bne >3
38DE      449 ;
38DE 4C 9C FC   450     jmp CLREOL
38E1      451 ;
38E1 4C 42 FC   452 ^3     jmp CLREOP
38E4      453 ;
38E4      454 ;
38E4      455 ; CNTRCMD (0x55)
38E4      456 ;
38E4      457 ; 0 - center and print immediate ASCII data
38E4      458 ; 1 - center and print buffer ASCII data
38E4      459 ;
38E4 A9 9F      460 PRNTCNTR lda #SPACE-1
38E6      461 ;
38E6 AE 1C 38   462     ldx FRMTVAL
38E9 D0 07      463     bne >2
38EB      464 ;
38EB C8         465 ^1     iny
38EC      466 ;
38EC D1 FC      467     cmp (PRNTPTR),Y
38EE 90 FB      468     bcc <1
38F0      469 ;
38F0 B0 05      470     bcs >3           ; always taken
38F2      471 ;
38F2 C8         472 ^2     iny
38F3      473 ;
38F3 D1 FA      474     cmp (DATAPTR),Y
38F5 90 FB      475     bcc <2
38F7      476 ;
38F7 88         477 ^3     dey
38F8 98         478     tya
38F9      479 ;
38F9 49 FF      480     eor #NEGONE
38FB 65 21      481     adc WNDWIDTH
38FD      482 ;
38FD 4A         483     lsr
38FE      484 ;
38FE 65 20      485     adc WNDLFT
3900 85 24      486     sta CH
3902      487 ;

```

```

3902 8A          488          txa
3903 D0 10      489          bne PRNTBFR
3905           490          ;
3905 60          491          rts
3906           492          ;
3906           493          ;
3906           494          ; BUFRCMD (0x56)
3906           495          ;
3906           496          ; 0 - direct address
3906           497          ; 1 - indirect address
3906           498          ;
3906 AD 1C 38    499 PRNTBUFR lda FRMTVAL
3909 F0 0C      500          beq >1
390B           501          ;
390B B1 FA      502          lda (DATAPTR),Y
390D AA        503          tax
390E           504          ;
390E C8        505          iny
390F           506          ;
390F B1 FA      507          lda (DATAPTR),Y
3911           508          ;
3911 86 FA      509          stx DATAPTR
3913 85 FB      510          sta DATAPTR+1
3915           511          ;
3915 A0 00      512 PRNTBFR  ldy #ZERO
3917           513          ;
3917 B1 FA      514 ^1      lda (DATAPTR),Y
3919 F0 06      515          beq >2
391B           516          ;
391B 20 F7 37   517          jsr PRNTOUT
391E           518          ;
391E C8        519          iny
391F D0 F6      520          bne <1
3921           521          ;
3921 60          522 ^2      rts
3922           523          ;
3922           524          ;
3922           525          ; NIBLCMD (0x57)
3922           526          ;
3922 B1 FA      527 PRNTNIBL lda (DATAPTR),Y
3924           528          ;
3924 4C BF 39    529          jmp PRNTHEx
3927           530          ;
3927           531          ;
3927           532          ; BYT1CMD (0x58)
3927           533          ; BYT2CMD (0x59)
3927           534          ; BYTNCMD (0x5A)
3927           535          ;
3927           536 PRNTNBYT:
3927 AE 1C 38    537          ldx FRMTVAL
392A           538          ;
392A 2C 00 00   539          bit *-*
392D           540          dfs !-2
392B           541          ;
392B A2 01      542 PRNT1BYT ldx #1
392D           543          ;
392D 2C 00 00   544          bit *-*
3930           545          dfs !-2
392E           546          ;
392E A2 02      547 PRNT2BYT ldx #2
3930           548          ;

```

```

3930 B1 FA      549 PRNTBYT  lda (DATAPTR),Y
3932           550 ;
3932 20 B6 39    551          jsr PRNTBYTE
3935           552 ;
3935 C8          553          iny
3936           554 ;
3936 CA          555          dex
3937 D0 F7       556          bne PRNTBYT
3939           557 ;
3939 60          558          rts
393A           559 ;
393A           560 ;
393A           561 ; ADRCMD (0x5B)
393A           562 ;
393A           563 ; 0 - direct address
393A           564 ; 1 - indirect address
393A           565 ;
393A AD 1C 38    566 PRNTADR  lda FRMTVAL
393D D0 06       567          bne >1
393F           568 ;
393F A6 FA       569          ldx DATAPTR
3941 A5 FB       570          lda DATAPTR+1
3943           571 ;
3943 90 06       572          bcc >2          ; always taken
3945           573 ;
3945 B1 FA       574 ^1          lda (DATAPTR),Y
3947 AA         575          tax
3948           576 ;
3948 C8          577          iny
3949           578 ;
3949 B1 FA       579          lda (DATAPTR),Y
394B           580 ;
394B 20 B6 39    581 ^2          jsr PRNTBYTE
394E           582 ;
394E 8A         583          txa
394F           584 ;
394F 4C B6 39    585          jmp PRNTBYTE
3952           586 ;
3952           587 ;
3952           588 ; DEC1CMD (0x5C)
3952           589 ;
3952 20 CC 39     590 PRNT1DEC  jsr HEXTODEC
3955           591 ;
3955 4C BF 39     592          jmp PRNTHX
3958           593 ;
3958           594 ;
3958           595 ; DEC2CMD (0x5D)
3958           596 ;
3958 20 CC 39     597 PRNT2DEC  jsr HEXTODEC
395B           598 ;
395B           599 ;
395B 8A         600 PRNTDEC   txa
395C 20 BF 39    601          jsr PRNTHX
395F           602 ;
395F AD 18 38    603          lda PRNTSAV
3962           604 ;
3962 4C BF 39     605          jmp PRNTHX
3965           606 ;
3965           607 ;
3965           608 ; DEC3CMD (0x5E)
3965           609 ;

```

```

3965 20 CC 39      610 PRNT3DEC jsr HEXTODEC
3968              611 ;
3968 98            612          tya
3969              613 ;
3969 20 BF 39      614          jsr PRNTHEx
396C              615 ;
396C 4C 5B 39     616          jmp PRNTDEC
396F              617 ;
396F              618 ;
396F              619 ; DECNCMD (0x5F)
396F              620 ;
396F              621 ; 0x00 - no left padding
396F              622 ; 0x20 - data in high/low order, otherwise low/high order
396F              623 ; 0x40 - zero left padding
396F              624 ; 0x80 - space left padding
396F              625 ;
396F B1 FA        626 PRNTNDEC lda (DATAPTR),Y
3971 AA           627          tax
3972              628 ;
3972 C8            629          iny
3973              630 ;
3973 B1 FA        631          lda (DATAPTR),Y
3975 A8           632          tay
3976              633 ;
3976 AD 1C 38     634          lda FRMTVAL
3979 29 20        635          and #HIGHLOW
397B D0 09        636          bne >1
397D              637 ;
397D 8E 19 38     638          stx PRNTNUM
3980 8C 1A 38     639          sty PRNTNUM+1
3983              640 ;
3983 4C 8C 39     641          jmp >2
3986              642 ;
3986 8C 19 38     643 ^1          sty PRNTNUM
3989 8E 1A 38     644          stx PRNTNUM+1
398C              645 ;
398C A2 03        646 ^2          ldx #3
398E              647 ;
398E 2C 1C 38     648          bit FRMTVAL
3991 70 18        649          bvs >6
3993              650 ;
3993 20 E6 39     651 ^3          jsr GETDIGIT
3996 D0 16        652          bne >7
3998              653 ;
3998 2C 1C 38     654          bit FRMTVAL
399B 10 05        655          bpl >4
399D              656 ;
399D A9 A0        657          lda #SPACE
399F 20 F7 37     658          jsr PRNTOUT
39A2              659 ;
39A2 CA          660 ^4          dex
39A3 10 EE        661          bpl <3
39A5              662 ;
39A5 AD 19 38     663 ^5          lda PRNTNUM
39A8              664 ;
39A8 4C BF 39     665          jmp PRNTHEx
39AB              666 ;
39AB 20 E6 39     667 ^6          jsr GETDIGIT
39AE              668 ;
39AE 20 BF 39     669 ^7          jsr PRNTHEx
39B1              670 ;

```

```

39B1 CA          671          dex
39B2 10 F7      672          bpl <6
39B4          673          ;
39B4 30 EF      674          bmi <5          ; always taken
39B6          675          ;
39B6          676          ;
39B6 48          677 PRNTBYTE pha
39B7          678          ;
39B7 4A          679          lsr
39B8 4A          680          lsr
39B9 4A          681          lsr
39BA 4A          682          lsr
39BB          683          ;
39BB 20 C1 39    684          jsr PRNTHX2
39BE          685          ;
39BE 68          686          pla
39BF          687          ;
39BF          688          ;
39BF 29 0F      689 PRNTHX and #NIBLMASK
39C1          690          ;
39C1 09 B0      691 PRNTHX2 ora #"0"
39C3          692          ;
39C3 C9 BA      693          cmp #"9"+1
39C5 90 02      694          bcc >1
39C7          695          ;
39C7 69 06      696          adc #6
39C9          697          ;
39C9 4C F7 37    698 ^1      jmp PRNTOUT
39CC          699          ;
39CC          700          ;
39CC B1 FA      701 HEXTODEC lda (DATAPTR),Y
39CE          702          ;
39CE A2 00      703          ldx #ZERO
39D0          704          ;
39D0 C9 64      705 ^1      cmp #100
39D2 90 05      706          bcc >2
39D4          707          ;
39D4 E9 64      708          sbc #100
39D6          709          ;
39D6 C8          710          iny
39D7 D0 F7      711          bne <1
39D9          712          ;
39D9 C9 0A      713 ^2      cmp #10
39DB 90 05      714          bcc >3
39DD          715          ;
39DD E9 0A      716          sbc #10
39DF          717          ;
39DF E8          718          inx
39E0 D0 F7      719          bne <2
39E2          720          ;
39E2 8D 18 38    721 ^3      sta PRNTSAV
39E5          722          ;
39E5 60          723          rts
39E6          724          ;
39E6          725          ;
39E6 A0 00      726 GETDIGIT ldy #ZERO
39E8          727          ;
39E8 38          728 ^1      sec
39E9          729          ;
39E9 AD 19 38    730          lda PRNTNUM
39EC FD 63 3E    731          sbc DECTBLL+1,X

```

```
39EF 48          732          pha
39F0            733          ;
39F0 AD 1A 38    734          lda PRNTNUM+1
39F3 FD 68 3E    735          sbc DECTBLH+1,X
39F6 90 0A       736          bcc >2
39F8            737          ;
39F8 8D 1A 38    738          sta PRNTNUM+1
39FB            739          ;
39FB 68          740          pla
39FC 8D 19 38    741          sta PRNTNUM
39FF            742          ;
39FF C8          743          iny
3A00 D0 E6       744          bne <1
3A02            745          ;
3A02 68          746          ^2      pla
3A03            747          ;
3A03 98          748          tya
3A04            749          ;
3A04 60          750          rts
3A05            751          ;
3A05            752          ;
3A05            753      PRNTGRPH:
3A05            754          ;
3A05            755          .if DISPLAY=GRPHMODE
3A05            756          ;
3A05            757          cmp #SPACE
3A05            758          bcs >3
3A05            759          ;
3A05            760          cmp #ASCIFLAG
3A05            761          bcc >3
3A05            762          ;
3A05            763          cmp #BELLCHAR
3A05            764          bne >1
3A05            765          ;
3A05            766          jmp BELL
3A05            767          ;
3A05            768          ^1      cmp #RTN
3A05            769          beq >2
3A05            770          ;
3A05            771          cmp #LARROW
3A05            772          bne >1
3A05            773          ;
3A05            774          dec CH
3A05            775          ;
3A05            776          ^1      cmp #DARROW
3A05            777          bne >1
3A05            778          ;
3A05            779          inc CV
3A05            780          ;
3A05            781          ^1      cmp #UARROW
3A05            782          bne >1
3A05            783          ;
3A05            784          dec CV
3A05            785          ;
3A05            786          ^1      cmp #RARROW
3A05            787          bne >1
3A05            788          ;
3A05            789          inc CH
3A05            790          ;
3A05            791          ^1      rts
3A05            792          ;
```

```
3A05      793  ^2      lda WNDLFT
3A05      794          sta CH
3A05      795  ;
3A05      796          inc CV
3A05      797  ;
3A05      798          lda CV
3A05      799          cmp WNDBTM
3A05      800          bcc >8
3A05      801  ;
3A05      802          jmp SCROLL
3A05      803  ;
3A05      804  ^3      stx SCRNSAVX+1
3A05      805          sty SCRNSAVY+1
3A05      806  ;
3A05      807          ldx /CHARTBL
3A05      808  ;
3A05      809          ldy #ZERO
3A05      810  ;
3A05      811          asl
3A05      812          bcs >4
3A05      813  ;
3A05      814          ldy #INVRMASK
3A05      815  ;
3A05      816          sec
3A05      817  ;
3A05      818  ^4      sty SCRNMOD2+1
3A05      819  ;
3A05      820          sbc #$40
3A05      821  ;
3A05      822          asl
3A05      823          bcc >5
3A05      824  ;
3A05      825          ldx /CHARTBL+$200
3A05      826  ;
3A05      827  ^5      asl
3A05      828          bcc >6
3A05      829  ;
3A05      830          inx
3A05      831  ;
3A05      832          clc
3A05      833  ;
3A05      834  ^6      adc #CHARTBL
3A05      835          sta SCRNMOD1+1
3A05      836          bcc >7
3A05      837  ;
3A05      838          inx
3A05      839  ;
3A05      840  ^7      stx SCRNMOD1+2
3A05      841  ;
3A05      842          clc
3A05      843  ;
3A05      844          ldx CV
3A05      845  ;
3A05      846          lda YBASELO,X
3A05      847          sta SCRNMOD3+1
3A05      848  ;
3A05      849          lda YBASEHI,X
3A05      850          sta SCRNMOD3+2
3A05      851  ;
3A05      852          ldy CH
3A05      853          ldx #CHARCELL
```

```
3A05      854      ;
3A05      855      SCRNM0D1  lda  *-,X
3A05      856      ;
3A05      857      SCRNM0D2  eor  #ZERO
3A05      858      ;
3A05      859      SCRNM0D3  sta  *-,Y
3A05      860      ;
3A05      861              lda  SCRNM0D3+2
3A05      862              adc  #NEXTLINE
3A05      863              sta  SCRNM0D3+2
3A05      864      ;
3A05      865              dex
3A05      866              bpl  SCRNM0D1
3A05      867      ;
3A05      868              iny
3A05      869      ;
3A05      870      SCRNM0D4  cpy  #MAXWDTH
3A05      871              bcs  <2
3A05      872      ;
3A05      873              sty  CH
3A05      874      ;
3A05      875      SCRNSAVY  ldy  #ZERO
3A05      876      SCRNSAVX  ldx  #ZERO
3A05      877      ;
3A05      878      ^8      rts
3A05      879      ;
3A05      880      ;
3A05      881      SCRNINIT  bit  HIRES
3A05      882              bit  MIXCLR
3A05      883              bit  TXTCLR
3A05      884      ;
3A05      885              clc
3A05      886      ;
3A05      887              lda  #MAXWDTH
3A05      888              adc  WNDLFT
3A05      889              sta  SCRNM0D4+1
3A05      890              sta  EOLMOD1+1
3A05      891              sta  SCRLMOD3+1
3A05      892      ;
3A05      893              rts
3A05      894      ;
3A05      895      ;
3A05      896      SCROLL    lda  WNDLFT
3A05      897              sta  CH
3A05      898      ;
3A05      899              ldx  WNDBTM
3A05      900              dex
3A05      901              stx  SCRLMOD4+1
3A05      902      ;
3A05      903              ldx  WNDTOP
3A05      904              stx  CV
3A05      905      ;
3A05      906      ^1      lda  YBASELO,X
3A05      907              sta  SCRLMOD2+1
3A05      908      ;
3A05      909              lda  YBASEHI,X
3A05      910              sta  SCRLMOD2+2
3A05      911      ;
3A05      912              inx
3A05      913              stx  CV
3A05      914      ;
```

