**Acorn DFS 0.9 – Disassembly & New Instructions**
http://mmbeeb.mysite.wanadoo-members.co.uk/

New Instructions

Unless a new instruction is stated, locations with "Zero" flagged are changed to zero.

New instructions:

     NOP
     JMP
     JSR
     RTS

     BRX – Change branch address
     TGO – Modify address in table
     BYT – Change byte

The "Tube Code" (783 bytes copied from the DNFS ROM) is inserted at location &8AC2.

New instructions with labels beginning with "mmc" are calls to the new code located at &A000 onwards.  This code (written in BBC Basic Assembler) can be found on the DFS_4.ssd disk image.

# Acorn DFS 0.9 - Disassembly & new instructions (version of 18 October 2006)

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| .languageentry | 8000 | 00 00 00 ... | ☐ | | |
| .serviceentry | 8003 | 4C 55 94 JMP SERVICE_claim_absworkspace | ☐ | | |
| .romtype | 8006 | 82 , | ☐ | | |
| .copyrightoffset | 8007 | 11 . | ☐ | | |
| .binaryversionno | 8008 | 5A Z | ☐ | | |
| .title | 8009 | 44 46 53 00 30 2E 39 30 DFS.0.90 | ☐ | | |
| .copyright | 8011 | 00 28 43 29 .(C) | ☐ | | |
| .Go_FSCV | 8015 | 6C 1E 02 JMP (FSCV) | ☐ | | |
| .errDISK | 8018 | 20 5B 80 JSR Brk100_noerrno (term.=0 causes BRK) | ☐ | | |
| | 801B | 44 69 73 6B 20 Disk | ☐ | | |
| | 8020 | 90 11 BCC Brk100_erno (term.=0 causes BRK) | ☐ | | |
| .errBAD | 8022 | 20 5B 80 JSR Brk100_noerrno (term.=0 causes BRK) | ☐ | | |
| | 8025 | 42 61 64 20 Bad | ☐ | | |
| | 8029 | 90 08 BCC Brk100_erno (term.=0 causes BRK) | ☐ | | |
| .errFILE | 802B | 20 5B 80 JSR Brk100_noerrno (term.=0 causes BRK) | ☐ | | |
| | 802E | 46 69 6C 65 20 File | ☐ | | |
| Brk100_erno (term.=0 causes BRK) | 8033 | 85 B3 STA &B3 | ☐ | | save A |
| | 8035 | 68 PLA | ☐ | | pull addr and store at AE |
| | 8036 | 85 AE STA &AE | ☐ | | first byte=addr+1 |
| | 8038 | 68 PLA | ☐ | | |
| | 8039 | 85 AF STA &AF | ☐ | | |
| | 803B | A5 B3 LDA &B3 | ☐ | | restore A |
| | 803D | 48 PHA | ☐ | | save A & Y |
| | 803E | 98 TYA | ☐ | | |
| | 803F | 48 PHA | ☐ | | |
| | 8040 | A0 00 LDY #&00 | ☐ | | |
| | 8042 | 20 DA 83 JSR inc_word_AE | ☐ | | |
| | 8045 | B1 AE LDA (&AE),Y | ☐ | | first byte |
| | 8047 | 8D 01 01 STA &0101 | ☐ | | error number |
| | 804A | 2C DE 10 BIT &10DE | ☐ | | is counter already set?? |
| | 804D | 10 25 BPL .prtstr_loop | ☐ | | if ?10DE<&80 |
| | 804F | A9 02 LDA #&02 | ☐ | | set counter |
| | 8051 | 8D DE 10 STA &10DE | ☐ | | |
| | 8054 | A9 00 LDA #&00 | ☐ | | ?&100 = BRK |
| | 8056 | 8D 00 01 STA &0100 | ☐ | | |
| | 8059 | F0 19 BEQ .prtstr_loop | ☐ | | always go 8074 |
| Brk100_noerrno (term.=0 causes BRK) | 805B | A9 02 LDA #&02 | ☐ | | |
| | 805D | 8D DE 10 STA &10DE | ☐ | | add100 counter |
| | 8060 | A9 00 LDA #&00 | ☐ | | |
| | 8062 | 8D 00 01 STA &0100 | ☐ | | ?&100=BRK |
| prtstr (if term.=0,BRK 100,no return) | 8065 | 85 B3 STA &B3 | ☐ | | save A |
| | 8067 | 68 PLA | ☐ | | pull "return address" |
| | 8068 | 85 AE STA &AE | ☐ | | store at AE |
| | 806A | 68 PLA | ☐ | | |
| | 806B | 85 AF STA &AF | ☐ | | |
| | 806D | A5 B3 LDA &B3 | ☐ | | |
| | 806F | 48 PHA | ☐ | | save A & Y |
| | 8070 | 98 TYA | ☐ | | |
| | 8071 | 48 PHA | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8072 | A0 00 | LDY #&00 | ☐ | | |
| .prtstr_loop | 8074 | 20 DA 83 | JSR inc_word_AE | ☐ | | 1st:return addr + 1 = start |
| | 8077 | B1 AE | LDA (&AE),Y | ☐ | | |
| | 8079 | 30 08 | BMI .prtstr_return | ☐ | | if >=&80 |
| | 807B | F0 0D | BEQ prtstr_BRK | ☐ | | if =0 |
| | 807D | 20 9C 80 | JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 8080 | 4C 74 80 | JMP .prtstr_loop | ☐ | | loop |
| .prtstr_return | 8083 | 68 | PLA | ☐ | | return to code after string |
| | 8084 | A8 | TAY | ☐ | | |
| | 8085 | 68 | PLA | ☐ | | |
| | 8086 | 18 | CLC | ☐ | | C=0 |
| | 8087 | 6C AE 00 | JMP (&00AE) | ☐ | | A,X & Y as on entry to prtstr |
| prtstr_BRK | 808A | A9 00 | LDA #&00 | ☐ | | terminate string with 0 |
| | 808C | AE DE 10 | LDX &10DE | ☐ | | |
| | 808F | 9D 00 01 | STA &0100,X | ☐ | | |
| | 8092 | A9 FF | LDA #&FF | ☐ | | reset 10DE pointer |
| | 8094 | 8D DE 10 | STA &10DE | ☐ | | |
| | 8097 | 4C 00 01 | JMP &0100 | ☐ | | |
| prtfullstop | 809A | A9 2E | LDA #&2E | ☐ | | Full stop! |
| prtchr/add100(10DE) A=Chr | 809C | 20 E1 83 | JSR rememberAXY | ☐ | | if ?&10DE<&80 then add100 |
| | 809F | 2C DE 10 | BIT &10DE | ☐ | | |
| | 80A2 | 10 14 | BPL prtchr_add100 | ☐ | | |
| | 80A4 | 48 | PHA | ☐ | | save A |
| | 80A5 | 20 1C 99 | JSR osbyteEC chrdest&YxX | ☐ | | |
| | 80A8 | 8A | TXA | ☐ | | X=old value chr dest |
| | 80A9 | 48 | PHA | ☐ | | save X |
| | 80AA | 09 10 | ORA #&10 | ☐ | | disable spooled output |
| | 80AC | 20 17 99 | JSR osbyte03 A=outstream | ☐ | | |
| | 80AF | 68 | PLA | ☐ | | restore X(oldchrdest) & A |
| | 80B0 | AA | TAX | ☐ | | |
| | 80B1 | 68 | PLA | ☐ | | |
| | 80B2 | 20 E3 FF | JSR OSASCI | ☐ | | print 'A' 0D=new line |
| | 80B5 | 4C 18 99 | JMP osbyte03 X=outstream | ☐ | | |
| prtchr_add100 | 80B8 | AE DE 10 | LDX &10DE | ☐ | | add chr at 100+?&10DE |
| | 80BB | 9D 00 01 | STA &0100,X | ☐ | | |
| | 80BE | EE DE 10 | INC &10DE | ☐ | | inc ?&10DE |
| | 80C1 | 60 | RTS | ☐ | | end |
| prthex(A) A preserved | 80C2 | 48 | PHA | ☐ | | |
| | 80C3 | 20 05 82 | JSR .A>>4 | ☐ | | |
| | 80C6 | 20 CA 80 | JSR prthexLoNib (A low nibble) A preserved | ☐ | | |
| | 80C9 | 68 | PLA | ☐ | | |
| prthexLoNib (A low nibble) A preserved | 80CA | 48 | PHA | ☐ | | |
| | 80CB | 29 0F | AND #&0F | ☐ | | |
| | 80CD | C9 0A | CMP #&0A | ☐ | | A>=&A |
| | 80CF | 90 02 | BCC &80D3 | ☐ | | |
| | 80D1 | 69 06 | ADC #&06 | ☐ | | yes A=A+6 |
| | 80D3 | 69 30 | ADC #&30 | ☐ | | A=A+30 |
| | 80D5 | 20 9C 80 | JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 80D8 | 68 | PLA | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 80D9 | 60 | RTS | ☐ | | |
| copyvars((B0),Y to BC+X & (B0),Y+2 to 1072+X) | 80DA | 20 EA 80 | JSR copyword((B0),Y to BC,X) | ☐ | | private+Y -> BC+X |
| | 80DD | CA | DEX | ☐ | | private+Y+2->1072+X |
| | 80DE | CA | DEX | ☐ | | |
| | 80DF | 20 E2 80 | JSR copybyte((B0),Y to 1072+X) | ☐ | | |
| copybyte((B0),Y to 1072+X) | 80E2 | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 80E4 | 9D 72 10 | STA &1072,X | ☐ | | ??10 |
| | 80E7 | E8 | INX | ☐ | | |
| | 80E8 | C8 | INY | ☐ | | |
| | 80E9 | 60 | RTS | ☐ | | |
| copyword((B0),Y to BC,X) | 80EA | 20 ED 80 | JSR copybyte((B0),Y to BC,X) | ☐ | | |
| copybyte((B0),Y to BC,X) | 80ED | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 80EF | 95 BC | STA TextPointer_dfs,X | ☐ | | |
| | 80F1 | E8 | INX | ☐ | | |
| | 80F2 | C8 | INY | ☐ | | |
| | 80F3 | 60 | RTS | ☐ | | |
| clear_(a)fsp | 80F4 | A9 20 | LDA #&20 | ☐ | | |
| | 80F6 | A2 06 | LDX #&06 | ☐ | | |
| .clear_(a)fsp_loop | 80F8 | 95 C7 | STA FilenameParam,X | ☐ | | |
| | 80FA | CA | DEX | ☐ | | |
| | 80FB | 10 FB | BPL .clear_(a)fsp_loop | ☐ | | |
| .clear_(a)fsp_exit | 80FD | 60 | RTS | ☐ | | N set on exit |
| read_(a)fsp@TextPointer (ret.Y=Tpoffset nonblank) | 80FE | 20 4D 83 | JSR setCECF_driveno | ☐ | | |
| | 8101 | 20 F4 80 | JSR clear_(a)fsp | ☐ | | |
| | 8104 | 30 13 | BMI .read_(a)fsp_cont | ☐ | | always |
| read_(a)fsp@(&BC) (ret.Y=Tpoffset nonblank) | 8106 | 20 4D 83 | JSR setCECF_driveno | ☐ | | |
| .clear(a)fsp&restoreTextPtr | 8109 | 20 F4 80 | JSR clear_(a)fsp | ☐ | | |
| | 810C | A5 BC | LDA TextPointer_dfs | ☐ | | |
| | 810E | 85 F2 | STA TextPointer | ☐ | | |
| | 8110 | A5 BD | LDA &BD | ☐ | | |
| | 8112 | 85 F3 | STA TextPointerHi | ☐ | | |
| | 8114 | A0 00 | LDY #&00 | ☐ | | |
| | 8116 | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| .read_(a)fsp_cont | 8119 | A2 01 | LDX #&01 | ☐ | | |
| .read_(a)fsp_next | 811B | 20 C5 FF | JSR GSREAD | ☐ | | get C |
| | 811E | B0 DD | BCS .clear_(a)fsp_exit | ☐ | | end of string |
| | 8120 | 85 C7 | STA FilenameParam | ☐ | | first chr |
| | 8122 | C9 2E | CMP #&2E | ☐ | | ignore leading …'s |
| | 8124 | D0 04 | BNE .read_(a)fsp_not"." | ☐ | | C="." |
| | 8126 | A9 20 | LDA #&20 | ☐ | | |
| | 8128 | D0 4D | BNE .read_(a)fsp_cont3 | ☐ | | always |
| .read_(a)fsp_not"." | 812A | C9 3A | CMP #&3A | ☐ | | C=":" |
| | 812C | D0 21 | BNE .read_(a)fsp_not":" | ☐ | | no, else read drive no |
| | 812E | 20 C5 FF | JSR GSREAD | ☐ | | get next C |
| | 8131 | B0 15 | BCS .read_(a)fsp_baddrive | ☐ | | end of string = Bad drive |
| | 8133 | 38 | SEC | ☐ | | read drive no |
| | 8134 | E9 30 | SBC #&30 | ☐ | | N=val(C) |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8136 | 90 10 | BCC .read_(a)fsp_baddrive | ☐ | | C<"0" |
| | 8138 | C9 04 | CMP #&04 | ☐ | | |
| | 813A | B0 0C | BCS .read_(a)fsp_baddrive | ☐ | | C>="4" |
| | 813C | 20 7E 87 | JSR SetCurrentDrive | ☐ | | |
| | 813F | 20 C5 FF | JSR GSREAD | ☐ | | get next C |
| | 8142 | B0 5C | BCS .read_(a)fsp_exit | ☐ | | end of string - exit routine |
| | 8144 | C9 2E | CMP #&2E | ☐ | | C=".", err if not |
| | 8146 | F0 03 | BEQ .read_(a)fsp_":X." | ☐ | | |
| .read_(a)fsp_baddrive | 8148 | 4C 74 83 | JMP errBADDRIVE | ☐ | | Bad Drive error |
| .read_(a)fsp_":X." | 814B | A9 24 | LDA #&24 | ☐ | | |
| | 814D | D0 28 | BNE .read_(a)fsp_cont3 | ☐ | | always |
| .read_(a)fsp_not":" | 814F | C9 2A | CMP #&2A | ☐ | | C="*" |
| | 8151 | D0 19 | BNE .read_(a)fsp_not*2 | ☐ | | |
| | 8153 | 20 C5 FF | JSR GSREAD | ☐ | | get next C |
| | 8156 | B0 08 | BCS .read_(a)fsp_# | ☐ | | end of string |
| | 8158 | C9 2E | CMP #&2E | ☐ | | C="." |
| | 815A | D0 32 | BNE .errBADFILENAME | ☐ | | |
| | 815C | A9 23 | LDA #&23 | ☐ | | |
| | 815E | D0 17 | BNE .read_(a)fsp_cont3 | ☐ | | |
| .read_(a)fsp_# | 8160 | A2 00 | LDX #&00 | ☐ | | C7-CD="#" |
| .read_(a)fsp_endofstr | 8162 | A9 23 | LDA #&23 | ☐ | | "#" |
| .read_(a)fsp_#loop | 8164 | 95 C7 | STA FilenameParam,X | ☐ | | if *.* then C7-CD="#######" |
| .read_(a)fsp_not*1 | 8166 | E8 | INX | ☐ | | |
| | 8167 | E0 07 | CPX #&07 | ☐ | | |
| | 8169 | D0 F9 | BNE .read_(a)fsp_#loop | ☐ | | |
| | 816B | 60 | RTS | ☐ | | |
| .read_(a)fsp_not*2 | 816C | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 816F | B0 2F | BCS .read_(a)fsp_exit | ☐ | | end of string |
| | 8171 | C9 2E | CMP #&2E | ☐ | | C="." |
| | 8173 | D0 10 | BNE .read_(a)fsp_not"."2 | ☐ | | |
| | 8175 | A5 C7 | LDA FilenameParam | ☐ | | |
| .read_(a)fsp_cont3 | 8177 | 85 CE | STA DirectoryParam | ☐ | | |
| | 8179 | 4C 1B 81 | JMP .read_(a)fsp_next | ☐ | | |
| .read_(a)fsp_nextchr | 817C | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 817F | B0 1F | BCS .read_(a)fsp_exit | ☐ | | |
| | 8181 | E0 07 | CPX #&07 | ☐ | | |
| | 8183 | F0 09 | BEQ .errBADFILENAME | ☐ | | |
| .read_(a)fsp_not"."2 | 8185 | C9 2A | CMP #&2A | ☐ | | C="*" |
| | 8187 | D0 12 | BNE .read_(a)fsp_not*3 | ☐ | | |
| | 8189 | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 818C | B0 D4 | BCS .read_(a)fsp_endofstr | ☐ | | end of string |
| .errBADFILENAME | 818E | 20 22 80 | JSR .errBAD | ☐ | | "Bad Filename" error |
| | 8191 | CC 66 69 6C 65 6E 61 6D | Ìfilenam | ☐ | | |
| | 8199 | 65 00 | e. | ☐ | | |
| .read_(a)fsp_not*3 | 819B | 95 C7 | STA FilenameParam,X | ☐ | | |
| | 819D | E8 | INX | ☐ | | |
| | 819E | D0 DC | BNE .read_(a)fsp_nextchr | ☐ | | |
| .read_(a)fsp_exit | 81A0 | 60 | RTS | ☐ | | |
| checkforDiskChange | 81A1 | 20 E1 83 | JSR rememberAXY | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 81A4  AD 04 0F  LDA &0F04 | ☐ | | Cycle No |
| | 81A7  20 47 83  JSR LoadCurDrvCat (preserve AXY) | ☐ | | |
| | 81AA  CD 04 0F  CMP &0F04 | ☐ | | |
| | 81AD  F0 F1  BEQ .read_(a)fsp_exit | ☐ | | |
| .errDISKCHANGED | 81AF  20 33 80  JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |
| | 81B2  C8 44 69 73 6B 20 63 68  ÈDisk ch | ☐ | | |
| | 81BA  61 6E 67 65 64 00  anged. | ☐ | | |
| prt_filename(Y=offset) | 81C0  20 E1 83  JSR rememberAXY | ☐ | | |
| | 81C3  B9 0F 0E  LDA &0E0F,Y | ☐ | | |
| | 81C6  08  PHP | ☐ | | |
| | 81C7  29 7F  AND #&7F | ☐ | | directory |
| | 81C9  D0 05  BNE .prt_filename_prtchr | ☐ | | |
| | 81CB  20 CB 9F  JSR print2spc/add100-2spc | ☐ | | if no dir. print " " |
| | 81CE  F0 06  BEQ .prt_filename_nodir | ☐ | | always? |
| .prt_filename_prtchr | 81D0  20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | print dir |
| | 81D3  20 9A 80  JSR prtfullstop | ☐ | | print "." |
| .prt_filename_nodir | 81D6  A2 06  LDX #&06 | ☐ | | print filename |
| .prt_filename_loop | 81D8  B9 08 0E  LDA &0E08,Y | ☐ | | |
| | 81DB  29 7F  AND #&7F | ☐ | | |
| | 81DD  20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 81E0  C8  INY | ☐ | | |
| | 81E1  CA  DEX | ☐ | | |
| | 81E2  10 F4  BPL .prt_filename_loop | ☐ | | |
| | 81E4  20 CB 9F  JSR print2spc/add100-2spc | ☐ | | print " " |
| | 81E7  A9 20  LDA #&20 | ☐ | | " " |
| | 81E9  28  PLP | ☐ | | |
| | 81EA  10 02  BPL .prt_filename_notlocked | ☐ | | N=Locked! |
| | 81EC  A9 4C  LDA #&4C | ☐ | | "L" |
| .prt_filename_notlocked | 81EE  20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | print "L" or " " |
| | 81F1  4C CE 9F  JMP prtspc/add100-spc | ☐ | | print " " |
| prt_Yspaces | 81F4  20 CE 9F  JSR prtspc/add100-spc | ☐ | | |
| | 81F7  88  DEY | ☐ | | |
| | 81F8  D0 FA  BNE prt_Yspaces | ☐ | | |
| | 81FA  60  RTS | ☐ | | |
| .A>>6 and 3 | 81FB  4A  LSR | ☐ | | |
| .A>>5 and 3 | 81FC  4A  LSR | ☐ | | |
| .A>>4 and 3 | 81FD  4A  LSR | ☐ | | |
| .A>>3 and 3 | 81FE  4A  LSR | ☐ | | |
| .A>>2 and 3 | 81FF  4A  LSR | ☐ | | |
| .A>>1 and 3 | 8200  4A  LSR | ☐ | | |
| | 8201  29 03  AND #&03 | ☐ | | |
| | 8203  60  RTS | ☐ | | |
| .A>>5 | 8204  4A  LSR | ☐ | | |
| .A>>4 | 8205  4A  LSR | ☐ | | |
| .A>>3 | 8206  4A  LSR | ☐ | | |
| .A>>2 | 8207  4A  LSR | ☐ | | |
| | 8208  4A  LSR | ☐ | | |
| | 8209  60  RTS | ☐ | | |
| .A<<5 | 820A  0A  ASL | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| .A<<4 | 820B | 0A | ASL | ☐ | | |
| .A<<3 | 820C | 0A | ASL | ☐ | | |
| .A<<2 | 820D | 0A | ASL | ☐ | | |
| | 820E | 0A | ASL | ☐ | | |
| | 820F | 60 | RTS | ☐ | | |
| .Y=Y+8 | 8210 | C8 | INY | ☐ | | |
| .Y=Y+7 | 8211 | C8 | INY | ☐ | | |
| .Y=Y+6 | 8212 | C8 | INY | ☐ | | |
| .Y=Y+5 | 8213 | C8 | INY | ☐ | | |
| .Y=Y+4 | 8214 | C8 | INY | ☐ | | |
| .Y=Y+2 | 8215 | C8 | INY | ☐ | | |
| | 8216 | C8 | INY | ☐ | | |
| | 8217 | C8 | INY | ☐ | | |
| | 8218 | 60 | RTS | ☐ | | |
| .Y=Y-8 | 8219 | 88 | DEY | ☐ | | |
| .Y=Y-7 | 821A | 88 | DEY | ☐ | | |
| .Y=Y-6 | 821B | 88 | DEY | ☐ | | |
| .Y=Y-5 | 821C | 88 | DEY | ☐ | | |
| .Y=Y-4 | 821D | 88 | DEY | ☐ | | |
| .Y=Y-3 | 821E | 88 | DEY | ☐ | | |
| .Y=Y-2 | 821F | 88 | DEY | ☐ | | |
| | 8220 | 88 | DEY | ☐ | | |
| | 8221 | 60 | RTS | ☐ | | |
| BLOCK Y InitNMIVars | 8222 | A5 BE | LDA &BE | ☑ | | Load Address |
| | 8224 | 85 A6 | STA NMI_DataPointer | ☑ | | |
| | 8226 | A5 BF | LDA &BF | ☑ | | |
| | 8228 | 85 A7 | STA NMI_DataPointer+1 | ☑ | | |
| | 822A | A9 FF | LDA #&FF | ☑ | | Calc.counter/trk/sec |
| | 822C | 85 BA | STA Track | ☑ | | |
| | 822E | A6 C3 | LDX &C3 | ☑ | | Len b8-b15 |
| | 8230 | E8 | INX | ☑ | | |
| | 8231 | 86 A4 | STX NMI_Counter2 | ☑ | | |
| | 8233 | A5 C4 | LDA &C4 | ☑ | | "mixed byte" |
| | 8235 | 20 FD 81 | JSR .A>>4 and 3 | ☑ | | |
| | 8238 | 85 A5 | STA NMI_Counter3 | ☑ | | Len b16-17 |
| | 823A | E6 A5 | INC NMI_Counter3 | ☑ | | |
| | 823C | A5 C2 | LDA &C2 | ☑ | | Len b0-b7 |
| | 823E | 85 A3 | STA NMI_Counter1 | ☑ | | ' bytes last sector 0=&100 |
| | 8240 | D0 06 | BNE .calsctrksec | ☑ | | |
| | 8242 | C6 A4 | DEC NMI_Counter2 | ☑ | | ' Sectors |
| | 8244 | D0 02 | BNE .calsctrksec | ☑ | | |
| | 8246 | C6 A5 | DEC NMI_Counter3 | ☑ | | ' 1=Host |
| .calsctrksec | 8248 | A5 C4 | LDA &C4 | ☑ | | Strt Sec b8-b9 |
| | 824A | 29 03 | AND #&03 | ☑ | | |
| | 824C | AA | TAX | ☑ | | X=b8-b9 |
| | 824D | A5 C5 | LDA &C5 | ☑ | | Strt Sec b0-b7 |
| .calctrksec_loop2 | 824F | 38 | SEC | ☑ | | Calc first trk/sec |
| .calctrksec_loop | 8250 | E6 BA | INC Track | ☑ | | first loop trk=FF+1=0 |
| | 8252 | E9 0A | SBC #&0A | ☑ | | |

| Label | Code | | New Instruction | Comment |
|-------|------|-----------|-----------------|---------|
| | 8254 B0 FA | BCS .calctrksec_loop | ☑ | sec>=10 |
| | 8256 CA | DEX | ☑ | |
| | 8257 10 F6 | BPL .calctrksec_loop2 | ☑ | |
| | 8259 69 0A | ADC #&0A | ☑ | |
| | 825B 85 BB | STA Sector | ☑ | |
| .get_cat_exit_entryfound | 825D 60 | RTS | ☐ | |
| parameter_afsp | 825E A9 23 | LDA #&23 | ☐ | |
| | 8260 D0 02 | BNE &8264 | ☐ | |
| parameter_fsp | 8262 A9 FF | LDA #&FF | ☐ | |
| | 8264 8D CF 10 | STA &10CF | ☐ | |
| | 8267 60 | RTS | ☐ | |
| cmd_info_afsp_cmdl | 8268 20 FE 80 | JSR read_(a)fsp@TextPointer  (ret.Y=Tpoffset nonblank) | ☐ | |
| | 826B 4C 71 82 | JMP getcatentry_(r.:C=1=found,Y=offset) | ☐ | |
| getcatentry_(a)fsp_@(&BC)_(r.:C=1=found,Y=offset) | 826E 20 06 81 | JSR read_(a)fsp@(&BC) (ret.Y=Tpoffset nonblank) | ☐ | |
| getcatentry_(r.:C=1=found,Y=offset) | 8271 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | |
| | 8274 B0 E7 | BCS .get_cat_exit_entryfound | ☐ | |
| err_FILENOTFOUND | 8276 20 2B 80 | JSR .errFILE | ☐ | |
| | 8279 D6 6E 6F 74 20 66 6F 75 | Önot fou | ☐ | |
| | 8281 6E 64 00 | nd. | ☐ | |
| CMD_INFO | 8284 20 5E 82 | JSR parameter_afsp | ☐ | |
| | 8287 20 01 9A | JSR initparam (syntax error if none) | ☐ | |
| | 828A 20 68 82 | JSR cmd_info_afsp_cmdl | ☐ | |
| .cmd_info_loop | 828D 20 01 83 | JSR prt_InfoLine(Y=file offset) | ☐ | |
| | 8290 20 9D 82 | JSR get_cat_nextentry(return:C=1=found,Y=offset) | ☐ | |
| | 8293 B0 F8 | BCS .cmd_info_loop | ☐ | |