```
3A05          915          lda YBASELO,X
3A05          916          sta SCRLMOD1+1
3A05          917          ;
3A05          918          lda YBASEHI,X
3A05          919          sta SCRLMOD1+2
3A05          920          ;
3A05          921          ldx #CHARCELL
3A05          922          ;
3A05          923          ^2      ld  y CH
3A05          924          ;
3A05          925          SCRLMOD1  lda  *-,Y
3A05          926          SCRLMOD2  sta  *-,Y
3A05          927          ;
3A05          928          iny
3A05          929          ;
3A05          930          SCRLMOD3  cpy  #MAXWDTH
3A05          931          bcc  SCRLMOD1
3A05          932          ;
3A05          933          lda  SCRLMOD1+2
3A05          934          adc  #NEXTLINE-1
3A05          935          sta  SCRLMOD1+2
3A05          936          ;
3A05          937          lda  SCRLMOD2+2
3A05          938          adc  #NEXTLINE
3A05          939          sta  SCRLMOD2+2
3A05          940          ;
3A05          941          dex
3A05          942          bpl <2
3A05          943          ;
3A05          944          ldx  CV
3A05          945          SCRLMOD4  cpx  #LOC0
3A05          946          bne  <1
3A05          947          ;
3A05          948          ;
3A05          949          SCRNEOL  ldx  CV
3A05          950          ;
3A05          951          lda  YBASELO,X
3A05          952          sta  EOLMOD2+1
3A05          953          ;
3A05          954          lda  YBASEHI,X
3A05          955          sta  EOLMOD2+2
3A05          956          ;
3A05          957          ldx  #CHARCELL
3A05          958          ;
3A05          959          ^1      ld  y CH
3A05          960          ;
3A05          961          lda  #ZERO
3A05          962          ;
3A05          963          EOLMOD1  cpy  #MAXWDTH
3A05          964          bcs  >2
3A05          965          ;
3A05          966          EOLMOD2  sta  *-,Y
3A05          967          ;
3A05          968          iny
3A05          969          bne  EOLMOD1
3A05          970          ;
3A05          971          ^2      lda  EOLMOD2+2
3A05          972          adc  #NEXTLINE-1
3A05          973          sta  EOLMOD2+2
3A05          974          ;
3A05          975          dex
```

```
3A05          976          bpl <1
3A05          977      ;
3A05          978          rts
3A05          979      ;
3A05          980      ;
3A05          981  SCRNHOM  lda WNDLFT
3A05          982          sta CH
3A05          983      ;
3A05          984          lda WNDTOP
3A05          985          sta CV
3A05          986      ;
3A05          987      ;
3A05          988  SCRNEOP  jsr SCRNEOL
3A05          989      ;
3A05          990          lda CH
3A05          991          pha
3A05          992      ;
3A05          993          lda CV
3A05          994          pha
3A05          995      ;
3A05          996          lda WNDLFT
3A05          997          sta CH
3A05          998      ;
3A05          999      ^1      inc CV
3A05         1000      ;
3A05         1001          lda CV
3A05         1002          cmp WNDBTM
3A05         1003          bcs >2
3A05         1004      ;
3A05         1005          jsr SCRNEOL
3A05         1006          bmi <1
3A05         1007      ;
3A05         1008      ^2      pla
3A05         1009          sta CV
3A05         1010      ;
3A05         1011          pla
3A05         1012          sta CH
3A05         1013      ;
3A05         1014          rts
3A05         1015      ;
3A05         1016      ;
3A05         1017  YBASELO:
3A05         1018      ;
3A05         1019          hex 0080008000800080
3A05         1020          hex 28A828A828A828A8
3A05         1021          hex 50D050D050D050D0
3A05         1022      ;
3A05         1023  YBASEHI:
3A05         1024      ;
3A05         1025          hex 2020212122222323
3A05         1026          hex 2020212122222323
3A05         1027          hex 2020212122222323
3A05         1028      ;
3A05         1029      ;
3A05         1030  CHARTBL:
3A05         1031      ;
3A05         1032          hex 0000000000000000 ;
3A05         1033          hex 0008000808080808 ; !
3A05         1034          hex 0000000000141414 ; "
3A05         1035          hex 0014143E143E1414 ; #
3A05         1036          hex 00081E281C0A3C08 ; $
```

```
3A05      1037      hex 0030320408102606 ; %
3A05      1038      hex 002C122A040A0A04 ; &
3A05      1039      hex 00000000000080808 ; ^
3A05      1040      hex 0010080404040810 ; (
3A05      1041      hex 0004081010100804 ; )
3A05      1042      hex 00082A1C081C2A08 ; *
3A05      1043      hex 000008083E080800 ; +
3A05      1044      hex 0408080000000000 ; ,
3A05      1045      hex 000000003E000000 ; -
3A05      1046      hex 0008000000000000 ; .
3A05      1047      hex 0000020408102000 ; /
3A05      1048      ;
3A05      1049      hex 001C22262A32221C ; 0
3A05      1050      hex 001C080808080C08 ; 1
3A05      1051      hex 003E02041820221C ; 2
3A05      1052      hex 001C22201810203E ; 3
3A05      1053      hex 0010103E12141810 ; 4
3A05      1054      hex 001C2220201E023E ; 5
3A05      1055      hex 001C22221E020438 ; 6
3A05      1056      hex 000404040810203E ; 7
3A05      1057      hex 001C22221C22221C ; 8
3A05      1058      hex 000E10203C22221C ; 9
3A05      1059      hex 0000080008000000 ; :
3A05      1060      hex 0408080008000000 ; ;
3A05      1061      hex 0020100804081020 ; <
3A05      1062      hex 0000003E003E0000 ; =
3A05      1063      hex 0002040810080402 ; >
3A05      1064      hex 000800089820221C ; ?
3A05      1065      ;
3A05      1066      hex 003C021A2A3A221C ; @
3A05      1067      hex 0022223E22221408 ; A
3A05      1068      hex 001E22221E22221E ; B
3A05      1069      hex 001C22020202221C ; C
3A05      1070      hex 001E22222222221E ; D
3A05      1071      hex 003E02021E02023E ; E
3A05      1072      hex 000202021E02023E ; F
3A05      1073      hex 003C22320202023C ; G
3A05      1074      hex 002222223E222222 ; H
3A05      1075      hex 001C08080808081C ; I
3A05      1076      hex 001C222020202020 ; J
3A05      1077      hex 0022120A060A1222 ; K
3A05      1078      hex 003E020202020202 ; L
3A05      1079      hex 002222222A2A3622 ; M
3A05      1080      hex 002222322A262222 ; N
3A05      1081      hex 001C22222222221C ; O
3A05      1082      ;
3A05      1083      hex 000202021E22221E ; P
3A05      1084      hex 002C122A2222221C ; Q
3A05      1085      hex 0022120A1E22221E ; R
3A05      1086      hex 001C22201C02221C ; S
3A05      1087      hex 000808080808083E ; T
3A05      1088      hex 001C222222222222 ; U
3A05      1089      hex 0008142222222222 ; V
3A05      1090      hex 0022362A2A222222 ; W
3A05      1091      hex 0022221408142222 ; X
3A05      1092      hex 0008080808142222 ; Y
3A05      1093      hex 003E02040810203E ; Z
3A05      1094      hex 003C04040404043C ; [
3A05      1095      hex 0000201008040200 ; \
3A05      1096      hex 001E10101010101E ; ]
3A05      1097      hex 0000000000221408 ; ^
```

```
3A05      1098      hex 7F0000000000000000 ; _
3A05      1099      ;
3A05      1100      hex 00000000000100804 ; `
3A05      1101      hex 003C223C201C0000 ; a
3A05      1102      hex 001E2222221E0202 ; b
3A05      1103      hex 003C0202023C0000 ; c
3A05      1104      hex 003C2222223C2020 ; d
3A05      1105      hex 003C023E221C0000 ; e
3A05      1106      hex 000404041E042418 ; f
3A05      1107      hex 1C203C22221C0000 ; g
3A05      1108      hex 00222222221E0202 ; h
3A05      1109      hex 001C0808080C0008 ; i
3A05      1110      hex 0C12101010180010 ; j
3A05      1111      hex 0022120E12220202 ; k
3A05      1112      hex 001C08080808080C ; l
3A05      1113      hex 00222A2A2A360000 ; m
3A05      1114      hex 00222222221E0000 ; n
3A05      1115      hex 001C2222221C0000 ; o
3A05      1116      ;
3A05      1117      hex 02021E22221E0000 ; p
3A05      1118      hex 20203C22223C0000 ; q
3A05      1119      hex 00020202063A0000 ; r
3A05      1120      hex 001E201C023C0000 ; s
3A05      1121      hex 00182404041E0404 ; t
3A05      1122      hex 002C322222220000 ; u
3A05      1123      hex 0008142222220000 ; v
3A05      1124      hex 00362A2A22220000 ; w
3A05      1125      hex 0022140814220000 ; x
3A05      1126      hex 1C203C2222220000 ; y
3A05      1127      hex 003E0408103E0000 ; z
3A05      1128      hex 0030080804080830 ; {
3A05      1129      hex 0808080808080808 ; |
3A05      1130      hex 0006080810080806 ; }
3A05      1131      hex 0000000000001A2C ; ~
3A05      1132      hex 00002A142A142A00 ;
3A05      1133      ;
3A05      1134      ;
3A05      1135      .fi
3A05      1136      ;
3A05      1137      ;
```

BSAVE SEG07,A\$0900,B,L\$05F6

```
3A05      1138      usr SEG07
3A05      1139      ;
3A05      1140      ;
3A05      1141      icl "STRING.L"
```

LLOAD STRING.L,A\$4000

```
3A05          1          ttl "Volume Manager Source Code, STRING.L"
3A05          2          ;
3A05          3          ;
3A05          4          ; STRING.L
3A05          5          ;
3A05          6          ;
3A05          7          obj PAGE09
3A05          8          usr
3A05          9          ;
3A05         10          ;
3A05         11          ; CODE1.L strings
3A05         12          ;
3A05 D3 E1 F6 13 STR1.01 asc "Save CFFA Firmware to Disk"
3A08 E5 A0 C3
3A0B C6 C6 C1
3A0E A0 C6 E9
3A11 F2 ED F7
3A14 E1 F2 E5
3A17 A0 F4 EF
3A1A A0 C4 E9
3A1D F3 EB
3A1F 00          14          byt ZERO
3A20          15          ;
3A20 C9 EE F3 16 STR1.02 asc "Install CFFA Firmware from Disk"
3A23 F4 E1 EC
3A26 EC A0 C3
3A29 C6 C6 C1
3A2C A0 C6 E9
3A2F F2 ED F7
3A32 E1 F2 E5
3A35 A0 E6 F2
3A38 EF ED A0
3A3B C4 E9 F3
3A3E EB
3A3F 00          17          byt ZERO
3A40          18          ;
3A40 C9 EE F3 19 STR1.03 asc "Install Default DOS from Disk"
3A43 F4 E1 EC
3A46 EC A0 C4
3A49 E5 E6 E1
3A4C F5 EC F4
3A4F A0 C4 CF
3A52 D3 A0 E6
3A55 F2 EF ED
3A58 A0 C4 E9
3A5B F3 EB
3A5D 00          20          byt ZERO
3A5E          21          ;
3A5E C4 E9 F3 22 STR1.04 asc "Display CF Memory Utilization"
3A61 F0 EC E1
3A64 F9 A0 C3
3A67 C6 A0 CD
3A6A E5 ED EF
3A6D F2 F9 A0
3A70 D5 F4 E9
3A73 EC E9 FA
3A76 E1 F4 E9
3A79 EF EE
3A7B 00          23          byt ZERO
3A7C          24          ;
```

```
3A7C C4 E9 F3      25  STR1.05  asc "Display Identify Device Contents"
3A7F F0 EC E1
3A82 F9 A0 C9
3A85 E4 E5 EE
3A88 F4 E9 E6
3A8B F9 A0 C4
3A8E E5 F6 E9
3A91 E3 E5 A0
3A94 C3 EF EE
3A97 F4 E5 EE
3A9A F4 F3
3A9C 00            26          byt ZERO
3A9D              27  ;
3A9D D3 E1 F6      28  STR1.06  asc "Save Identify Device to LBA 7"
3AA0 E5 A0 C9
3AA3 E4 E5 EE
3AA6 F4 E9 E6
3AA9 F9 A0 C4
3AAC E5 F6 E9
3AAF E3 E5 A0
3AB2 F4 EF A0
3AB5 CC C2 C1
3AB8 A0 B7
3ABA 00            29          byt ZERO
3ABB              30  ;
3ABB D3 E1 F6      31  STR1.07  asc "Save Selected LBA to Disk"
3ABE E5 A0 D3
3AC1 E5 EC E5
3AC4 E3 F4 E5
3AC7 E4 A0 CC
3ACA C2 C1 A0
3ACD F4 EF A0
3AD0 C4 E9 F3
3AD3 EB
3AD4 00            32          byt ZERO
3AD5              33  ;
3AD5 D2 E5 F3      34  STR1.08  asc "Restore Selected LBA from Disk"
3AD8 F4 EF F2
3ADB E5 A0 D3
3ADE E5 EC E5
3AE1 E3 F4 E5
3AE4 E4 A0 CC
3AE7 C2 C1 A0
3AEA E6 F2 EF
3AED ED A0 C4
3AF0 E9 F3 EB
3AF3 00            35          byt ZERO
3AF4              36  ;
3AF4 C3 EC E5      37  STR1.09  asc "Clear Selected LBA Range"
3AF7 E1 F2 A0
3AFA D3 E5 EC
3AFD E5 E3 F4
3B00 E5 E4 A0
3B03 CC C2 C1
3B06 A0 D2 E1
3B09 EE E7 E5
3B0C 00            38          byt ZERO
3B0D              39  ;
3B0D CC E9 F3      40  STR1.10  asc "List All Drives"
3B10 F4 A0 C1
3B13 EC EC A0
```