| | 8295 60 | RTS | ☐ | |
| get_cat_firstentry(return:C=1=found,Y=offset) | 8296 20 DE 8A | JSR CheckCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | filtered catalogue |
| | 8299 A0 F8 | LDY #&F8 | ☐ | |
| | 829B D0 03 | BNE .get_cat_nextentry2 | ☐ | always |
| get_cat_nextentry(return:C=1=found,Y=offset) | 829D AC CE 10 | LDY &10CE | ☐ | load counter |
| .get_cat_nextentry2 | 82A0 20 10 82 | JSR .Y=Y+8 | ☐ | |
| | 82A3 CC 05 0F | CPY FilesX8 | ☐ | Files on disk * 8 |
| | 82A6 B0 44 | BCS .get_cat_exit_noentryfound | ☐ | Y>=?&F05 |
| | 82A8 20 10 82 | JSR .Y=Y+8 | ☐ | |
| | 82AB A2 07 | LDX #&07 | ☐ | compare with (a)fsp |
| .get_cat_loop | 82AD B5 C7 | LDA FilenameParam,X | ☐ | get (a)fsp chr |
| | 82AF CD CF 10 | CMP &10CF | ☐ | param.type |
| | 82B2 F0 0E | BEQ .get_cat_nextchr | ☐ | ignore chr get next |
| | 82B4 20 EE 82 | JSR alphachr_ifC=0 (A=Chr) A preserved | ☐ | |
| | 82B7 59 07 0E | EOR &0E07,Y | ☐ | |
| | 82BA B0 02 | BCS .get_cat_notalpha | ☐ | not alphachr |
| | 82BC 29 DF | AND #&DF | ☐ | ignore case |
| .get_cat_notalpha | 82BE 29 7F | AND #&7F | ☐ | clear bit 7 |
| | 82C0 D0 09 | BNE .get_cat_nomatch_loop | ☐ | no match |
| .get_cat_nextchr | 82C2 88 | DEY | ☐ | |
| | 82C3 CA | DEX | ☐ | |
| | 82C4 10 E7 | BPL .get_cat_loop | ☐ | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 82C6 | 8C CE 10 | STY &10CE | ☐ | | save counter |
| | 82C9 | 38 | SEC | ☐ | | |
| | 82CA | 60 | RTS | ☐ | | C=1 entry found |
| .get_cat_nomatch_loop | 82CB | 88 | DEY | ☐ | | |
| | 82CC | CA | DEX | ☐ | | |
| | 82CD | 10 FC | BPL .get_cat_nomatch_loop | ☐ | | |
| | 82CF | 30 CF | BMI .get_cat_nextentry2 | ☐ | | don't return, try next file |
| DeleteCatEntry Y=FileOffset | 82D1 | 20 4C 98 | JSR CheckFileNotOpen | ☐ | | |
| | 82D4 | B9 10 0E | LDA &0E10,Y | ☐ | | |
| | 82D7 | 99 08 0E | STA &0E08,Y | ☐ | | |
| | 82DA | B9 10 0F | LDA &0F10,Y | ☐ | | |
| | 82DD | 99 08 0F | STA &0F08,Y | ☐ | | |
| | 82E0 | C8 | INY | ☐ | | |
| | 82E1 | CC 05 0F | CPY FilesX8 | ☐ | | |
| | 82E4 | 90 EE | BCC &82D4 | ☐ | | |
| | 82E6 | 98 | TYA | ☐ | | |
| | 82E7 | E9 08 | SBC #&08 | ☐ | | |
| | 82E9 | 8D 05 0F | STA FilesX8 | ☐ | | |
| .get_cat_exit_noentryfound | 82EC | 18 | CLC | ☐ | | |
| .print_infoline_exit | 82ED | 60 | RTS | ☐ | | C=0 = no error |
| alphachr_ifC=0 (A=Chr) A preserved | 82EE | 48 | PHA | ☐ | | is A >="A" and <="Z" |
| | 82EF | 29 DF | AND #&DF | ☐ | | ignore case bit |
| | 82F1 | C9 41 | CMP #&41 | ☐ | | <"A"? |
| | 82F3 | 90 04 | BCC .alphachr_<"A" | ☐ | | |
| | 82F5 | C9 5B | CMP #&5B | ☐ | | <"["? |
| | 82F7 | 90 01 | BCC .aplhachr_<"[" | ☐ | | |
| .alphachr_<"A" | 82F9 | 38 | SEC | ☐ | | |
| .aplhachr_<"[" | 82FA | 68 | PLA | ☐ | | C clear if true |
| | 82FB | 60 | RTS | ☐ | | end |
| prt_InfoLineif?10c7>=&80,Y=o/set | 82FC | 2C C7 10 | BIT &10C7 | ☐ | | |
| | 82FF | 30 EC | BMI .print_infoline_exit | ☐ | | |
| prt_InfoLine(Y=file offset) | 8301 | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 8304 | 20 C0 81 | JSR prt_filename(Y=offset) | ☐ | | |
| | 8307 | 98 | TYA | ☐ | | |
| | 8308 | 48 | PHA | ☐ | | |
| | 8309 | A9 60 | LDA #&60 | ☐ | | word &B0=1060 |
| | 830B | 85 B0 | STA PrivateWorkspacePointer | ☐ | | |
| | 830D | A9 10 | LDA #&10 | ☐ | | |
| | 830F | 85 B1 | STA PrivateWorkspacePointer+1 | ☐ | | |
| | 8311 | 20 7E 83 | JSR readfileattribs Y=offset of file | ☐ | | create no. str |
| | 8314 | A0 02 | LDY #&02 | ☐ | | |
| | 8316 | 20 CE 9F | JSR prtspc/add100-spc | ☐ | | print " " |
| | 8319 | 20 35 83 | JSR printhex3byte (ret.Y=Y+3) | ☐ | | Load address |
| | 831C | 20 35 83 | JSR printhex3byte (ret.Y=Y+3) | ☐ | | Exec address |
| | 831F | 20 35 83 | JSR printhex3byte (ret.Y=Y+3) | ☐ | | Length |
| | 8322 | 68 | PLA | ☐ | | |
| | 8323 | A8 | TAY | ☐ | | |
| | 8324 | B9 0E 0F | LDA &0F0E,Y | ☐ | | First sector high bits |
| | 8327 | 29 03 | AND #&03 | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|-------|------|---|------|-----------------|---------|
| | 8329 | 20 CA 80 | JSR prthexLoNib (A low nibble) A preserved | | | |
| | 832C | B9 0F 0F | LDA &0F0F,Y | | | First sector low byte |
| | 832F | 20 C2 80 | JSR prthex(A) A preserved | | | |
| | 8332 | 4C 9A 9F | JMP prtNewLine (A preserved) | | | end |
| printhex3byte (ret.Y=Y+3) | 8335 | A2 03 | LDX #&03 | | | eg print "123456 " |
| printhex3byte_loop | 8337 | B9 62 10 | LDA &1062,Y | | | ??10ok |
| | 833A | 20 C2 80 | JSR prthex(A) A preserved | | | |
| | 833D | 88 | DEY | | | |
| | 833E | CA | DEX | | | |
| | 833F | D0 F6 | BNE printhex3byte_loop | | | |
| | 8341 | 20 11 82 | JSR .Y=Y+7 | | | |
| | 8344 | 4C CE 9F | JMP prtspc/add100-spc | | | |
| LoadCurDrvCat (preserve AXY) | 8347 | 20 E1 83 | JSR rememberAXY | | | |
| | 834A | 4C EB 8A | JMP LoadCurDrvCatalog | | JMP mmcloadcurdrvcat | |
| setCECF_driveno | 834D | AD CA 10 | LDA &10CA | | | |
| | 8350 | 85 CE | STA DirectoryParam | | | |
| SetDrvNo=?&10CB | 8352 | AD CB 10 | LDA &10CB | | | set drive no |
| | 8355 | 4C 7E 87 | JMP SetCurrentDrive | | | |
| GetDriveNo_withInit | 8358 | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | | | |
| | 835B | F0 F5 | BEQ SetDrvNo=?&10CB | | | null string |
| GetDriveNo (A=DrvNo,C=0,XY preserved) | 835D | 20 C5 FF | JSR GSREAD | | | rd chr (C) |
| | 8360 | B0 12 | BCS errBADDRIVE | | | end of str |
| | 8362 | C9 3A | CMP #&3A | | | C=":" |
| | 8364 | F0 F7 | BEQ GetDriveNo (A=DrvNo,C=0,XY preserved) | | | ignore get next chr |
| | 8366 | 38 | SEC | | | |
| | 8367 | E9 30 | SBC #&30 | | | N=C-"0" |
| | 8369 | 90 09 | BCC errBADDRIVE | | | C<"0" |
| | 836B | C9 04 | CMP #&04 | | | |
| | 836D | B0 05 | BCS errBADDRIVE | | | C>="4" |
| | 836F | 20 7E 87 | JSR SetCurrentDrive | | | on entry A=drive no (0-3) |
| | 8372 | 18 | CLC | | | |
| | 8373 | 60 | RTS | | | |
| errBADDRIVE | 8374 | 20 22 80 | JSR .errBAD | | | Bad Drive (err#CD) |
| | 8377 | CD 64 72 69 76 65 00    Ídrive. | | | | |
| readfileattribs Y=offset of file | 837E | 20 E1 83 | JSR rememberAXY | | | decode file attribs |
| | 8381 | 98 | TYA | | | and store in pwsp |
| | 8382 | 48 | PHA | | | bytes 2-11 |
| | 8383 | AA | TAX | | | |
| | 8384 | A0 02 | LDY #&02 | | | |
| | 8386 | A9 00 | LDA #&00 | | | set to 0 |
| .readfileattribs_clearloop | 8388 | 91 B0 | STA (PrivateWorkspacePointer),Y | | | |
| | 838A | C8 | INY | | | |
| | 838B | C0 12 | CPY #&12 | | | |
| | 838D | D0 F9 | BNE .readfileattribs_clearloop | | | |
| | 838F | A0 02 | LDY #&02 | | | copy low bytes of |
| .readfileattribs_copyloop | 8391 | 20 CF 83 | JSR .readfileattribs_copy2bytes | | | load/exec/length |
| | 8394 | C8 | INY | | | |
| | 8395 | C8 | INY | | | |
| | 8396 | C0 0E | CPY #&0E | | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8398 | D0 F7 | BNE .readfileattribs_copyloop | ☐ | | |
| | 839A | 68 | PLA | ☐ | | |
| | 839B | AA | TAX | ☐ | | |
| | 839C | BD 0F 0E | LDA &0E0F,X | ☐ | | locked? |
| | 839F | 10 06 | BPL .readfileattribs_notlocked | ☐ | | |
| | 83A1 | A9 0A | LDA #&0A | ☐ | | |
| | 83A3 | A0 0E | LDY #&0E | ☐ | | |
| | 83A5 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | pwsp+&E=&A |
| .readfileattribs_notlocked | 83A7 | BD 0E 0F | LDA &0F0E,X | ☐ | | mixed byte |
| | 83AA | A0 04 | LDY #&04 | ☐ | | load high bytes? |
| | 83AC | 20 BB 83 | JSR .readfileattribs_addrHiBytes | ☐ | | |
| | 83AF | A0 0C | LDY #&0C | ☐ | | length high bytes |
| | 83B1 | 4A | LSR | ☐ | | |
| | 83B2 | 4A | LSR | ☐ | | |
| | 83B3 | 48 | PHA | ☐ | | |
| | 83B4 | 29 03 | AND #&03 | ☐ | | |
| | 83B6 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 83B8 | 68 | PLA | ☐ | | |
| | 83B9 | A0 08 | LDY #&08 | ☐ | | exec high bytes |
| .readfileattribs_addrHiBytes | 83BB | 4A | LSR | ☐ | | |
| | 83BC | 4A | LSR | ☐ | | /4 |
| | 83BD | 48 | PHA | ☐ | | |
| | 83BE | 29 03 | AND #&03 | ☐ | | |
| | 83C0 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 83C2 | C9 03 | CMP #&03 | ☐ | | |
| | 83C4 | D0 07 | BNE .readfileattribs_exits | ☐ | | |
| | 83C6 | A9 FF | LDA #&FF | ☐ | | |
| | 83C8 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 83CA | C8 | INY | ☐ | | |
| | 83CB | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| .readfileattribs_exits | 83CD | 68 | PLA | ☐ | | |
| | 83CE | 60 | RTS | ☐ | | |
| .readfileattribs_copy2bytes | 83CF | 20 D2 83 | JSR .readfileattribs_copy1byte | ☐ | | |
| .readfileattribs_copy1byte | 83D2 | BD 08 0F | LDA &0F08,X | ☐ | | |
| | 83D5 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 83D7 | E8 | INX | ☐ | | |
| | 83D8 | C8 | INY | ☐ | | |
| | 83D9 | 60 | RTS | ☐ | | |
| inc_word_AE | 83DA | E6 AE | INC &AE | ☐ | | |
| | 83DC | D0 02 | BNE &83E0 | ☐ | | |
| | 83DE | E6 AF | INC &AF | ☐ | | |
| | 83E0 | 60 | RTS | ☐ | | |
| rememberAXY | 83E1 | 48 | PHA | ☐ | | manipulates stack |
| | 83E2 | 8A | TXA | ☐ | | pushes address 8403 |
| | 83E3 | 48 | PHA | ☐ | | (returns to 8404!) |
| | 83E4 | 98 | TYA | ☐ | | |
| | 83E5 | 48 | PHA | ☐ | | |
| | 83E6 | A9 84 | LDA #&84 | ☐ | | |
| | 83E8 | 48 | PHA | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 83E9 | A9 03 | LDA #&03 | ☐ | | |
| | 83EB | 48 | PHA | ☐ | | |
| .rAXY_loop_init | 83EC | A0 05 | LDY #&05 | ☐ | | for y=5 to 1 |
| .rAXY_loop | 83EE | BA | TSX | ☐ | | |
| | 83EF | BD 07 01 | LDA &0107,X | ☐ | | |
| | 83F2 | 48 | PHA | ☐ | | |
| | 83F3 | 88 | DEY | ☐ | | |
| | 83F4 | D0 F8 | BNE .rAXY_loop | ☐ | | next |
| | 83F6 | A0 0A | LDY #&0A | ☐ | | for y=A to 1 |
| .rAXY_loop2 | 83F8 | BD 09 01 | LDA &0109,X | ☐ | | |
| | 83FB | 9D 0B 01 | STA &010B,X | ☐ | | |
| | 83FE | CA | DEX | ☐ | | |
| | 83FF | 88 | DEY | ☐ | | |
| | 8400 | D0 F6 | BNE .rAXY_loop2 | ☐ | | next |
| | 8402 | 68 | PLA | ☐ | | discard (Y) |
| | 8403 | 68 | PLA | ☐ | | discard (X) |
| .rAXY_restore | 8404 | 68 | PLA | ☐ | | |
| | 8405 | A8 | TAY | ☐ | | |
| | 8406 | 68 | PLA | ☐ | | |
| | 8407 | AA | TAX | ☐ | | |
| | 8408 | 68 | PLA | ☐ | | |
| | 8409 | 60 | RTS | ☐ | | end |
| | 840A | BA | TSX | ☐ | | |
| | 840B | 9D 03 01 | STA &0103,X | ☐ | | |
| | 840E | 4C 04 84 | JMP .rAXY_restore | ☐ | | |
| rAXY2_dontpullonreturn | 8411 | 48 | PHA | ☐ | | |
| | 8412 | 8A | TXA | ☐ | | |
| | 8413 | 48 | PHA | ☐ | | |
| | 8414 | 98 | TYA | ☐ | | |
| | 8415 | 48 | PHA | ☐ | | |
| | 8416 | A9 84 | LDA #&84 | ☐ | | |
| | 8418 | 48 | PHA | ☐ | | |
| | 8419 | A9 09 | LDA #&09 | ☐ | | |
| | 841B | 48 | PHA | ☐ | | |
| | 841C | D0 CE | BNE .rAXY_loop_init | ☐ | | always |
| .fscv5_*CAT | 841E | 20 B8 86 | JSR SetTextPointer=Y*100+X | ☐ | | |
| | 8421 | 20 D8 8A | JSR CheckCurDrvCatalog2 | ☐ | JSR mmcloadcurdrvcat2 | |
| prt_catalogue2 | 8424 | A0 FF | LDY #&FF | ☐ | | |
| | 8426 | 84 A8 | STY &A8 | ☐ | | |
| | 8428 | C8 | INY | ☐ | | |
| | 8429 | 84 AA | STY &AA | ☐ | | |
| .cat_titleloop | 842B | B9 00 0E | LDA &0E00,Y | ☐ | | print disk title |
| | 842E | C0 08 | CPY #&08 | ☐ | | |
| | 8430 | 90 03 | BCC &8435 | ☐ | | |
| | 8432 | B9 F8 0E | LDA &0EF8,Y | ☐ | | |
| | 8435 | 20 9C 80 | JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 8438 | C8 | INY | ☐ | | |
| | 8439 | C0 0C | CPY #&0C | ☐ | | |
| | 843B | D0 EE | BNE .cat_titleloop | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|-------|------|------|-----------------|---------|
| | 843D  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 8440  20 28            ( | ☐ | | print " (" |
| | 8442  AD 04 0F  LDA &0F04 | ☐ | | print no.? |
| | 8445  20 C2 80  JSR prthex(A) A preserved | ☐ | | |
| | 8448  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | print ")" "Drive" |
| | 844B  29 0D 44 72 69 76 65 20  ).Drive | ☐ | | |
| | 8453  A5 CF     LDA CurrentDrv | ☐ | | |
| | 8455  20 CA 80  JSR prthexLoNib (A low nibble) A preserved | ☐ | | print drv.no. |
| | 8458  A0 0D     LDY #&0D | ☐ | | |
| | 845A  20 F4 81  JSR prt_Yspaces | ☐ | | print 13 spaces |
| | 845D  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 8460  4F 70 74 69 6F 6E 20    Option | ☐ | | print "Option" |
| | 8467  AD 06 0F  LDA &0F06 | ☐ | | |
| | 846A  20 05 82  JSR .A>>4 | ☐ | | |
| | 846D  20 CA 80  JSR prthexLoNib (A low nibble) A preserved | ☐ | | print option.no |
| | 8470  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | print " (" |
| | 8473  20 28                    ( | ☐ | | |
| | 8475  A0 03     LDY #&03 | ☐ | | print option.name |
| | 8477  0A        ASL | ☐ | | |
| | 8478  0A        ASL | ☐ | | |
| | 8479  AA        TAX | ☐ | | |
| .cat_printoptionnameloop | 847A  BD 6F 85  LDA .diskoptions_table,X | ☐ | | |
| | 847D  20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 8480  E8        INX | ☐ | | |
| | 8481  88        DEY | ☐ | | |
| | 8482  10 F6     BPL .cat_printoptionnameloop | ☐ | | |
| | 8484  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | print ") Directory :" |
| | 8487  29 0D 44 69 72 65 63 74  ).Direct | ☐ | | |
| | 848F  6F 72 79 20 3A         ory : | ☐ | | |
| | 8494  AD CB 10  LDA &10CB | ☐ | | |
| | 8497  20 CA 80  JSR prthexLoNib (A low nibble) A preserved | ☐ | | print driveno |
| | 849A  20 9A 80  JSR prtfullstop | ☐ | | print "." |
| | 849D  AD CA 10  LDA &10CA | ☐ | | print dir |
| | 84A0  20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 84A3  A0 06     LDY #&06 | ☐ | | |
| | 84A5  20 F4 81  JSR prt_Yspaces | ☐ | | print 6 spaces |
| | 84A8  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | print "Library " |
| | 84AB  4C 69 62 72 61 72 79 20  Library | ☐ | | |
| | 84B3  3A                    : | ☐ | | |
| | 84B4  AD CD 10  LDA &10CD | ☐ | | |
| | 84B7  20 CA 80  JSR prthexLoNib (A low nibble) A preserved | ☐ | | print library.drv |
| | 84BA  20 9A 80  JSR prtfullstop | ☐ | | print "." |
| | 84BD  AD CC 10  LDA &10CC | ☐ | | |
| | 84C0  20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | print library.dir |
| | 84C3  20 9A 9F  JSR prtNewLine (A preserved) | ☐ | | print |
| | 84C6  A0 00     LDY #&00 | ☐ | | |
| .pcl3 | 84C8  CC 05 0F  CPY FilesX8 | ☐ | | no.of.files? |
| | 84CB  B0 17     BCS .pcl2 | ☐ | | Y>=no.of.files |
| | 84CD  B9 0F 0E  LDA &0E0F,Y | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 84D0 | 4D CA 10 | EOR &10CA | ☐ | | |
| | 84D3 | 29 7F | AND #&7F | ☐ | | |
| | 84D5 | D0 08 | BNE .pcl5 | ☐ | | not current dir |
| | 84D7 | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 84DA | 29 80 | AND #&80 | ☐ | | |
| | 84DC | 99 0F 0E | STA &0E0F,Y | ☐ | | |
| .pcl5 | 84DF | 20 10 82 | JSR .Y=Y+8 | ☐ | | |
| | 84E2 | 90 E4 | BCC .pcl3 | ☐ | | |
| .pcl2 | 84E4 | A0 00 | LDY #&00 | ☐ | | |
| | 84E6 | 20 F6 84 | JSR .pcl6 | ☐ | | |
| | 84E9 | 90 16 | BCC .pcl4 | ☐ | | |
| | 84EB | A9 FF | LDA #&FF | ☐ | | finished |
| | 84ED | 8D 82 10 | STA CurrentCrvCatalog | ☐ | | |
| | 84F0 | 4C 9A 9F | JMP prtNewLine (A preserved) | ☐ | | |
| .pcl1 | 84F3 | 20 10 82 | JSR .Y=Y+8 | ☐ | | ignore deleted files? |
| .pcl6 | 84F6 | CC 05 0F | CPY FilesX8 | ☐ | | |
| | 84F9 | B0 05 | BCS .exitprtcat | ☐ | | |
| | 84FB | B9 08 0E | LDA &0E08,Y | ☐ | | |
| | 84FE | 30 F3 | BMI .pcl1 | ☐ | | |
| .exitprtcat | 8500 | 60 | RTS | ☐ | | |
| .pcl4 | 8501 | 84 AB | STY &AB | ☐ | | |
| | 8503 | A2 00 | LDX #&00 | ☐ | | |
| | 8505 | B9 08 0E | LDA &0E08,Y | ☐ | | |
| | 8508 | 29 7F | AND #&7F | ☐ | | |
| | 850A | 9D 60 10 | STA &1060,X | ☐ | | ??1ook |
| | 850D | C8 | INY | ☐ | | |
| | 850E | E8 | INX | ☐ | | |
| | 850F | E0 08 | CPX #&08 | ☐ | | |
| | 8511 | D0 F2 | BNE &8505 | ☐ | | |
| | 8513 | 20 F6 84 | JSR .pcl6 | ☐ | | |
| | 8516 | B0 1F | BCS &8537 | ☐ | | |
| | 8518 | 38 | SEC | ☐ | | |
| | 8519 | A2 06 | LDX #&06 | ☐ | | |
| | 851B | B9 0E 0E | LDA &0E0E,Y | ☐ | | |
| | 851E | FD 60 10 | SBC &1060,X | ☐ | | ??1ook |
| | 8521 | 88 | DEY | ☐ | | |
| | 8522 | CA | DEX | ☐ | | |
| | 8523 | 10 F6 | BPL &851B | ☐ | | |
| | 8525 | 20 11 82 | JSR .Y=Y+7 | ☐ | | |
| | 8528 | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 852B | 29 7F | AND #&7F | ☐ | | |
| | 852D | ED 67 10 | SBC &1067 | ☐ | | |
| | 8530 | 90 CF | BCC .pcl4 | ☐ | | |
| | 8532 | 20 10 82 | JSR .Y=Y+8 | ☐ | | |
| | 8535 | B0 DC | BCS &8513 | ☐ | | |
| | 8537 | A4 AB | LDY &AB | ☐ | | |
| | 8539 | B9 08 0E | LDA &0E08,Y | ☐ | | |
| | 853C | 09 80 | ORA #&80 | ☐ | | |
| | 853E | 99 08 0E | STA &0E08,Y | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 8541  AD 67 10  LDA &1067 | ☐ | | |
| | 8544  C5 AA  CMP &AA | ☐ | | |
| | 8546  F0 10  BEQ &8558 | ☐ | | |
| | 8548  A6 AA  LDX &AA | ☐ | | |
| | 854A  85 AA  STA &AA | ☐ | | |
| | 854C  D0 0A  BNE &8558 | ☐ | | |
| | 854E  20 9A 9F  JSR prtNewLine (A preserved) | ☐ | | |
| | 8551  20 9A 9F  JSR prtNewLine (A preserved) | ☐ | | |
| | 8554  A0 FF  LDY #&FF | ☐ | | |
| | 8556  D0 09  BNE &8561 | ☐ | | |
| | 8558  A4 A8  LDY &A8 | ☐ | | |
| | 855A  D0 F5  BNE &8551 | ☐ | | |
| | 855C  A0 05  LDY #&05 | ☐ | | |
| | 855E  20 F4 81  JSR prt_Yspaces | ☐ | | |
| | 8561  C8  INY | ☐ | | |
| | 8562  84 A8  STY &A8 | ☐ | | |
| | 8564  A4 AB  LDY &AB | ☐ | | |
| | 8566  20 CB 9F  JSR print2spc/add100-2spc | ☐ | | |
| | 8569  20 C0 81  JSR prt_filename(Y=offset) | ☐ | | |
| | 856C  4C E4 84  JMP .pcl2 | ☐ | | |
| .diskoptions_table | 856F  6F 66 66 00 4C 4F 41 44  off.LOAD | ☐ | | |
| | 8577  52 55 4E 00 45 58 45 43  RUN.EXEC | ☐ | | |
| .getnextblock | 857F  B9 0E 0F  LDA &0F0E,Y | ☐ | | |
| | 8582  20 FD 81  JSR .A>>4 and 3 | ☐ | | |
| | 8585  85 C4  STA &C4 | ☐ | | len byte 3 |
| | 8587  18  CLC | ☐ | | |
| | 8588  A9 FF  LDA #&FF | ☐ | | -1 |
| | 858A  79 0C 0F  ADC &0F0C,Y | ☐ | | + len byte 1 |
| | 858D  B9 0F 0F  LDA &0F0F,Y | ☐ | | + start sec byte 1 |
| | 8590  79 0D 0F  ADC &0F0D,Y | ☐ | | + len byte 2 |
| | 8593  85 C5  STA &C5 | ☐ | | |
| | 8595  B9 0E 0F  LDA &0F0E,Y | ☐ | | start sec byte 2 |
| | 8598  29 03  AND #&03 | ☐ | | |
| | 859A  65 C4  ADC &C4 | ☐ | | calc. next "free" sector |
| | 859C  85 C4  STA &C4 | ☐ | | c4/c5=start sec + len - 1 |
| .getfirstblock | 859E  38  SEC | ☐ | | |
| | 859F  B9 07 0F  LDA &0F07,Y | ☐ | | secs on disk |
| | 85A2  E5 C5  SBC &C5 | ☐ | | or start sec of prev. |
| | 85A4  48  PHA | ☐ | | file |
| | 85A5  B9 06 0F  LDA &0F06,Y | ☐ | | - end of prev. file |
| | 85A8  29 03  AND #&03 | ☐ | | |
| | 85AA  E5 C4  SBC &C4 | ☐ | | |
| | 85AC  AA  TAX | ☐ | | |
| | 85AD  A9 00  LDA #&00 | ☐ | | |
| | 85AF  C5 C2  CMP &C2 | ☐ | | |
| | 85B1  68  PLA | ☐ | | ax=secs on disk-next blk |
| | 85B2  E5 C3  SBC &C3 | ☐ | | |
| | 85B4  8A  TXA | ☐ | | req'd=c2/c3/c6 |
| | 85B5  E5 C6  SBC &C6 | ☐ | | big enough? |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| .gbpbv0_donothing | 85B7 60 | RTS | ☐ | | |
| .cmdlist | 85B8 41 | A | ☐ | | table 1 commands |
| .cmdlist+1 | 85B9 43 43 45 53 53 88 D1 32 | CCESS^Ñ2 | ☐ | | 1 |
| .cmdlist+9 | 85C1 42 41 43 4B 55 50 9C BA | BACKUPœº | ☐ | | 9 |
| | 85C9 54 | T | ☐ | | 11 |
| .cmdlist+12 | 85CA 43 4F 4D 50 41 43 54 9A | COMPACTš | ☐ | | 12 |
| | 85D2 BF 0A | ¿. | ☐ | | 1A |
| .cmdlist+1C | 85D4 43 4F 50 59 9D 26 64 | COPY•&d | ☐ | | 1C |
| .cmdlist+23 | 85DB 44 45 4C 45 54 45 86 FD | DELETE†ý | ☐ | | 23 |
| | 85E3 01 | . | ☐ | | 2B |
| .cmdlist+2C | 85E4 44 45 53 54 52 4F 59 87 | DESTROY‡ | ☐ | | 2C |
| | 85EC 0F 02 | .. | ☐ | | 34 |
| .cmdlist+36 | 85EE 44 49 52 88 4D 09 | DIR^M. | ☐ | | 36 |
| .cmdlist+3C | 85F4 44 52 49 56 45 87 74 0A | DRIVE‡t. | ☐ | | 3C |
| .cmdlist+44 | 85FC 45 4E 41 42 4C 45 8A 38 | ENABLEŠ8 | ☐ | | 44 |
| | 8604 00 | . | ☐ | | 4C |
| .cmdlist+4D | 8605 49 4E 46 4F 82 83 02 | INFO,ƒ. | ☐ | | 4D |
| .cmdlist+54 | 860C 4C 49 42 88 51 09 | LIB^Q. | ☐ | | 54 |
| .cmdlist+5A | 8612 52 45 4E 41 4D 45 8A 6C | RENAMEŠl | ☐ | | 5A |
| | 861A 87 | ‡ | ☐ | | 62 |
| .cmdlist+63 | 861B 54 49 54 4C 45 88 A2 0B | TITLE^¢. | ☐ | | 63 |
| .cmdlist+6B | 8623 57 49 50 45 86 C2 02 | WIPE†Â. | ☐ | | 6B |
| .cmdlist+72 | 862A 87 D6 00 | ‡Ö. | ☐ | TGO mmcdcommand | 72 |
| .cmdlist+75 | 862D 42 55 49 4C 44 9F 47 01 | BUILDŸG. | ☐ | | table 2 utils commmands/help |
| .cmdlist+7D | 8635 44 49 53 43 | DISC | ☐ | | 7D |
| .discvec | 8639 93 37 00 | "7. | ☐ | | 81 |
| .cmdlist+84 | 863C 44 55 4D 50 9E CF 01 | DUMPžÏ. | ☐ | | 84 |
| .cmdlist+8B | 8643 4C 49 53 54 9E 8D 01 | LISTž•. | ☐ | | 8B |
| .cmdlist+92 | 864A 54 59 50 45 9E 86 01 | TYPEž†. | ☐ | | 92 |
| .cmdlist+99 | 8651 44 49 53 4B | DISK | ☐ | | 99 |
| .diskvec | 8655 93 37 00 | "7. | ☐ | | 9D |
| .cmdlist+A0 | 8658 85 B6 00 | …¶. | ☐ | | A0 |
| .cmdlist+A3 | 865B 44 46 53 99 C5 00 | DFS™Å. | ☐ | | table 3 help |
| .cmdlist+A9 | 8661 55 54 49 4C 53 | UTILS | ☐ | | A9 |
| .cmdutils_vec | 8666 99 ED 00 | ™í. | ☐ | | AE |
| .cmdlist+B1 | 8669 99 F4 00 | ™ô. | ☐ | | B1 |
| .fscv3_unreccommand | 866C 20 B8 86 | JSR SetTextPointer=Y*100+X | ☐ | | |
| | 866F A2 FD | LDX #&FD | ☐ | | X=FD+3=0 ie all commands |
| UnrecCommand@TextPointer | 8671 8A | TXA | ☐ | | X=start command, |
| | 8672 BA | TSX | ☐ | | textpointer+Y = cmd line |
| | 8673 86 B6 | STX &B6 | ☐ | | &B6=STACKP |
| | 8675 AA | TAX | ☐ | | |
| | 8676 98 | TYA | ☐ | | save Y |
| | 8677 48 | PHA | ☐ | | |
| .unrecloop | 8678 E8 | INX | ☐ | | next 3 bytes ignored |
| | 8679 E8 | INX | ☐ | | contain addr/code of prev. |
| | 867A 68 | PLA | ☐ | | entry in table |
| | 867B 48 | PHA | ☐ | | read Y |
| | 867C A8 | TAY | ☐ | | Y=offset of word textpointer |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 867D | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | assume X preserved |
| | 8680 | E8 | INX | ☐ | | |
| | 8681 | BD B8 85 | LDA .cmdlist,X | ☐ | | |
| | 8684 | 30 28 | BMI .gocmdcode | ☐ | | end of table? |
| | 8686 | CA | DEX | ☐ | | init next loop |
| | 8687 | 88 | DEY | ☐ | | |
| | 8688 | 86 B8 | STX &B8 | ☐ | | ?B8=start of next string-1 |
| .unrecloop2 | 868A | E8 | INX | ☐ | | compare strings |
| | 868B | C8 | INY | ☐ | | |
| | 868C | BD B8 85 | LDA .cmdlist,X | ☐ | | |
| | 868F | 30 16 | BMI .endofcmd oncmdline? | ☐ | | end of table "cmd" - matched! |
| | 8691 | 51 F2 | EOR (TextPointer),Y | ☐ | | |
| | 8693 | 29 5F | AND #&5F | ☐ | | ignore case |
| | 8695 | F0 F3 | BEQ .unrecloop2 | ☐ | | while chrs eq go loop2 |
| | 8697 | CA | DEX | ☐ | | init next loop |
| .unrecloop3 | 8698 | E8 | INX | ☐ | | |
| | 8699 | BD B8 85 | LDA .cmdlist,X | ☐ | | |
| | 869C | 10 FA | BPL .unrecloop3 | ☐ | | find end of table "cmd" |
| | 869E | B1 F2 | LDA (TextPointer),Y | ☐ | | does cmd line end with |
| | 86A0 | C9 2E | CMP #&2E | ☐ | | full stop? |
| | 86A2 | D0 D4 | BNE .unrecloop | ☐ | | no, so no match |
| | 86A4 | C8 | INY | ☐ | | |
| | 86A5 | B0 07 | BCS .gocmdcode | ☐ | | >="." |
| .endofcmd oncmdline? | 86A7 | B1 F2 | LDA (TextPointer),Y | ☐ | | strings matched so far |
| | 86A9 | 20 EE 82 | JSR alphachr_ifC=0 (A=Chr) A preserved | ☐ | | is end of command on |
| | 86AC | 90 CA | BCC .unrecloop | ☐ | | cmd line, c=0=no, go next cmd |
| .gocmdcode | 86AE | 68 | PLA | ☐ | | cmd matched, go code |
| | 86AF | BD B8 85 | LDA .cmdlist,X | ☐ | | return to address in table+1 |
| | 86B2 | 48 | PHA | ☐ | | |
| | 86B3 | BD B9 85 | LDA .cmdlist+1,X | ☐ | | |
| | 86B6 | 48 | PHA | ☐ | | |
| | 86B7 | 60 | RTS | ☐ | | |
| SetTextPointer=Y*100+X | 86B8 | 86 F2 | STX TextPointer | ☐ | | |
| | 86BA | 84 F3 | STY TextPointerHi | ☐ | | |
| | 86BC | A0 00 | LDY #&00 | ☐ | | |
| | 86BE | 60 | RTS | ☐ | | |
| GoGSINIT(terminator=spc/cr/") | 86BF | 18 | CLC | ☐ | | C=0 first spc,Cr or 2nd" terminates |
| | 86C0 | 4C C2 FF | JMP GSINIT | ☐ | | |
| CMD_WIPE | 86C3 | 20 5E 82 | JSR parameter_afsp | ☐ | | |
| | 86C6 | 20 01 9A | JSR initparam (syntax error if none) | ☐ | | |
| | 86C9 | 20 68 82 | JSR cmd_info_afsp_cmdl | ☐ | | load cat & return offset |
| | 86CC | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 86CF | 30 12 | BMI &86E3 | ☐ | | |
| | 86D1 | 20 C0 81 | JSR prt_filename(Y=offset) | ☐ | | Prompt confirm? |
| | 86D4 | 20 65 80 | JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | print " : " |
| | 86D7 | 20 3A 20 | : | ☐ | | |
| | 86DA | EA | NOP | ☐ | | |
| | 86DB | 20 9E 9C | JSR ConfirmYN (Z=1 if Yes) | ☐ | | |
| | 86DE | F0 09 | BEQ &86E9 | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 86E0 | 20 9A 9F | JSR prtNewLine (A preserved) | ☐ | | |
| | 86E3 | 20 9D 82 | JSR get_cat_nextentry(return:C=1=found,Y=offset) | ☐ | | |
| | 86E6 | B0 E4 | BCS &86CC | ☐ | | |
| | 86E8 | 60 | RTS | ☐ | | |
| | 86E9 | 20 A1 81 | JSR checkforDiskChange | ☐ | | |
| | 86EC | 20 D1 82 | JSR DeleteCatEntry Y=FileOffset | ☐ | | |
| | 86EF | 20 B4 8A | JSR SaveCatToDisk | ☐ | | save cat |
| | 86F2 | AC CE 10 | LDY &10CE | ☐ | | |
| | 86F5 | 20 19 82 | JSR .Y=Y-8 | ☐ | | |
| | 86F8 | 8C CE 10 | STY &10CE | ☐ | | |
| | 86FB | 4C E0 86 | JMP &86E0 | ☐ | | |
| CMD_DELETE | 86FE | 20 62 82 | JSR parameter_fsp | ☐ | | |
| | 8701 | 20 01 9A | JSR initparam (syntax error if none) | ☐ | | |
| | 8704 | 20 68 82 | JSR cmd_info_afsp_cmdl | ☐ | | load cat & return offset |
| | 8707 | 20 FC 82 | JSR prt_InfoLineif?10c7>=&80,Y=o/set | ☐ | | |
| | 870A | 20 D1 82 | JSR DeleteCatEntry Y=FileOffset | ☐ | | |
| | 870D | 4C B4 8A | JMP SaveCatToDisk | ☐ | | save cat |
| CMD_DESTROY | 8710 | 20 BD 9B | JSR ENABLEDCMD | ☐ | | |
| | 8713 | 20 5E 82 | JSR parameter_afsp | ☐ | | |
| | 8716 | 20 01 9A | JSR initparam (syntax error if none) | ☐ | | |
| | 8719 | 20 68 82 | JSR cmd_info_afsp_cmdl | ☐ | | load cat & return offset |
| | 871C | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 871F | 30 06 | BMI &8727 | ☐ | | |
| | 8721 | 20 C0 81 | JSR prt_filename(Y=offset) | ☐ | | |
| | 8724 | 20 9A 9F | JSR prtNewLine (A preserved) | ☐ | | |
| | 8727 | 20 9D 82 | JSR get_cat_nextentry(return:C=1=found,Y=offset) | ☐ | | |
| | 872A | B0 F0 | BCS &871C | ☐ | | |
| | 872C | 20 65 80 | JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 872F | 0D 44 65 6C 65 74 65 20 | .Delete | ☐ | | |
| | 8737 | 28 59 2F 4E 29 20 3F 20 | (Y/N) ? | ☐ | | |
| | 873F | EA | NOP | ☐ | | |
| | 8740 | 20 9E 9C | JSR ConfirmYN (Z=1 if Yes) | ☐ | | |
| | 8743 | F0 03 | BEQ &8748 | ☐ | | |
| | 8745 | 4C 9A 9F | JMP prtNewLine (A preserved) | ☐ | | |
| | 8748 | 20 A1 81 | JSR checkforDiskChange | ☐ | | |
| | 874B | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 874E | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 8751 | 30 0C | BMI &875F | ☐ | | |
| | 8753 | 20 D1 82 | JSR DeleteCatEntry Y=FileOffset | ☐ | | |
| | 8756 | AC CE 10 | LDY &10CE | ☐ | | |
| | 8759 | 20 19 82 | JSR .Y=Y-8 | ☐ | | |
| | 875C | 8C CE 10 | STY &10CE | ☐ | | |
| | 875F | 20 9D 82 | JSR get_cat_nextentry(return:C=1=found,Y=offset) | ☐ | | |
| | 8762 | B0 EA | BCS &874E | ☐ | | |
| | 8764 | 20 B4 8A | JSR SaveCatToDisk | ☐ | | save cat |
| .msgDELETED | 8767 | 20 65 80 | JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 876A | 0D 44 65 6C 65 74 65 64 | .Deleted | ☐ | | |
| | 8772 | 0D | . | ☐ | | |
| | 8773 | EA | NOP | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8774 | 60 | RTS | ☐ | | |
| CMD_DRIVE | 8775 | 20 01 9A | JSR initparam (syntax error if none) | ☐ | | Syntax err if no params |
| | 8778 | 20 5D 83 | JSR GetDriveNo (A=DrvNo,C=0,XY preserved) | ☐ | | |
| | 877B | 8D CB 10 | STA &10CB | ☐ | | |
| SetCurrentDrive | 877E | 20 D6 8C | JSR FDC_WaitIfBusy (AXY preserved) | ☐ | NOP | wait til drive not busy |
| | | | | | NOP | |
| | | | | | NOP | |
| | 8781 | 29 03 | AND #&03 | ☐ | | |
| | 8783 | 85 CF | STA CurrentDrv | ☐ | | |
| | 8785 | 60 | RTS | ☐ | | end |
| .osfile0_savememblock | 8786 | 20 61 89 | JSR .createfile fsp@(&BC) | ☐ | | |
| | 8789 | 20 6E 98 | JSR .986e pwsptr=?10DC/DD | ☐ | | |
| | 878C | 20 7E 83 | JSR readfileattribs Y=offset of file | ☐ | | |
| .savememblock | 878F | 20 1F 8C | JSR LoadNMI0Write@0E00_TubeInit (ex.Z=0) | ☐ | JMP mmcsavememblock | |
| | 8792 | D0 35 | BNE BLOCK D .doREADWRITE | ☐ | NOP | always |
| | | | | | NOP | |
| .osfileFF_loadfiletoaddr | 8794 | 20 6E 82 | JSR getcatentry_(a)fsp_@(&BC)_(r.:C=1=found,Y=offset) | ☐ | | Get Load Addr etc. |
| | 8797 | 20 6E 98 | JSR .986e pwsptr=?10DC/DD | ☐ | | from catalogue |
| | 879A | 20 7E 83 | JSR readfileattribs Y=offset of file | ☐ | | (Just for info?) |
| .loadfile | 879D | 84 BC | STY TextPointer_dfs | ☐ | | Y=fileoffset |
| | 879F | A2 00 | LDX #&00 | ☐ | | |
| | 87A1 | A5 C0 | LDA &C0 | ☐ | | if ?C0=0 don't |
| | 87A3 | D0 06 | BNE .load@LoadAddr | ☐ | | do Load Addr |
| | 87A5 | C8 | INY | ☐ | | else use existing |
| | 87A6 | C8 | INY | ☐ | | |
| | 87A7 | A2 02 | LDX #&02 | ☐ | | |
| | 87A9 | D0 08 | BNE .load_copyfileinfo_loop | ☐ | | always |
| .load@LoadAddr | 87AB | B9 0E 0F | LDA &0F0E,Y | ☐ | | "mixed byte" |
| | 87AE | 85 C4 | STA &C4 | ☐ | | |
| | 87B0 | 20 3F 8A | JSR LoadAddrHi2(?C4=mixed byte : if Host=FFFF) | ☐ | | |
| .load_copyfileinfo_loop | 87B3 | B9 08 0F | LDA &0F08,Y | ☐ | | |
| | 87B6 | 95 BE | STA &BE,X | ☐ | | BE-C5 / C0-C5 |
| | 87B8 | C8 | INY | ☐ | | =file attributes |
| | 87B9 | E8 | INX | ☐ | | |
| | 87BA | E0 08 | CPX #&08 | ☐ | | |
| | 87BC | D0 F5 | BNE .load_copyfileinfo_loop | ☐ | | |
| | 87BE | 20 56 8A | JSR ExecAddrHi2(?C4=mixed byte) | ☐ | | |
| | 87C1 | A4 BC | LDY TextPointer_dfs | ☐ | | |
| | 87C3 | 20 FC 82 | JSR prt_InfoLineif?10c7>=&80,Y=o/set | ☐ | | opt. print file info |
| .loadmemblock | 87C6 | 20 11 8C | JSR LoadNMI1Read@0E00_TubeInit (ex.Z=0) | ☑ | JMP mmcloadmemblock | |
| BLOCK D .doREADWRITE | 87C9 | 20 22 82 | JSR BLOCK Y InitNMIVars | ☑ | | |
| | 87CC | 20 78 8C | JSR FDC_SetupRW ?A1=cmd ?BA=trk ?BB=sec A4/A5secsleft | ☑ | | |
| | 87CF | A9 01 | LDA #&01 | ☑ | | |
| | 87D1 | 4C E7 98 | JMP RELEASE_NMI_WaitFDCbusy (A=bitmask)(AXY preserved) | ☑ | | END LOAD/SAVE |
| .fscv2&4_*/or*RUN | 87D4 | 20 B8 86 | JSR SetTextPointer=Y*100+X | ☐ | | |
| cmdnotintable1 | 87D7 | 20 41 88 | JSR WordBC=TextPointer&?C0=FF | ☐ | | |
| | 87DA | 8C DB 10 | STY &10DB | ☐ | | |
| | 87DD | 20 06 81 | JSR read_(a)fsp@(&BC) (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 87E0 | 8C DA 10 | STY &10DA | ☐ | | SAVE Y |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 87E3 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 87E6 | B0 22 | BCS .runfilefound | ☐ | | |
| | 87E8 | AC DB 10 | LDY &10DB | ☐ | | |
| | 87EB | AD CC 10 | LDA &10CC | ☐ | | |
| | 87EE | 85 CE | STA DirectoryParam | ☐ | | |
| | 87F0 | AD CD 10 | LDA &10CD | ☐ | | |
| | 87F3 | 20 7E 87 | JSR SetCurrentDrive | ☐ | | |
| | 87F6 | 20 09 81 | JSR .clear(a)fsp&restoreTextPtr | ☐ | | |
| | 87F9 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 87FC | B0 0C | BCS .runfilefound | ☐ | | |
| .errBADCOMMAND | 87FE | 20 22 80 | JSR .errBAD | ☐ | | |
| | 8801 | FE 63 6F 6D 6D 61 6E 64 | bcommand | ☐ | | |
| | 8809 | 00 | . | ☐ | | |
| .runfilefound | 880A | 20 9D 87 | JSR .loadfile | ☐ | | |
| | 880D | 18 | CLC | ☐ | | |
| | 880E | AD DA 10 | LDA &10DA | ☐ | | RETRIEVE Y |
| | 8811 | A8 | TAY | ☐ | | ADD TO TEXTPTR |
| | 8812 | 65 F2 | ADC TextPointer | ☐ | | |
| | 8814 | 8D DA 10 | STA &10DA | ☐ | | |
| | 8817 | A5 F3 | LDA TextPointerHi | ☐ | | |
| | 8819 | 69 00 | ADC #&00 | ☐ | | |
| | 881B | 8D DB 10 | STA &10DB | ☐ | | w10DA=parameter ptr |
| | 881E | AD 76 10 | LDA &1076 | ☐ | | execution address |
| | 8821 | 2D 77 10 | AND &1077 | ☐ | | high bytes! |
| | 8824 | 0D D7 10 | ORA TubePresentIf0 | ☐ | | |
| | 8827 | C9 FF | CMP #&FF | ☐ | | |
| | 8829 | F0 13 | BEQ .jump(C0) | ☐ | | Branch if no TUBE?? |
| | 882B | A5 C0 | LDA &C0 | ☐ | | |
| | 882D | 8D 74 10 | STA &1074 | ☐ | | |
| | 8830 | A5 C1 | LDA &C1 | ☐ | | |
| | 8832 | 8D 75 10 | STA &1075 | ☐ | | |
| | 8835 | A2 74 | LDX #&74 | ☐ | | |
| | 8837 | A0 10 | LDY #&10 | ☐ | | |
| | 8839 | A9 04 | LDA #&04 | ☐ | | |
| | 883B | 4C 06 04 | JMP TubeCode(YX=addr,A=0:initrd,A=1:initwr,A=4:strexe) | ☐ | | TUBE execute AUG 345 |
| .jump(C0) | 883E | 6C C0 00 | JMP (&00C0) | ☐ | | |
| WordBC=TextPointer&?C0=FF | 8841 | A9 FF | LDA #&FF | ☐ | | |
| | 8843 | 85 C0 | STA &C0 | ☐ | | |
| | 8845 | A5 F2 | LDA TextPointer | ☐ | | |
| | 8847 | 85 BC | STA TextPointer_dfs | ☐ | | |
| | 8849 | A5 F3 | LDA TextPointerHi | ☐ | | |
| | 884B | 85 BD | STA &BD | ☐ | | |
| | 884D | 60 | RTS | ☐ | | |
| CMD_DIR | 884E | A2 00 | LDX #&00 | ☐ | | |
| | 8850 | F0 02 | BEQ &8854 | ☐ | | |
| CMD_LIB | 8852 | A2 02 | LDX #&02 | ☐ | | |
| | 8854 | 20 60 88 | JSR .8860 | ☐ | | |
| | 8857 | 9D CB 10 | STA &10CB,X | ☐ | | ??10ok |
| | 885A | A5 CE | LDA DirectoryParam | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 885C | 9D CA 10 | STA &10CA,X | ☐ | | ??10ok |
| | 885F | 60 | RTS | ☐ | | |
| .8860 | 8860 | A9 24 | LDA #&24 | ☐ | | |
| | 8862 | 85 CE | STA DirectoryParam | ☐ | | |
| | 8864 | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| | 8867 | D0 07 | BNE &8870 | ☐ | | |
| | 8869 | A9 00 | LDA #&00 | ☐ | | |
| | 886B | 20 7E 87 | JSR SetCurrentDrive | ☐ | | |
| | 886E | F0 30 | BEQ &88A0 | ☐ | | |
| | 8870 | AD CB 10 | LDA &10CB | ☐ | | |
| | 8873 | 20 7E 87 | JSR SetCurrentDrive | ☐ | | |
| | 8876 | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 8879 | B0 10 | BCS .errBADDIRECTORY | ☐ | | |
| | 887B | C9 3A | CMP #&3A | ☐ | | |
| | 887D | D0 1A | BNE &8899 | ☐ | | |
| | 887F | 20 5D 83 | JSR GetDriveNo (A=DrvNo,C=0,XY preserved) | ☐ | | |
| | 8882 | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 8885 | B0 19 | BCS &88A0 | ☐ | | |
| | 8887 | C9 2E | CMP #&2E | ☐ | | |
| | 8889 | F0 EB | BEQ &8876 | ☐ | | |
| .errBADDIRECTORY | 888B | 20 22 80 | JSR .errBAD | ☐ | | |
| | 888E | CE 64 69 72 65 63 74 6F | Îdirecto | ☐ | | |
| | 8896 | 72 79 00 | ry. | ☐ | | |
| | 8899 | 85 CE | STA DirectoryParam | ☐ | | |
| | 889B | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 889E | 90 EB | BCC .errBADDIRECTORY | ☐ | | |
| | 88A0 | A5 CF | LDA CurrentDrv | ☐ | | |
| | 88A2 | 60 | RTS | ☐ | | |
| CMD_TITLE | 88A3 | 20 01 9A | JSR initparam (syntax error if none) | ☐ | | |
| | 88A6 | 20 4D 83 | JSR setCECF_driveno | ☐ | | |
| | 88A9 | 20 47 83 | JSR LoadCurDrvCat (preserve AXY) | ☐ | | load cat |
| | 88AC | A2 0B | LDX #&0B | ☐ | JMP mmcdisktitle | |
| | 88AE | A9 00 | LDA #&00 | ☐ | | |
| | 88B0 | 20 C6 88 | JSR &88C6 | ☐ | | |
| | 88B3 | CA | DEX | ☐ | | |
| | 88B4 | 10 FA | BPL &88B0 | ☐ | | |
| | 88B6 | E8 | INX | ☐ | | |
| | 88B7 | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 88BA | B0 07 | BCS &88C3 | ☐ | | |
| | 88BC | 20 C6 88 | JSR &88C6 | ☐ | | |
| | 88BF | E0 0B | CPX #&0B | ☐ | | |
| | 88C1 | 90 F3 | BCC &88B6 | ☐ | | |
| | 88C3 | 4C B4 8A | JMP SaveCatToDisk | ☐ | | save cat (not used) |
| | 88C6 | E0 08 | CPX #&08 | ☐ | | |
| | 88C8 | 90 04 | BCC &88CE | ☐ | | |
| | 88CA | 9D F8 0E | STA &0EF8,X | ☐ | | |
| | 88CD | 60 | RTS | ☐ | | |
| | 88CE | 9D 00 0E | STA &0E00,X | ☐ | | |
| | 88D1 | 60 | RTS | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| CMD_ACCESS | 88D2 | 20 5E 82 | JSR parameter_afsp | ☐ | | |
| | 88D5 | 20 01 9A | JSR initparam (syntax error if none) | ☐ | | |
| | 88D8 | 20 FE 80 | JSR read_(a)fsp@TextPointer  (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 88DB | A2 00 | LDX #&00 | ☐ | | |