```
3B16 C4 F2 E9
3B19 F6 E5 F3
3B1C 00          41          byt ZERO
3B1D          42 ;
3B1D C4 E9 F3   43 STR1.11  asc "Display Drive Information"
3B20 F0 EC E1
3B23 F9 A0 C4
3B26 F2 E9 F6
3B29 E5 A0 C9
3B2C EE E6 EF
3B2F F2 ED E1
3B32 F4 E9 EF
3B35 EE
3B36 00          44          byt ZERO
3B37          45 ;
3B37 C3 E8 E1   46 STR1.12  asc "Change Drive Information"
3B3A EE E7 E5
3B3D A0 C4 F2
3B40 E9 F6 E5
3B43 A0 C9 EE
3B46 E6 EF F2
3B49 ED E1 F4
3B4C E9 EF EE
3B4F 00          47          byt ZERO
3B50          48 ;
3B50 C4 E9 F3   49 STR1.13  asc "Display Drive Volumes Catalog Size"
3B53 F0 EC E1
3B56 F9 A0 C4
3B59 F2 E9 F6
3B5C E5 A0 D6
3B5F EF EC F5
3B62 ED E5 F3
3B65 A0 C3 E1
3B68 F4 E1 EC
3B6B EF E7 A0
3B6E D3 E9 FA
3B71 E5
3B72 00          50          byt ZERO
3B73          51 ;
3B73 C4 E9 F3   52 STR1.14  asc "Display Volume VTOC Information"
3B76 F0 EC E1
3B79 F9 A0 D6
3B7C EF EC F5
3B7F ED E5 A0
3B82 D6 D4 CF
3B85 C3 A0 C9
3B88 EE E6 EF
3B8B F2 ED E1
3B8E F4 E9 EF
3B91 EE
3B92 00          53          byt ZERO
3B93          54 ;
3B93 C4 E9 F3   55 STR1.15  asc "Display Sector Bitmap Information"
3B96 F0 EC E1
3B99 F9 A0 D3
3B9C E5 E3 F4
3B9F EF F2 A0
3BA2 C2 E9 F4
3BA5 ED E1 F0
3BA8 A0 C9 EE
3BAB E6 EF F2
```

```
3BAE ED E1 F4
3BB1 E9 EF EE
3BB4 00          56          byt ZERO
3BB5          57 ;
3BB5 C9 EE E9   58 STR1.16 asc "Initialize a CF Volume"
3BB8 F4 E9 E1
3BBB EC E9 FA
3BBE E5 A0 E1
3BC1 A0 C3 C6
3BC4 A0 D6 EF
3BC7 EC F5 ED
3BCA E5
3BCB 00          59          byt ZERO
3BCC          60 ;
3BCC C2 EF EF   61 STR1.17 asc "Boot a CF Volume"
3BCF F4 A0 E1
3BD2 A0 C3 C6
3BD5 A0 D6 EF
3BD8 EC F5 ED
3BDB E5
3BDC 00          62          byt ZERO
3BDD          63 ;
3BDD CC E9 F3   64 STR1.18 asc "List Installed DOS Images"
3BE0 F4 A0 C9
3BE3 EE F3 F4
3BE6 E1 EC EC
3BE9 E5 E4 A0
3BEC C4 CF D3
3BEF A0 C9 ED
3BF2 E1 E7 E5
3BF5 F3
3BF6 00          65          byt ZERO
3BF7          66 ;
3BF7 D3 E5 EC   67 STR1.19 asc "Select DOS Image for Boot"
3BFA E5 E3 F4
3BFD A0 C4 CF
3C00 D3 A0 C9
3C03 ED E1 E7
3C06 E5 A0 E6
3C09 EF F2 A0
3C0C C2 EF EF
3C0F F4
3C10 00          68          byt ZERO
3C11          69 ;
3C11          70 ;
3C11          71 ; CODE2.L strings
3C11          72 ;
3C11 CD E1 EE   73 STR2.01 asc "Manage Firmware"
3C14 E1 E7 E5
3C17 A0 C6 E9
3C1A F2 ED F7
3C1D E1 F2 E5
3C20 00          74          byt ZERO
3C21          75 ;
3C21 CD E1 EE   76 STR2.02 asc "Manage CompactFlash Card"
3C24 E1 E7 E5
3C27 A0 C3 EF
3C2A ED F0 E1
3C2D E3 F4 C6
3C30 EC E1 F3
3C33 E8 A0 C3
```

```
3C36 E1 F2 E4
3C39 00          77          byt ZERO
3C3A          78 ;
3C3A CD E1 EE   79 STR2.03  asc "Manage Drives"
3C3D E1 E7 E5
3C40 A0 C4 F2
3C43 E9 F6 E5
3C46 F3
3C47 00          80          byt ZERO
3C48          81 ;
3C48 CD E1 EE   82 STR2.04  asc "Manage Volumes"
3C4B E1 E7 E5
3C4E A0 D6 EF
3C51 EC F5 ED
3C54 E5 F3
3C56 00          83          byt ZERO
3C57          84 ;
3C57 CD E1 EE   85 STR2.05  asc "Manage Bootable DOS Images"
3C5A E1 E7 E5
3C5D A0 C2 EF
3C60 EF F4 E1
3C63 E2 EC E5
3C66 A0 C4 CF
3C69 D3 A0 C9
3C6C ED E1 E7
3C6F E5 F3
3C71 00          86          byt ZERO
3C72          87 ;
3C72          88 ;
3C72          89 ; CODE3.L strings
3C72          90 ;
3C72 CE E5 F7   91 STR3.01  asc "New Description"
3C75 A0 C4 E5
3C78 F3 E3 F2
3C7B E9 F0 F4
3C7E E9 EF EE
3C81 00          92          byt ZERO
3C82          93 ;
3C82          94 ;
3C82          95 ; CODE6.L strings
3C82          96 ;
3C82 D3 E8 EF   97 STR6.01  asc "Show DOS Image Description"
3C85 F7 A0 C4
3C88 CF D3 A0
3C8B C9 ED E1
3C8E E7 E5 A0
3C91 C4 E5 F3
3C94 E3 F2 E9
3C97 F0 F4 E9
3C9A EF EE
3C9C 00          98          byt ZERO
3C9D          99 ;
3C9D CD EF E4  100 STR6.02  asc "Modify DOS Image Description"
3CA0 E9 E6 F9
3CA3 A0 C4 CF
3CA6 D3 A0 C9
3CA9 ED E1 E7
3CAC E5 A0 C4
3CAF E5 F3 E3
3CB2 F2 E9 F0
3CB5 F4 E9 EF
```

```
3CB8 EE
3CB9 00          101          byt ZERO
3CBA          102          ;
3CBA C4 CF D3   103  STR6.03  asc "DOS Image "
3CBD A0 C9 ED
3CC0 E1 E7 E5
3CC3 A0
3CC4 B0          104  MOD6.03  asc "0"
3CC5 00          105          byt ZERO
3CC6          106          ;
3CC6 C4 E9 F3   107  STR6.04  asc "Display Volume LBA Range"
3CC9 F0 EC E1
3CCC F9 A0 D6
3CCF EF EC F5
3CD2 ED E5 A0
3CD5 CC C2 C1
3CD8 A0 D2 E1
3CDB EE E7 E5
3CDE 00          108          byt ZERO
3CDF          109          ;
3CDF C4 E9 F3   110  STR6.05  asc "Display Drive Volumes DOS"
3CE2 F0 EC E1
3CE5 F9 A0 C4
3CE8 F2 E9 F6
3CEB E5 A0 D6
3CEE EF EC F5
3CF1 ED E5 F3
3CF4 A0 C4 CF
3CF7 D3
3CF8 00          111          byt ZERO
3CF9          112          ;
3CF9 D2 E5 F3   113  STR6.06  asc "Restore CF Firmware Data"
3CFC F4 EF F2
3CFF E5 A0 C3
3D02 C6 A0 C6
3D05 E9 F2 ED
3D08 F7 E1 F2
3D0B E5 A0 C4
3D0E E1 F4 E1
3D11 00          114          byt ZERO
3D12          115          ;
3D12 D2 E5 F3   116  STR6.07  asc "Restore CF Slot/ROM Firmware"
3D15 F4 EF F2
3D18 E5 A0 C3
3D1B C6 A0 D3
3D1E EC EF F4
3D21 AF D2 CF
3D24 CD A0 C6
3D27 E9 F2 ED
3D2A F7 E1 F2
3D2D E5
3D2E 00          117          byt ZERO
3D2F          118          ;
3D2F          119          ;
3D2F A0 AD A0   120  MSG1      asc " - Return to Main Menu"
3D32 D2 E5 F4
3D35 F5 F2 EE
3D38 A0 F4 EF
3D3B A0 CD E1
3D3E E9 EE A0
3D41 CD E5 EE
```

```
3D44 F5
3D45 00          121          byt ZERO
3D46            122          ;
3D46 E3 E8 E1    123  MSG2    asc "characters remaining"
3D49 F2 E1 E3
3D4C F4 E5 F2
3D4F F3 A0 F2
3D52 E5 ED E1
3D55 E9 EE E9
3D58 EE E7
3D5A 00          124          byt ZERO
3D5B            125          ;
3D5B D3 F4 E1    126  MSG3    asc "Status:  unable to "
3D5E F4 F5 F3
3D61 BA A0 A0
3D64 F5 EE E1
3D67 E2 EC E5
3D6A A0 F4 EF
3D6D A0
3D6E 00          127          byt ZERO
3D6F            128          ;
3D6F            129          ;
3D6F            130          icl "DATA.L"
```

```
LLOAD DATA.L,A$4000
```

```
3D6F      1          ttl "Volume Manager Source Code, DATA.L"
3D6F      2      ;
3D6F      3      ;
3D6F      4      ; DATA.L
3D6F      5      ;
3D6F      6      ;
3D6F      7      SIGBYTES:
3D6F      8      ;
3D6F      9      ORIGSIG1:
3D6F A9 20    10          lda #$20
3D71 A2 00    11          ldx #$00
3D73 A9 03    12          lda #$03
3D75 A9 3C    13          lda #$3C
3D77      14      ;
3D77      15      ORIGSIG2:
3D77 A9 20    16          lda #$20
3D79 A2 00    17          ldx #$00
3D7B A9 03    18          lda #$03
3D7D A9 00    19          lda #$00
3D7F      20      ;
3D7F      21      CFFASIG:
3D7F 69 20    22          adc #$20
3D81 A0 00    23          ldy #$00
3D83 A2 03    24          ldx #$03
3D85 86 3C    25          stx $3C
3D87      26      ;
0008      27      SIGLEN    equ *-CFFASIG
3D87      28      ;
3D87      29      DISKSIG:
3D87 A2 20    30          ldx #$20
3D89 A0 00    31          ldy #$00
3D8B A2 03    32          ldx #$03
3D8D 86 3C    33          stx $3C
3D8F      34      ;
3D8F      35      RAMDSIG:
3D8F 49 20    36          eor #$20
3D91 A0 00    37          ldy #$00
3D93 A2 03    38          ldx #$03
3D95 86 3C    39          stx $3C
3D97      40      ;
3D97      41      RANASIG:
3D97 09 20    42          ora #$20
3D99 A0 00    43          ldy #$00
3D9B A2 03    44          ldx #$03
3D9D 86 3C    45          stx $3C
3D9F      46      ;
3D9F      47      SIDERSIG:
3D9F 29 20    48          and #$20
3DA1 A0 00    49          ldy #$00
3DA3 A2 03    50          ldx #$03
3DA5 86 3C    51          stx $3C
3DA7      52      ;
3DA7      53      ;
3DA7      54      ; This table contains the data to determine if a volume has
3DA7      55      ; been initialized by a particular DOS in the CF DOS
3DA7      56      ; partition. The entries are Entry, Index, DOSVRSN,
3DA7      57      ; DOSBUILD, and DOSRAM. Currently, DOSBUILD is not one of
3DA7      58      ; the variables that is verified.
3DA7      59      ;
3DA7      60      NDOSTBL:
```

```

3DA7          61 ;
3DA7          62 ;      MNEM EN   IN   DV   DB   DR       DOS
3DA7          63 ;      -----
3DA7 00 01 03 64      byt $00,$01,$03,$00,$00 ; DOS 3.3
3DAA 00 00
0005          65 NDOSIZE equ *-NDOSTBL
3DAC 01 01 33 66      byt $01,$01,$33,$00,$00 ; DOS 3.3
3DAF 00 00
3DB1 02 02 41 67      byt $02,$02,$41,$46,$CC ; DOS 4.1L
3DB4 46 CC
3DB6 03 03 41 68      byt $03,$03,$41,$46,$C8 ; DOS 4.1H
3DB9 46 C8
3DBB 04 04 43 69      byt $04,$04,$43,$08,$C8 ; DOS 4.3H
3DBE 08 C8
3DC0 05 05 45 70      byt $05,$05,$45,$05,$CC ; DOS 4.5L
3DC3 05 CC
3DC5 06 06 45 71      byt $06,$06,$45,$06,$C8 ; DOS 4.5H
3DC8 06 C8
3DCA 07 07 F1 72      byt $07,$07,$F1,$00,$00 ; User 1 DOS
3DCD 00 00
3DCF 08 08 F2 73      byt $08,$08,$F2,$00,$00 ; User 2 DOS
3DD2 00 00
3DD4          74 ;
002D          75 NDOSLEN equ *-NDOSTBL
3DD4          76 ;
3DD4          77 ;
3DD4          78 ; CF drives begin at 0x100, are 0x30000 in size, and
3DD4          79 ; remaining volumes are 0x300 in size.
3DD4          80 ;
3DD4          81 ; CF card, size, drives, remaining volumes, residue:
3DD4          82 ;
3DD4          83 ; 256 MB, 0x0007A7FF, 2, 140, 0x2FF
3DD4          84 ; 512 MB, 0x000F45EF, 5, 22, 0x2EF
3DD4          85 ; 1 GB, 0x001E8BDF, 10, 46, 0x0DF
3DD4          86 ; 2 GB, 0x003D0FDF, 20, 90, 0x0DF
3DD4          87 ; 4 GB, 0x007A7E3F, 40, 212, 0x13F
3DD4          88 ; 8 GB, 0x00EE6C00, 79, 121, 0x000
3DD4          89 ;
3DD4          90 ;
3DD4          91 ; TOPMEM - IDBUFR+offset 0x7A to determine CF size
3DD4          92 ; TOPVOL - no use
3DD4          93 ; CFSIZE - size in GB, value 0x81=256MB, value 0x82=512MB
3DD4          94 ; CFDRIVES - number of full drives plus one partial drive
3DD4          95 ;
3DD4 07 0F 1E 96 TOPMEM hex 070F1E3D7AEE
3DD7 3D 7A EE
3DDA          97 ;TOPVOL hex 060C1E3C78F3
3DDA 81 82 01 98 CFSIZE hex 818201020408
3DDD 02 04 08
3DE0 03 06 0B 99 CFDRIVES hex 03060B152950
3DE3 15 29 50
3DE6 8C 16 2E 100 EXTRVOLS hex 8C162E5AD479
3DE9 5A D4 79
3DEC          101 ;
3DEC C4 B8 90 102 SIGNUM hex C4B890ED
3DEF ED
3DF0          103 ;
0004          104 SIGNUMLN equ *-SIGNUM
3DF0          105 ;
3DF0          106 IMAGLBA:
3DF0 10        107      byt OFFSET0+IMAGSIZE*0

```