| | 88DD | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| | 88E0 | D0 23 | BNE &8905 | ☐ | | |
| | 88E2 | 86 AA | STX &AA | ☐ | | |
| | 88E4 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 88E7 | B0 03 | BCS &88EC | ☐ | | |
| | 88E9 | 4C 76 82 | JMP err_FILENOTFOUND | ☐ | | |
| | 88EC | 20 4F 98 | JSR &984F | ☐ | | |
| | 88EF | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 88F2 | 29 7F | AND #&7F | ☐ | | |
| | 88F4 | 05 AA | ORA &AA | ☐ | | |
| | 88F6 | 99 0F 0E | STA &0E0F,Y | ☐ | | |
| | 88F9 | 20 FC 82 | JSR prt_InfoLineif?10c7>=&80,Y=o/set | ☐ | | |
| | 88FC | 20 9D 82 | JSR get_cat_nextentry(return:C=1=found,Y=offset) | ☐ | | |
| | 88FF | B0 EB | BCS &88EC | ☐ | | |
| | 8901 | 90 C0 | BCC &88C3 | ☐ | | |
| | 8903 | A2 80 | LDX #&80 | ☐ | | |
| | 8905 | 20 C5 FF | JSR GSREAD | ☐ | | |
| | 8908 | B0 D8 | BCS &88E2 | ☐ | | |
| | 890A | C9 4C | CMP #&4C | ☐ | | "L" |
| | 890C | F0 F5 | BEQ &8903 | ☐ | | |
| .errBADATTRIBUTE | 890E | 20 22 80 | JSR .errBAD | ☐ | | |
| | 8911 | CF 61 74 74 72 69 62 75 | Ïattribu | ☐ | | |
| | 8919 | 74 65 | te | ☐ | | |
| | 891B | 00 | BRK | ☐ | | |
| .fscv0_*OPT | 891C | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 891F | 8A | TXA | ☐ | | |
| | 8920 | C9 04 | CMP #&04 | ☐ | | |
| | 8922 | F0 1A | BEQ SetBootOption Y=option | ☐ | | |
| | 8924 | C9 02 | CMP #&02 | ☐ | | |
| | 8926 | 90 0B | BCC &8933 | ☐ | | |
| .errBADOPTION | 8928 | 20 22 80 | JSR .errBAD | ☐ | | |
| | 892B | CB 6F 70 74 69 6F 6E 00 | Ëoption. | ☐ | | |
| | 8933 | A2 FF | LDX #&FF | ☐ | | *OPT 1,X |
| | 8935 | 98 | TYA | ☐ | | |
| | 8936 | F0 02 | BEQ &893A | ☐ | | |
| | 8938 | A2 00 | LDX #&00 | ☐ | | |
| | 893A | 8E C7 10 | STX &10C7 | ☐ | | |
| | 893D | 60 | RTS | ☐ | | |
| SetBootOption Y=option | 893E | 98 | TYA | ☐ | | |
| | 893F | 48 | PHA | ☐ | | |
| | 8940 | 20 4D 83 | JSR setCECF_driveno | ☐ | | |
| | 8943 | 20 EB 8A | JSR LoadCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | load cat |
| | 8946 | 68 | PLA | ☐ | | |
| | 8947 | 20 0B 82 | JSR .A<<4 | ☐ | | |
| | 894A | 4D 06 0F | EOR &0F06 | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 894D | 29 30 | AND #&30 | ☐ | | |
| | 894F | 4D 06 0F | EOR &0F06 | ☐ | | |
| | 8952 | 8D 06 0F | STA &0F06 | ☐ | | |
| | 8955 | 4C B4 8A | JMP SaveCatToDisk | ☐ | | save cat |
| .errDISKFULL | 8958 | 20 18 80 | JSR .errDISK | ☐ | | |
| | 895B | C6 66 75 6C 6C 00 | Æfull. | ☐ | | |
| .createfile fsp@(&BC) | 8961 | 20 06 81 | JSR read_(a)fsp@(&BC) (ret.Y=Tpoffset nonblank) | ☐ | | loads cat |
| | 8964 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | does file exist |
| | 8967 | 90 03 | BCC .createfile_nodel | ☐ | | |
| | 8969 | 20 D1 82 | JSR DeleteCatEntry Y=FileOffset | ☐ | | delete previous file |
| .createfile_nodel | 896C | A5 C2 | LDA &C2 | ☐ | | save wC2 |
| | 896E | 48 | PHA | ☐ | | |
| | 896F | A5 C3 | LDA &C3 | ☐ | | |
| | 8971 | 48 | PHA | ☐ | | |
| | 8972 | 38 | SEC | ☐ | | |
| | 8973 | A5 C4 | LDA &C4 | ☐ | | wC2=wC4-wC2 |
| | 8975 | E5 C2 | SBC &C2 | ☐ | | |
| | 8977 | 85 C2 | STA &C2 | ☐ | | |
| | 8979 | A5 C5 | LDA &C5 | ☐ | | |
| | 897B | E5 C3 | SBC &C3 | ☐ | | |
| | 897D | 85 C3 | STA &C3 | ☐ | | |
| | 897F | AD 7A 10 | LDA &107A | ☐ | | |
| | 8982 | ED 78 10 | SBC &1078 | ☐ | | |
| | 8985 | 85 C6 | STA &C6 | ☐ | | |
| | 8987 | 20 9D 89 | JSR .createfile_2 | ☐ | | |
| | 898A | AD 79 10 | LDA &1079 | ☐ | | |
| | 898D | 8D 75 10 | STA &1075 | ☐ | | |
| | 8990 | AD 78 10 | LDA &1078 | ☐ | | |
| | 8993 | 8D 74 10 | STA &1074 | ☐ | | |
| | 8996 | 68 | PLA | ☐ | | |
| | 8997 | 85 BF | STA &BF | ☐ | | |
| | 8999 | 68 | PLA | ☐ | | |
| | 899A | 85 BE | STA &BE | ☐ | | |
| | 899C | 60 | RTS | ☐ | | |
| .createfile_2 | 899D | A9 00 | LDA #&00 | ☐ | | NB Cat stored in |
| | 899F | 85 C4 | STA &C4 | ☐ | | desc start sec order |
| | 89A1 | A9 02 | LDA #&02 | ☐ | | (file at 002 last) |
| | 89A3 | 85 C5 | STA &C5 | ☐ | | c4/c5=&200 |
| | 89A5 | AC 05 0F | LDY FilesX8 | ☐ | | find free block |
| | 89A8 | F0 2D | BEQ .createfile_endofdisk | ☐ | | big enough |
| | 89AA | C0 F8 | CPY #&F8 | ☐ | | for new file |
| | 89AC | B0 56 | BCS .errCATALOGUEFULL | ☐ | | |
| | 89AE | 20 9E 85 | JSR .getfirstblock | ☐ | | |
| | 89B1 | 4C BC 89 | JMP .createfile_cont2 | ☐ | | |
| .createfile_loop | 89B4 | F0 A2 | BEQ .errDISKFULL | ☐ | | |
| | 89B6 | 20 19 82 | JSR .Y=Y-8 | ☐ | | |
| | 89B9 | 20 7F 85 | JSR .getnextblock | ☐ | | |
| .createfile_cont2 | 89BC | 98 | TYA | ☐ | | |
| | 89BD | 90 F5 | BCC .createfile_loop | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 89BF | 84 B0 | STY PrivateWorkspacePointer | ☐ | | block found |
| | 89C1 | AC 05 0F | LDY FilesX8 | ☐ | | |
| .createfile_insertfileloop | 89C4 | C4 B0 | CPY PrivateWorkspacePointer | ☐ | | |
| | 89C6 | F0 0F | BEQ .createfile_endofdisk | ☐ | | |
| | 89C8 | B9 07 0E | LDA &0E07,Y | ☐ | | |
| | 89CB | 99 0F 0E | STA &0E0F,Y | ☐ | | |
| | 89CE | B9 07 0F | LDA &0F07,Y | ☐ | | |
| | 89D1 | 99 0F 0F | STA &0F0F,Y | ☐ | | |
| | 89D4 | 88 | DEY | ☐ | | |
| | 89D5 | B0 ED | BCS .createfile_insertfileloop | ☐ | | |
| .createfile_endofdisk | 89D7 | A2 00 | LDX #&00 | ☐ | | |
| | 89D9 | 20 17 8A | JSR .8a17 | ☐ | | |
| | 89DC | B5 C7 | LDA FilenameParam,X | ☐ | | |
| | 89DE | 99 08 0E | STA &0E08,Y | ☐ | | |
| | 89E1 | C8 | INY | ☐ | | |
| | 89E2 | E8 | INX | ☐ | | |
| | 89E3 | E0 08 | CPX #&08 | ☐ | | |
| | 89E5 | D0 F5 | BNE &89DC | ☐ | | |
| | 89E7 | B5 BD | LDA &BD,X | ☐ | | |
| | 89E9 | 88 | DEY | ☐ | | |
| | 89EA | 99 08 0F | STA &0F08,Y | ☐ | | |
| | 89ED | CA | DEX | ☐ | | |
| | 89EE | D0 F7 | BNE &89E7 | ☐ | | |
| | 89F0 | 20 FC 82 | JSR prt_InfoLineif?10c7>=&80,Y=o/set | ☐ | | |
| | 89F3 | 98 | TYA | ☐ | | |
| | 89F4 | 48 | PHA | ☐ | | |
| | 89F5 | AC 05 0F | LDY FilesX8 | ☐ | | |
| | 89F8 | 20 10 82 | JSR .Y=Y+8 | ☐ | | |
| | 89FB | 8C 05 0F | STY FilesX8 | ☐ | | |
| | 89FE | 20 B4 8A | JSR SaveCatToDisk | ☐ | | save cat |
| | 8A01 | 68 | PLA | ☐ | | |
| | 8A02 | A8 | TAY | ☐ | | |
| | 8A03 | 60 | RTS | ☐ | | |
| .errCATALOGUEFULL | 8A04 | 20 33 80 | JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |
| | 8A07 | BE 43 61 74 61 6C 6F 67 | ¾Catalog | ☐ | | |
| | 8A0F | 75 65 20 66 75 6C 6C 00 | ue full. | ☐ | | |
| .8a17 | 8A17 | AD 76 10 | LDA &1076 | ☐ | | |
| | 8A1A | 29 03 | AND #&03 | ☐ | | |
| | 8A1C | 0A | ASL | ☐ | | |
| | 8A1D | 0A | ASL | ☐ | | |
| | 8A1E | 45 C6 | EOR &C6 | ☐ | | |
| | 8A20 | 29 FC | AND #&FC | ☐ | | |
| | 8A22 | 45 C6 | EOR &C6 | ☐ | | |
| | 8A24 | 0A | ASL | ☐ | | |
| | 8A25 | 0A | ASL | ☐ | | |
| | 8A26 | 4D 74 10 | EOR &1074 | ☐ | | |
| | 8A29 | 29 FC | AND #&FC | ☐ | | |
| | 8A2B | 4D 74 10 | EOR &1074 | ☐ | | |
| | 8A2E | 0A | ASL | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8A2F | 0A | ASL | ☐ | | |
| | 8A30 | 45 C4 | EOR &C4 | ☐ | | |
| | 8A32 | 29 FC | AND #&FC | ☐ | | |
| | 8A34 | 45 C4 | EOR &C4 | ☐ | | |
| | 8A36 | 85 C4 | STA &C4 | ☐ | | |
| | 8A38 | 60 | RTS | ☐ | | |
| CMD_ENABLE | 8A39 | A9 01 | LDA #&01 | ☐ | | |
| | 8A3B | 8D C8 10 | STA CMDEnabledIf1 | ☐ | | |
| | 8A3E | 60 | RTS | ☐ | | |
| LoadAddrHi2(?C4=mixed byte : if Host=FFFF) | 8A3F | A9 00 | LDA #&00 | ☐ | | |
| | 8A41 | 8D 75 10 | STA &1075 | ☐ | | |
| | 8A44 | A5 C4 | LDA &C4 | ☐ | | "mixed byte" |
| | 8A46 | 20 FF 81 | JSR .A>>2 and 3 | ☐ | | load addr |
| | 8A49 | C9 03 | CMP #&03 | ☐ | | |
| | 8A4B | D0 05 | BNE .notHost | ☐ | | |
| | 8A4D | A9 FF | LDA #&FF | ☐ | | host addr |
| | 8A4F | 8D 75 10 | STA &1075 | ☐ | | |
| .notHost | 8A52 | 8D 74 10 | STA &1074 | ☐ | | |
| | 8A55 | 60 | RTS | ☐ | | |
| ExecAddrHi2(?C4=mixed byte) | 8A56 | A9 00 | LDA #&00 | ☐ | | |
| | 8A58 | 8D 77 10 | STA &1077 | ☐ | | |
| | 8A5B | A5 C4 | LDA &C4 | ☐ | | |
| | 8A5D | 20 FB 81 | JSR .A>>6 and 3 | ☐ | | |
| | 8A60 | C9 03 | CMP #&03 | ☐ | | |
| | 8A62 | D0 05 | BNE &8A69 | ☐ | | |
| | 8A64 | A9 FF | LDA #&FF | ☐ | | |
| | 8A66 | 8D 77 10 | STA &1077 | ☐ | | |
| | 8A69 | 8D 76 10 | STA &1076 | ☐ | | |
| | 8A6C | 60 | RTS | ☐ | | |
| CMD_RENAME | 8A6D | 20 62 82 | JSR parameter_fsp | ☐ | | |
| | 8A70 | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| | 8A73 | D0 03 | BNE .cmd_rename_params | ☐ | | null string |
| .cmd_rename_syntax | 8A75 | 4C 06 9A | JMP .syntaxerr | ☐ | | |
| .cmd_rename_params | 8A78 | 20 FE 80 | JSR read_(a)fsp@TextPointer  (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 8A7B | 98 | TYA | ☐ | | |
| | 8A7C | 48 | PHA | ☐ | | |
| | 8A7D | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 8A80 | B0 03 | BCS .cmd_rename_filefound | ☐ | | |
| | 8A82 | 4C 76 82 | JMP err_FILENOTFOUND | ☐ | | |
| .cmd_rename_filefound | 8A85 | 20 4C 98 | JSR CheckFileNotOpen | ☐ | | |
| | 8A88 | 84 B3 | STY &B3 | ☐ | | |
| | 8A8A | 68 | PLA | ☐ | | |
| | 8A8B | A8 | TAY | ☐ | | |
| | 8A8C | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | read new name |
| | 8A8F | F0 E4 | BEQ .cmd_rename_syntax | ☐ | | null string |
| | 8A91 | 20 FE 80 | JSR read_(a)fsp@TextPointer  (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 8A94 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | check doesn't exist |
| | 8A97 | 90 0B | BCC .cmd_rename_newnameOK | ☐ | | |
| .errFILEEXISTS | 8A99 | 20 2B 80 | JSR .errFILE | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 8A9C | C4 65 78 69 73 74 73 00   Äexists. | ☐ | | |
| .cmd_rename_newnameOK | 8AA4 | A4 B3   LDY &B3 | ☐ | | |
| | 8AA6 | 20 10 82   JSR .Y=Y+8 | ☐ | | |
| | 8AA9 | A2 07   LDX #&07 | ☐ | | |
| .cmd_rename_changeloop | 8AAB | B5 C7   LDA FilenameParam,X | ☐ | | |
| | 8AAD | 99 07 0E   STA &0E07,Y | ☐ | | |
| | 8AB0 | 88   DEY | ☐ | | |
| | 8AB1 | CA   DEX | ☐ | | |
| | 8AB2 | 10 F7   BPL .cmd_rename_changeloop | ☐ | | |
| SaveCatToDisk | 8AB4 | 18   CLC | ☐ | | Increment Cycle No |
| | 8AB5 | F8   SED | ☐ | | |
| | 8AB6 | AD 04 0F   LDA &0F04 | ☐ | | |
| | 8AB9 | 69 01   ADC #&01 | ☐ | | |
| | 8ABB | D8   CLD | ☐ | | |
| | 8ABC | 8D 04 0F   STA &0F04 | ☐ | | |
| | 8ABF | 20 04 8B   JSR ResetFDCNMI | ☑ | JMP mmcsavecurdrvcat | |
| BLOCK X | 8AC2 | 20 35 8C   JSR SetRW_Attempts=&A | ☑ | | |
| .savecat_attemptsloop | 8AC5 | A0 2B   LDY #&2B | ☑ | | |
| | 8AC7 | C6 A2   DEC NMI_RW_attempts | ☑ | | |
| | 8AC9 | 30 56   BMI FDC_ERROR(A=FDC Result) | ☑ | | |
| | 8ACB | 20 88 8B   JSR FDC_cmdfromtable Y=index (exit Y=nextindex) | ☑ | | verify track 0/secs 8 & 9 |
| | 8ACE | 20 CF 8C   JSR FDC_ReadResult (ret. A=RESULT,C preserved) | ☑ | | |
| | 8AD1 | D0 F2   BNE .savecat_attemptsloop | ☑ | | |
| | 8AD3 | 20 24 8C   JSR LoadNMI0Write@0E00 | ☑ | | |
| | 8AD6 | D0 1C   BNE RW_Curdrvcat | ☑ | | always |
| CheckCurDrvCatalog2 | 8AD8 | 20 4D 83   JSR setCECF_driveno | ☑ | | |
| | 8ADB | 20 58 83   JSR GetDriveNo_withInit | ☑ | | |
| CheckCurDrvCatalog | 8ADE | 20 BD 8B   JSR FDC_DriveReady (Z=1=ready) | ☑ | | |
| | 8AE1 | F0 08   BEQ LoadCurDrvCatalog | ☑ | | |
| | 8AE3 | AD 82 10   LDA CurrentCrvCatalog | ☑ | | |
| | 8AE6 | C5 CF   CMP CurrentDrv | ☑ | | |
| | 8AE8 | D0 01   BNE LoadCurDrvCatalog | ☑ | | |
| .ResetFDC_SeekOK | 8AEA | 60   RTS | ☑ | | Ok, no need to read? |
| LoadCurDrvCatalog | 8AEB | 20 9E 8B   JSR FDC_DriveReady/Reset | ☑ | | |
| | 8AEE | 20 04 8B   JSR ResetFDCNMI | ☑ | | |
| RW_Curdrvcat | 8AF1 | 20 16 8C   JSR LoadNMI1Read@0E00 | ☑ | | |
| RW_Curdrvcat | 8AF4 | A9 00   LDA #&00 | ☑ | | Host only! |
| | 8AF6 | 8D D6 10   STA TubeTransferIfNotZero | ☑ | | |
| | 8AF9 | 20 78 8C   JSR FDC_SetupRW ?A1=cmd ?BA=trk ?BB=sec A4/A5secsleft | ☑ | | |
| | 8AFC | A5 CF   LDA CurrentDrv | ☑ | | |
| | 8AFE | 8D 82 10   STA CurrentCrvCatalog | ☑ | | |
| | 8B01 | 4C E7 98   JMP RELEASE_NMI_WaitFDCbusy (A=bitmask)(AXY preserved) | ☑ | | |
| ResetFDCNMI | 8B04 | A9 02   LDA #&02 | ☑ | | Reset vars/NMI routine and seek trk 0 |
| | 8B06 | 20 AC 98   JSR BLOCK A CLAIM_NMI A=CODE No (0 to 6) | ☑ | | D00=RTI! |
| | 8B09 | A0 00   LDY #&00 | ☑ | | |
| | 8B0B | 84 BA   STY Track | ☑ | | ?BA=0 |
| | 8B0D | 84 BB   STY Sector | ☑ | | ?BB=0 |
| | 8B0F | 84 A3   STY NMI_Counter1 | ☑ | | ?A3=0 |
| | 8B11 | C8   INY | ☑ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 8B12  84 A5    STY NMI_Counter3 | ☑ | | ?A5=1 |
| | 8B14  C8        INY | ☑ | | |
| | 8B15  84 A4    STY NMI_Counter2 | ☑ | | ?A4=2 |
| | 8B17  A0 28    LDY #&28 | ☑ | | |
| | 8B19  20 88 8B JSR FDC_cmdfromtable Y=index (exit Y=nextindex) | ☑ | | Seek trk 0 |
| | 8B1C  20 CF 8C JSR FDC_ReadResult (ret. A=RESULT,C preserved) | ☑ | | |
| | 8B1F  F0 C9    BEQ .ResetFDC_SeekOK | ☑ | | Seek OK exit |
| FDC_ERROR(A=FDC Result) | 8B21  20 EA 98 JSR RELEASE_NMI (AXY preserved) | ☑ | | |
| | 8B24  C9 12    CMP #&12 | ☑ | | Disk Write Protected? |
| | 8B26  D0 0E    BNE .disknotwriteprotected | ☑ | | z=0=no |
| .err_DISKREADONLY | 8B28  20 18 80 JSR .errDISK | ☑ | | |
| | 8B2B  C9 72 65 61 64 20 6F 6E    Éread on | ☑ | | |
| | 8B33  6C 79 00           ly. | ☑ | | |
| .disknotwriteprotected | 8B36  48        PHA | ☑ | | |
| | 8B37  C9 0A    CMP #&0A | ☑ | | Late DMA |
| | 8B39  F0 39    BEQ .errDRIVEFAULT | ☑ | | |
| | 8B3B  29 0F    AND #&0F | ☑ | | |
| | 8B3D  C9 08    CMP #&08 | ☑ | | |
| | 8B3F  90 33    BCC .errDRIVEFAULT | ☑ | | <8 (Comp.Type bit0 not set) |
| .errDISKFAULT | 8B41  20 18 80 JSR .errDISK | ☑ | | |
| | 8B44  C7 66 61 75 6C 74 20    Çfault | ☑ | | |
| | 8B4B  EA        NOP | ☑ | | |
| .errFAULTDESC | 8B4C  68        PLA | ☑ | | |
| | 8B4D  20 C2 80 JSR prthex(A) A preserved | ☑ | | fault no (FDC result) |
| | 8B50  20 65 80 JSR prtstr (if term.=0,BRK 100,no return) | ☑ | | |
| | 8B53  20 61 74 20          at | ☑ | | |
| | 8B57  A5 BA    LDA Track | ☑ | | track? |
| | 8B59  20 C2 80 JSR prthex(A) A preserved | ☑ | | |
| | 8B5C  A9 2F    LDA #&2F | ☑ | | print "/" |
| | 8B5E  20 9C 80 JSR prtchr/add100(10DE) A=Chr | ☑ | | |
| | 8B61  A9 7D    LDA #&7D | ☑ | | rd spec.reg |
| | 8B63  20 BD 8C JSR FDC_WriteCmd A=Cmd (ret. C=drv) | ☑ | | |
| | 8B66  A9 06    LDA #&06 | ☑ | | sector no. |
| | 8B68  20 B0 8C JSR FDC_WriteParam A=Param | ☑ | | |
| | 8B6B  20 CF 8C JSR FDC_ReadResult (ret. A=RESULT,C preserved) | ☑ | | |
| | 8B6E  20 C2 80 JSR prthex(A) A preserved | ☑ | | print sector |
| | 8B71  4C 8A 80 JMP prtstr_BRK | ☑ | | force error |
| .errDRIVEFAULT | 8B74  20 33 80 JSR Brk100_erno (term.=0 causes BRK) | ☑ | | |
| | 8B77  C5 44 72 69 76 65 20 66  ÅDrive f | ☑ | | |
| | 8B7F  61 75 6C 74 20          ault | ☑ | | |
| | 8B84  EA        NOP | ☑ | | |
| | 8B85  4C 4C 8B JMP .errFAULTDESC | ☑ | | |
| | 8B87  8B                  < | ☑ | | |
| FDC_cmdfromtable Y=index (exit Y=nextindex) | 8B88  B9 E2 8C LDA .fdccmdtable0,Y | ☑ | | write cmd |
| | 8B8B  20 BD 8C JSR FDC_WriteCmd A=Cmd (ret. C=drv) | ☑ | | |
| .fdc_cmdfromtabl_loop | 8B8E  C8        INY | ☑ | | write parameters |
| | 8B8F  B9 E2 8C LDA .fdccmdtable0,Y | ☑ | | end with EA |
| | 8B92  C9 EA    CMP #&EA | ☑ | | |
| | 8B94  F0 06    BEQ .fdc_cmdfromtbl_exitloop | ☑ | | |

| Label | Code | | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|---|
| | 8B96 | 20 B0 8C | JSR FDC_WriteParam A=Param | | ☑ | | |
| | 8B99 | 4C 8E 8B | JMP .fdc_cmdfromtabl_loop | | ☑ | | |
| .fdc_cmdfromtbl_exitloop | 8B9C | C8 | INY | | ☑ | | |
| | 8B9D | 60 | RTS | | ☑ | | |
| FDC_DriveReady/Reset | 8B9E | 48 | PHA | | ☑ | | reset for current drv |
| | 8B9F | 98 | TYA | | ☑ | | and check drv ready |
| | 8BA0 | 48 | PHA | | ☑ | | |
| | 8BA1 | A5 CF | LDA CurrentDrv | | ☑ | | |
| | 8BA3 | A8 | TAY | | ☑ | | |
| | 8BA4 | A9 3A | LDA #&3A | | ☑ | | FDC Write Special Register |
| | 8BA6 | 20 C6 8C | JSR FDC_WriteCmd A=CMD (no drv select) | | ☑ | | |
| | 8BA9 | A9 23 | LDA #&23 | | ☑ | | Drive Control Output Port |
| | 8BAB | 20 B0 8C | JSR FDC_WriteParam A=Param | | ☑ | | |
| | 8BAE | B9 CD 8B | LDA .drvctloutport_table,Y | | ☑ | | Y=Drive, get entry for drive |
| | 8BB1 | 20 B0 8C | JSR FDC_WriteParam A=Param | | ☑ | | |
| .fdc_drive_not_ready | 8BB4 | 20 BD 8B | JSR FDC_DriveReady (Z=1=ready) | | ☑ | | try again! |
| | 8BB7 | F0 FB | BEQ .fdc_drive_not_ready | | ☑ | | wait til ready |
| | 8BB9 | 68 | PLA | | ☑ | | |
| | 8BBA | A8 | TAY | | ☑ | | |
| | 8BBB | 68 | PLA | | ☑ | | |
| | 8BBC | 60 | RTS | | ☑ | | |
| FDC_DriveReady (Z=1=ready) | 8BBD | A9 6C | LDA #&6C | | ☑ | | READ DRIVE STATUS |
| | 8BBF | 20 BD 8C | JSR FDC_WriteCmd A=Cmd (ret. C=drv) | | ☑ | | |
| | 8BC2 | 20 CF 8C | JSR FDC_ReadResult (ret. A=RESULT,C preserved) | | ☑ | | |
| | 8BC5 | 90 03 | BCC .fdc_readdrvstatus_drv0 | | ☑ | | if drive 0 |
| | 8BC7 | 20 05 82 | JSR .A>>4 | | ☑ | | |
| .fdc_readdrvstatus_drv0 | 8BCA | 29 04 | AND #&04 | | ☑ | | Bit2=Drive Ready |
| | 8BCC | 60 | RTS | | ☑ | | |
| .drvctloutport_table | 8BCD | 48 88 68 A8 | | H^h¨ | ☑ | | Drive 0 |
| set_1074/75=&FFFF (AXY preserved) | 8BD1 | 48 | PHA | | ☑ | | |
| | 8BD2 | A9 FF | LDA #&FF | | ☑ | | |
| | 8BD4 | 8D 74 10 | STA &1074 | | ☑ | | |
| | 8BD7 | 8D 75 10 | STA &1075 | | ☑ | | |
| | 8BDA | 68 | PLA | | ☑ | | |
| | 8BDB | 60 | RTS | | ☑ | | |
| TubeRoutine C=0 if executed | 8BDC | AD 80 10 | LDA TubeOpCode | | ☑ | | get op |
| | 8BDF | 48 | PHA | | ☑ | | see AUG pg.345 |
| | 8BE0 | AD D6 10 | LDA TubeTransferIfNotZero | | ☑ | | |
| | 8BE3 | 4C 02 8C | JMP .tuberoutineinit'ed | | ☑ | | |
| TubeRoutine_Init(A=op) C=0 if rw Tube else Host | 8BE6 | 48 | PHA | | ☑ | | |
| | 8BE7 | 8D 80 10 | STA TubeOpCode | | ☑ | | save op |
| | 8BEA | A5 BE | LDA &BE | | ☑ | | |