```
3DF1 28      108      byt OFFSET0+IMAGSIZE*1
3DF2 40      109      byt OFFSET0+IMAGSIZE*2
3DF3 58      110      byt OFFSET0+IMAGSIZE*3
3DF4 70      111      byt OFFSET0+IMAGSIZE*4
3DF5 88      112      byt OFFSET0+IMAGSIZE*5
3DF6 A0      113      byt OFFSET0+IMAGSIZE*6
3DF7 B8      114      byt OFFSET0+IMAGSIZE*7
3DF8        115      ;
3DF8        116      DRVXTBL:
3DF8        117      VOLXTBL:
3DF8 00      118      byt VOLXINC*00
3DF9 03      119      byt VOLXINC*01
3DFA 06      120      byt VOLXINC*02
3DFB 09      121      byt VOLXINC*03
3DFC 0C      122      byt VOLXINC*04
3DFD 0F      123      byt VOLXINC*05
3DFE 12      124      byt VOLXINC*06
3DFF 15      125      byt VOLXINC*07
3E00 18      126      byt VOLXINC*08
3E01 1B      127      byt VOLXINC*09
3E02 1E      128      byt VOLXINC*10
3E03 21      129      byt VOLXINC*11
3E04 24      130      byt VOLXINC*12
3E05 27      131      byt VOLXINC*13
3E06 2A      132      byt VOLXINC*14
3E07 2D      133      byt VOLXINC*15
3E08        134      ;
3E08        135      ;
3E08        136      VOLYTBL:
3E08        137      DRVYTBL:
3E08 00      138      byt VOLYINC*00
3E09 30      139      byt VOLYINC*01
3E0A 60      140      byt VOLYINC*02
3E0B 90      141      byt VOLYINC*03
3E0C C0      142      byt VOLYINC*04
3E0D F0      143      byt VOLYINC*05
3E0E 20      144      byt VOLYINC*06
3E0F 50      145      byt VOLYINC*07
3E10 80      146      byt VOLYINC*08
3E11 B0      147      byt VOLYINC*09
3E12 E0      148      byt VOLYINC*10
3E13 10      149      byt VOLYINC*11
3E14 40      150      byt VOLYINC*12
3E15 70      151      byt VOLYINC*13
3E16 A0      152      byt VOLYINC*14
3E17 D0      153      byt VOLYINC*15
3E18        154      ;
3E18        155      VOLYTBLH:
3E18 00      156      hby VOLYINC*00
3E19 00      157      hby VOLYINC*01
3E1A 00      158      hby VOLYINC*02
3E1B 00      159      hby VOLYINC*03
3E1C 00      160      hby VOLYINC*04
3E1D 00      161      hby VOLYINC*05
3E1E 01      162      hby VOLYINC*06
3E1F 01      163      hby VOLYINC*07
3E20 01      164      hby VOLYINC*08
3E21 01      165      hby VOLYINC*09
3E22 01      166      hby VOLYINC*10
3E23 02      167      hby VOLYINC*11
3E24 02      168      hby VOLYINC*12
```

```

3E25 02          169          hby VOLYINC*13
3E26 02          170          hby VOLYINC*14
3E27 02          171          hby VOLYINC*15
3E28            172          ;
3E28            173          ;
3E28 30 C0       174 CFBOOT    adr VOLBOOT
3E2A            175          ;
3E2A B0 B0 B0    176 VALBUF    asc "000"
3E2D            177          ;
3E2D            178 VSNBUFR   dfs VSNLEN+1,ZERO
3E42            179 VERSION   dfs VRSNLEN+1,ZERO
3E51            180          ;
3E51            181          ;
3E51 23 24 28    182 TRKVLTLBL hex 23242830
3E54 30
3E55 00 80       183 SECVLTBL hex 0080
3E57 80 00       184 TYPVLTLBL hex 8000
3E59 06 34 14    185 BOOTVTBL hex 063414
3E5C            186          ;
3E5C            187          ;
3E5C            188          ; Time and Date separators.
3E5C            189          ;
3E5C BA BA A0    190 DATIMSEP asc " :: // "
3E5F AF AF A0
3E62            191          ;
3E62            192          ;
3E62            193          ; Hex to decimal conversion tables.
3E62            194          ;
3E62 01 0A 64    195 DECTBLLL byt 1,10,100,1000,10000
3E65 E8 10
3E67 00 00 00    196 DECTBLH   hby 1,10,100,1000,10000
3E6A 03 27
3E6C            197          ;
3E6C            198          ;
3E6C A0 00       199 CHARBUFR   byt SPACE,ZERO
3E6E            200 NAMEBUFR   dfs NAMELEN+1,ZERO
3E87            201          ;
3E87            202          ;
3E87 C3 C6 C6    203 CFFAMSG   asc "CFFA"
3E8A C1
3E8B 00          204          byt ZERO
3E8C            205          ;
3E8C C4 E9 F3    206 DISKMSG   asc "Disk"
3E8F EB
3E90 00          207          byt ZERO
3E91            208          ;
3E91            209          ;
3E91 A0 A8 C8    210 DOSRAMH   asc " (High RAM)"
3E94 E9 E7 E8
3E97 A0 D2 C1
3E9A CD A9
3E9C 00          211          byt ZERO
3E9D            212          ;
3E9D A0 A8 CC    213 DOSRAML   asc " (Low RAM)"
3EA0 EF F7 A0
3EA3 D2 C1 CD
3EA6 A9
3EA7 00          214          byt ZERO
3EA8            215          ;
3EA8 A0 A8 F5    216 UNKNOWN   asc " (unknown)"
3EAB EE EB EE

```

```

3EAE EF F7 EE
3EB1 A9
3EB2 00          217          byt ZERO
3EB3          218          ;
3EB3 A0 A8 C2    219  VOLTYPB  asc " (Boot Disk)"
3EB6 EF EF F4
3EB9 A0 C4 E9
3EBC F3 EB A9
3EBF 00          220          byt ZERO
3EC0          221          ;
3EC0 A0 A8 C4    222  VOLTYPD  asc " (Data Disk)"
3EC3 E1 F4 E1
3EC6 A0 C4 E9
3EC9 F3 EB A9
3ECC 00          223          byt ZERO
3ECD          224          ;
3ECD A0 A8 EE    225  ALLDIRN  asc " (negative)"
3ED0 E5 E7 E1
3ED3 F4 E9 F6
3ED6 E5 A9
3ED8 00          226          byt ZERO
3ED9          227          ;
3ED9 A0 A8 F0    228  ALLDIRP  asc " (positive)"
3EDC EF F3 E9
3EDF F4 E9 F6
3EE2 E5 A9
3EE4 00          229          byt ZERO
3EE5          230          ;
3EE5 A0 A8 EC    231  LOCKL   asc " (locked)"
3EE8 EF E3 EB
3EEB E5 E4 A9
3EEE 00          232          byt ZERO
3EEF          233          ;
3EEF A0 A8 F5    234  LOCKU   asc " (unlocked)"
3EF2 EE EC EF
3EF5 E3 EB E5
3EF8 E4 A9
3EFA 00          235          byt ZERO
3EFB          236          ;
3EFB          237          ;
3EFB          238          ; DOS image names.
3EFB          239          ;
3EFB          240  DOSIMAGE dfs 1,ZERO
3EFC 0E 3F       241  DOSINAME adr DOSIMAG1
3EFE          242          ;
3EFE 0E 3F       243  DOSIMTBL adr DOSIMAG1
3F00 12 3F       244          adr DOSIMAG2
3F02 17 3F       245          adr DOSIMAG3
3F04 1C 3F       246          adr DOSIMAG4
3F06 21 3F       247          adr DOSIMAG5
3F08 26 3F       248          adr DOSIMAG6
3F0A 2B 3F       249          adr DOSIMAG7
3F0C 31 3F       250          adr DOSIMAG8
3F0E          251          ;
3F0E B3 AE B3    252  DOSIMAG1 asc "3.3"
3F11 00          253          byt ZERO
3F12          254          ;
3F12 B4 AE B1    255  DOSIMAG2 asc "4.1L"
3F15 CC
3F16 00          256          byt ZERO
3F17          257          ;

```

```

3F17 B4 AE B1    258  DOSIMAG3 asc "4.1H"
3F1A C8
3F1B 00          259          byt ZERO
3F1C          260          ;
3F1C B4 AE B3    261  DOSIMAG4 asc "4.3H"
3F1F C8
3F20 00          262          byt ZERO
3F21          263          ;
3F21 B4 AE B5    264  DOSIMAG5 asc "4.5L"
3F24 CC
3F25 00          265          byt ZERO
3F26          266          ;
3F26 B4 AE B5    267  DOSIMAG6 asc "4.5H"
3F29 C8
3F2A 00          268          byt ZERO
3F2B          269          ;
3F2B D5 F3 E5    270  DOSIMAG7 asc "User1"
3F2E F2 B1
3F30 00          271          byt ZERO
3F31          272          ;
3F31 D5 F3 E5    273  DOSIMAG8 asc "User2"
3F34 F2 B2
3F36 00          274          byt ZERO
3F37          275          ;
3F37          276          ;
3F37          277          ; RWTS Input/Output Context Block
3F37          278          ;
3F37          279  TBLTYPE   dfs 1,1
3F38          280  SLOT16    dfs 1,ZERO
3F39          281  DRV        dfs 1,ZERO
3F3A          282  VOL        dfs 1,ZERO
3F3B 00          283  TNUM      hex 00
3F3C 00          284  SNUM      hex 00
3F3D 3D 3F       285  DCTADR    adr *
3F3F 00 43       286  USRBUF    adr RWTSBUFR
3F41          287  RWTSPHAS   dfs 1,ZERO
3F42 01          288  BYTCNT    hby PAGE_SIZE
3F43          289  CMDCODE    dfs 1,1
3F44          290  ERRCODE    dfs 1,ZERO
3F45          291  VOLFND     dfs 1,ZERO
3F46          292  SLOTFND    dfs 1,ZERO
3F47          293  DRVFND     dfs 1,ZERO
3F48          294          ;
3F48          295          ;
3F48          296          ; File Manager Context Block
3F48          297          ;
3F48          298  FMVALS:
3F48          299          ;
3F48 0B          300  OPCODE    byt INITCMD
3F49 00          301  SUBCODE    hex 00
3F4A          302          ;
3F4A BE 40       303  FN2ADR     adr VOLTITLE
3F4C          304          ;
3F4C 00          305  FMVOLUME   hex 00
3F4D 00          306  FMDRIVE    hex 00
3F4E          307          ;
3F4E 00          308  FMSLOT     hex 00
3F4F 00          309  FMFTYPE    hex 00
3F50          310          ;
3F50 D7 40       311  FNADR      adr BOOTFILE
3F52          312          ;

```

```

3F52 00          313 RTNCODE   hex 00
3F53            314 ;
3F53 00          315 FMPHASE   hex 00
3F54            316 ;
3F54 56 3F       317 WBADR     adr  SECVAL
3F56 00          318 SECVAL    hex 00
3F57 00          319 ENDTRK    hex 00
3F58 00 00       320 SUBJCT    hex 0000
3F5A            321 ;
0012            322 FMPLLEN    equ  *-FMVALS
3F5A            323 ;
3F5A            324 ;

```

BSAVE SEG08,A\$0900,B,L\$0555

```

3F5A            325          usr SEG08
3F5A            326 ;
3F5A            327 ;
3F5A            328          dfs PAGESIZE-*)&NEGONE,ZERO
4000            329 ;
4000            330 ;
4000            331 DATABUFR:
4000            332 ;
4000            333 SAVCH      dfs 1
4001            334 SAVCV      dfs 1
4002            335 ;
4002            336 SAVA       dfs 1
4003            337 SAVX       dfs 1
4004            338 SAVY       dfs 1
4005            339 ;
4005            340 SAVNUM     dfs 1
4006            341 SAVPTR     dfs 1
4007            342 SAVTOP     dfs 1
4008            343 SAVBTM     dfs 1
4009            344 ;
4009            345 TEMP       dfs 1
400A            346 YORN       dfs 1
400B            347 ;
400B            348 PAGE       dfs 1
400C            349 FLAG       dfs 1
400D            350 ;
400D            351 CFFAKEY    dfs 1
400E            352 ;
400E            353 NSIZE      dfs 1
400F            354 NDRV       dfs 1
4010            355 NDRVS      dfs 1
4011            356 NVOLMAX    dfs 1
4012            357 NVOL       dfs 1
4013            358 NVOLS      dfs 1
4014            359 ;
4014            360 SHOWCNT    dfs 1
4015            361 LINECNT    dfs 1
4016            362 PAGECNT    dfs 1
4017            363 ;
4017            364 SECTOR     dfs 1
4018            365 SECTOR2    dfs 1
4019            366 TRACK       dfs 1
401A            367 VOLUME     dfs 1
401B            368 DRIVE       dfs 1
401C            369 DRIVE2     dfs 1
401D            370 ;

```

```
401D      371  CFSLOT      dfs 1
401E      372  DISKSLOT   dfs 1
401F      373  DISKDRV    dfs 1
4020      374  ;
4020      375  CFSLOT16   dfs 1
4021      376  DSKSLT16   dfs 1
4022      377  ;
4022      378  CFPAGE      dfs 1
4023      379  DISKPAGE    dfs 1
4024      380  ;
4024      381  CFINDEX     dfs 1
4025      382  ;
4025      383  SAVROMER    dfs 2
4027      384  ;
4027      385  ;
4027      386  NNUMS       dfs 1
4028      387  NENTRY      dfs 1
4029      388  ;
4029      389  NUMVALS     dfs 8
4031      390  ;
4031      391  HEXVALS     dfs 4
4035      392  DECVALS     dfs 2
4037      393  ;
000F      394  ENTRLEN     equ *-NENTRY
4037      395  ;
4037      396  ;
4037      397  IDCYLNUM    dfs 2
4039      398  IDHDSNUM    dfs 2
403B      399  IDSPTNUM    dfs 2
403D      400  ;
403D      401  IDLBANUM    dfs LBALEN
4041      402  ;
4041      403  LBA         dfs LBALEN
4045      404  LASTLBA     dfs LBALEN
4049      405  ;
4049      406  LASTVOL     dfs LBALEN
404D      407  FRSTFREE    dfs LBALEN
4051      408  LASTFREE    dfs LBALEN
4055      409  ;
4055      410  CDMESG      dfs CDMGLEN
405A      411  ;
405A      412  INSRLBUF    dfs IDSRLLEN
406E      413  ;
406E      414  IDSRLBUF    dfs IDSRLLEN+1
4083      415  IDFRMBUF    dfs IDFRMLLEN+1
408C      416  IDMDLBUF    dfs IDMDLLEN+1
40A5      417  ;
40A5      418  CFOLDNAM    dfs NAMELEN+1
40BE      419  VOLTITLE    dfs NAMELEN+1
40D7      420  BOOTFILE    dfs NAMELEN+1
40F0      421  FMDATE      dfs DATELEN
40F6      422  ;
40F6      423  ;
40F6      424  ;          dfs PAGESIZE-*)&NEGONE
4100      425  ;
4100      426  ;
4100      427  DESCBUFR    dfs PAGESIZE
4200      428  ;          dfs PAGESIZE
4300      429  ;
4300      430  ;
4300      431  BUFFERS:
```

```
4300      432      ;
4300      433      ;
4300      434      IDBUFR      equ    BUFFERS
4300      435      ;
4300      436      LBABUFR      equ    BUFFERS
4300      437      ;
4300      438      RWTSBUFR      equ    BUFFERS
4300      439      ;
4300      440      DOSBUFR      equ    BUFFERS
4300      441      ;
4300      442      ;
4300      443      SLOTBUFR      equ    BUFFERS
4300      444      ;
4300      445      ;          phs    BUFFERS+PAGESIZE*2
4500      446      ROMBUFR:
4500      447      ;
4500      448      ROMSIG      dfs    SIGNUMLN
4504      449      CFSRLBUF      dfs    IDSRLLEN
4518      450      CFNAME      dfs    NAMELEN
4530      451      CFDATE      dfs    DATELEN
4536      452      CFLBANUM      dfs    LBALEN
453A      453      CFMAXDRV      dfs    1
453B      454      CFREMOVOL      dfs    1
453C      455      DFLTBOOT      dfs    1
453D      456      ;
453D      457      ;
453D      458      ;          phs    BUFFERS
4300      459      DRVBUFR:
4300      460      ;
4300      461      DRVNAME      dfs    NAMELEN
4318      462      DRVDATE      dfs    DATELEN
431E      463      DRVDESC      dfs    PAGESIZE- *&NEGONE
4400      464      ;
00E2      465      DRVDSLEN      equ    *-DRVDESC
4400      466      ;
4400      467      ;
4400      468      ;          phs    BUFFERS
4300      469      VTOCBUFR:
4300      470      ;
4300      471      VTOCSB      dfs    1
4301      472      FRSTTRK      dfs    1
4302      473      FRSTSEC      dfs    1
4303      474      DOSVRSN      dfs    1
4304      475      DOSBUILD      dfs    1
4305      476      DOSRAM      dfs    1
4306      477      DISKVOL      dfs    1
4307      478      DISKTYPE      dfs    1
4308      479      DISKNAME      dfs    24
4320      480      INITIME      dfs    6
4326      481      VTOCPHAS      dfs    1
4327      482      NUMTSENT      dfs    1
4328      483      DISKSUBJ      dfs    2
432A      484      VTOCTIME      dfs    6
4330      485      NXTTOALC      dfs    1
4331      486      ALLCDIR      dfs    1
4332      487      DOSCONFIG      dfs    1
4333      488      DISKLOCK      dfs    1
4334      489      NUMTRKS      dfs    1
4335      490      NUMSECS      dfs    1
4336      491      BYTPRSEC      dfs    2
4338      492      BITMAP:
```

```
4338          493  ;  
4338          494  ;  
4338          495      stt "Volume Manager Symbol Table"  
4338          496  ;  
4338          497  ;  
4338          498      end 111
```