| | 8BEC | 8D 72 10 | STA &1072 | | ☑ | | |
| | 8BEF | A5 BF | LDA &BF | | ☑ | | |
| | 8BF1 | 8D 73 10 | STA &1073 | | ☑ | | |
| | 8BF4 | AD 74 10 | LDA &1074 | | ☑ | | |
| | 8BF7 | 2D 75 10 | AND &1075 | | ☑ | | =FF if load to Host |
| | 8BFA | 0D D7 10 | ORA TubePresentIf0 | | ☑ | | |
| | 8BFD | 49 FF | EOR #&FF | | ☑ | | -> =0 if load to host |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8BFF | 8D D6 10 | STA TubeTransferIfNotZero | ☑ | | |
| .tuberoutineinit'ed | 8C02 | 38 | SEC | ☑ | | |
| | 8C03 | F0 0A | BEQ .notTUBEtransfer | ☑ | | ?10d6<>0 |
| | 8C05 | A2 72 | LDX #&72 | ☑ | | |
| | 8C07 | A0 10 | LDY #&10 | ☑ | | TubeAddr=&1072 |
| | 8C09 | 68 | PLA | ☑ | | |
| | 8C0A | 48 | PHA | ☑ | | |
| | 8C0B | 20 06 04 | JSR TubeCode(YX=addr,A=0:initrd,A=1:initwr,A=4:strexe) | ☑ | | |
| | 8C0E | 18 | CLC | ☑ | | |
| .notTUBEtransfer | 8C0F | 68 | PLA | ☑ | | |
| | 8C10 | 60 | RTS | ☑ | | EXIT C=1 if ?10d6=0 |
| LoadNMI1Read@0E00_TubeInit (ex.Z=0) | 8C11 | A9 01 | LDA #&01 | ☑ | | |
| | 8C13 | 20 E6 8B | JSR TubeRoutine_Init(A=op) C=0 if rw Tube else Host | ☑ | | init write to Tube |
| LoadNMI1Read@0E00 | 8C16 | A9 01 | LDA #&01 | ☑ | | |
| | 8C18 | 20 AC 98 | JSR BLOCK A CLAIM_NMI A=CODE No (0 to 6) | ☑ | | |
| | 8C1B | A9 53 | LDA #&53 | ☑ | | FDC cmd=READ DATA |
| | 8C1D | D0 0C | BNE InitNMIvars(FDCCmd=A,DataPointer=&E00,Attempts=&A) | ☑ | | always |
| LoadNMI0Write@0E00_TubeInit (ex.Z=0) | 8C1F | A9 00 | LDA #&00 | ☑ | | |
| | 8C21 | 20 E6 8B | JSR TubeRoutine_Init(A=op) C=0 if rw Tube else Host | ☑ | | init read from Tube |
| LoadNMI0Write@0E00 | 8C24 | A9 00 | LDA #&00 | ☑ | | |
| | 8C26 | 20 AC 98 | JSR BLOCK A CLAIM_NMI A=CODE No (0 to 6) | ☑ | | |
| | 8C29 | A9 4B | LDA #&4B | ☑ | | FDC cmd=WRITE DATA |
| InitNMIvars(FDCCmd=A,DataPointer=&E00 ,Attempts=&A) | 8C2B | 85 A1 | STA NMI_FDCcmd | ☑ | | cmd |
| | 8C2D | A9 00 | LDA #&00 | ☑ | | |
| | 8C2F | 85 A6 | STA NMI_DataPointer | ☑ | | |
| | 8C31 | A9 0E | LDA #&0E | ☑ | | |
| | 8C33 | 85 A7 | STA NMI_DataPointer+1 | ☑ | | |
| SetRW_Attempts=&A | 8C35 | A9 0A | LDA #&0A | ☑ | | |
| | 8C37 | 85 A2 | STA NMI_RW_attempts | ☑ | | |
| | 8C39 | 60 | RTS | ☑ | | |
| FDCIntRequest | 8C3A | 20 CF 8C | JSR FDC_ReadResult (ret. A=RESULT,C preserved) | ☑ | | Called by NMI routine |
| | 8C3D | D0 20 | BNE .fdcintrequest_resultnotzero | ☑ | | Result<>0 = error |
| | 8C3F | 20 35 8C | JSR SetRW_Attempts=&A | ☑ | | ?A2=&A |
| | 8C42 | E6 BA | INC Track | ☑ | | trk=trk+1 |
| | 8C44 | A9 00 | LDA #&00 | ☑ | | |
| | 8C46 | 85 BB | STA Sector | ☑ | | sec=0 |
| | 8C48 | AD 7C 10 | LDA &107C | ☑ | | secs read last trk |
| | 8C4B | 18 | CLC | ☑ | | |
| | 8C4C | 6D 73 10 | ADC &1073 | ☑ | | wd 1073+=byte 107c |
| | 8C4F | 8D 73 10 | STA &1073 | ☑ | | |
| | 8C52 | 90 24 | BCC FDC_SetupRW ?A1=cmd ?BA=trk ?BB=sec A4/A5secsleft | ☑ | | |
| | 8C54 | EE 74 10 | INC &1074 | ☑ | | |
| | 8C57 | D0 1F | BNE FDC_SetupRW ?A1=cmd ?BA=trk ?BB=sec A4/A5secsleft | ☑ | | |
| | 8C59 | EE 75 10 | INC &1075 | ☑ | | |
| | 8C5C | 4C 78 8C | JMP FDC_SetupRW ?A1=cmd ?BA=trk ?BB=sec A4/A5secsleft | ☑ | | |
| .fdcintrequest_resultnotzero | 8C5F | C6 A2 | DEC NMI_RW_attempts | ☑ | | dec RW_attempts |
| | 8C61 | 10 03 | BPL .retryFDCoperation | ☑ | | If >0 try again |
| | 8C63 | 4C 21 8B | JMP FDC_ERROR(A=FDC Result) | ☑ | | |
| .retryFDCoperation | 8C66 | A0 04 | LDY #&04 | ☑ | | use copy of NMI vars |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| .restoreNMIvars_loop | 8C68 | B9 40 10 | LDA CopyOfNMIVars,Y | ☑ | | |
| | 8C6B | 99 A3 00 | STA NMI_Counter1,Y | ☑ | | |
| | 8C6E | 88 | DEY | ☑ | | |
| | 8C6F | 10 F7 | BPL .restoreNMIvars_loop | ☑ | | |
| | 8C71 | 8A | TXA | ☑ | | |
| | 8C72 | 48 | PHA | ☑ | | |
| | 8C73 | 20 DC 8B | JSR TubeRoutine C=0 if executed | ☑ | | Tell Tube retrying |
| | 8C76 | 68 | PLA | ☑ | | |
| | 8C77 | AA | TAX | ☑ | | |
| FDC_SetupRW ?A1=cmd ?BA=trk ?BB=sec A4/A5secsleft | 8C78 | A5 A5 | LDA NMI_Counter3 | ☑ | | nothing to do! |
| | 8C7A | F0 40 | BEQ .fdc_writeparam_exit | ☑ | | |
| SaveNMIVars | 8C7C | A0 04 | LDY #&04 | ☑ | | Save NMI vars |
| .saveNmivars_loop | 8C7E | B9 A3 00 | LDA NMI_Counter1,Y | ☑ | | |
| | 8C81 | 99 40 10 | STA CopyOfNMIVars,Y | ☑ | | |
| | 8C84 | 88 | DEY | ☑ | | |
| | 8C85 | 10 F7 | BPL .saveNmivars_loop | ☑ | | |
| | 8C87 | A5 A1 | LDA NMI_FDCcmd | ☑ | | ?A1=cmd |
| | 8C89 | 20 BD 8C | JSR FDC_WriteCmd A=Cmd (ret. C=drv) | ☑ | | |
| | 8C8C | A5 BA | LDA Track | ☑ | | track? |
| | 8C8E | 20 B0 8C | JSR FDC_WriteParam A=Param | ☑ | | |
| | 8C91 | A5 BB | LDA Sector | ☑ | | sector? |
| | 8C93 | 20 B0 8C | JSR FDC_WriteParam A=Param | ☑ | | |
| | 8C96 | A9 0A | LDA #&0A | ☑ | | 10 sectors/track? |
| | 8C98 | 38 | SEC | ☑ | | |
| | 8C99 | E5 BB | SBC Sector | ☑ | | 10-first sector |
| | 8C9B | 8D 7C 10 | STA &107C | ☑ | | =rd.secs.on track |
| | 8C9E | A5 A5 | LDA NMI_Counter3 | ☑ | | a4/a5 total no.of secs? |
| | 8CA0 | C9 01 | CMP #&01 | ☑ | | |
| | 8CA2 | D0 07 | BNE secs_a5<>1 | ☑ | | if a5<>#1 |
| | 8CA4 | A5 A4 | LDA NMI_Counter2 | ☑ | | no.of sec left??? |
| | 8CA6 | CD 7C 10 | CMP &107C | ☑ | | |
| | 8CA9 | 90 03 | BCC readlessthansecsontrk | ☑ | | a4=secsleft<secs on track |
| secs_a5<>1 | 8CAB | AD 7C 10 | LDA &107C | ☑ | | |
| readlessthansecsontrk | 8CAE | 09 20 | ORA #&20 | ☑ | | A=secsize=256/noofsecs |
| FDC_WriteParam A=Param | 8CB0 | 48 | PHA | ☑ | | |
| .fdc_writeparam_wait | 8CB1 | AD 80 FE | LDA FDC_WRCMD_RDSTATUS | ☑ | | |
| | 8CB4 | 29 20 | AND #&20 | ☑ | | 1 = parameter reg full |
| | 8CB6 | D0 F9 | BNE .fdc_writeparam_wait | ☑ | | wait 'til empty |
| | 8CB8 | 68 | PLA | ☑ | | |
| | 8CB9 | 8D 81 FE | STA FDC_WRPARA_RDRESULT | ☑ | | |
| .fdc_writeparam_exit | 8CBC | 60 | RTS | ☑ | | |
| FDC_WriteCmd A=Cmd (ret. C=drv) | 8CBD | 48 | PHA | ☑ | | A=DRIVE0 + CMD |
| | 8CBE | A5 CF | LDA CurrentDrv | ☑ | | |
| | 8CC0 | 6A | ROR | ☑ | | bit 0 = drive 0 or 1 |
| | 8CC1 | 68 | PLA | ☑ | | |
| | 8CC2 | 90 02 | BCC FDC_WriteCmd A=CMD (no drv select) | ☑ | | C=drive (S=01XXXXXX) |
| | 8CC4 | 49 C0 | EOR #&C0 | ☑ | | S=10XXXXXX |
| FDC_WriteCmd A=CMD (no drv select) | 8CC6 | 2C 80 FE | BIT FDC_WRCMD_RDSTATUS | ☑ | | |
| | 8CC9 | 30 FB | BMI FDC_WriteCmd A=CMD (no drv select) | ☑ | | while FDC command busy |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|:---:|---|---|
| | 8CCB | 8D 80 FE  STA FDC_WRCMD_RDSTATUS | ☑ | | |
| | 8CCE | 60        RTS | ☑ | | |
| FDC_ReadResult (ret. A=RESULT,C preserved) | 8CCF | 20 D6 8C  JSR FDC_WaitIfBusy (AXY preserved) | ☑ | | |
| | 8CD2 | AD 81 FE  LDA FDC_WRPARA_RDRESULT | ☑ | | |
| | 8CD5 | 60        RTS | ☑ | | |
| FDC_WaitIfBusy (AXY preserved) | 8CD6 | 58        CLI | ☑ | | allow interrupts |
| .fdc_waitifbusyloop | 8CD7 | 2C 80 FE  BIT FDC_WRCMD_RDSTATUS | ☑ | | command busy? |
| | 8CDA | 30 FB     BMI .fdc_waitifbusyloop | ☑ | | |
| | 8CDC | 2C 80 FE  BIT FDC_WRCMD_RDSTATUS | ☑ | | command busy? |
| | 8CDF | 30 F6     BMI .fdc_waitifbusyloop | ☑ | | |
| | 8CE1 | 60        RTS | ☑ | | |
| .fdccmdtable0 | 8CE2 | 35 0D 02 08 C0 EA      5...Àê | ☑ | | Initialise |
| .fdccmdtable6 | 8CE8 | 35 0D 03 08 C0 EA      5...Àê | ☑ | | Initialise |
| .fdccmdtableC | 8CEE | 35 0D 03 19 C4 EA      5...Äê | ☑ | | Initialise |
| .fdccmdtable12 | 8CF4 | 35 0D 0C 0A C8 EA      5...Èê | ☑ | | Initialise |
| .fdccmdtable18 | 8CFA | 35 10 FF FF 00 EA      5.ÿÿ.ê | ☑ | | Load surface 0 bad tracks |
| .fdccmdtable1E | 8D00 | 35 18 FF FF 00 EA      5.ÿÿ.ê | ☑ | | Load surface 1 bad tracks |
| .fdccmdtable24 | 8D06 | 3A 17 C1 EA           :.Áê | ☑ | | Write mode spec.reg |
| .fdccmdtable28 | 8D0A | 69 00 EA              i.ê | ☑ | | seek track 0 |
| .fdccmdtable2B | 8D0D | 5F 00 08 22 EA        _.."ê | ☑ | | verify data & deleted data |
| NMI0_WRITE | 8D12 | 48        PHA | ☑ | | / |
| | 8D13 | 98        TYA | ☑ | | / |
| | 8D14 | 48        PHA | ☑ | | / |
| | 8D15 | AD 80 FE  LDA FDC_WRCMD_RDSTATUS | ☑ | | / |
| | 8D18 | 29 04     AND #&04 | ☑ | | /1=non DMA data request |
| | 8D1A | F0 48     BEQ .nmi0/1_notNonDMArequest | ☑ | | / |
| | 8D1C | AC D6 10  LDY TubeTransferIfNotZero | ☑ | | / |
| | 8D1F | D0 08     BNE .nmi0_WRITE_fromTube | ☑ | | / |
| | 8D21 | B1 A6     LDA (NMI_DataPointer),Y | ☑ | | / |
| | 8D23 | 8D 84 FE  STA FDC_DATA | ☑ | | / |
| | 8D26 | 4C 38 0D  JMP &0D38 | ☑ | | JMP inc_A6_Dec_A3 |
| .nmi0_WRITE_fromTube | 8D29 | AD E5 FE  LDA TUBE_R3_DATA | ☑ | | Tube |
| | 8D2C | 8D 84 FE  STA FDC_DATA | ☑ | | / |
| | 8D2F | 4C 3E 0D  JMP &0D3E | ☑ | | JMP Dec_A3 |
| NMI1_READ | 8D32 | 48        PHA | ☑ | | / |
| | 8D33 | 98        TYA | ☑ | | / |
| | 8D34 | 48        PHA | ☑ | | / |
| | 8D35 | AD 80 FE  LDA FDC_WRCMD_RDSTATUS | ☑ | | / |
| | 8D38 | 29 04     AND #&04 | ☑ | | 1=Non DMA data request |
| | 8D3A | F0 28     BEQ .nmi0/1_notNonDMArequest | ☑ | | / |
| | 8D3C | AD 84 FE  LDA FDC_DATA | ☑ | | / |
| | 8D3F | A4 A5     LDY NMI_Counter3 | ☑ | | / |
| | 8D41 | F0 17     BEQ .nmi_retfromint | ☑ | | / |
| | 8D43 | AC D6 10  LDY TubeTransferIfNotZero | ☑ | | / |
| | 8D46 | D0 16     BNE .nmi1_read_toTube | ☑ | | / |
| | 8D48 | 91 A6     STA (NMI_DataPointer),Y | ☑ | | / |
| .inc_A6_dec_A3 (0D38/0D18) | 8D4A | E6 A6     INC NMI_DataPointer | ☑ | | / |
| | 8D4C | D0 02     BNE .dec_A3 (0D3E/0D1E) | ☑ | | / |
| | 8D4E | E6 A7     INC NMI_DataPointer+1 | ☑ | | / |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|:---:|---|---|
| .dec_A3 (0D3E/0D1E) | 8D50 | C6 A3 | DEC NMI_Counter1 | ☑ | | / |
| | 8D52 | D0 06 | BNE .nmi_retfromint | ☑ | | / |
| | 8D54 | C6 A4 | DEC NMI_Counter2 | ☑ | | / |
| | 8D56 | D0 02 | BNE .nmi_retfromint | ☑ | | / |
| | 8D58 | C6 A5 | DEC NMI_Counter3 | ☑ | | / |
| .nmi_retfromint | 8D5A | 68 | PLA | ☑ | | / |
| | 8D5B | A8 | TAY | ☑ | | / |
| | 8D5C | 68 | PLA | ☑ | | / |
| NMI2_ExitInterrupt | 8D5D | 40 | RTI | ☑ | | / |
| .nmi1_read_toTube | 8D5E | 8D E5 FE | STA TUBE_R3_DATA | ☑ | | /TUBE |
| | 8D61 | 4C 1E 0D | JMP &0D1E | ☑ | | /JMP dec_A3 |
| .nmi0/1_notNonDMArequest | 8D64 | AD 80 FE | LDA FDC_WRCMD_RDSTATUS | ☑ | | / |
| | 8D67 | 29 08 | AND #&08 | ☑ | | /1 = Interrupt request |
| | 8D69 | D0 06 | BNE .FDCInterruptRequest | ☑ | | / |
| | 8D6B | 68 | PLA | ☑ | | / |
| | 8D6C | A8 | TAY | ☑ | | / |
| | 8D6D | 68 | PLA | ☑ | | / |
| | 8D6E | 6C 00 02 | JMP (USERV) | ☑ | | /USERV |
| .FDCInterruptRequest | 8D71 | A5 F4 | LDA PagedRomSelector_RAMCopy | ☑ | | /Select DFS ROM |
| | 8D73 | 48 | PHA | ☑ | | / |
| | 8D74 | A9 00 | LDA #&00 | ☑ | | /op@D63/D43=DFS.rom.no |
| | 8D76 | 85 F4 | STA PagedRomSelector_RAMCopy | ☑ | | / |
| | 8D78 | 8D 30 FE | STA PagedRomSelector | ☑ | | / |
| | 8D7B | 20 3A 8C | JSR FDCIntRequest | ☑ | | / |
| | 8D7E | 68 | PLA | ☑ | | /Select prev. sel. ROM |
| | 8D7F | 85 F4 | STA PagedRomSelector_RAMCopy | ☑ | | / |
| | 8D81 | 8D 30 FE | STA PagedRomSelector | ☑ | | / |
| | 8D84 | 38 | SEC | ☑ | | / |
| | 8D85 | B0 D3 | BCS .nmi_retfromint | ☑ | | /always; END NMI0/1 |
| NMI6_READ_toMem | 8D87 | 48 | PHA | ☑ | | /save A & Y |
| | 8D88 | 98 | TYA | ☑ | | / |
| | 8D89 | 48 | PHA | ☑ | | / |
| | 8D8A | AD 80 FE | LDA FDC_WRCMD_RDSTATUS | ☑ | | / |
| | 8D8D | 29 04 | AND #&04 | ☑ | | /1 = non DMA data request |
| | 8D8F | F0 0D | BEQ &8D9E | ☑ | | / |
| | 8D91 | AD 84 FE | LDA FDC_DATA | ☑ | | /get data and store |
| | 8D94 | A0 00 | LDY #&00 | ☑ | | /at word A6 |
| | 8D96 | 91 A6 | STA (NMI_DataPointer),Y | ☑ | | / |
| | 8D98 | E6 A6 | INC NMI_DataPointer | ☑ | | / |
| | 8D9A | D0 02 | BNE &8D9E | ☑ | | / |
| | 8D9C | E6 A7 | INC NMI_DataPointer+1 | ☑ | | /inc word A6 |
| | 8D9E | 68 | PLA | ☑ | | / |
| | 8D9F | A8 | TAY | ☑ | | / |
| | 8DA0 | 68 | PLA | ☑ | | / |
| | 8DA1 | 40 | RTI | ☑ | | / |
| NMI4_WRITE_fromMem | 8DA2 | 48 | PHA | ☑ | | / |
| | 8DA3 | 98 | TYA | ☑ | | / |
| | 8DA4 | 48 | PHA | ☑ | | / |
| | 8DA5 | AD 80 FE | LDA FDC_WRCMD_RDSTATUS | ☑ | | / |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8DA8 | 29 04 | AND #&04 | ☑ | | /1 = non DMA data request |
| | 8DAA | F0 0D | BEQ &8DB9 | ☑ | | / |
| | 8DAC | A0 00 | LDY #&00 | ☑ | | / |
| | 8DAE | B1 A6 | LDA (NMI_DataPointer),Y | ☑ | | /Get data from word A6 |
| | 8DB0 | 8D 84 FE | STA FDC_DATA | ☑ | | /and send to FDC |
| | 8DB3 | E6 A6 | INC NMI_DataPointer | ☑ | | / |
| | 8DB5 | D0 02 | BNE &8DB9 | ☑ | | / |
| | 8DB7 | E6 A7 | INC NMI_DataPointer+1 | ☑ | | /inc word A6 |
| | 8DB9 | 68 | PLA | ☑ | | / |
| | 8DBA | A8 | TAY | ☑ | | / |
| | 8DBB | 68 | PLA | ☑ | | / |
| | 8DBC | 40 | RTI | ☑ | | / |
| NMI5_READ_toTube | 8DBD | 48 | PHA | ☑ | | / |
| | 8DBE | AD 80 FE | LDA FDC_WRCMD_RDSTATUS | ☑ | | / |
| | 8DC1 | 29 04 | AND #&04 | ☑ | | /1 = non DMA data request |
| | 8DC3 | F0 06 | BEQ &8DCB | ☑ | | / |
| | 8DC5 | AD 84 FE | LDA FDC_DATA | ☑ | | / |
| | 8DC8 | 8D E5 FE | STA TUBE_R3_DATA | ☑ | | /TUBE |
| | 8DCB | 68 | PLA | ☑ | | / |
| | 8DCC | 40 | RTI | ☑ | | / |
| NMI3_WRITE_fromTube | 8DCD | 48 | PHA | ☑ | | / |
| | 8DCE | AD 80 FE | LDA FDC_WRCMD_RDSTATUS | ☑ | | / |
| | 8DD1 | 29 04 | AND #&04 | ☑ | | /1 = non DMA data request |
| | 8DD3 | F0 06 | BEQ &8DDB | ☑ | | / |
| | 8DD5 | AD E5 FE | LDA TUBE_R3_DATA | ☑ | | /TUBE |
| | 8DD8 | 8D 84 FE | STA FDC_DATA | ☑ | | / |
| | 8DDB | 68 | PLA | ☑ | | / |
| | 8DDC | 40 | RTI | ☑ | | /END NMI ROUTINES |
| .fscv7_hndlrange | 8DDD | A2 11 | LDX #&11 | ☐ | | lowest hndl issued |
| | 8DDF | A0 15 | LDY #&15 | ☐ | | highest hndl poss. |
| .8de1-rts | 8DE1 | 60 | RTS | ☐ | | |
| .fscv6_shutdownfilesys | 8DE2 | 20 E1 83 | JSR rememberAXY | ☐ | | |
| CloseSPOOL&EXECfiles | 8DE5 | A9 77 | LDA #&77 | ☐ | | |
| | 8DE7 | 4C F4 FF | JMP OSBYTE | ☐ | | |
| .closelp1 | 8DEA | 20 E2 8D | JSR .fscv6_shutdownfilesys | ☐ | | |
| | 8DED | A9 00 | LDA #&00 | ☐ | | |
| .closelp2 | 8DEF | 18 | CLC | ☐ | | |
| | 8DF0 | 69 20 | ADC #&20 | ☐ | | |
| | 8DF2 | F0 ED | BEQ .8de1-rts | ☐ | | |
| | 8DF4 | A8 | TAY | ☐ | | Y=&20 to &A0 step &20 |
| | 8DF5 | 20 05 8E | JSR .updatecat&filetomedia Y=inthndl | ☐ | | |
| | 8DF8 | D0 F5 | BNE .closelp2 | ☐ | | |
| .findv0_closefile Y=hndl | 8DFA | 98 | TYA | ☐ | | 0=all files |
| | 8DFB | F0 ED | BEQ .closelp1 | ☐ | | |
| | 8DFD | 20 7B 90 | JSR .conv_Yhndl_intch ex.Y=intch,exit.C=0 if ok | ☐ | | |
| | 8E00 | 90 03 | BCC .updatecat&filetomedia Y=inthndl | ☐ | | |
| | 8E02 | 4C AD 90 | JMP .errCHANNEL | ☐ | | |
| .updatecat&filetomedia Y=inthndl | 8E05 | 48 | PHA | ☐ | | |
| | 8E06 | 20 51 90 | JSR IsHndlinUse(Y=intch) C=0 if yes | ☐ | | saves X in &10C6 |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 8E09 | B0 45 | BCS .hndlnotinuse | ☐ | | hndl not in use |
| | 8E0B | B9 1B 11 | LDA &111B,Y | ☐ | | ch1=&113b |
| | 8E0E | 49 FF | EOR #&FF | ☐ | | |
| | 8E10 | 2D C0 10 | AND &10C0 | ☐ | | |
| | 8E13 | 8D C0 10 | STA &10C0 | ☐ | | clear channel "bit" |
| | 8E16 | B9 17 11 | LDA &1117,Y | ☐ | | ch1=&1137 |
| | 8E19 | 29 60 | AND #&60 | ☐ | | |
| | 8E1B | F0 33 | BEQ .hndlnotinuse | ☐ | | |
| | 8E1D | 20 55 8E | JSR .setupsavetomedia2 Y=intch,set drv | ☐ | | loads cat |
| | 8E20 | B9 17 11 | LDA &1117,Y | ☐ | | |
| | 8E23 | 29 20 | AND #&20 | ☐ | | |
| | 8E25 | F0 26 | BEQ &8E4D | ☐ | | |
| | 8E27 | AE C4 10 | LDX &10C4 | ☐ | | |
| | 8E2A | B9 14 11 | LDA &1114,Y | ☐ | | |
| | 8E2D | 9D 0C 0F | STA &0F0C,X | ☐ | | |
| | 8E30 | B9 15 11 | LDA &1115,Y | ☐ | | |
| | 8E33 | 9D 0D 0F | STA &0F0D,X | ☐ | | |
| | 8E36 | B9 16 11 | LDA &1116,Y | ☐ | | |
| | 8E39 | 20 0B 82 | JSR .A<<4 | ☐ | | |
| | 8E3C | 5D 0E 0F | EOR &0F0E,X | ☐ | | |
| | 8E3F | 29 30 | AND #&30 | ☐ | | |
| | 8E41 | 5D 0E 0F | EOR &0F0E,X | ☐ | | |
| | 8E44 | 9D 0E 0F | STA &0F0E,X | ☐ | | |
| | 8E47 | 20 B4 8A | JSR SaveCatToDisk | ☐ | | save cat |
| | 8E4A | AC C2 10 | LDY &10C2 | ☐ | | |
| | 8E4D | 20 4B 91 | JSR .filetomediaY | ☐ | | |
| .hndlnotinuse | 8E50 | AE C6 10 | LDX &10C6 | ☐ | | |
| | 8E53 | 68 | PLA | ☐ | | |
| | 8E54 | 60 | RTS | ☐ | | |
| .setupsavetomedia2 Y=intch,set drv | 8E55 | 20 83 8E | JSR .setfiledrive Y=hndl | ☐ | | |
| .setupsavetomedia Y=intch, exit ?10C4=catoffset | 8E58 | A2 07 | LDX #&07 | ☐ | | |
| .setosfilevars_loop | 8E5A | B9 0C 11 | LDA &110C,Y | ☐ | | ?Y=intchnl |
| | 8E5D | 95 C6 | STA &C6,X | ☐ | | copy filename to zp |
| | 8E5F | 88 | DEY | ☐ | | |
| | 8E60 | 88 | DEY | ☐ | | |
| | 8E61 | CA | DEX | ☐ | | |
| | 8E62 | D0 F6 | BNE .setosfilevars_loop | ☐ | | |
| | 8E64 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | loads cat |
| | 8E67 | 90 27 | BCC .setupsavetomedia_diskchanged | ☐ | | not found |
| | 8E69 | 8C C4 10 | STY &10C4 | ☐ | | =FILE OFFSET |
| | 8E6C | B9 0E 0F | LDA &0F0E,Y | ☐ | | check cat |
| | 8E6F | BE 0F 0F | LDX &0F0F,Y | ☐ | | |
| | 8E72 | AC C2 10 | LDY &10C2 | ☐ | | |
| | 8E75 | 59 0D 11 | EOR &110D,Y | ☐ | | ?Y=inthndl |
| | 8E78 | 29 03 | AND #&03 | ☐ | | |
| | 8E7A | D0 14 | BNE .setupsavetomedia_diskchanged | ☐ | | |
| | 8E7C | 8A | TXA | ☐ | | |
| | 8E7D | D9 0F 11 | CMP &110F,Y | ☐ | | ?Y=inthndl |
| | 8E80 | D0 0E | BNE .setupsavetomedia_diskchanged | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8E82 | 60 | RTS | ☐ | | |
| .setfiledrive Y=hndl | 8E83 | B9 0E 11 | LDA &110E,Y | ☐ | | ?Y=inthndl |
| | 8E86 | 29 7F | AND #&7F | ☐ | | =DIR |
| | 8E88 | 85 CE | STA DirectoryParam | ☐ | | |
| | 8E8A | B9 17 11 | LDA &1117,Y | ☐ | | |
| | 8E8D | 4C 7E 87 | JMP SetCurrentDrive | ☐ | | |
| .setupsavetomedia_diskchanged | 8E90 | 4C AF 81 | JMP .errDISKCHANGED | ☐ | | |
| FINDV_ENTRY | 8E93 | C9 00 | CMP #&00 | ☐ | | |