```
*** End of Assembly
```

Symbol List starts at 0x7800, ends at 0x9510, used 0x1D10, remaining 0x1D30

## Symbols unsorted:

LOC0	0000	TEXTPTR	001E	WNDLFT	0020	WNDWDTH	0021	WNDTOP	0022
WNCBTM	0023	CH	0024	CV	0025	INVFLG	0032	PROMPT	0033
CSWL	0036	ASRUN	0076	ASONERR	00D8	VALPTR	00CC	GENPTR	00CE
SLOTPTR	00EC	ROMPTR	00EE	DATAPTR	00FA	PRNTVAL	00FB	PRNTPTR	00FC
ZERO	0000	LBALEN	0004	PARTLEN	0004	TYPELEN	0004	CDMSGLEN	0005
DATELEN	0006	DFLTIMAG	0006	IDFRMLEN	0008	VRSNLEN	000E	LBAMASK	000F
NIBLMASK	000F	SECMASKL	000F	SECMASKH	0010	VSNLEN	0014	IDSRLLEN	0014
IDMDLLEN	0018	NAMELEN	0018	NEGONE	00FF	ERRORNDX	0004	MAINRAM	0000
HIGHRAM1	0001	HIGHRAM2	0002	RWTSREAD	0001	RWTSWRIT	0002	INITCMD	000B
VTOCSEC	0000	VTOCTRK	0011	VOLXINC	0003	VOLYINC	0030	IDCYLOFF	0002
IDHDSOFF	0006	IDSPTOFF	000C	IDSROFF	0014	IDFRMOFF	002E	IDMDLOFF	0036
IDLBAOFF	0078	OFFSET0	0010	IMAGSIZE	0018	DRCATLBA	00D0	IMAG33	0001
IMAG41L	0002	IMAG41H	0003	IMAG43H	0004	IMAG45L	0005	IMAG45H	0006
IMAGUSR1	0007	IMAGUSR2	0008	WAIT100U	0004	WAIT225U	0007	WAIT001M	0011
WAIT040M	007C	WAIT100M	00C5	TEXTMODE	0000	GRPHMODE	0001	TX80MODE	0002
LV80MODE	0003	NORMDISP	0000	INVRDISP	0001	INITSCRN	0000	HOMESCRN	0001
EOLCLR	0000	EOPCLR	0001	DIRECT	0000	INDIRECT	0001	NOPAD	0000
HIGHLOW	0020	ZEROPAD	0040	SPCPAD	0080	NEXTLINE	0004	CHARCELL	0007
MAXPARTS	0009	PCMDMASK	000F	CVMASK	001F	MAXWDTH	0028	MAXTRKS	0032
MAXCH	0050	MINCV	0060	MAXCMD	0061	INVRMASK	007F	ASCIFLAG	0080
MSBMASK	0080	RTNCMD	0050	MODECMD	0051	DISPCMD	0052	SCRNCMD	0053
CLRCMD	0054	CNTRCMD	0055	BUFRCMD	0056	NIBLCMD	0057	BYT1CMD	0058
BYT2CMD	0059	BYTNCMD	005A	ADRCMD	005B	DEC1CMD	005C	DEC2CMD	005D
DEC3CMD	005E	DECNCMD	005F	FLASH	0060	CTRLD	0084	BELLCHAR	0087
LARROW	0088	DARROW	008A	UARROW	008B	RETURN	008D	CTRLQ	0091
RARROW	0095	ESCAPE	009B	SPACE	00A0	PERCENT	00A5	MINUS	00AD
PERIOD	00AE	QUESTION	00BF	LWRMASK	00DF	LWRCASE	00E0	BAR	00FC
DELETE	00FF	ATA_READ	0020	ATA_WRIT	0030	ATA_ID	00EC	OFFSET1	0100
PAGESIZE	0100	STACK	0100	VOLSIZE	0300	DRVSIZE	0300	DOSWARM	03D0
DOSCOLD	03D3	CALLFM	03D6	CALLRWTS	03D9	GETFMCB	03DC	RDCLKVSN	03E1
HOOKDOS	03EA	PRTERADR	03E8	LINE23	07D0	DOS4VRSN	0045	DOS4BLD	0006
BLDVRSN	BFF0	BLDNMBR	BFF1	MNGDISK	BFF2	INITVAL	BFFA	PAGE08	0800
PAGE09	0900	PAGEC0	C000	PAGEC8	C800	KEY	C000	CLRKEY	C010
CFHOOK	C010	CFUHOOK	C018	TXTCCLR	C050	TXTSET	C051	MIXCLR	C052
LOWSCR	C054	HIRES	C057	VOLBOOT	C030	CFRWTS	C04B	RAM2WP	C080
ROM2WP	C082	CLRROM	CFFF	ATADATAH	C080	SETCSMSK	C081	CLRCSMSK	C082
ATADEVCT	C086	ATASTAT2	C086	ATADATAL	C088	ATAERROR	C089	ATASECCT	C08A
ATASECTR	C08B	ATACYLNL	C08C	ATACYLNH	C08D	ATAHEAD	C08E	ATACMD	C08F
ATASTAT	C08F	PRBL2	F94A	INIT	FB2F	VTAB	FC22	CLREOP	FC42
HOME	FC58	CLREOL	FC9C	CROUT	FD8E	PRBYTE	FDDA	PRHEX	FDE3
COUT	FDED	SETKBD	FE89	SETVID	FE93	OUTPORT	FE95	BELL	FF3A
MONITOR	FF65	GRAPHICS	0000	DISPLAY	0000	DEBUG	0001	START	0932
MAIN	093D	MAINMOD	0964	MAINTBL	0967	MAINTBLH	096C	MNGFIRM	0971
FIRMMOD	099C	FIRMERR	09A2	FIRMTBL	09AB	FIRMTBLH	09B0	SAVEFIRM	09B5
LOADFIRM	09CE	LOADDOS	09FF	MNGCFFA	0A5C	CFFAMOD	0A8C	CFFAERR	0A92
CFFATBL	0A9B	CFFATBLH	0AA1	DSPCFMEM	0AA7	DISPID	0B08	SAVEID	0B1F
SAVELBA	0BA9	RSTORLBA	0BC8	CLRLBA	0BE7	BCS01	0C4D	CHKHEX	0C92
MNGDRVS	0CA5	DRVSMOD	0CD5	DRVSERR	0CDB	DRVSTBL	0CE4	DRVSTBLH	0CE7
DISPDRVS	0CEA	DSRPDRVS	0D32	MODDRVS	0D49	MNGVOLS	0D5D	VOLSMOD	0D8D
VOLSERR	0D93	VOLSTBL	0D9C	VOLSTBLH	0DA3	DISPVOLS	0DAA	DISPVDOS	0DBE
DISPVTOC	0DD2	DISPBMAP	0DEB	INITVOL	0E04	BOOTVOL	0E1D	MNGDOSI	0EBC
DOSIMOD	0EE7	DOSIERR	0EED	DOSITBL	0EF6	DOSITBLH	0EFA	DISPDOSI	0EFE
SELCDOSI	0F11	CHKIMAGE	0F86	FINDCF	0FBE	FINDISK	101A	CHKSLOT	1060
GETDRIVE	1082	GETVOLUM	10BD	GETYORN	10F0	YORNMOD1	1104	YORNMOD2	110B
YORNTBL	1125	YORNTBLH	1127	OPTION	1129	GETLBA	1142	GETLBA2	1160
STATOKAY	116C	DISKERR	1195	RDDRVLBA	11B2	SHOWDRVL	11F5	CLRIMBUF	122A

INITCFVL	1242	RTN3	12D4	BANNER	13CD	MAINMENU	15D4	FIRMMENU	1646
CFFAMENU	168B	DRVSMENU	16DA	VOLSMENU	170B	DOSIMENU	1764	SHOWDATA	179F
NOCFFA	1823	NODISK	1826	QUIT	1942	GETROMER	195A	UNSETERR	1972
SETERROR	198A	READVSN	199F	READCLK	19A1	PRTERORR	19A5	SHOWVTOC	19A8
DOSAVFRM	1C1F	DOLDFRM	1CC1	DOLDLBA	1D6B	DOSAVLBA	1E27	DOCLRLBA	1EBB
SHOWDRVS	1F38	SHOWDRV	1F82	SHOWDES	1FC4	SHOWDESC	2018	RTN04	2064
GETDRNFO	2065	GETDRVDS	212D	CLEARLBA	218D	SHOWNCAT	2198	INITVTOC	2221
SHOWBMAP	2245	SHOWMOD	22D7	SHOWDVOL	22F5	SELCMEM	231D	SMEMMOD1	2332
SMEMMOD2	233C	SMEMMOD3	2346	SMEMADRL	2362	SMEMADRH	2365	SELCTRK	2368
TRKMOD1	237C	TRKMOD2	2384	TRKMOD3	238C	TRKMOD4	2394	TRKTBLL	23AE
TRKTBLLH	23B2	SELCSEC	23B6	SECMOD1	23CA	SECMOD2	23D2	SECTBLL	23EC
SECTBLH	23EE	SELCTYP	23F0	TYPMOD1	2404	TYPMOD2	240B	TYPTBLL	2424
TYPTBLH	2426	SELBOOT	2428	BOOTMOD1	243C	BOOTMOD2	244B	BOOTMOD3	2457
BOOTTBLL	2473	BOOTTBLH	2476	SETPTR	2479	CLRPTR	2487	PTRMOD	2489
CHKWPCF	248D	CHKFWCF	24EA	RTN01	250E	EXTRDATA	2515	EXTRAD	25AF
MODROM	2621	RTN02	26B9	SELCDISK	26E8	DRVMOD1	276C	DRVMOD2	2773
GETVRSN	2797	GETTEXTC	27BB	GETTEXT	27BC	SHOWYREG	2859	PADBUFR	2893
SHOWLBA	28AB	READCF	28D9	READCFG	2914	WRITCF	292F	DERROR	29BD
WRITCFG	29F1	WRITFM	2A1D	SHOWCF	2A4B	CFBUSY	2C38	CFREADY	2C4E
CFSTATUS	2C6D	WAIT	2C7D	CFWAIT	2C86	CFCHECK	2C92	LOADLBA	2C9B
LOADCMD	2CC5	CFRESET	2CDF	DOATARST	2CF1	READID	2D05	READLBA2	2D38
READLBA	2D3C	READBUFR	2D4C	WRITLBA2	2D75	WRITLBA1	2D79	WRITLBA	2D7D
WRITBUFR	2D89	LISTIMGS	2DB9	DOLDDOS	2DDC	PUTINAME	2E1D	GETIMAGE	2E61
SELCIMAG	2E92	PUTIERR	2F43	SHOWDOSI	2F49	GETDOSI	2FAC	SHOWIMAG	30A9
READDESC	30C3	CLRDESC	30FA	DISPVLBA	3107	RTN1	311F	SHOWVLBA	3120
SHOWIDOS	320E	SELCNDOS	333A	SAVECF	3372	RSTRDATA	339C	RSTRFIRM	33D4
GETHEX2	340F	GETHEX4	3412	GETHEX6	3415	GETHEX8	3418	GETDEC1	341D
GETDEC2	3420	GETDEC3	3423	GETDEC5	3426	NUMLOOP	3437	NUMPROC	3491
HEXPROC	3494	DECPROC	34C3	SELECT	34EC	PRESKEYC	3519	PRESKEYS	351B
PRESKEYA	351C	PRESKEY2	3522	PRESKEY	352A	GETKEY	353F	READKEY	3553
PRNTCHAR	3569	SELCKEY	3575	GETVTOC2	358B	GETVTOC	358E	SPLITHEX	35EA
ASCIHEX	35F4	RTN03	35FF	DVTS2LBA	3600	DOHOOKON	3695	HOKONRTN	36C4
HOOKERR	36C5	DOHOOKOF	36E6	HOKOFRTN	3710	DOHOOK	3711	DOUHOOK	3714
GETDISKC	3717	GETDISKS	3719	HEX2DEC	371D	PRNTBUFT	3740	PRNTBUFH	374C
PRNTBUF	3755	BUFRMOD	375A	PRINTIME	375E	PRINT	3773	PRNTLOOP	3782
PRNTMOD1	37AE	PRNTMOD2	37C9	PRNTBR1	37CB	PRNTBR2	37D5	PRNTBR3	37DB
PRNTBR4	37E0	PRNTBR5	37E5	PRNTBR6	37EE	PRNTMOD3	37F1	PRNTOUT	37F7
OUTMOD1	37F7	OUTMOD2	37F9	PRNTOUT2	37FB	OUTTBL1	37FE	OUTTBL2	3804
OUT80COL	380A	VTABADRS	380C	OUTADRS	3812	PRNTSAV	3818	PRNTNUM	3819
MODEVAL	381B	FRMTVAL	381C	PRNTBL	381D	PRNTBLL	382D	PRNTBLH	383D
PRNTRTN	384D	PRNTSAVY	3858	PRNTSAVX	385A	PRNTSAVA	385C	PRINTRTN	385F
PRNTMODE	3860	PRNTDISP	38AB	PRNTSCRN	38CA	PRNTCLR	38DA	PRNTCNTR	38E4
PRNTBUFR	3906	PRNTBFR	3915	PRNTNIBL	3922	PRNTNBYT	3927	PRNT1BYT	392B
PRNT2BYT	392E	PRNTBYT	3930	PRNTADR	393A	PRNT1DEC	3952	PRNT2DEC	3958
PRNTDEC	395B	PRNT3DEC	3965	PRNTNDEC	396F	PRNTBYTE	39B6	PRNTHex	39BF
PRNTHEx2	39C1	HEXTODEC	39CC	GETDIGIT	39E6	PRNTGRPH	3A05	STR1.01	3A05
STR1.02	3A20	STR1.03	3A40	STR1.04	3A5E	STR1.05	3A7C	STR1.06	3A9D
STR1.07	3ABB	STR1.08	3AD5	STR1.09	3AF4	STR1.10	3B0D	STR1.11	3B1D
STR1.12	3B37	STR1.13	3B50	STR1.14	3B73	STR1.15	3B93	STR1.16	3BB5
STR1.17	3BCC	STR1.18	3BDD	STR1.19	3BF7	STR2.01	3C11	STR2.02	3C21
STR2.03	3C3A	STR2.04	3C48	STR2.05	3C57	STR3.01	3C72	STR6.01	3C82
STR6.02	3C9D	STR6.03	3CBA	MOD6.03	3CC4	STR6.04	3CC6	STR6.05	3CDF
STR6.06	3CF9	STR6.07	3D12	MESG1	3D2F	MESG2	3D46	MESG3	3D5B
SIGBYTES	3D6F	ORIGSIG1	3D6F	ORIGSIG2	3D77	CFFASIG	3D7F	SIGLEN	0008
DISKSIG	3D87	RAMDSIG	3D8F	RANASIG	3D97	SIDERSIG	3D9F	NDOSTBL	3DA7
NDOSIZE	0005	NDOSLEN	002D	TOPMEM	3DD4	CFSIZE	3DDA	CFDRIVES	3DE0
EXTRVOLS	3DE6	SIGNUM	3DEC	SIGNUMLN	0004	IMAGLBA	3DF0	DRVXTBL	3DF8
VOLXTBL	3DF8	VOLYTBLL	3E08	DRVYTBL	3E08	VOLYTBLLH	3E18	CFBOOT	3E28
VALBUF	3E2A	VSNBUFR	3E2D	VERSION	3E42	TRKVLTL	3E51	SECVLTBL	3E55
TYPVLTL	3E57	BOOTVTBL	3E59	DATIMSEP	3E5C	DECTBLL	3E62	DECTBLH	3E67
CHARBUFR	3E6C	NAMEBUFR	3E6E	CFFAMSG	3E87	DISKMSG	3E8C	DOSRAMH	3E91

DOSRAML	3E9D	UNKNOWN	3EA8	VOLTPB	3EB3	VOLTPD	3EC0	ALLDIRN	3ECD
ALLDIRP	3ED9	LOCKL	3EE5	LOCKU	3EEF	DOSIMAGE	3EFB	DOSINAME	3EFC
DOSIMTBL	3EFE	DOSIMAG1	3F0E	DOSIMAG2	3F12	DOSIMAG3	3F17	DOSIMAG4	3F1C
DOSIMAG5	3F21	DOSIMAG6	3F26	DOSIMAG7	3F2B	DOSIMAG8	3F31	TBLTYPE	3F37
SLOT16	3F38	DRV	3F39	VOL	3F3A	TNUM	3F3B	SNUM	3F3C
DCTADR	3F3D	USRBUF	3F3F	RWTSPHAS	3F41	BYTCNT	3F42	CMDCODE	3F43
ERRCODE	3F44	VOLFND	3F45	SLOTFND	3F46	DRVFND	3F47	FMVALS	3F48
OPCODE	3F48	SUBCODE	3F49	FN2ADR	3F4A	FMVOLUME	3F4C	FMDRIVE	3F4D
FMSLOT	3F4E	FMFTYPE	3F4F	FNADR	3F50	RTNCODE	3F52	FMPHASE	3F53
WBADR	3F54	SECVAL	3F56	ENDTRK	3F57	SUBJECT	3F58	FMPLN	0012
DATABUFR	4000	SAVCH	4000	SAVCV	4001	SAVA	4002	SAVX	4003
SAVY	4004	SAVNUM	4005	SAVPTR	4006	SAVTOP	4007	SAVBTM	4008
TEMP	4009	YORN	400A	PAGE	400B	FLAG	400C	CFFAKEY	400D
NSIZE	400E	NDRV	400F	NDRVS	4010	NVOLMAX	4011	NVOL	4012
NVOLS	4013	SHOWCNT	4014	LINECNT	4015	PAGECNT	4016	SECTOR	4017
SECTOR2	4018	TRACK	4019	VOLUME	401A	DRIVE	401B	DRIVE2	401C
CFSLOT	401D	DISKSLOT	401E	DISKDRV	401F	CFSLOT16	4020	DSKSLT16	4021
CFPAGE	4022	DISKPAGE	4023	CFINDEX	4024	SAVROMER	4025	NNUMS	4027
NENTRY	4028	NUMVALS	4029	HEXVALS	4031	DECVALS	4035	ENTRLEN	000F
IDCYLNUM	4037	IDHDSNUM	4039	IDSPTNUM	403B	IDLBANUM	403D	LBA	4041
LASTLBA	4045	LASTVOL	4049	FRSTFREE	404D	LASTFREE	4051	CDMSG	4055
INSRLBUF	405A	IDSRLBUF	406E	IDFRMBUF	4083	IDMDLBUF	408C	CFOLDNAM	40A5
VOLTITLE	40BE	BOOTFILE	40D7	FMDATE	40F0	DESCBUFR	4100	BUFFERS	4300
IDBUFR	4300	LBABUFR	4300	RWTBUFR	4300	DOSBUFR	4300	SLOTBUFR	4300
ROMBUFR	4500	ROMSIG	4500	CFSRLBUF	4504	CFNAME	4518	CFDATE	4530
CFLBANUM	4536	CFMAXDRV	453A	CFREMOVOL	453B	DFLTBOOT	453C	DRVBUFR	4300
DRVNAME	4300	DRVDATE	4318	DRVDESC	431E	DRVDSLEN	00E2	VTOCBUFR	4300
VTOCSB	4300	FRSTTRK	4301	FRSTSEC	4302	DOSVRSN	4303	DOSBUILD	4304
DOSRAM	4305	DISKVOL	4306	DISKTYPE	4307	DISKNAME	4308	INITIME	4320
VTOCPHAS	4326	NUMTSENT	4327	DISKSUBJ	4328	VTOCTIME	432A	NXTTOALC	4330
ALLCDIR	4331	DOSCONFG	4332	DISKLOCK	4333	NUMTRKS	4334	NUMSECS	4335