| | 8E95 | D0 06 | BNE .findv<>0_openfile | ☐ | | |
| | 8E97 | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 8E9A | 4C FA 8D | JMP .findv0_closefile Y=hndl | ☐ | | Close file #Y |
| .findv<>0_openfile | 8E9D | 20 11 84 | JSR rAXY2_dontpullonreturn | ☐ | | Open file XY->filename |
| | 8EA0 | 86 BC | STX TextPointer_dfs | ☐ | | |
| | 8EA2 | 84 BD | STY &BD | ☐ | | |
| | 8EA4 | 85 B4 | STA &B4 | ☐ | | |
| | 8EA6 | 24 B4 | BIT &B4 | ☐ | | |
| | 8EA8 | 08 | PHP | ☐ | | |
| | 8EA9 | 20 06 81 | JSR read_(a)fsp@(&BC) (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 8EAC | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | loads cat |
| | 8EAF | B0 1A | BCS .findv_filefound | ☐ | | |
| | 8EB1 | 28 | PLP | ☐ | | |
| | 8EB2 | 50 03 | BVC .openfileforoutput | ☐ | | open file for output |
| | 8EB4 | A9 00 | LDA #&00 | ☐ | | |
| | 8EB6 | 60 | RTS | ☐ | | |
| .openfileforoutput | 8EB7 | 08 | PHP | ☐ | | |
| | 8EB8 | A9 00 | LDA #&00 | ☐ | | clear BE,1074… |
| | 8EBA | A2 07 | LDX #&07 | ☐ | | |
| | 8EBC | 95 BE | STA &BE,X | ☐ | | |
| | 8EBE | 9D 74 10 | STA &1074,X | ☐ | | ??10ok |
| | 8EC1 | CA | DEX | ☐ | | |
| | 8EC2 | 10 F8 | BPL &8EBC | ☐ | | |
| | 8EC4 | A9 40 | LDA #&40 | ☐ | | |
| | 8EC6 | 85 C5 | STA &C5 | ☐ | | already checked |
| | 8EC8 | 20 61 89 | JSR .createfile fsp@(&BC) | ☐ | | ? but loads cat |
| .findv_filefound | 8ECB | 28 | PLP | ☐ | | |
| | 8ECC | 08 | PHP | ☐ | | |
| | 8ECD | 70 03 | BVS .findv_openforread | ☐ | | |
| | 8ECF | 20 3C 98 | JSR CheckFileNotLocked | ☐ | | |
| .findv_openforread | 8ED2 | 20 9E 8F | JSR .8f9e | ☐ | | |
| | 8ED5 | 90 0E | BCC &8EE5 | ☐ | | |
| | 8ED7 | B9 0C 11 | LDA &110C,Y | ☐ | | ?Y=intchnl |
| | 8EDA | 10 26 | BPL .errFILEOPEN | ☐ | | |
| | 8EDC | 24 B4 | BIT &B4 | ☐ | | |
| | 8EDE | 30 22 | BMI .errFILEOPEN | ☐ | | |
| | 8EE0 | 20 99 8F | JSR .8f99 | ☐ | | |
| | 8EE3 | B0 F2 | BCS &8ED7 | ☐ | | |
| | 8EE5 | AC C2 10 | LDY &10C2 | ☐ | | |
| | 8EE8 | D0 21 | BNE .8f0b Y=int.chnl | ☐ | | |
| .errTOOMANYFILESOPEN | 8EEA | 20 33 80 | JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 8EED  C0 54 6F 6F 20 6D 61 6E  ÀToo man | ☐ | | |
| | 8EF5  79 20 66 69 6C 65 73 20  y files | ☐ | | |
| | 8EFD  6F 70 65 6E 00        open. | ☐ | | |
| .errFILEOPEN | 8F02  20 2B 80  JSR .errFILE | ☐ | | |
| | 8F05  C2 6F 70 65 6E 00        Âopen. | ☐ | | |
| .8f0b Y=int.chnl | 8F0B  A9 08  LDA #&08 | ☐ | | |
| | 8F0D  8D C5 10  STA &10C5 | ☐ | | |
| | 8F10  BD 08 0E  LDA &0E08,X | ☐ | | |
| | 8F13  99 00 11  STA &1100,Y | ☐ | | ?Y=intchnl |
| | 8F16  C8  INY | ☐ | | |
| | 8F17  BD 08 0F  LDA &0F08,X | ☐ | | |
| | 8F1A  99 00 11  STA &1100,Y | ☐ | | ?Y=intchnl |
| | 8F1D  C8  INY | ☐ | | |
| | 8F1E  E8  INX | ☐ | | |
| | 8F1F  CE C5 10  DEC &10C5 | ☐ | | |
| | 8F22  D0 EC  BNE &8F10 | ☐ | | |
| | 8F24  A2 10  LDX #&10 | ☐ | | |
| | 8F26  A9 00  LDA #&00 | ☐ | | |
| | 8F28  99 00 11  STA &1100,Y | ☐ | | ?Y=intchnl |
| | 8F2B  C8  INY | ☐ | | |
| | 8F2C  CA  DEX | ☐ | | |
| | 8F2D  D0 F9  BNE &8F28 | ☐ | | |
| | 8F2F  AD C2 10  LDA &10C2 | ☐ | | |
| | 8F32  A8  TAY | ☐ | | |
| | 8F33  20 04 82  JSR .A>>5 | ☐ | | |
| | 8F36  69 11  ADC #&11 | ☐ | | |
| | 8F38  99 13 11  STA &1113,Y | ☐ | | Buffer page |
| | 8F3B  AD C1 10  LDA &10C1 | ☐ | | |
| | 8F3E  99 1B 11  STA &111B,Y | ☐ | | |
| | 8F41  0D C0 10  ORA &10C0 | ☐ | | |
| | 8F44  8D C0 10  STA &10C0 | ☐ | | |
| | 8F47  B9 09 11  LDA &1109,Y | ☐ | | ?Y=intchnl |
| | 8F4A  69 FF  ADC #&FF | ☐ | | |
| | 8F4C  B9 0B 11  LDA &110B,Y | ☐ | | ?Y=intchnl |
| | 8F4F  69 00  ADC #&00 | ☐ | | |
| | 8F51  99 19 11  STA &1119,Y | ☐ | | |
| | 8F54  B9 0D 11  LDA &110D,Y | ☐ | | ?Y=intchnl |
| | 8F57  09 0F  ORA #&0F | ☐ | | |
| | 8F59  69 00  ADC #&00 | ☐ | | |
| | 8F5B  20 FD 81  JSR .A>>4 and 3 | ☐ | | |
| | 8F5E  99 1A 11  STA &111A,Y | ☐ | | |
| | 8F61  28  PLP | ☐ | | |
| | 8F62  50 2E  BVC &8F92 | ☐ | | |
| | 8F64  30 08  BMI &8F6E | ☐ | | |
| | 8F66  A9 80  LDA #&80 | ☐ | | |
| | 8F68  19 0C 11  ORA &110C,Y | ☐ | | ?Y=intchnl |
| | 8F6B  99 0C 11  STA &110C,Y | ☐ | | ?Y=intchnl |
| | 8F6E  B9 09 11  LDA &1109,Y | ☐ | | ?Y=intchnl |
| | 8F71  99 14 11  STA &1114,Y | ☐ | | ?Y=intchnl |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8F74 | B9 0B 11 | LDA &110B,Y | ☐ | | ?Y=intchnl |
| | 8F77 | 99 15 11 | STA &1115,Y | ☐ | | ?Y=intchnl |
| | 8F7A | B9 0D 11 | LDA &110D,Y | ☐ | | ?Y=intchnl |
| | 8F7D | 20 FD 81 | JSR .A>>4 and 3 | ☐ | | |
| | 8F80 | 99 16 11 | STA &1116,Y | ☐ | | |
| | 8F83 | A5 CF | LDA CurrentDrv | ☐ | | |
| | 8F85 | 19 17 11 | ORA &1117,Y | ☐ | | |
| | 8F88 | 99 17 11 | STA &1117,Y | ☐ | | |
| | 8F8B | 98 | TYA | ☐ | | |
| | 8F8C | 20 04 82 | JSR .A>>5 | ☐ | | |
| | 8F8F | 09 10 | ORA #&10 | ☐ | | |
| | 8F91 | 60 | RTS | ☐ | | |
| | 8F92 | A9 20 | LDA #&20 | ☐ | | |
| | 8F94 | 99 17 11 | STA &1117,Y | ☐ | | |
| | 8F97 | D0 EA | BNE &8F83 | ☐ | | |
| .8f99 | 8F99 | 8A | TXA | ☐ | | |
| | 8F9A | 48 | PHA | ☐ | | |
| | 8F9B | 4C DD 8F | JMP .8fdd | ☐ | | |
| .8f9e | 8F9E | A9 00 | LDA #&00 | ☐ | | |
| | 8FA0 | 8D C2 10 | STA &10C2 | ☐ | | |
| | 8FA3 | A9 08 | LDA #&08 | ☐ | | |
| | 8FA5 | 85 B5 | STA &B5 | ☐ | | |
| | 8FA7 | 98 | TYA | ☐ | | |
| | 8FA8 | AA | TAX | ☐ | | |
| | 8FA9 | A0 A0 | LDY #&A0 | ☐ | | ch5 |
| .8fabLOOP | 8FAB | 84 B3 | STY &B3 | ☐ | | |
| | 8FAD | 8A | TXA | ☐ | | |
| | 8FAE | 48 | PHA | ☐ | | |
| | 8FAF | A9 08 | LDA #&08 | ☐ | | |
| | 8FB1 | 85 B2 | STA &B2 | ☐ | | |
| | 8FB3 | A5 B5 | LDA &B5 | ☐ | | |
| | 8FB5 | 2C C0 10 | BIT &10C0 | ☐ | | |
| | 8FB8 | F0 1D | BEQ &8FD7 | ☐ | | |
| | 8FBA | B9 17 11 | LDA &1117,Y | ☐ | | |
| | 8FBD | 45 CF | EOR CurrentDrv | ☐ | | |
| | 8FBF | 29 03 | AND #&03 | ☐ | | |
| | 8FC1 | D0 1A | BNE .8fdd | ☐ | | |
| | 8FC3 | BD 08 0E | LDA &0E08,X | ☐ | | |
| | 8FC6 | 59 00 11 | EOR &1100,Y | ☐ | | ?Y=intchnl |
| | 8FC9 | 29 7F | AND #&7F | ☐ | | |
| | 8FCB | D0 10 | BNE .8fdd | ☐ | | |
| | 8FCD | E8 | INX | ☐ | | |
| | 8FCE | C8 | INY | ☐ | | |
| | 8FCF | C8 | INY | ☐ | | |
| | 8FD0 | C6 B2 | DEC &B2 | ☐ | | |
| | 8FD2 | D0 EF | BNE &8FC3 | ☐ | | |
| | 8FD4 | 38 | SEC | ☐ | | |
| | 8FD5 | B0 10 | BCS &8FE7 | ☐ | | |
| | 8FD7 | 8C C2 10 | STY &10C2 | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 8FDA | 8D C1 10 | STA &10C1 | ☐ | | |
| .8fdd | 8FDD | 38 | SEC | ☐ | | |
| | 8FDE | A5 B3 | LDA &B3 | ☐ | | |
| | 8FE0 | E9 20 | SBC #&20 | ☐ | | |
| | 8FE2 | 85 B3 | STA &B3 | ☐ | | |
| | 8FE4 | 06 B5 | ASL &B5 | ☐ | | |
| | 8FE6 | 18 | CLC | ☐ | | |
| | 8FE7 | 68 | PLA | ☐ | | |
| | 8FE8 | AA | TAX | ☐ | | |
| | 8FE9 | A4 B3 | LDY &B3 | ☐ | | |
| | 8FEB | A5 B5 | LDA &B5 | ☐ | | |
| | 8FED | B0 02 | BCS &8FF1 | ☐ | | |
| | 8FEF | D0 BA | BNE .8fabLOOP | ☐ | | |
| | 8FF1 | 60 | RTS | ☐ | | |
| .argsv_allfilestomedia2 | 8FF2 | AD C0 10 | LDA &10C0 | ☐ | | |
| | 8FF5 | 48 | PHA | ☐ | | |
| | 8FF6 | 20 ED 8D | JSR &8DED | ☐ | | |
| | 8FF9 | F0 07 | BEQ &9002 | ☐ | | |
| .argsv_thisfiletomedia | 8FFB | AD C0 10 | LDA &10C0 | ☐ | | |
| | 8FFE | 48 | PHA | ☐ | | |
| | 8FFF | 20 FA 8D | JSR .findv0_closefile Y=hndl | ☐ | | |
| | 9002 | 68 | PLA | ☐ | | |
| | 9003 | 8D C0 10 | STA &10C0 | ☐ | | |
| | 9006 | 60 | RTS | ☐ | | end |
| ARGSV_ENTRY X=zp ctl blk | 9007 | C0 00 | CPY #&00 | ☐ | | Y=file hndl |
| | 9009 | F0 11 | BEQ .argsv_Y=0 | ☐ | | |
| | 900B | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 900E | C9 FF | CMP #&FF | ☐ | | update all files to media |
| | 9010 | F0 E9 | BEQ .argsv_thisfiletomedia | ☐ | | |
| | 9012 | C9 03 | CMP #&03 | ☐ | | |
| | 9014 | B0 17 | BCS .argsv_exit | ☐ | | >=3 |
| | 9016 | 4A | LSR | ☐ | | |
| | 9017 | 90 15 | BCC .argsv_rdseqptr_or_filelen | ☐ | | |
| | 9019 | 4C A7 92 | JMP .argsv_WriteSeqPointer | ☐ | | |
| .argsv_Y=0 | 901C | 20 11 84 | JSR rAXY2_dontpullonreturn | ☐ | | |
| | 901F | A8 | TAY | ☐ | | |
| | 9020 | C8 | INY | ☐ | | |
| | 9021 | C0 03 | CPY #&03 | ☐ | | |
| | 9023 | B0 08 | BCS .argsv_exit | ☐ | | y>=3 |
| | 9025 | B9 81 99 | LDA .args_y=0_tableHi,Y | ☐ | | |
| | 9028 | 48 | PHA | ☐ | | |
| | 9029 | B9 7E 99 | LDA .args_y=0_tableLo,Y | ☐ | | |
| | 902C | 48 | PHA | ☐ | | |
| .argsv_exit | 902D | 60 | RTS | ☐ | | |
| .argsv_rdseqptr_or_filelen | 902E | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 9031 | 20 A5 90 | JSR CheckChannel(Y=hndl),ex.Y=intch | ☐ | | |
| | 9034 | 8C C2 10 | STY &10C2 | ☐ | | |
| | 9037 | 0A | ASL | ☐ | | |
| | 9038 | 0A | ASL | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 9039 6D C2 10 ADC &10C2 | ☐ | | Y=Y*5 |
| | 903C A8 TAY | ☐ | | |
| | 903D B9 10 11 LDA &1110,Y | ☐ | | |
| | 9040 95 00 STA &00,X | ☐ | | |
| | 9042 B9 11 11 LDA &1111,Y | ☐ | | |
| | 9045 95 01 STA &01,X | ☐ | | |
| | 9047 B9 12 11 LDA &1112,Y | ☐ | | |
| | 904A 95 02 STA &02,X | ☐ | | |
| | 904C A9 00 LDA #&00 | ☐ | | |
| | 904E 95 03 STA &03,X | ☐ | | |
| | 9050 60 RTS | ☐ | | |
| IsHndlinUse(Y=intch) C=0 if yes | 9051 48 PHA | ☐ | | |
| | 9052 8E C6 10 STX &10C6 | ☐ | | |
| | 9055 98 TYA | ☐ | | |
| | 9056 29 E0 AND #&E0 | ☐ | | |
| | 9058 8D C2 10 STA &10C2 | ☐ | | |
| | 905B F0 13 BEQ hndlinuse_exitC=1 | ☐ | | |
| | 905D 20 04 82 JSR .A>>5 | ☐ | | ch.1-7 |
| | 9060 A8 TAY | ☐ | | creat bit mask |
| | 9061 A9 00 LDA #&00 | ☐ | | 1=1000 0000 |
| | 9063 38 SEC | ☐ | | 2=0100 0000 etc |
| | 9064 6A ROR | ☐ | | |
| | 9065 88 DEY | ☐ | | |
| | 9066 D0 FC BNE &9064 | ☐ | | |
| | 9068 AC C2 10 LDY &10C2 | ☐ | | |
| | 906B 2C C0 10 BIT &10C0 | ☐ | | |
| | 906E D0 03 BNE hndlinuse_exitC=0 | ☐ | | file open |
| hndlinuse_exitC=1 | 9070 68 PLA | ☐ | | |
| | 9071 38 SEC | ☐ | | |
| | 9072 60 RTS | ☐ | | |
| hndlinuse_exitC=0 | 9073 68 PLA | ☐ | | |
| | 9074 18 CLC | ☐ | | |
| | 9075 60 RTS | ☐ | | |
| .conv_Xhndl_intch ex.Y=intch, c=1 of ok | 9076 48 PHA | ☐ | | |
| | 9077 8A TXA | ☐ | | |
| | 9078 4C 7D 90 JMP .conv_hndl_X_entry | ☐ | | |
| .conv_Yhndl_intch ex.Y=intch,exit.C=0 if ok | 907B 48 PHA | ☐ | | &10 to &17 are |
| | 907C 98 TYA | ☐ | | valid |
| .conv_hndl_X_entry | 907D C9 10 CMP #&10 | ☐ | | |
| | 907F 90 04 BCC .conv_hndl<10 | ☐ | | <&10 |
| | 9081 C9 18 CMP #&18 | ☐ | | |
| | 9083 90 02 BCC .conv_hndl<18 | ☐ | | <&18 |
| .conv_hndl<10 | 9085 A9 08 LDA #&08 | ☐ | | intch=0 |
| .conv_hndl<18 | 9087 20 0A 82 JSR .A<<5 | ☐ | | if Y<&10 or >&18 |
| | 908A A8 TAY | ☐ | | ch0=&00, ch1=&20, ch2=&40 |
| | 908B 68 PLA | ☐ | | ch3=&60…ch7=&E0 |
| | 908C 60 RTS | ☐ | | c=1 if not valid |
| .fscv1_EOF? | 908D 48 PHA | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 908E | 98 | TYA | ☐ | | |
| | 908F | 48 | PHA | ☐ | | |
| | 9090 | 8A | TXA | ☐ | | |
| | 9091 | A8 | TAY | ☐ | | |
| | 9092 | 20 A5 90 | JSR CheckChannel(Y=hndl),ex.Y=intch | ☐ | | |
| | 9095 | 98 | TYA | ☐ | | |
| | 9096 | 20 F8 92 | JSR .92f8 y=intch | ☐ | | |
| | 9099 | D0 04 | BNE .909f | ☐ | | |
| | 909B | A2 FF | LDX #&FF | ☐ | | |
| | 909D | D0 02 | BNE .90a1 | ☐ | | |
| .909f | 909F | A2 00 | LDX #&00 | ☐ | | |
| .90a1 | 90A1 | 68 | PLA | ☐ | | |
| | 90A2 | A8 | TAY | ☐ | | |
| | 90A3 | 68 | PLA | ☐ | | |
| .checkchannel_okexit | 90A4 | 60 | RTS | ☐ | | |
| CheckChannel(Y=hndl),ex.Y=intch | 90A5 | 20 7B 90 | JSR .conv_Yhndl_intch ex.Y=intch,exit.C=0 if ok | ☐ | | |
| | 90A8 | 20 51 90 | JSR IsHndlinUse(Y=intch) C=0 if yes | ☐ | | |
| | 90AB | 90 F7 | BCC .checkchannel_okexit | ☐ | | |
| .errCHANNEL | 90AD | 20 33 80 | JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |
| | 90B0 | DE 43 68 61 6E 6E 65 6C | ÞChannel | ☐ | | |
| | 90B8 | 00 | . | ☐ | | |
| .errEOF | 90B9 | 20 33 80 | JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |
| | 90BC | DF 45 4F 46 00 | ßEOF. | ☐ | | |
| BGETV_ENTRY | 90C1 | 20 11 84 | JSR rAXY2_dontpullonreturn | ☐ | | Y=file hndl |
| | 90C4 | 20 A5 90 | JSR CheckChannel(Y=hndl),ex.Y=intch | ☐ | | |
| | 90C7 | 98 | TYA | ☐ | | |
| | 90C8 | 20 F8 92 | JSR .92f8 y=intch | ☐ | | Y preserved |
| | 90CB | D0 13 | BNE .90e0 y=intch | ☐ | | |
| | 90CD | B9 17 11 | LDA &1117,Y | ☐ | | |
| | 90D0 | 29 10 | AND #&10 | ☐ | | |
| | 90D2 | D0 E5 | BNE .errEOF | ☐ | | |
| | 90D4 | A9 10 | LDA #&10 | ☐ | | |
| | 90D6 | 20 3C 91 | JSR &913C | ☐ | | |
| | 90D9 | AE C6 10 | LDX &10C6 | ☐ | | |
| | 90DC | A9 FE | LDA #&FE | ☐ | | |
| | 90DE | 38 | SEC | ☐ | | |
| | 90DF | 60 | RTS | ☐ | | |
| .90e0 y=intch | 90E0 | B9 17 11 | LDA &1117,Y | ☐ | | |
| | 90E3 | 30 0A | BMI &90EF | ☐ | | |
| | 90E5 | 20 83 8E | JSR .setfiledrive Y=hndl | ☐ | | |
| | 90E8 | 20 4B 91 | JSR .filetomediaY | ☐ | | |
| | 90EB | 38 | SEC | ☐ | | |
| | 90EC | 20 53 91 | JSR .fileC=1fromC=0tomediaY | ☐ | | |
| | 90EF | B9 10 11 | LDA &1110,Y | ☐ | | |
| | 90F2 | 85 BC | STA TextPointer_dfs | ☐ | | |
| | 90F4 | B9 13 11 | LDA &1113,Y | ☐ | | |
| | 90F7 | 85 BD | STA &BD | ☐ | | |
| | 90F9 | A0 00 | LDY #&00 | ☐ | | |
| | 90FB | B1 BC | LDA (TextPointer_dfs),Y | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 90FD | 48 | PHA | ☐ | | |
| | 90FE | AC C2 10 | LDY &10C2 | ☐ | | |
| | 9101 | A6 BC | LDX TextPointer_dfs | ☐ | | |
| | 9103 | E8 | INX | ☐ | | |
| | 9104 | 8A | TXA | ☐ | | |
| | 9105 | 99 10 11 | STA &1110,Y | ☐ | | |
| | 9108 | D0 14 | BNE &911E | ☐ | | |
| | 910A | 18 | CLC | ☐ | | |
| | 910B | B9 11 11 | LDA &1111,Y | ☐ | | |
| | 910E | 69 01 | ADC #&01 | ☐ | | |
| | 9110 | 99 11 11 | STA &1111,Y | ☐ | | |
| | 9113 | B9 12 11 | LDA &1112,Y | ☐ | | |
| | 9116 | 69 00 | ADC #&00 | ☐ | | |
| | 9118 | 99 12 11 | STA &1112,Y | ☐ | | |
| | 911B | 20 41 91 | JSR &9141 | ☐ | | |
| | 911E | 18 | CLC | ☐ | | |
| | 911F | 68 | PLA | ☐ | | |
| | 9120 | 60 | RTS | ☐ | | |
| .9121 Y=intchnl | 9121 | 18 | CLC | ☐ | | |
| | 9122 | B9 0F 11 | LDA &110F,Y | ☐ | | ?Y=intchl |
| | 9125 | 79 11 11 | ADC &1111,Y | ☐ | | |
| | 9128 | 85 C5 | STA &C5 | ☐ | | |
| | 912A | 99 1C 11 | STA &111C,Y | ☐ | | |
| | 912D | B9 0D 11 | LDA &110D,Y | ☐ | | ?Y=intchl |
| | 9130 | 29 03 | AND #&03 | ☐ | | |
| | 9132 | 79 12 11 | ADC &1112,Y | ☐ | | |
| | 9135 | 85 C4 | STA &C4 | ☐ | | |
| | 9137 | 99 1D 11 | STA &111D,Y | ☐ | | |
| .913a Y=intchnl | 913A | A9 80 | LDA #&80 | ☐ | | |
| | 913C | 19 17 11 | ORA &1117,Y | ☐ | | |
| | 913F | D0 05 | BNE &9146 | ☐ | | |
| | 9141 | A9 7F | LDA #&7F | ☐ | | |
| .9143 Y=intchnl | 9143 | 39 17 11 | AND &1117,Y | ☐ | | |
| | 9146 | 99 17 11 | STA &1117,Y | ☐ | | |
| | 9149 | 18 | CLC | ☐ | | |
| | 914A | 60 | RTS | ☐ | | |
| .filetomediaY | 914B | B9 17 11 | LDA &1117,Y | ☐ | | |
| | 914E | 29 40 | AND #&40 | ☐ | | |
| | 9150 | F0 3D | BEQ .filetofrommedia_exit | ☐ | | |
| | 9152 | 18 | CLC | ☐ | | |
| .fileC=1fromC=0tomediaY | 9153 | 08 | PHP | ☐ | | CS=Read,CC=Write |
| | 9154 | 20 9E 8B | JSR FDC_DriveReady/Reset | ☐ | JSR mmcsetFDCDRV | |
| | 9157 | AC C2 10 | LDY &10C2 | ☐ | | |
| | 915A | B9 13 11 | LDA &1113,Y | ☐ | | |
| | 915D | 85 BF | STA &BF | ☐ | | |
| | 915F | 20 D1 8B | JSR set_1074/75=&FFFF (AXY preserved) | ☐ | JSR mmcset7475 | Not TUBE! |
| | 9162 | A9 00 | LDA #&00 | ☐ | | |
| | 9164 | 85 BE | STA &BE | ☐ | | |
| | 9166 | 85 C2 | STA &C2 | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 9168  A9 01    LDA #&01 | ☐ | | |
| | 916A  85 C3    STA &C3 | ☐ | | |
| | 916C  28       PLP | ☐ | | |
| | 916D  B0 17    BCS .rdfrommedia | ☐ | | |
| .wrtomedia | 916F  B9 1C 11 LDA &111C,Y | ☐ | | |
| | 9172  85 C5    STA &C5 | ☐ | | |
| | 9174  B9 1D 11 LDA &111D,Y | ☐ | | |
| | 9177  85 C4    STA &C4 | ☐ | | |
| | 9179  20 8F 87 JSR .savememblock | ☐ | | |
| | 917C  AC C2 10 LDY &10C2 | ☐ | | |
| | 917F  A9 BF    LDA #&BF | ☐ | | |
| | 9181  20 43 91 JSR .9143 Y=intchnl | ☐ | | |
| | 9184  90 06    BCC .918c | ☐ | | always branch |
| .rdfrommedia | 9186  20 21 91 JSR .9121 Y=intchnl | ☐ | | |
| | 9189  20 C6 87 JSR .loadmemblock | ☐ | | |
| .918c | 918C  AC C2 10 LDY &10C2 | ☐ | | |
| .filetofrommedia_exit | 918F  60       RTS | ☐ | | |
| .errchannel_2 | 9190  4C AD 90 JMP .errCHANNEL | ☐ | | |
| .errfilelocked_2 | 9193  4C 41 98 JMP .errFILELOCKED | ☐ | | |
| .errFILEREADONLY | 9196  20 2B 80 JSR .errFILE | ☐ | | |
| | 9199  C1 72 65 61 64 20 6F 6E   Áread on | ☐ | | |
| | 91A1  6C 79 00             ly. | ☐ | | |
| .bput_Y=intchan | 91A4  20 E1 83 JSR rememberAXY | ☐ | | |
| | 91A7  4C B0 91 JMP &91B0 | ☐ | | |
| BPUTV_ENTRY | 91AA  20 E1 83 JSR rememberAXY | ☐ | | |
| | 91AD  20 A5 90 JSR CheckChannel(Y=hndl),ex.Y=intch | ☐ | | |
| | 91B0  48       PHA | ☐ | | |
| | 91B1  B9 0C 11 LDA &110C,Y | ☐ | | ?Y=intchnl |
| | 91B4  30 E0    BMI .errFILEREADONLY | ☐ | | |
| | 91B6  B9 0E 11 LDA &110E,Y | ☐ | | ?Y=intchnl |
| | 91B9  30 D8    BMI .errfilelocked_2 | ☐ | | |
| | 91BB  20 83 8E JSR .setfiledrive Y=hndl | ☐ | | |
| | 91BE  98       TYA | ☐ | | |
| | 91BF  18       CLC | ☐ | | |
| | 91C0  69 04    ADC #&04 | ☐ | | |
| | 91C2  20 F8 92 JSR .92f8 y=intch | ☐ | | |
| | 91C5  D0 76    BNE .923D | ☐ | | |
| | 91C7  20 58 8E JSR .setupsavetomedia Y=intch, exit ?10C4=catoffset | ☐ | | loads cat |
| | 91CA  AE C4 10 LDX &10C4 | ☐ | | X=cat offset |
| | 91CD  38       SEC | ☐ | | |
| | 91CE  BD 07 0F LDA &0F07,X | ☐ | | |
| | 91D1  FD 0F 0F SBC &0F0F,X | ☐ | | |
| | 91D4  48       PHA | ☐ | | |
| | 91D5  BD 06 0F LDA &0F06,X | ☐ | | |
| | 91D8  FD 0E 0F SBC &0F0E,X | ☐ | | |
| | 91DB  29 03    AND #&03 | ☐ | | |
| | 91DD  8D C3 10 STA &10C3 | ☐ | | |
| | 91E0  0A       ASL | ☐ | | |
| | 91E1  0A       ASL | ☐ | | |

| Label | Code | | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|---|
| | 91E2 | 0A | | ASL | ☐ | | |
| | 91E3 | 0A | | ASL | ☐ | | |