BYTPRSEC	4336	BITMAP	4338						

## Symbols alphabetically sorted:

ADRCMD	005B	ALLCDIR	4331	ALLDIRN	3ECD	ALLDIRP	3ED9	ASCIFLAG	0080
ASCIHEX	35F4	ASONERR	00D8	ASRUN	0076	ATACMD	C08F	ATACYLNH	C08D
ATACYLNL	C08C	ATADATAH	C080	ATADATAL	C088	ATADEVCT	C086	ATAERROR	C089
ATAHEAD	C08E	ATASECCT	C08A	ATASECTR	C08B	ATASTAT	C08F	ATASTAT2	C086
ATA_ID	00EC	ATA_READ	0020	ATA_WRIT	0030	BANNER	13CD	BAR	00FC
BCS01	0C4D	BELL	FF3A	BELLCHAR	0087	BITMAP	4338	BLDNMBR	BFF1
BLDVRSN	BFF0	BOOTFILE	40D7	BOOTMOD1	243C	BOOTMOD2	244B	BOOTMOD3	2457
BOOTTBLH	2476	BOOTTBL	2473	BOOTVOL	0E1D	BOOTVTBL	3E59	BUFFERS	4300
BUFRCMD	0056	BUFRMOD	375A	BYT1CMD	0058	BYT2CMD	0059	BYTCNT	3F42
BYTNCMD	005A	BYTPRSEC	4336	CALLFM	03D6	CALLRWTS	03D9	CDMSG	4055
CDMSGLEN	0005	CFBOOT	3E28	CFBUSY	2C38	CFCHECK	2C92	CFDATE	4530
CFDRIVES	3DE0	CFFAERR	0A92	CFFAKEY	400D	CFFAMENU	168B	CFFAMOD	0A8C
CFFAMSG	3E87	CFFASIG	3D7F	CFFATBLH	0AA1	CFFATBLL	0A9B	CFHOOK	C010
CFINDEX	4024	CFLBANUM	4536	CFMAXDRV	453A	CFNAME	4518	CFOLDNAM	40A5
CFPAGE	4022	CFREADY	2C4E	CFREMOVOL	453B	CFRESET	2CDF	CFRWTS	C04B
CFSIZE	3DDA	CFSLOT	401D	CFSLOT16	4020	CFSRLBUF	4504	CFSTATUS	2C6D
CFUHOOK	C018	CFWAIT	2C86	CH	0024	CHARBUFR	3E6C	CHARCELL	0007
CHKFWCF	24EA	CHKHEX	0C92	CHKIMAGE	0F86	CHKSLOT	1060	CHKWPCF	248D
CLEARLBA	218D	CLRCMD	0054	CLRCMSK	C082	CLRDESC	30FA	CLREOL	FC9C
CLREOP	FC42	CLRIMBUF	122A	CLRKEY	C010	CLRLBA	0BE7	CLRPTR	2487
CLRROM	CFFF	CMDCODE	3F43	CNTRCMD	0055	COUT	FD8E	CROUT	FD8E
CSWL	0036	CTRLD	0084	CTRLQ	0091	CV	0025	CVMASK	001F
DARROW	008A	DATABUFR	4000	DATAPTR	00FA	DATELEN	0006	DATIMSEP	3E5C
DCTADR	3F3D	DEBUG	0001	DEC1CMD	005C	DEC2CMD	005D	DEC3CMD	005E
DECNCMD	005F	DECPROC	34C3	DECTBLH	3E67	DECTBLL	3E62	DECVALS	4035

DELETE	00FF	DERROR	29BD	DESCBUFR	4100	DFLTBOOT	453C	DFLTIMAG	0006
DIRECT	0000	DISKDRV	401F	DISKERR	1195	DISKLOCK	4333	DISKMSG	3E8C
DISKNAME	4308	DISKPAGE	4023	DISKSIG	3D87	DISKSLOT	401E	DISKSUBJ	4328
DISKTYPE	4307	DISKVOL	4306	DISPBMAP	0DEB	DISPCMD	0052	DISPDOSI	0EFE
DISPDRVS	0CEA	DISPID	0B08	DISPLAY	0000	DISPVDOS	0DBE	DISPVLBA	3107
DISPVOLS	0DAA	DISPVTOC	0DD2	DOATARST	2CF1	DOCLRLBA	1EBB	DOHOOK	3711
DOHOOKOF	36E6	DOHOOKON	3695	DOLDDOS	2DDC	DOLDFRM	1CC1	DOLDLBA	1D6B
DOS4BLD	0006	DOS4VRSN	0045	DOSAVFRM	1C1F	DOSAVLBA	1E27	DOSBUFR	4300
DOSBUILD	4304	DOSCOLD	03D3	DOSCONFIG	4332	DOSIERR	0EED	DOSIMAG1	3F0E
DOSIMAG2	3F12	DOSIMAG3	3F17	DOSIMAG4	3F1C	DOSIMAG5	3F21	DOSIMAG6	3F26
DOSIMAG7	3F2B	DOSIMAG8	3F31	DOSIMAGE	3EFB	DOSIMENU	1764	DOSIMOD	0EE7
DOSIMTBL	3EFE	DOSINAME	3EFC	DOSITBLH	0EFA	DOSITBLL	0EF6	DOSRAM	4305
DOSRAMH	3E91	DOSRAML	3E9D	DOSVRSN	4303	DOSWARM	03D0	DOUHOOK	3714
DRCATLBA	00D0	DRIVE	401B	DRIVE2	401C	DRV	3F39	DRVBUFR	4300
DRVDATE	4318	DRVDESC	431E	DRVDSLEN	00E2	DRVFND	3F47	DRVMOD1	276C
DRVMOD2	2773	DRVNAME	4300	DRVSERR	0CDB	DRVSIZE	0300	DRVSMENU	16DA
DRVSMOD	0CD5	DRVSTBLH	0CE7	DRVSTBLL	0CE4	DRVXTBL	3DF8	DRVYTBL	3E08
DSKSLT16	4021	DSPCFMEM	0AA7	DSRPDRVS	0D32	DVTS2LBA	3600	ENDTRK	3F57
ENTRLEN	000F	EOLCLR	0000	EOPCLR	0001	ERRCODE	3F44	ERRORNDX	0004
ESCAPE	009B	EXTRAD	25AF	EXTRDATA	2515	EXTRVOLS	3DE6	FINDCF	0FBE
FINDISK	101A	FIRMERR	09A2	FIRMMENU	1646	FIRMMOD	099C	FIRMTBLH	09B0
FIRMTBLL	09AB	FLAG	400C	FLASH	0060	FMDATE	40F0	FMDRIVE	3F4D
FMFTYPE	3F4F	FMPHASE	3F53	FMPLN	0012	FMSLOT	3F4E	FMVALS	3F48
FMVOLUME	3F4C	FN2ADR	3F4A	FNADR	3F50	FRMTVAL	381C	FRSTFREE	404D
FRSTSEC	4302	FRSTTRK	4301	GENPTR	00CE	GETDEC1	341D	GETDEC2	3420
GETDEC3	3423	GETDEC5	3426	GETDIGIT	39E6	GETDISKC	3717	GETDISKS	3719
GETDOSI	2FAC	GETDRIVE	1082	GETDRNFO	2065	GETDRVDS	212D	GETFMCB	03DC
GETHEX2	340F	GETHEX4	3412	GETHEX6	3415	GETHEX8	3418	GETIMAGE	2E61
GETKEY	353F	GETLBA	1142	GETLBA2	1160	GETROMER	195A	GETTEXT	27BC
GETTEXTC	27BB	GETVOLUM	10BD	GETVRSN	2797	GETVTOC	358E	GETVTOC2	358B
GETYORN	10F0	GRAPHICS	0000	GRPHMODE	0001	HEX2DEC	371D	HEXPROC	3494
HEXTODEC	39CC	HEXVALS	4031	HIGHLOW	0020	HIGHRAM1	0001	HIGHRAM2	0002
HIRES	C057	HOKOFRTN	3710	HOKONRTN	36C4	HOME	FC58	HOMESCRN	0001
HOOKDOS	03EA	HOOKERR	36C5	IDBUFR	4300	IDCYLNUM	4037	IDCYLOFF	0002
IDFRMBUF	4083	IDFRMLEN	0008	IDFRMOFF	002E	IDHDSNUM	4039	IDHDSOFF	0006
IDLBANUM	403D	IDLBAOFF	0078	IDMDLBUF	408C	IDMDLLEN	0018	IDMDLOFF	0036
IDSPTNUM	403B	IDSPTOFF	000C	IDSRLBUF	406E	IDSRLLEN	0014	IDSRLLOFF	0014
IMAG33	0001	IMAG41H	0003	IMAG41L	0002	IMAG43H	0004	IMAG45H	0006
IMAG45L	0005	IMAGLBA	3DF0	IMAGSIZE	0018	IMAGUSR1	0007	IMAGUSR2	0008
INDIRECT	0001	INIT	FB2F	INITCFVL	1242	INITCMD	000B	INITIME	4320
INITSCRN	0000	INITVAL	BFFA	INITVOL	0E04	INITVTOC	2221	INSRLBUF	405A
INVFLG	0032	INVRDISP	0001	INVRMASK	007F	KEY	C000	LARROW	0088
LASTFREE	4051	LASTLBA	4045	LASTVOL	4049	LBA	4041	LBABUFR	4300
LBALN	0004	LBAMASK	000F	LINE23	07D0	LINECNT	4015	LISTIMGS	2DB9
LOADCMD	2CC5	LOADDOS	09FF	LOADFIRM	09CE	LOADLBA	2C9B	LOC0	0000
LOCKL	3EE5	LOCKU	3EEF	LOWSCR	C054	LV80MODE	0003	LWRCASE	00E0
LWRMASK	00DF	MAIN	093D	MAINMENU	15D4	MAINMOD	0964	MAINRAM	0000
MAINTBLH	096C	MAINTBLL	0967	MAXCH	0050	MAXCMD	0061	MAXPARTS	0009
MAXTRKS	0032	MAXWDTH	0028	MESG1	3D2F	MESG2	3D46	MESG3	3D5B
MINCV	0060	MINUS	00AD	MIXCLR	C052	MNGCFFA	0A5C	MNGDISK	BFF2
MNGDOSI	0EBC	MNGDRVS	0CA5	MNGFIRM	0971	MNGVOLS	0D5D	MOD6.03	3CC4
MODDRVS	0D49	MODECMD	0051	MODEVAL	381B	MODROM	2621	MONITOR	FF65
MSBMASK	0080	NAMEBUFR	3E6E	NAMELEN	0018	NDOSIZE	0005	NDOSLEN	002D
NDOSTBL	3DA7	NDRV	400F	NDRVS	4010	NEGONE	00FF	NENTRY	4028
NEXTLINE	0004	NIBLCMD	0057	NIBLMASK	000F	NNUMS	4027	NOCFFA	1823
NODISK	1826	NOPAD	0000	NORMDISP	0000	NSIZE	400E	NUMLOOP	3437
NUMPROC	3491	NUMSECS	4335	NUMTRKS	4334	NUMTSENT	4327	NUMVALS	4029
NVOL	4012	NVOLMAX	4011	NVOLS	4013	NXTTOALC	4330	OFFSET0	0010
OFFSET1	0100	OPCODE	3F48	OPTION	1129	ORIGSIG1	3D6F	ORIGSIG2	3D77
OUT80COL	380A	OUTADRS	3812	OUTMOD1	37F7	OUTMOD2	37F9	OUTPORT	FE95
OUTTBL1	37FE	OUTTBL2	3804	PADBUFR	2893	PAGE	400B	PAGE08	0800

PAGE09	0900	PAGEC0	C000	PAGEC8	C800	PAGECNT	4016	PAGESIZE	0100
PARTLEN	0004	PCMDMASK	000F	PERCENT	00A5	PERIOD	00AE	PRBL2	F94A
PRBYTE	FDDA	PRESKEY	352A	PRESKEY2	3522	PRESKEYA	351C	PRESKEYC	3519
PRESKEYS	351B	PRHEX	FDE3	PRINT	3773	PRINTIME	375E	PRINTRTN	385F
PRNT1BYT	392B	PRNT1DEC	3952	PRNT2BYT	392E	PRNT2DEC	3958	PRNT3DEC	3965
PRNTADR	393A	PRNTBFR	3915	PRNTBL	381D	PRNTBLH	383D	PRNTBLL	382D
PRNTBR1	37CB	PRNTBR2	37D5	PRNTBR3	37DB	PRNTBR4	37E0	PRNTBR5	37E5
PRNTBR6	37EE	PRNTBUF	3755	PRNTBUFH	374C	PRNTBUFR	3906	PRNTBUFT	3740
PRNTBYT	3930	PRNTBYTE	39B6	PRNTCHAR	3569	PRNTCLR	38DA	PRNTCNTR	38E4
PRNTDEC	395B	PRNTDISP	38AB	PRNTGRPH	3A05	PRNTHex	39BF	PRNTHEx2	39C1
PRNTLOOP	3782	PRNTMOD1	37AE	PRNTMOD2	37C9	PRNTMOD3	37F1	PRNTMODE	3860
PRNTNBYT	3927	PRNTNDEC	396F	PRNTNIBL	3922	PRNTNUM	3819	PRNTOUT	37F7
PRNTOUT2	37FB	PRNTPTR	00FC	PRNTRTN	384D	PRNTSAV	3818	PRNTSAVA	385C
PRNTSAVX	385A	PRNTSAVY	3858	PRNTSCRN	38CA	PRNTVAL	00FB	PROMPT	0033
PRTERADR	03E8	PRTERORR	19A5	PTRMOD	2489	PUTIERR	2F43	PUTINAME	2E1D
QUESTION	00BF	QUIT	1942	RAM2WP	C080	RAMDSIG	3D8F	RANASIG	3D97
RARROW	0095	RDCLKVSN	03E1	RDDRVLBA	11B2	READBUFR	2D4C	READCF	28D9
READCFG	2914	READCLK	19A1	READDESC	30C3	READID	2D05	READKEY	3553
READLBA	2D3C	READLBA2	2D38	READVSN	199F	RETURN	008D	ROM2WP	C082
ROMBUFR	4500	ROMPTR	00EE	ROMSIG	4500	RSTORLBA	0BC8	RSTRDATA	339C
RSTRFIRM	33D4	RTN01	250E	RTN02	26B9	RTN03	35FF	RTN04	2064
RTN1	311F	RTN3	12D4	RTNCMD	0050	RTNCODE	3F52	RWTSBUFR	4300
RWTSPHAS	3F41	RWTSREAD	0001	RWTSWRIT	0002	SAVA	4002	SAVBTM	4008
SAVCH	4000	SAVCV	4001	SAVECF	3372	SAVEFIRM	09B5	SAVEID	0B1F
SAVELBA	0BA9	SAVNUM	4005	SAVPTR	4006	SAVROMER	4025	SAVTOP	4007
SAVX	4003	SAVY	4004	SCRNCMD	0053	SECMASKH	0010	SECMASKL	000F
SECMOD1	23CA	SECMOD2	23D2	SECTBLH	23EE	SECTBLL	23EC	SECTOR	4017
SECTOR2	4018	SECVAL	3F56	SECVLTBL	3E55	SELBOOT	2428	SELCDISK	26E8
SELCDOSI	0F11	SELCIMAG	2E92	SELCKEY	3575	SELCMEM	231D	SELCNDOS	333A
SELCSEC	23B6	SELCTRK	2368	SELCTYP	23F0	SELECT	34EC	SETCSMSK	C081
SETERROR	198A	SETKBD	FE89	SETPTR	2479	SETVID	FE93	SHOWBMAP	2245
SHOWCF	2A4B	SHOWCNT	4014	SHOWDATA	179F	SHOWDES	1FC4	SHOWDESC	2018
SHOWDOSI	2F49	SHOWDRV	1F82	SHOWDRVL	11F5	SHOWDRVS	1F38	SHOWDVOL	22F5
SHOWIDOS	320E	SHOWIMAG	30A9	SHOWLBA	28AB	SHOWMOD	22D7	SHOWNCAT	2198
SHOWVLBA	3120	SHOWVTOC	19A8	SHOWYREG	2859	SIDERSIG	3D9F	SIGBYTES	3D6F
SIGLEN	0008	SIGNUM	3DEC	SIGNUMLN	0004	SLOT16	3F38	SLOTBUFR	4300
SLOTFND	3F46	SLOTPTR	00EC	SMEMADRH	2365	SMEMADRL	2362	SMEMMOD1	2332
SMEMMOD2	233C	SMEMMOD3	2346	SNUM	3F3C	SPACE	00A0	SPCPAD	0080
SPLITHEX	35EA	STACK	0100	START	0932	STATOKAY	116C	STR1.01	3A05
STR1.02	3A20	STR1.03	3A40	STR1.04	3A5E	STR1.05	3A7C	STR1.06	3A9D
STR1.07	3ABB	STR1.08	3AD5	STR1.09	3AF4	STR1.10	3B0D	STR1.11	3B1D
STR1.12	3B37	STR1.13	3B50	STR1.14	3B73	STR1.15	3B93	STR1.16	3BB5
STR1.17	3BCC	STR1.18	3BDD	STR1.19	3BF7	STR2.01	3C11	STR2.02	3C21
STR2.03	3C3A	STR2.04	3C48	STR2.05	3C57	STR3.01	3C72	STR6.01	3C82
STR6.02	3C9D	STR6.03	3CBA	STR6.04	3CC6	STR6.05	3CDF	STR6.06	3CF9
STR6.07	3D12	SUBCODE	3F49	SUBJCT	3F58	TBLTYPE	3F37	TEMP	4009
TEXTMODE	0000	TEXTPTR	001E	TNUM	3F3B	TOPMEM	3DD4	TRACK	4019
TRKMOD1	237C	TRKMOD2	2384	TRKMOD3	238C	TRKMOD4	2394	TRKTBLH	23B2
TRKTBLL	23AE	TRKVLTLBL	3E51	TX80MODE	0002	TXTCLR	C050	TXTSET	C051
TYPELEN	0004	TYPMOD1	2404	TYPMOD2	240B	TYPTBLH	2426	TYPTBLL	2424
TYPVLTLBL	3E57	UARROW	008B	UNKNOWN	3EA8	UNSETERR	1972	USRBUF	3F3F
VALBUF	3E2A	VALPTR	00CC	VERSION	3E42	VOL	3F3A	VOLBOOT	C030
VOLFND	3F45	VOLSERR	0D93	VOLSIZE	0300	VOLSMENU	170B	VOLSMOD	0D8D
VOLSTBLH	0DA3	VOLSTBLL	0D9C	VOLTITLE	40BE	VOLTYPB	3EB3	VOLTYPD	3EC0
VOLUME	401A	VOLXINC	0003	VOLXTBL	3DF8	VOLYINC	0030	VOLYTLBLH	3E18
VOLYTBLL	3E08	VRSNLEN	000E	VSNBUFR	3E2D	VSNLEN	0014	VTAB	FC22
VTABADRS	380C	VTOCBUFR	4300	VTOCPHAS	4326	VTOCSB	4300	VTOCSEC	0000
VTOCTIME	432A	VTOCTRK	0011	WAIT	2C7D	WAIT001M	0011	WAIT040M	007C
WAIT100M	00C5	WAIT100U	0004	WAIT225U	0007	WBADR	3F54	WNBDM	0023
WNDLFT	0020	WNDTOP	0022	WNDWDTH	0021	WRITBUFR	2D89	WRITCF	292F
WRITCFG	29F1	WRITFM	2A1D	WRITLBA	2D7D	WRITLBA1	2D79	WRITLBA2	2D75

YORN	400A	YORNMOD1	1104	YORNMOD2	110B	YORNTBLH	1127	YORNTBLL	1125
ZERO	0000	ZEROPAD	0040						

## Symbols numerically sorted:

ZERO	0000	VTOCSEC	0000	TEXTMODE	0000	NORMDISP	0000	NOPAD	0000
MAINRAM	0000	LOC0	0000	INITSCRN	0000	GRAPHICS	0000	EOLCLR	0000
DISPLAY	0000	DIRECT	0000	RWTSREAD	0001	INVRDISP	0001	INDIRECT	0001
IMAG33	0001	HOMESCRN	0001	HIGHRAM1	0001	GRPHMODE	0001	EOPCLR	0001
DEBUG	0001	TX80MODE	0002	RWTSWRIT	0002	IMAG41L	0002	IDCYLOFF	0002
HIGHRAM2	0002	VOLXINC	0003	LV80MODE	0003	IMAG41H	0003	WAIT100U	0004
TYPELEN	0004	SIGNUMLN	0004	PARTLEN	0004	NEXTLINE	0004	LBALen	0004
IMAG43H	0004	ERRORNDX	0004	NDOSIZE	0005	IMAG45L	0005	CDMSGLEN	0005
IMAG45H	0006	IDHDSOFF	0006	DOS4BLD	0006	DFLTIMAG	0006	DATELEN	0006
WAIT225U	0007	IMAGUSR1	0007	CHARCELL	0007	SIGLEN	0008	IMAGUSR2	0008
IDFRMLEN	0008	MAXPARTS	0009	INITCMD	000B	IDSPTOFF	000C	VRSNLEN	000E
SECMASKL	000F	PCMDMASK	000F	NIBLMASK	000F	LBAMASK	000F	ENTRLEN	000F
SECMASKH	0010	OFFSET0	0010	WAIT001M	0011	VTOCTRK	0011	FMPLen	0012
VSNLEN	0014	IDSRL0FF	0014	IDSRLLEN	0014	NAMELEN	0018	IMAGSIZE	0018
IDMDLLEN	0018	TEXTPTR	001E	CVMASK	001F	WNDLFT	0020	HIGHLOW	0020
ATA_READ	0020	WNDWDTH	0021	WNDTOP	0022	WNCBTM	0023	CH	0024
CV	0025	MAXWDTH	0028	NDOSLEN	002D	IDFRMOFF	002E	VOLYINC	0030
ATA_WRIT	0030	MAXTRKS	0032	INVFLG	0032	PROMPT	0033	IDMDLOFF	0036
CSWL	0036	ZEROPAD	0040	DOS4VRSN	0045	RTNCMD	0050	MAXCH	0050
MODECMD	0051	DISPCMD	0052	SCRNCMD	0053	CLRCMD	0054	CNTRCMD	0055
BUFRCMD	0056	NIBLCMD	0057	BYT1CMD	0058	BYT2CMD	0059	BYTNCMD	005A
ADRCMD	005B	DEC1CMD	005C	DEC2CMD	005D	DEC3CMD	005E	DECNCMD	005F
MINCV	0060	FLASH	0060	MAXCMD	0061	ASRUN	0076	IDLBAOFF	0078
WAIT040M	007C	INVRMASK	007F	SPCPAD	0080	MSBMASK	0080	ASCIFLAG	0080
CTRLD	0084	BELLCHAR	0087	LARROW	0088	DARROW	008A	UARROW	008B
RETURN	008D	CTRLQ	0091	RARROW	0095	ESCAPE	009B	SPACE	00A0
PERCENT	00A5	MINUS	00AD	PERIOD	00AE	QUESTION	00BF	WAIT100M	00C5
VALPTR	00CC	GENPTR	00CE	DRCATLBA	00D0	ASONERR	00D8	LWRMASK	00DF
LWRCASE	00E0	DRVDSLEN	00E2	SLOTPTR	00EC	ATA_ID	00EC	ROMPTR	00EE
DATAPTR	00FA	PRNTVAL	00FB	PRNTPTR	00FC	BAR	00FC	NEGONE	00FF
DELETE	00FF	STACK	0100	PAGESIZE	0100	OFFSET1	0100	VOLSIZE	0300
DRVSIZE	0300	DOSWARM	03D0	DOSCOLD	03D3	CALLFM	03D6	CALLRWTS	03D9
GETFMCB	03DC	RDCLKVSN	03E1	PRTERADR	03E8	HOOKDOS	03EA	LINE23	07D0
PAGE08	0800	PAGE09	0900	START	0932	MAIN	093D	MAINMOD	0964
MAINTBLL	0967	MAINTBLH	096C	MNGFIRM	0971	FIRMMOD	099C	FIRMERR	09A2
FIRMTBLL	09AB	FIRMTBLH	09B0	SAVEFIRM	09B5	LOADFIRM	09CE	LOADDOS	09FF
MNGCFFA	0A5C	CFFAMOD	0A8C	CFFAERR	0A92	CFFATBLL	0A9B	CFFATBLH	0AA1
DSPCFMEM	0AA7	DISPID	0B08	SAVEID	0B1F	SAVELBA	0BA9	RSTORLBA	0BC8
CLRLBA	0BE7	BCS01	0C4D	CHKHEX	0C92	MNGDRVS	0CA5	DRVSMOD	0CD5
DRVSERR	0CDB	DRVSTBLL	0CE4	DRVSTBLH	0CE7	DISPDRVS	0CEA	DSRPDRVS	0D32
MODDRVS	0D49	MNGVOLS	0D5D	VOLSMOD	0D8D	VOLSERR	0D93	VOLSTBLL	0D9C
VOLSTBLH	0DA3	DISPVOLS	0DAA	DISPVDOS	0DBE	DISPVTOC	0DD2	DISPBMAP	0DEB
INITVOL	0E04	BOOTVOL	0E1D	MNGDOSI	0EBC	DOSIMOD	0EE7	DOSIERR	0EED
DOSITBLL	0EF6	DOSITBLH	0EFA	DISPDOSI	0EFE	SELCDOSI	0F11	CHKIMAGE	0F86
FINDCF	0FBE	FINDISK	101A	CHKSLOT	1060	GETDRIVE	1082	GETVOLUM	10BD
GETYORN	10F0	YORNMOD1	1104	YORNMOD2	110B	YORNTBLL	1125	YORNTBLH	1127
OPTION	1129	GETLBA	1142	GETLBA2	1160	STATOKAY	116C	DISKERR	1195
RDDRVLBA	11B2	SHOWDRVL	11F5	CLRIMBUF	122A	INITCFVL	1242	RTN3	12D4
BANNER	13CD	MAINMENU	15D4	FIRMMENU	1646	CFFAMENU	168B	DRVSMENU	16DA
VOLSMENU	170B	DOSIMENU	1764	SHOWDATA	179F	NOCFFA	1823	NODISK	1826
QUIT	1942	GETROMER	195A	UNSETERR	1972	SETERROR	198A	READVSN	199F
READCLK	19A1	PRTERORR	19A5	SHOWVTOC	19A8	DOSAVFRM	1C1F	DOLDFRM	1CC1
DOLDLBA	1D6B	DOSAVLBA	1E27	DOCLRLBA	1EBB	SHOWDRVS	1F38	SHOWDRV	1F82
SHOWDES	1FC4	SHOWDESC	2018	RTN04	2064	GETDRNFO	2065	GETDRVDS	212D
CLEARLBA	218D	SHOWNCAT	2198	INITVTOC	2221	SHOWBMAP	2245	SHOWMOD	22D7

SHOWDVOL	22F5	SELCMEM	231D	SMEMMOD1	2332	SMEMMOD2	233C	SMEMMOD3	2346
SMEMADRL	2362	SMEMADRH	2365	SELCTRK	2368	TRKMOD1	237C	TRKMOD2	2384
TRKMOD3	238C	TRKMOD4	2394	TRKTBLL	23AE	TRKTBLLH	23B2	SELCCSEC	23B6
SECMOD1	23CA	SECMOD2	23D2	SECTBLL	23EC	SECTBLH	23EE	SELCTYP	23F0
TYPMOD1	2404	TYPMOD2	240B	TYPTBLL	2424	TYPTBLH	2426	SELBOOT	2428
BOOTMOD1	243C	BOOTMOD2	244B	BOOTMOD3	2457	BOOTTBLL	2473	BOOTTBLLH	2476
SETPTR	2479	CLRPTR	2487	PTRMOD	2489	CHKWPCF	248D	CHKFWCF	24EA
RTN01	250E	EXTRDATA	2515	EXTRAD	25AF	MODROM	2621	RTN02	26B9
SELCDISK	26E8	DRVMOD1	276C	DRVMOD2	2773	GETVRSN	2797	GETTEXTC	27BB
GETTEXT	27BC	SHOWYREG	2859	PADBUFR	2893	SHOWLBA	28AB	READCF	28D9
READCFG	2914	WRITCF	292F	DERROR	29BD	WRITCFG	29F1	WRITFM	2A1D
SHOWCF	2A4B	CFBUSY	2C38	CFREADY	2C4E	CFSTATUS	2C6D	WAIT	2C7D
CFWAIT	2C86	CFCHECK	2C92	LOADLBA	2C9B	LOADCMD	2CC5	CFRESET	2CDF
DOATARST	2CF1	READID	2D05	READLBA2	2D38	READLBA	2D3C	READBUFR	2D4C
WRITLBA2	2D75	WRITLBA1	2D79	WRITLBA	2D7D	WRITBUFR	2D89	LISTIMGs	2DB9
DOLDDOS	2DDC	PUTINAME	2E1D	GETIMAGE	2E61	SELCIMAG	2E92	PUTIERR	2F43
SHOWDOSI	2F49	GETDOSI	2FAC	SHOWIMAG	30A9	READDESC	30C3	CLRDESC	30FA
DISPVLBA	3107	RTN1	311F	SHOWVLBA	3120	SHOWIDOS	320E	SELCNDOS	333A
SAVECF	3372	RSTRDATA	339C	RSTRFIRM	33D4	GETHEX2	340F	GETHEX4	3412
GETHEX6	3415	GETHEX8	3418	GETDEC1	341D	GETDEC2	3420	GETDEC3	3423
GETDEC5	3426	NUMLOOP	3437	NUMPROC	3491	HEXPROC	3494	DECPROC	34C3
SELECT	34EC	PRESKEYC	3519	PRESKEYS	351B	PRESKEYA	351C	PRESKEY2	3522
PRESKEY	352A	GETKEY	353F	READKEY	3553	PRNTCHAR	3569	SELCKEY	3575
GETVTOC2	358B	GETVTOC	358E	SPLITHEX	35EA	ASCIHEX	35F4	RTN03	35FF
DVTS2LBA	3600	DOHOOKON	3695	HOKONRTN	36C4	HOOKERR	36C5	DOHOOKOF	36E6
HOKOFRTN	3710	DOHOOK	3711	DOUHOOK	3714	GETDISKC	3717	GETDISKS	3719
HEX2DEC	371D	PRNTBUFT	3740	PRNTBUFH	374C	PRNTBUF	3755	BUFRMOD	375A
PRINTIME	375E	PRINT	3773	PRNTLOOP	3782	PRNTMOD1	37AE	PRNTMOD2	37C9
PRNTBR1	37CB	PRNTBR2	37D5	PRNTBR3	37DB	PRNTBR4	37E0	PRNTBR5	37E5
PRNTBR6	37EE	PRNTMOD3	37F1	PRNTOUT	37F7	OUTMOD1	37F7	OUTMOD2	37F9
PRNTOUT2	37FB	OUTTBL1	37FE	OUTTBL2	3804	OUT80COL	380A	VTABADRS	380C
OUTADRS	3812	PRNTSAV	3818	PRNTNUM	3819	MODEVAL	381B	FRMTVAL	381C
PRNTBL	381D	PRNTBLL	382D	PRNTBLH	383D	PRNTRTN	384D	PRNTSAVY	3858
PRNTSAVX	385A	PRNTSAVA	385C	PRINTRTN	385F	PRNTMODE	3860	PRNTDISP	38AB
PRNTSCRN	38CA	PRNTCLR	38DA	PRNTCNTR	38E4	PRNTBUFR	3906	PRNTBFR	3915
PRNTNIBL	3922	PRNTNBYT	3927	PRNT1BYT	392B	PRNT2BYT	392E	PRNTBYT	3930
PRNTADR	393A	PRNT1DEC	3952	PRNT2DEC	3958	PRNTDEC	395B	PRNT3DEC	3965
PRNTNDEC	396F	PRNTBYTE	39B6	PRNTHEx	39BF	PRNTHEx2	39C1	HEXTODEC	39CC
GETDIGIT	39E6	STR1.01	3A05	PRNTGRPH	3A05	STR1.02	3A20	STR1.03	3A40
STR1.04	3A5E	STR1.05	3A7C	STR1.06	3A9D	STR1.07	3ABB	STR1.08	3AD5
STR1.09	3AF4	STR1.10	3B0D	STR1.11	3B1D	STR1.12	3B37	STR1.13	3B50
STR1.14	3B73	STR1.15	3B93	STR1.16	3BB5	STR1.17	3BCC	STR1.18	3BDD
STR1.19	3BF7	STR2.01	3C11	STR2.02	3C21	STR2.03	3C3A	STR2.04	3C48
STR2.05	3C57	STR3.01	3C72	STR6.01	3C82	STR6.02	3C9D	STR6.03	3CBA
MOD6.03	3CC4	STR6.04	3CC6	STR6.05	3CDF	STR6.06	3CF9	STR6.07	3D12
MESG1	3D2F	MESG2	3D46	MESG3	3D5B	SIGBYTES	3D6F	ORIGSIG1	3D6F
ORIGSIG2	3D77	CFFASIG	3D7F	DISKSIG	3D87	RAMDSIG	3D8F	RANASIG	3D97
SIDERSIG	3D9F	NDOSTBL	3DA7	TOPMEM	3DD4	CFSIZE	3DDA	CFDRIVES	3DE0
EXTRVOLS	3DE6	SIGNUM	3DEC	IMAGLBA	3DF0	VOLXTBL	3DF8	DRVXTBL	3DF8
VOLYTBLL	3E08	DRVYTBLL	3E08	VOLYTBLLH	3E18	CFBOOT	3E28	VALBUF	3E2A
VSNBUFR	3E2D	VERSION	3E42	TRKVLTLB	3E51	SECVLTBL	3E55	TYPVLTBL	3E57
BOOTVTBL	3E59	DATIMSEP	3E5C	DECTBLL	3E62	DECTBLH	3E67	CHARBUFR	3E6C
NAMEBUFR	3E6E	CFFAMSG	3E87	DISKMSG	3E8C	DOSRAMH	3E91	DOSRAML	3E9D
UNKNOWN	3EA8	VOLTYPB	3EB3	VOLTYPD	3EC0	ALLDIRN	3ECD	ALLDIRP	3ED9
LOCKL	3EE5	LOCKU	3EEF	DOSIMAGE	3EFB	DOSINAME	3EFC	DOSIMTBL	3EFE
DOSIMAG1	3F0E	DOSIMAG2	3F12	DOSIMAG3	3F17	DOSIMAG4	3F1C	DOSIMAG5	3F21
DOSIMAG6	3F26	DOSIMAG7	3F2B	DOSIMAG8	3F31	TBLTYPE	3F37	SLOT16	3F38
DRV	3F39	VOL	3F3A	TNUM	3F3B	SNUM	3F3C	DCTADR	3F3D
USRBUF	3F3F	RWTSPHAS	3F41	BYTCNT	3F42	CMDCODE	3F43	ERRCODE	3F44
VOLFND	3F45	SLOTFND	3F46	DRVFND	3F47	OPCODE	3F48	FMVALS	3F48
SUBCODE	3F49	FN2ADR	3F4A	FMVOLUME	3F4C	FMDRIVE	3F4D	FMSLOT	3F4E

FMFTYPE	3F4F	FNADR	3F50	RTNCODE	3F52	FMPHASE	3F53	WBADR	3F54
SECVAL	3F56	ENDTRK	3F57	SUBJCT	3F58	SAVCH	4000	DATABUFR	4000
SAVCV	4001	SAVA	4002	SAVX	4003	SAVY	4004	SAVNUM	4005
SAVPTR	4006	SAVTOP	4007	SAVBTM	4008	TEMP	4009	YORN	400A
PAGE	400B	FLAG	400C	CFFAKEY	400D	NSIZE	400E	NDRV	400F
NDRVS	4010	NVOLMAX	4011	NVOL	4012	NVOLS	4013	SHOWCNT	4014
LINECNT	4015	PAGECNT	4016	SECTOR	4017	SECTOR2	4018	TRACK	4019
VOLUME	401A	DRIVE	401B	DRIVE2	401C	CFSLOT	401D	DISKSLOT	401E
DISKDRV	401F	CFSLOT16	4020	DSKSLT16	4021	CFPAGE	4022	DISKPAGE	4023
CFINDEX	4024	SAVRIMER	4025	NNUMS	4027	NENTRY	4028	NUMVALS	4029
HEXVALS	4031	DECVALS	4035	IDCYLNUM	4037	IDHDSNUM	4039	IDSPTNUM	403B
IDLBANUM	403D	LBA	4041	LASTLBA	4045	LASTVOL	4049	FRSTFREE	404D
LASTFREE	4051	CDMESG	4055	INSRLBUF	405A	IDSRLBUF	406E	IDFRMBUF	4083
IDMDLBUF	408C	CFOLDNAM	40A5	VOLTITLE	40BE	BOOTFILE	40D7	FMDATE	40F0
DESCBUFR	4100	VTOCSB	4300	VTOCBUFR	4300	SLOTBUFR	4300	RWTSBUFR	4300
LBABUFR	4300	IDBUFR	4300	DRVNAME	4300	DRVBUFFR	4300	DOSBUFR	4300
BUFFERS	4300	FRSTTRK	4301	FRSTSEC	4302	DOSVRSN	4303	DOSBUILD	4304
DOSRAM	4305	DISKVOL	4306	DISKTYPE	4307	DISKNAME	4308	DRVDATE	4318
DRVDESC	431E	INITIME	4320	VTOCPHAS	4326	NUMTSENT	4327	DISKSUBJ	4328
VTOCTIME	432A	NXTTOALC	4330	ALLCDIR	4331	DOSCONFIG	4332	DISKLOCK	4333
NUMTRKS	4334	NUMSECS	4335	BYTPRSEC	4336	BITMAP	4338	ROMSIG	4500
ROMBUFR	4500	CFSRLBUF	4504	CFNAME	4518	CFDATE	4530	CFLBANUM	4536
CFMAXDRV	453A	CFREMOVOL	453B	DFLTBOOT	453C	BLDVRSN	BFF0	BLDNMBR	BFF1
MNGDISK	BFF2	INITVAL	BFFA	PAGEC0	C000	KEY	C000	CLRKEY	C010
CFHOOK	C010	CFUHOOK	C018	VOLBOOT	C030	CFRWTS	C04B	TXTCLR	C050
TXTSET	C051	MIXCLR	C052	LOWSCR	C054	HIRES	C057	RAM2WP	C080
ATADATAH	C080	SETCSMSK	C081	ROM2WP	C082	CLRCMSK	C082	ATASTAT2	C086
ATADEVCT	C086	ATADATAL	C088	ATAERROR	C089	ATASECCT	C08A	ATASECTR	C08B
ATACYLNL	C08C	ATACYLNH	C08D	ATAHEAD	C08E	ATASTAT	C08F	ATACMD	C08F
PAGEC8	C800	CLRROM	CFFF	PRBL2	F94A	INIT	FB2F	VTAB	FC22
CLREOP	FC42	HOME	FC58	CLREOL	FC9C	CROUT	FD8E	PRBYTE	FDDA
PRHEX	FDE3	COUT	FDED	SETKBD	FE89	SETVID	FE93	OUTPORT	FE95
BELL	FF3A	MONITOR	FF65						