| | 91E4 | 5D 0E 0F | | EOR &0F0E,X | ☐ | | |
| | 91E7 | 29 30 | | AND #&30 | ☐ | | |
| | 91E9 | 5D 0E 0F | | EOR &0F0E,X | ☐ | | |
| | 91EC | 9D 0E 0F | | STA &0F0E,X | ☐ | | |
| | 91EF | AD C3 10 | | LDA &10C3 | ☐ | | |
| | 91F2 | D9 1A 11 | | CMP &111A,Y | ☐ | | |
| | 91F5 | D0 2B | | BNE .9222 | ☐ | | |
| | 91F7 | 68 | | PLA | ☐ | | |
| | 91F8 | D9 19 11 | | CMP &1119,Y | ☐ | | |
| | 91FB | D0 26 | | BNE .9223 | ☐ | | |
| | 91FD | 84 B4 | | STY &B4 | ☐ | | |
| | 91FF | 20 20 99 | | JSR osbyteC7 spool hdl | ☐ | | |
| | 9202 | 20 76 90 | | JSR .conv_Xhndl_intch ex.Y=intch, c=1 of ok | ☐ | | |
| | 9205 | C4 B4 | | CPY &B4 | ☐ | | |
| | 9207 | D0 03 | | BNE &920C | ☐ | | |
| | 9209 | 20 11 99 | | JSR osbyteC7 r/w spool hndl = Y | ☐ | | |
| | 920C | A4 B4 | | LDY &B4 | ☐ | | |
| | 920E | 20 05 8E | | JSR .updatecat&filetomedia Y=inthndl | ☐ | | |
| .errCAN'TEXTEND | 9211 | 20 33 80 | | JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |
| | 9214 | BF 43 61 6E 27 74 20 65 | | ¿Can't e | ☐ | | |
| | 921C | 78 74 65 6E 64 00 | | xtend. | ☐ | | |
| .9222 | 9222 | 68 | | PLA | ☐ | | |
| .9223 | 9223 | 9D 0D 0F | | STA &0F0D,X | ☐ | | |
| | 9226 | 99 19 11 | | STA &1119,Y | ☐ | | |
| | 9229 | AD C3 10 | | LDA &10C3 | ☐ | | |
| | 922C | 99 1A 11 | | STA &111A,Y | ☐ | | |
| | 922F | A9 00 | | LDA #&00 | ☐ | | |
| | 9231 | 9D 0C 0F | | STA &0F0C,X | ☐ | | |
| | 9234 | 20 B4 8A | | JSR SaveCatToDisk | ☐ | | save cat |
| | 9237 | 20 E7 98 | | JSR RELEASE_NMI_WaitFDCbusy (A=bitmask)(AXY preserved) | ☐ | NOP | |
| | | | | | ☐ | NOP | |
| | | | | | ☐ | NOP | |
| | 923A | AC C2 10 | | LDY &10C2 | ☐ | | |
| .923D | 923D | B9 17 11 | | LDA &1117,Y | ☐ | | |
| | 9240 | 30 17 | | BMI &9259 | ☐ | | |
| | 9242 | 20 4B 91 | | JSR .filetomediaY | ☐ | | |
| | 9245 | B9 14 11 | | LDA &1114,Y | ☐ | | |
| | 9248 | D0 0B | | BNE &9255 | ☐ | | |
| | 924A | 98 | | TYA | ☐ | | |
| | 924B | 20 F8 92 | | JSR .92f8 y=intch | ☐ | | |
| | 924E | D0 05 | | BNE &9255 | ☐ | | |
| | 9250 | 20 21 91 | | JSR .9121 Y=intchnl | ☐ | | |
| | 9253 | D0 04 | | BNE &9259 | ☐ | | |
| | 9255 | 38 | | SEC | ☐ | | |
| | 9256 | 20 53 91 | | JSR .fileC=1fromC=0tomediaY | ☐ | | |
| | 9259 | B9 10 11 | | LDA &1110,Y | ☐ | | |
| | 925C | 85 BC | | STA TextPointer_dfs | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 925E | B9 13 11 | LDA &1113,Y | ☐ | | |
| | 9261 | 85 BD | STA &BD | ☐ | | |
| | 9263 | 68 | PLA | ☐ | | |
| | 9264 | A0 00 | LDY #&00 | ☐ | | |
| | 9266 | 91 BC | STA (TextPointer_dfs),Y | ☐ | | |
| | 9268 | AC C2 10 | LDY &10C2 | ☐ | | |
| | 926B | A9 40 | LDA #&40 | ☐ | | |
| | 926D | 20 3C 91 | JSR &913C | ☐ | | |
| | 9270 | E6 BC | INC TextPointer_dfs | ☐ | | |
| | 9272 | A5 BC | LDA TextPointer_dfs | ☐ | | |
| | 9274 | 99 10 11 | STA &1110,Y | ☐ | | |
| | 9277 | D0 13 | BNE &928C | ☐ | | |
| | 9279 | 20 41 91 | JSR &9141 | ☐ | | |
| | 927C | B9 11 11 | LDA &1111,Y | ☐ | | |
| | 927F | 69 01 | ADC #&01 | ☐ | | |
| | 9281 | 99 11 11 | STA &1111,Y | ☐ | | |
| | 9284 | B9 12 11 | LDA &1112,Y | ☐ | | |
| | 9287 | 69 00 | ADC #&00 | ☐ | | |
| | 9289 | 99 12 11 | STA &1112,Y | ☐ | | |
| | 928C | 98 | TYA | ☐ | | |
| | 928D | 20 F8 92 | JSR .92f8 y=intch | ☐ | | |
| | 9290 | 90 14 | BCC &92A6 | ☐ | | |
| | 9292 | A9 20 | LDA #&20 | ☐ | | |
| | 9294 | 20 3C 91 | JSR &913C | ☐ | | |
| | 9297 | A2 02 | LDX #&02 | ☐ | | |
| .9299LOOP | 9299 | B9 10 11 | LDA &1110,Y | ☐ | | |
| | 929C | 99 14 11 | STA &1114,Y | ☐ | | |
| | 929F | C8 | INY | ☐ | | |
| | 92A0 | CA | DEX | ☐ | | |
| | 92A1 | 10 F6 | BPL .9299LOOP | ☐ | | |
| | 92A3 | 88 | DEY | ☐ | | |
| | 92A4 | 88 | DEY | ☐ | | |
| | 92A5 | 88 | DEY | ☐ | | |
| .92A6 RTS | 92A6 | 60 | RTS | ☐ | | |
| .argsv_WriteSeqPointer | 92A7 | 20 E1 83 | JSR rememberAXY | ☐ | | X=zp ctl blk |
| | 92AA | 20 A5 90 | JSR CheckChannel(Y=hndl),ex.Y=intch | ☐ | | Y=&20(1),&40(2)… |
| | 92AD | 20 14 82 | JSR .Y=Y+4 | ☐ | JSR mmcsetptrtoext | Bug fix! |
| | 92B0 | 20 10 93 | JSR .cmpnewPTRwithEXT | ☐ | NOP | does nothing?! |
| | | | | ☐ | NOP | |
| | | | | ☐ | NOP | |
| | 92B3 | AC C2 10 | LDY &10C2 | ☐ | NOP | |
| | | | | ☐ | NOP | |
| | | | | ☐ | NOP | |
| .wsploop | 92B6 | 20 10 93 | JSR .cmpnewPTRwithEXT | ☐ | | |
| | 92B9 | B0 08 | BCS .92c3 Y=intchnl | ☐ | | EXT >= PTR |
| | 92BB | A9 00 | LDA #&00 | ☐ | | |
| | 92BD | 20 A4 91 | JSR .bput_Y=intchan | ☐ | | |
| | 92C0 | 4C B6 92 | JMP .wsploop | ☐ | | |
| .92c3 Y=intchnl | 92C3 | B5 00 | LDA &00,X | ☐ | | set PTR |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 92C5  99 10 11  STA &1110,Y | | | |
| | 92C8  B5 01     LDA &01,X | | | |
| | 92CA  99 11 11  STA &1111,Y | | | |
| | 92CD  B5 02     LDA &02,X | | | |
| | 92CF  99 12 11  STA &1112,Y | | | |
| | 92D2  A9 6F     LDA #&6F | | | |
| | 92D4  20 43 91  JSR .9143 Y=intchnl | | | |
| | 92D7  B9 0F 11  LDA &110F,Y | | | ?Y=intchnl |
| | 92DA  79 11 11  ADC &1111,Y | | | |
| | 92DD  8D C5 10  STA &10C5 | | | |
| | 92E0  B9 0D 11  LDA &110D,Y | | | ?Y=intchnl |
| | 92E3  29 03     AND #&03 | | | |
| | 92E5  79 12 11  ADC &1112,Y | | | |
| | 92E8  D9 1D 11  CMP &111D,Y | | | |
| | 92EB  D0 B9     BNE &92A6 | | | |
| | 92ED  AD C5 10  LDA &10C5 | | | |
| | 92F0  D9 1C 11  CMP &111C,Y | | | |
| | 92F3  D0 B1     BNE &92A6 | | | |
| | 92F5  4C 3A 91  JMP .91fa Y=intchnl | | | |
| .92f8 y=intch | 92F8  AA        TAX | | | |
| | 92F9  B9 12 11  LDA &1112,Y | | | |
| | 92FC  DD 16 11  CMP &1116,X | | | |
| | 92FF  D0 0E     BNE .92f8exit | | | |
| | 9301  B9 11 11  LDA &1111,Y | | | |
| | 9304  DD 15 11  CMP &1115,X | | | |
| | 9307  D0 06     BNE .92f8exit | | | |
| | 9309  B9 10 11  LDA &1110,Y | | | |
| | 930C  DD 14 11  CMP &1114,X | | | |
| .92f8exit | 930F  60        RTS | | | |
| .cmpnewPTRwithEXT | 9310  B9 14 11  LDA &1114,Y | | | comp ctl blk ptr |
| | 9313  D5 00     CMP &00,X | | | to existing |
| | 9315  B9 15 11  LDA &1115,Y | | | Z=1 if same |
| | 9318  F5 01     SBC &01,X | | | (ch.1=&1138) |
| | 931A  B9 16 11  LDA &1116,Y | | | |
| | 931D  F5 02     SBC &02,X | | | |
| | 931F  60        RTS | | | C=p>=n |
| AUTOBOOT | 9320  A5 B3     LDA &B3 | | | =value of Y on call 3 |
| | 9322  48        PHA | | | ie =0 then boot file |
| | 9323  A9 FF     LDA #&FF | | | |
| | 9325  8D DE 10  STA &10DE | | | |
| .infACORNDFS | 9328  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | | | print "Acorn DFS" |
| | 932B  41 63 6F 72 6E 20 44 46  Acorn DF | | | |
| | 9333  53 0D 0D              S.. | | | |
| | 9336  90 03     BCC .initDFS | | | always |
| CMD_DISK | 9338  A9 FF     LDA #&FF | | JMP mmccmddisk | don't exec boot file |
| | 933A  48        PHA | | | |
| .initDFS | 933B  A9 00     LDA #&00 | | | |
| | 933D  BA        TSX | | | |
| | 933E  9D 06 01  STA &0106,X | | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9341 | A9 06 | LDA #&06 | ☐ | | new filing system |
| | 9343 | 20 15 80 | JSR .Go_FSCV | ☐ | | |
| | 9346 | A2 0D | LDX #&0D | ☐ | | copy vectors |
| .vectloop | 9348 | BD 49 99 | LDA .vectors_table,X | ☐ | | ' |
| | 934B | 9D 12 02 | STA &0212,X | ☐ | | ' |
| | 934E | CA | DEX | ☐ | | ' |
| | 934F | 10 F7 | BPL .vectloop | ☐ | | ' |
| | 9351 | 20 28 99 | JSR osbyteA8 rom p.tbl | ☐ | | copy extended vectors |
| | 9354 | 84 B1 | STY PrivateWorkspacePointer+1 | ☐ | | ' |
| | 9356 | 86 B0 | STX PrivateWorkspacePointer | ☐ | | ' |
| | 9358 | A2 07 | LDX #&07 | ☐ | | ' |
| | 935A | A0 1B | LDY #&1B | ☐ | | ' |
| .extendedvec_loop | 935C | B9 3C 99 | LDA &993C,Y | ☐ | | ' |
| | 935F | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | ' |
| | 9361 | C8 | INY | ☐ | | ' |
| | 9362 | B9 3C 99 | LDA &993C,Y | ☐ | | ' |
| | 9365 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | ' |
| | 9367 | C8 | INY | ☐ | | ' |
| | 9368 | A5 F4 | LDA PagedRomSelector_RAMCopy | ☐ | | ' |
| | 936A | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | ' |
| | 936C | C8 | INY | ☐ | | ' |
| | 936D | CA | DEX | ☐ | | ' |
| | 936E | D0 EC | BNE .extendedvec_loop | ☐ | | end extended vectors |
| | 9370 | 86 CF | STX CurrentDrv | ☐ | | curdrv=0 |
| | 9372 | 8C 82 10 | STY CurrentCrvCatalog | ☐ | | curdrvcat<>0 |
| | 9375 | A2 0F | LDX #&0F | ☐ | | vectors claimed! |
| | 9377 | 20 2C 99 | JSR osbyte8F serv.req | ☐ | | |
| | 937A | 20 9E 98 | JSR SetPrivateWorkspacePointer(B0) | ☐ | | |
| | 937D | A0 D4 | LDY #&D4 | ☐ | | |
| | 937F | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9381 | 10 2F | BPL .setupabs | ☐ | | PWS not setup |
| | 9383 | A0 D5 | LDY #&D5 | ☐ | | |
| | 9385 | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9387 | 30 27 | BMI .absinited | ☐ | | already own abs wsp |
| | 9389 | 20 8F 98 | JSR ClaimStaticWorkspace | ☐ | | |
| | 938C | A0 00 | LDY #&00 | ☐ | | copy data |
| .copyPWStoSWS LOOP | 938E | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | from private wsp |
| | 9390 | C0 C0 | CPY #&C0 | ☐ | | to abs wsp |
| | 9392 | 90 05 | BCC &9399 | ☐ | | ' |
| | 9394 | 99 00 10 | STA &1000,Y | ☐ | | ??10ok |
| | 9397 | B0 03 | BCS &939C | ☐ | | ' |
| | 9399 | 99 00 11 | STA &1100,Y | ☐ | | ?Y=copy vars only |
| | 939C | 88 | DEY | ☐ | | ' |
| | 939D | D0 EF | BNE .copyPWStoSWS LOOP | ☐ | | ' |
| | 939F | A9 A0 | LDA #&A0 | ☐ | | Setup channels |
| .93a1 LOOP | 93A1 | A8 | TAY | ☐ | | ' |
| | 93A2 | 48 | PHA | ☐ | | ' |
| | 93A3 | A9 3F | LDA #&3F | ☐ | | ' |
| | 93A5 | 20 43 91 | JSR .9143 Y=intchnl | ☐ | | ' |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 93A8 | 68 | PLA | ☐ | | ' |
| | 93A9 | 99 1D 11 | STA &111D,Y | ☐ | | ' |
| | 93AC | E9 1F | SBC #&1F | ☐ | | ' |
| | 93AE | D0 F1 | BNE .93a1 LOOP | ☐ | | ' |
| .absinited | 93B0 | 68 | PLA | ☐ | | ' |
| | 93B1 | 60 | RTS | ☐ | | RETURN |
| .setupabs | 93B2 | A9 FF | LDA #&FF | ☐ | | Ptr=PWS |
| | 93B4 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | PWS?&D4=&FF |
| | 93B6 | 8D D4 10 | STA &10D4 | ☐ | | |
| | 93B9 | 20 8F 98 | JSR ClaimStaticWorkspace | ☐ | | |
| | 93BC | 20 24 99 | JSR osbyteEA Tube? | ☐ | | |
| | 93BF | 8A | TXA | ☐ | | X=0 if Tube not present |
| | 93C0 | 49 FF | EOR #&FF | ☐ | | |
| | 93C2 | 8D D7 10 | STA TubePresentIf0 | ☐ | | =FF if Tube not present |
| | 93C5 | A9 24 | LDA #&24 | ☐ | | |
| | 93C7 | 8D CA 10 | STA &10CA | ☐ | | |
| | 93CA | 8D CC 10 | STA &10CC | ☐ | | |
| | 93CD | A0 00 | LDY #&00 | ☐ | | |
| | 93CF | 8C CB 10 | STY &10CB | ☐ | | |
| | 93D2 | 8C CD 10 | STY &10CD | ☐ | | |
| | 93D5 | A0 00 | LDY #&00 | ☐ | | |
| | 93D7 | 8C C0 10 | STY &10C0 | ☐ | | |
| | 93DA | 8C C9 10 | STY NMIstatus | ☐ | | |
| | 93DD | 88 | DEY | ☐ | | |
| | 93DE | 8C C8 10 | STY CMDEnabledIf1 | ☐ | | |
| | 93E1 | 8C C7 10 | STY &10C7 | ☐ | | |
| | 93E4 | 8C DE 10 | STY &10DE | ☐ | | |
| | 93E7 | 20 30 99 | JSR osbyteFF startupopts | ☑ | JSR mmcinitialise | X get drive timings |
| | 93EA | 86 B4 | STX &B4 | ☑ | JMP .initcont | X |
| | 93EC | 8A | TXA | ☑ | | X |
| BLOCK Z | 93ED | 29 30 | AND #&30 | ☑ | | X |
| | 93EF | 4A | LSR | ☑ | | X |
| | 93F0 | 4A | LSR | ☑ | | X |
| | 93F1 | 85 B0 | STA PrivateWorkspacePointer | ☑ | | X |
| | 93F3 | 4A | LSR | ☑ | | X |
| | 93F4 | 65 B0 | ADC PrivateWorkspacePointer | ☑ | | X |
| | 93F6 | A8 | TAY | ☑ | | X |
| | 93F7 | 20 88 8B | JSR FDC_cmdfromtable Y=index (exit Y=nextindex) | ☑ | | X init timings |
| | 93FA | A0 18 | LDY #&18 | ☑ | | X |
| | 93FC | A2 03 | LDX #&03 | ☑ | | X |
| .init_loop | 93FE | 20 88 8B | JSR FDC_cmdfromtable Y=index (exit Y=nextindex) | ☑ | | X load surface 0 |
| | 9401 | CA | DEX | ☑ | | X spec reg, track 0 |
| | 9402 | D0 FA | BNE .init_loop | ☑ | | X ver dat |
| .initcont | 9404 | 68 | PLA | ☐ | | |
| | 9405 | D0 34 | BNE .bootopt0_donothing | ☐ | | |
| | 9407 | 20 EB 8A | JSR LoadCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | EXEC .. !Boot |
| | 940A | A0 00 | LDY #&00 | ☐ | | |
| | 940C | A2 00 | LDX #&00 | ☐ | | |
| | 940E | AD 06 0F | LDA &0F06 | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9411 | 20 05 82 | JSR .A>>4 | ☐ | | |
| | 9414 | F0 25 | BEQ .bootopt0_donothing | ☐ | | opt.0 |
| | 9416 | 48 | PHA | ☐ | | |
| | 9417 | A2 43 | LDX #&43 | ☐ | | !BOOT |
| | 9419 | A0 99 | LDY #&99 | ☐ | | |
| | 941B | 20 B8 86 | JSR SetTextPointer=Y*100+X | ☐ | | |
| | 941E | 20 FE 80 | JSR read_(a)fsp@TextPointer  (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 9421 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 9424 | 68 | PLA | ☐ | | |
| | 9425 | B0 15 | BCS .bootfilefound | ☐ | | |
| .errFILENOTFOUND | 9427 | 20 65 80 | JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9429 | 80 46 69 6C 65 20 6E 6F | €File no | ☐ | | |
| | 9431 | 74 20 66 6F 75 6E 64 0D | t found. | ☐ | | |
| | 9439 | 0D | . | ☐ | | |
| | 943A | EA | NOP | ☐ | | |
| .bootopt0_donothing | 943B | 60 | RTS | ☐ | | |
| .bootfilefound | 943C | C9 02 | CMP #&02 | ☐ | | |
| | 943E | 90 0E | BCC .bootopt1_load | ☐ | | |
| | 9440 | F0 06 | BEQ .bootopt2_run | ☐ | | |
| .bootopt3_exec | 9442 | A2 41 | LDX #&41 | ☐ | | |
| | 9444 | A0 99 | LDY #&99 | ☐ | | |
| | 9446 | D0 0A | BNE .bootoscli | ☐ | | |
| .bootopt2_run | 9448 | A2 43 | LDX #&43 | ☐ | | |
| | 944A | A0 99 | LDY #&99 | ☐ | | |
| | 944C | D0 04 | BNE .bootoscli | ☐ | | |
| .bootopt1_load | 944E | A2 39 | LDX #&39 | ☐ | | |
| | 9450 | A0 99 | LDY #&99 | ☐ | | |
| .bootoscli | 9452 | 4C F7 FF | JMP OSCLI | ☐ | | |
| SERVICE_claim_absworkspace | 9455 | C9 01 | CMP #&01 | ☐ | | A=1 : abs workspace claim |
| | 9457 | D0 07 | BNE SERVICE_claim_privworkspace | ☐ | | |
| | 9459 | C0 17 | CPY #&17 | ☐ | | Y=current upper limit |
| | 945B | B0 02 | BCS &945F | ☐ | | already >=&17 |
| | 945D | A0 17 | LDY #&17 | ☐ | | Up upper limit to &17 |
| | 945F | 60 | RTS | ☐ | | |
| SERVICE_claim_privworkspace | 9460 | C9 02 | CMP #&02 | ☐ | | A=2 : priv workspace claim |
| | 9462 | D0 1A | BNE SERVICE_autoboot | ☐ | | |
| | 9464 | 48 | PHA | ☐ | | |
| | 9465 | 98 | TYA | ☐ | | Y=First available page |
| | 9466 | 18 | CLC | ☐ | | |
| | 9467 | 85 B1 | STA PrivateWorkspacePointer+1 | ☐ | | |
| | 9469 | 9D F0 0D | STA PagedROM_PrivWorkspaces,X | ☐ | | |
| | 946C | 69 02 | ADC #&02 | ☐ | | takes 2 pages for pwsp |
| | 946E | 48 | PHA | ☐ | | |
| | 946F | A9 00 | LDA #&00 | ☐ | | store 0 at pwsp+&D4/&D5 |
| | 9471 | 85 B0 | STA PrivateWorkspacePointer | ☐ | | |
| | 9473 | A0 D4 | LDY #&D4 | ☐ | | |
| | 9475 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9477 | C8 | INY | ☐ | | |
| | 9478 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 947A | 68 | PLA | ☐ | | |
| | 947B | A8 | TAY | ☐ | | Y=Y+2 |
| | 947C | 68 | PLA | ☐ | | restore A |
| .dontStartDFS | 947D | 60 | RTS | ☐ | | |
| SERVICE_autoboot | 947E | C9 03 | CMP #&03 | ☐ | | A=3 : auto boot |
| | 9480 | D0 19 | BNE SERVICE_unrec_command | ☐ | | |
| | 9482 | 84 B3 | STY &B3 | ☐ | | if Y=0 then !BOOT |
| | 9484 | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 9487 | A9 7A | LDA #&7A | ☐ | | |
| | 9489 | 20 F4 FF | JSR OSBYTE | ☐ | | Keyboard scan |
| | 948C | 8A | TXA | ☐ | | X=int.key.no |
| | 948D | 30 09 | BMI &9498 | ☐ | JMP mmcstartopts | |
| | 948F | C9 32 | CMP #&32 | ☐ | | "D" key |
| | 9491 | D0 EA | BNE .dontStartDFS | ☐ | | |
| | 9493 | A9 78 | LDA #&78 | ☐ | | |
| | 9495 | 20 F4 FF | JSR OSBYTE | ☐ | | write current keys pressed info |
| | 9498 | 4C 20 93 | JMP AUTOBOOT | ☐ | | |
| SERVICE_unrec_command | 949B | C9 04 | CMP #&04 | ☐ | | A=4 : unrec command |
| | 949D | D0 08 | BNE SERVICE_help | ☐ | | |
| | 949F | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 94A2 | A2 72 | LDX #&72 | ☐ | | Ex-DFS commands |
| | 94A4 | 4C 71 86 | JMP UnrecCommand@TextPointer | ☐ | | |
| SERVICE_help | 94A7 | C9 09 | CMP #&09 | ☐ | | A=9 : *HELP |
| | 94A9 | D0 12 | BNE SERVICE_claim_statworkspace | ☐ | | |
| | 94AB | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 94AE | B1 F2 | LDA (TextPointer),Y | ☐ | JMP mmcdhelp | |
| | 94B0 | A2 A0 | LDX #&A0 | ☐ | | |
| | 94B2 | C9 0D | CMP #&0D | ☐ | | |
| | 94B4 | D0 EE | BNE &94A4 | ☐ | | |
| | 94B6 | 98 | TYA | ☐ | | |
| | 94B7 | E8 | INX | ☐ | | |
| | 94B8 | A0 02 | LDY #&02 | ☐ | | |
| | 94BA | 4C CB 99 | JMP .prthelp | ☐ | | |
| SERVICE_claim_statworkspace | 94BD | C9 0A | CMP #&0A | ☐ | | Another ROM |
| | 94BF | D0 29 | BNE SERVICE_unrec_OSWORD | ☐ | | wants the |
| | 94C1 | 20 E1 83 | JSR rememberAXY | ☐ | | absolute workspace |
| | 94C4 | 20 9E 98 | JSR SetPrivateWorkspacePointer(B0) | ☐ | | |
| | 94C7 | A0 D5 | LDY #&D5 | ☐ | | |
| | 94C9 | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | not using workspace! |
| | 94CB | 10 1C | BPL .exitServiceCalls | ☐ | | |
| | 94CD | A0 00 | LDY #&00 | ☐ | | copy valuable |
| .stat_loop1 | 94CF | C0 C0 | CPY #&C0 | ☐ | | data to private wsp |
| | 94D1 | 90 05 | BCC .stat_Y<C0 | ☐ | | I.e. 10C0-10FF |
| | 94D3 | B9 00 10 | LDA &1000,Y | ☐ | | and  1100-11BF |
| | 94D6 | B0 03 | BCS .stat_Y>=C0 | ☐ | | |
| .stat_Y<C0 | 94D8 | B9 00 11 | LDA &1100,Y | ☐ | | ?Y = copy vars only |
| .stat_Y>=C0 | 94DB | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 94DD | 88 | DEY | ☐ | | |
| | 94DE | D0 EF | BNE .stat_loop1 | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 94E0 | 20 F2 8F | JSR .argsv_allfilestomedia2 | ☐ | | |
| | 94E3 | A0 D5 | LDY #&D5 | ☐ | | |
| | 94E5 | A9 00 | LDA #&00 | ☐ | | |
| | 94E7 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| .exitServiceCalls | 94E9 | 60 | RTS | ☐ | | |
| SERVICE_unrec_OSWORD | 94EA | C9 08 | CMP #&08 | ☐ | | Last service call |
| | 94EC | D0 FB | BNE .exitServiceCalls | ☐ | BRX .newCalls | |
| | 94EE | 20 11 84 | JSR rAXY2_dontpullonreturn | ☐ | | |
| | 94F1 | A4 F0 | LDY &F0 | ☐ | | Osword X reg |
| | 94F3 | 84 B0 | STY PrivateWorkspacePointer | ☐ | | |
| | 94F5 | A4 F1 | LDY &F1 | ☐ | | Osword Y reg |
| | 94F7 | 84 B1 | STY PrivateWorkspacePointer+1 | ☐ | | |
| | 94F9 | A4 EF | LDY &EF | ☐ | | Osword A reg |
| | 94FB | C0 7F | CPY #&7F | ☐ | | |
| | 94FD | D0 4C | BNE .notOsword&7F | ☐ | | |
| | 94FF | A0 00 | LDY #&00 | ☑ | JMP mmcosword7F | OSWORD &7F |
| | 9501 | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☑ | | oswptr+0 |
| BLOCK C | | | | ☑ | | |
| .newCalls | 9503 | 30 06 | BMI .osword7F_dontreset | ☑ | JMP mmcservice | |
| | 9505 | 20 7E 87 | JSR SetCurrentDrive | ☑ | | |
| | 9508 | 20 9E 8B | JSR FDC_DriveReady/Reset | ☑ | | |
| .osword7F_dontreset | 950B | C8 | INY | ☑ | | |
| | 950C | A2 02 | LDX #&02 | ☑ | | be/bf=oswptr+1/2 |
| | 950E | 20 DA 80 | JSR copyvars((B0),Y to BC+X & (B0),Y+2 to 1072+X) | ☑ | | 1074/75=oswptr+3/4 |
| | 9511 | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☑ | | oswptr+5 = param.# |
| | 9513 | C8 | INY | ☑ | | |
| | 9514 | 48 | PHA | ☑ | | |
| | 9515 | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☑ | | oswptr+6 = FDC cmd |
| | 9517 | 48 | PHA | ☑ | | |
| | 9518 | 20 BD 8C | JSR FDC_WriteCmd A=Cmd (ret. C=drv) | ☑ | | FDC CMD |
| | 951B | 68 | PLA | ☑ | | |
| | 951C | 20 05 82 | JSR .A>>4 | ☑ | | |
| | 951F | 29 01 | AND #&01 | ☑ | | 0=init rd/1=init wr |
| | 9521 | 20 E6 8B | JSR TubeRoutine_Init(A=op) C=0 if rw Tube else Host | ☑ | | |
| | 9524 | 2A | ROL | ☑ | | 2 or 0 |
| | 9525 | 69 03 | ADC #&03 | ☑ | | 3or5(tube)/4or6(host) |
| | 9527 | 20 AC 98 | JSR BLOCK A CLAIM_NMI A=CODE No (0 to 6) | ☑ | | 3+4WR, 5+6RD |
| | 952A | A5 BE | LDA &BE | ☑ | | oswptr+1 |
| | 952C | 85 A6 | STA NMI_DataPointer | ☑ | | |
| | 952E | A5 BF | LDA &BF | ☑ | | oswptr+2 |
| | 9530 | 85 A7 | STA NMI_DataPointer+1 | ☑ | | |
| | 9532 | A0 07 | LDY #&07 | ☑ | | |
| | 9534 | 68 | PLA | ☑ | | oswptr+5=No.of FDC parameters |
| | 9535 | AA | TAX | ☑ | | |
| | 9536 | F0 09 | BEQ .osword7F_result | ☑ | | |
| .osowrd7F_paramloop | 9538 | B1 B0 | LDA (PrivateWorkspacePointer),Y | ☑ | | |
| | 953A | 20 B0 8C | JSR FDC_WriteParam A=Param | ☑ | | |
| | 953D | C8 | INY | ☑ | | |
| | 953E | CA | DEX | ☑ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 953F | D0 F7 | BNE .osowrd7F_paramloop | ☑ | | |
| .osword7F_result | 9541 | 20 CF 8C | JSR FDC_ReadResult (ret. A=RESULT,C preserved) | ☑ | | |
| | 9544 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☑ | | |
| | 9546 | A9 00 | LDA #&00 | ☑ | | |
| | 9548 | 4C EA 98 | JMP RELEASE_NMI (AXY preserved) | ☑ | | |
| .notOsword&7F | 954B | C0 7D | CPY #&7D | ☐ | | |
| | 954D | 90 2B | BCC .notDFSosword | ☐ | | |
| | 954F | 20 4D 83 | JSR setCECF_driveno | ☐ | | OSWORD A>=&7D |
| | 9552 | 20 47 83 | JSR LoadCurDrvCat (preserve AXY) | ☐ | | |
| | 9555 | C0 7E | CPY #&7E | ☐ | | |
| | 9557 | F0 09 | BEQ .Osword7E | ☐ | | |
| | 9559 | A0 00 | LDY #&00 | ☐ | | |
| | 955B | AD 04 0F | LDA &0F04 | ☐ | | Cycle no. |
| | 955E | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9560 | 98 | TYA | ☐ | | |
| | 9561 | 60 | RTS | ☐ | | |
| .Osword7E | 9562 | A9 00 | LDA #&00 | ☐ | | |
| | 9564 | A8 | TAY | ☐ | | |
| | 9565 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9567 | C8 | INY | ☐ | | |
| | 9568 | AD 07 0F | LDA &0F07 | ☐ | | sector count LB |
| | 956B | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 956D | C8 | INY | ☐ | | |
| | 956E | AD 06 0F | LDA &0F06 | ☐ | | |
| | 9571 | 29 03 | AND #&03 | ☐ | | sector count HB (mixed byte) |
| | 9573 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9575 | C8 | INY | ☐ | | |
| | 9576 | A9 00 | LDA #&00 | ☐ | | |
| | 9578 | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | result |
| .notDFSosword | 957A | 60 | RTS | ☐ | | |
| FILEV_ENTRY | 957B | 20 11 84 | JSR rAXY2_dontpullonreturn | ☐ | | |
| | 957E | 48 | PHA | ☐ | | |
| | 957F | 20 62 82 | JSR parameter_fsp | ☐ | | |
| | 9582 | 86 B0 | STX PrivateWorkspacePointer | ☐ | | |
| | 9584 | 8E DC 10 | STX &10DC | ☐ | | |
| | 9587 | 84 B1 | STY PrivateWorkspacePointer+1 | ☐ | | |
| | 9589 | 8C DD 10 | STY &10DD | ☐ | | |
| | 958C | A2 00 | LDX #&00 | ☐ | | |
| | 958E | A0 00 | LDY #&00 | ☐ | | |
| | 9590 | 20 EA 80 | JSR copyword((B0),Y to BC,X) | ☐ | | filename ptr ->BC/BD |
| .filev_copyparams_loop | 9593 | 20 DA 80 | JSR copyvars((B0),Y to BC+X & (B0),Y+2 to 1072+X) | ☐ | | |
| | 9596 | C0 12 | CPY #&12 | ☐ | | |
| | 9598 | D0 F9 | BNE .filev_copyparams_loop | ☐ | | |
| | 959A | 68 | PLA | ☐ | | |
| | 959B | AA | TAX | ☐ | | |
| | 959C | E8 | INX | ☐ | | |
| | 959D | E0 08 | CPX #&08 | ☐ | | NB A=FF -> X=0 |
| | 959F | B0 08 | BCS .filev_unknownop | ☐ | | x>=8 (a>=7) |
| | 95A1 | BD 8C 99 | LDA .finv_tablehi,X | ☐ | | get addr from table |

| Label | Code | | | Zero | New Instruction | Comment |
|-------|------|---|---|------|-----------------|---------|
| | 95A4 | 48 | PHA | ☐ | | and "return" to it |
| | 95A5 | BD 84 99 | LDA .finv_tablelo,X | ☐ | | |
| | 95A8 | 48 | PHA | ☐ | | |
| .filev_unknownop | 95A9 | 60 | RTS | ☐ | | |
| FSCV_ENTRY | 95AA | C9 09 | CMP #&09 | ☐ | | |
| | 95AC | B0 FB | BCS .filev_unknownop | ☐ | | op>=9 not valide |
| | 95AE | 86 B5 | STX &B5 | ☐ | | |
| | 95B0 | AA | TAX | ☐ | | |
| | 95B1 | BD 75 99 | LDA .fscv_table2,X | ☐ | | |
| | 95B4 | 48 | PHA | ☐ | | |
| | 95B5 | BD 6C 99 | LDA .fscv_table1,X | ☐ | | |
| | 95B8 | 48 | PHA | ☐ | | |
| | 95B9 | 8A | TXA | ☐ | | |
| | 95BA | A6 B5 | LDX &B5 | ☐ | | |
| | 95BC | 60 | RTS | ☐ | | |
| .argsv_restcmdlineaddr | 95BD | A9 FF | LDA #&FF | ☐ | | |
| | 95BF | 95 02 | STA &02,X | ☐ | | |
| | 95C1 | 95 03 | STA &03,X | ☐ | | |
| | 95C3 | AD DA 10 | LDA &10DA | ☐ | | |
| | 95C6 | 95 00 | STA &00,X | ☐ | | |
| | 95C8 | AD DB 10 | LDA &10DB | ☐ | | |
| | 95CB | 95 01 | STA &01,X | ☐ | | |
| | 95CD | A9 00 | LDA #&00 | ☐ | | |
| .gbpbv_unrecop | 95CF | 60 | RTS | ☐ | | |
| GBPBV_ENTRY | 95D0 | C9 09 | CMP #&09 | ☐ | | |
| | 95D2 | B0 FB | BCS .gbpbv_unrecop | ☐ | | >=9 not valid |
| | 95D4 | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 95D7 | 8E 7D 10 | STX &107D | ☐ | | XY -> param blk |
| | 95DA | 8C 7E 10 | STY &107E | ☐ | | |
| | 95DD | A8 | TAY | ☐ | | |
| | 95DE | BA | TSX | ☐ | | |
| | 95DF | A9 00 | LDA #&00 | ☐ | | |
| | 95E1 | 9D 05 01 | STA &0105,X | ☐ | JMP mmcgbpb1 | |
| | 95E4 | B9 AB 99 | LDA .gbpbv_table1,Y | ☐ | | |
| | 95E7 | 8D D8 10 | STA &10D8 | ☐ | | w 10D8 = GBPB routine entry |
| | 95EA | B9 B4 99 | LDA .gbpbv_table2,Y | ☐ | | |
| | 95ED | 8D D9 10 | STA &10D9 | ☐ | | |
| | 95F0 | B9 BD 99 | LDA .gbpbv_table3,Y | ☐ | | |
| | 95F3 | 4A | LSR | ☐ | | |
| | 95F4 | 08 | PHP | ☐ | | |
| | 95F5 | 4A | LSR | ☐ | | |
| | 95F6 | 08 | PHP | ☐ | | |
| | 95F7 | 8D 7F 10 | STA &107F | ☐ | | save Tube op |
| | 95FA | 20 56 97 | JSR .wordB4=107D | ☐ | | w B4 = w 1074 = XY on entry |
| | 95FD | A0 0C | LDY #&0C | ☐ | | |
| .gbpb_cblkloop | 95FF | B1 B4 | LDA (&B4),Y | ☐ | | Copy ctl block to &1060 |
| | 9601 | 99 60 10 | STA &1060,Y | ☐ | | |
| | 9604 | 88 | DEY | ☐ | | |
| | 9605 | 10 F8 | BPL .gbpb_cblkloop | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 9607 | AD 63 10  LDA &1063 | ☐ | | data ptr bytes 3 & 4 |
| | 960A | 2D 64 10  AND &1064 | ☐ | | |
| | 960D | 0D D7 10  ORA TubePresentIf0 | ☐ | | |
| | 9610 | 18        CLC | ☐ | | |
| | 9611 | 69 01     ADC #&01 | ☐ | | |
| | 9613 | F0 02     BEQ ..gbpbnottube | ☐ | JMP mmcgbpb2 | not Tube! |
| | 9615 | A9 FF     LDA #&FF | ☐ | | |
| | | | ☐ | NOP | |
| ..gbpbnottube | 9617 | 8D 81 10  STA gbpb TUBE if =FF | ☐ | | GBPB to TUBE IF >=&80 |
| | 961A | AD 7F 10  LDA &107F | ☐ | | Tube op! 0 or 1 |
| | 961D | B0 07     BCS ..gbpbnottube2 | ☐ | | |
| | 961F | A2 61     LDX #&61 | ☐ | | init TUBE addr @ 1061 |
| | 9621 | A0 10     LDY #&10 | ☐ | | |
| | 9623 | 20 06 04  JSR TubeCode(YX=addr,A=0:initrd,A=1:initwr,A=4:strexe) | ☐ | | |
| ..gbpbnottube2 | 9626 | 28        PLP | ☐ | | |
| | 9627 | B0 04     BCS .gbpb A=1 - 4 | ☐ | | Bit 1! A was <5 |
| | 9629 | 28        PLP | ☐ | | Bit 0 = 0 |
| .gpbp JMP (10d8) | 962A | 6C D8 10  JMP (&10D8) | ☐ | | A = 0 , 5 - 8 |
| .gbpb A=1 - 4 | 962D | A2 03     LDX #&03 | ☐ | | |
| ..gbpb copy seqptr | 962F | BD 69 10  LDA &1069,X | ☐ | | !B6=seq ptr |
| | 9632 | 95 B6     STA &B6,X | ☐ | | |
| | 9634 | CA        DEX | ☐ | | |
| | 9635 | 10 F8     BPL ..gbpb copy seqptr | ☐ | | |
| | 9637 | A2 B6     LDX #&B6 | ☐ | | |
| | 9639 | AC 60 10  LDY &1060 | ☐ | | |
| | 963C | A9 00     LDA #&00 | ☐ | | |
| | 963E | 28        PLP | ☐ | | Bit 0! |
| | 963F | B0 03     BCS ..gbpb skip set ptr | ☐ | | Set=don't use new ptr |
| | 9641 | 20 A7 92  JSR .argsv_WriteSeqPointer | ☐ | | |
| ..gbpb skip set ptr | 9644 | 20 2E 90  JSR .argsv_rdseqptr_or_filelen | ☐ | | |
| | 9647 | A2 03     LDX #&03 | ☐ | | |
| ..gpbp copy back seq ptr | 9649 | B5 B6     LDA &B6,X | ☐ | | |
| | 964B | 9D 69 10  STA &1069,X | ☐ | | |
| | 964E | CA        DEX | ☐ | | |
| | 964F | 10 F8     BPL ..gpbp copy back seq ptr | ☐ | | |
| | 9651 | 20 48 97  JSR .!1065=!1065 EOR FFFF | ☐ | | No of bytes |
| | 9654 | 30 0D     BMI ..gpbp loop entry | ☐ | | always jumps! |
| ..gpbp loop | 9656 | AC 60 10  LDY &1060 | ☐ | | Y=handle |
| | 9659 | 20 2A 96  JSR .gpbp JMP (10d8) | ☐ | | Jmp routine!!! |
| | 965C | B0 0D     BCS ..gpbp exit err | ☐ | | |
| | 965E | A2 09     LDX #&09 | ☐ | | |
| | 9660 | 20 3C 97  JSR .Inc 1060+X | ☐ | | Inc Seq Ptr |
| ..gpbp loop entry | 9663 | A2 05     LDX #&05 | ☐ | | |
| | 9665 | 20 3C 97  JSR .Inc 1060+X | ☐ | | Inc No. of Bytes |
| | 9668 | D0 EC     BNE ..gpbp loop | ☐ | | More bytes? |
| | 966A | 18        CLC | ☐ | | |
| ..gpbp exit err | 966B | 08        PHP | ☐ | | save result |
| | 966C | 20 48 97  JSR .!1065=!1065 EOR FFFF | ☐ | | restore ctl block |
| | 966F | A2 05     LDX #&05 | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 9671 | 20 3C 97 | JSR .Inc 1060+X | ☐ | | Inc No. of bytes |
| | 9674 | A0 0C | LDY #&0C | ☐ | | |
| | 9676 | 20 56 97 | JSR .wordB4=107D | ☐ | | restore ctl block ptr |
| ..gpbp copy back ctl blk | 9679 | B9 60 10 | LDA &1060,Y | ☐ | | copy ctl block back to |
| | 967C | 91 B4 | STA (&B4),Y | ☐ | | orig location |
| | 967E | 88 | DEY | ☐ | | |
| | 967F | 10 F8 | BPL ..gpbp copy back ctl blk | ☐ | | |
| | 9681 | 28 | PLP | ☐ | | C=1 if not completed!!!! |
| | 9682 | 60 | RTS | ☐ | | |
| .gbpb8_rdfilescurdir | 9683 | 20 4D 83 | JSR setCECF_driveno | ☐ | | |
| | 9686 | 20 DE 8A | JSR CheckCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | |
| | 9689 | A9 95 | LDA #&95 | ☐ | | |
| | 968B | 8D D8 10 | STA &10D8 | ☐ | | |
| | 968E | A9 96 | LDA #&96 | ☐ | | |
| | 9690 | 8D D9 10 | STA &10D9 | ☐ | | |
| | 9693 | D0 BC | BNE &9651 | ☐ | | |
| | 9695 | AC 69 10 | LDY &1069 | ☐ | | |
| | 9698 | CC 05 0F | CPY FilesX8 | ☐ | | |
| | 969B | B0 28 | BCS &96C5 | ☐ | | |
| | 969D | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 96A0 | 20 EE 82 | JSR alphachr_ifC=0 (A=Chr) A preserved | ☐ | | |
| | 96A3 | 45 CE | EOR DirectoryParam | ☐ | | |
| | 96A5 | B0 02 | BCS &96A9 | ☐ | | |
| | 96A7 | 29 DF | AND #&DF | ☐ | | |
| | 96A9 | 29 7F | AND #&7F | ☐ | | |
| | 96AB | F0 05 | BEQ &96B2 | ☐ | | |
| | 96AD | 20 10 82 | JSR .Y=Y+8 | ☐ | | |
| | 96B0 | D0 E6 | BNE &9698 | ☐ | | |
| | 96B2 | A9 07 | LDA #&07 | ☐ | | |
| | 96B4 | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 96B7 | 85 B0 | STA PrivateWorkspacePointer | ☐ | | |
| | 96B9 | B9 08 0E | LDA &0E08,Y | ☐ | | |
| | 96BC | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 96BF | C8 | INY | ☐ | | |
| | 96C0 | C6 B0 | DEC PrivateWorkspacePointer | ☐ | | |
| | 96C2 | D0 F5 | BNE &96B9 | ☐ | | |
| | 96C4 | 18 | CLC | ☐ | | |
| | 96C5 | 8C 69 10 | STY &1069 | ☐ | | |
| | 96C8 | AD 04 0F | LDA &0F04 | ☐ | | |
| | 96CB | 8D 60 10 | STA &1060 | ☐ | | |
| | 96CE | 60 | RTS | ☐ | | |
| .gbpb5_getmediatitle | 96CF | 20 4D 83 | JSR setCECF_driveno | ☐ | | |
| | 96D2 | 20 DE 8A | JSR CheckCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | |
| | 96D5 | A9 0C | LDA #&0C | ☐ | | |
| | 96D7 | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 96DA | A0 00 | LDY #&00 | ☐ | | |
| | 96DC | B9 00 0E | LDA &0E00,Y | ☐ | | |
| | 96DF | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 96E2 | C8 | INY | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 96E3 | C0 08 | CPY #&08 | ☐ | | |
| | 96E5 | D0 F5 | BNE &96DC | ☐ | | |
| | 96E7 | B9 F8 0E | LDA &0EF8,Y | ☐ | | |
| | 96EA | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 96ED | C8 | INY | ☐ | | |
| | 96EE | C0 0C | CPY #&0C | ☐ | | |
| | 96F0 | D0 F5 | BNE &96E7 | ☐ | | |
| | 96F2 | AD 06 0F | LDA &0F06 | ☐ | | |
| | 96F5 | 20 05 82 | JSR .A>>4 | ☐ | | |
| | 96F8 | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 96FB | A5 CF | LDA CurrentDrv | ☐ | | |
| | 96FD | 4C 6A 97 | JMP .gbpb_gb_SAVEBYTE | ☐ | | |
| .gbpb6_rdcurdir&device | 9700 | 20 61 97 | JSR &9761 | ☐ | | |
| | 9703 | AD CB 10 | LDA &10CB | ☐ | | |
| | 9706 | 09 30 | ORA #&30 | ☐ | | |
| | 9708 | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 970B | 20 61 97 | JSR &9761 | ☐ | | |
| | 970E | AD CA 10 | LDA &10CA | ☐ | | |
| | 9711 | 4C 6A 97 | JMP .gbpb_gb_SAVEBYTE | ☐ | | |
| .gbpb7_rdcurlib&device | 9714 | 20 61 97 | JSR &9761 | ☐ | | |
| | 9717 | AD CD 10 | LDA &10CD | ☐ | | |
| | 971A | 09 30 | ORA #&30 | ☐ | | |
| | 971C | 20 6A 97 | JSR .gbpb_gb_SAVEBYTE | ☐ | | |
| | 971F | 20 61 97 | JSR &9761 | ☐ | | |
| | 9722 | AD CC 10 | LDA &10CC | ☐ | | |
| | 9725 | 4C 6A 97 | JMP .gbpb_gb_SAVEBYTE | ☐ | | |
| .wB8=w1061 X=0 | 9728 | 48 | PHA | ☐ | | |
| | 9729 | AD 61 10 | LDA &1061 | ☐ | | |
| | 972C | 85 B8 | STA &B8 | ☐ | | |
| | 972E | AD 62 10 | LDA &1062 | ☐ | | |
| | 9731 | 85 B9 | STA &B9 | ☐ | | |
| | 9733 | A2 00 | LDX #&00 | ☐ | | |
| | 9735 | 68 | PLA | ☐ | | |
| | 9736 | 60 | RTS | ☐ | | |
| .Inc 1061 | 9737 | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 973A | A2 01 | LDX #&01 | ☐ | | |
| .Inc 1060+X | 973C | A0 04 | LDY #&04 | ☐ | | |
| .973e_loop | 973E | FE 60 10 | INC &1060,X | ☐ | | Inc 4 byte number |
| | 9741 | D0 04 | BNE .9747_exit | ☐ | | |
| | 9743 | E8 | INX | ☐ | | |
| | 9744 | 88 | DEY | ☐ | | |
| | 9745 | D0 F7 | BNE .973e_loop | ☐ | | |
| .9747_exit | 9747 | 60 | RTS | ☐ | | |
| .!1065=!1065 EOR FFFF | 9748 | A2 03 | LDX #&03 | ☐ | | |
| .974a-loop | 974A | A9 FF | LDA #&FF | ☐ | | |
| | 974C | 5D 65 10 | EOR &1065,X | ☐ | | ??10ok |
| | 974F | 9D 65 10 | STA &1065,X | ☐ | | ??10ok |
| | 9752 | CA | DEX | ☐ | | |
| | 9753 | 10 F5 | BPL .974a-loop | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9755 | 60 | RTS | ☐ | | |
| .wordB4=107D | 9756 | AD 7D 10 | LDA &107D | ☐ | | |
| | 9759 | 85 B4 | STA &B4 | ☐ | | |
| | 975B | AD 7E 10 | LDA &107E | ☐ | | |
| | 975E | 85 B5 | STA &B5 | ☐ | | |
| .gbpb_gb_err | 9760 | 60 | RTS | ☐ | | |
| | 9761 | A9 01 | LDA #&01 | ☐ | | |
| | 9763 | D0 05 | BNE .gbpb_gb_SAVEBYTE | ☐ | | |
| .gbpb_getbytes | 9765 | 20 C1 90 | JSR BGETV_ENTRY | ☐ | | |
| | 9768 | B0 F6 | BCS .gbpb_gb_err | ☐ | | |
| .gbpb_gb_SAVEBYTE | 976A | 2C 81 10 | BIT gbpb TUBE if =FF | ☐ | | |
| | 976D | 10 06 | BPL .gBpb_gb_fromhost | ☐ | | |
| | 976F | 8D E5 FE | STA TUBE_R3_DATA | ☐ | | fast Tube Bget |
| | 9772 | 4C 37 97 | JMP .Inc 1061 | ☐ | | |
| .gBpb_gb_fromhost | 9775 | 20 28 97 | JSR .wB8=w1061 X=0 | ☐ | | |
| | 9778 | 81 B8 | STA (&B8,X) | ☐ | | |
| | 977A | 4C 37 97 | JMP .Inc 1061 | ☐ | | |
| .gbpb_putbytes | 977D | 20 85 97 | JSR .gpbp_pb_LOADBYTE | ☐ | | |
| | 9780 | 20 AA 91 | JSR BPUTV_ENTRY | ☐ | | |
| | 9783 | 18 | CLC | ☐ | | always ok! |
| | 9784 | 60 | RTS | ☐ | | |
| .gpbp_pb_LOADBYTE | 9785 | 2C 81 10 | BIT gbpb TUBE if =FF | ☐ | | |
| | 9788 | 10 06 | BPL ..gbp_pb_fromhost | ☐ | | |
| | 978A | AD E5 FE | LDA TUBE_R3_DATA | ☐ | | fast Tube Bput |
| | 978D | 4C 37 97 | JMP .Inc 1061 | ☐ | | |
| ..gbp_pb_fromhost | 9790 | 20 28 97 | JSR .wB8=w1061 X=0 | ☐ | | |
| | 9793 | A1 B8 | LDA (&B8,X) | ☐ | | |
| | 9795 | 4C 37 97 | JMP .Inc 1061 | ☐ | | |
| .fscv_osabouttoproccmd | 9798 | 2C C8 10 | BIT CMDEnabledIf1 | ☐ | | |
| | 979B | 30 03 | BMI &97A0 | ☐ | | |
| | 979D | CE C8 10 | DEC CMDEnabledIf1 | ☐ | | |
| | 97A0 | 60 | RTS | ☐ | | |
| .osfile5_rdcatinfo | 97A1 | 20 5A 98 | JSR .985a | ☐ | | |
| | 97A4 | 20 7E 83 | JSR readfileattribs Y=offset of file | ☐ | | |
| | 97A7 | A9 01 | LDA #&01 | ☐ | | |
| | 97A9 | 60 | RTS | ☐ | | |
| .osfile6_delfile | 97AA | 20 37 98 | JSR &9837 | ☐ | | |
| | 97AD | 20 7E 83 | JSR readfileattribs Y=offset of file | ☐ | | |
| | 97B0 | 20 D1 82 | JSR DeleteCatEntry Y=FileOffset | ☐ | | |
| | 97B3 | 90 24 | BCC &97D9 | ☐ | | |
| .osfile1_updatecat | 97B5 | 20 37 98 | JSR &9837 | ☐ | | |
| | 97B8 | 20 DF 97 | JSR &97DF | ☐ | | |
| | 97BB | 20 FB 97 | JSR &97FB | ☐ | | |
| | 97BE | 50 16 | BVC &97D6 | ☐ | | |
| .osfile2_wrloadaddr | 97C0 | 20 37 98 | JSR &9837 | ☐ | | |
| | 97C3 | 20 DF 97 | JSR &97DF | ☐ | | |
| | 97C6 | 50 11 | BVC &97D9 | ☐ | | |
| .osfile3_wrexecaddr | 97C8 | 20 37 98 | JSR &9837 | ☐ | | |
| | 97CB | 20 FB 97 | JSR &97FB | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 97CE 50 09 | BVC &97D9 | ☐ | | |
| .osfile4_wrattribs | 97D0 20 5A 98 | JSR .985a | ☐ | | |
| | 97D3 20 4F 98 | JSR &984F | ☐ | | |
| | 97D6 20 1E 98 | JSR &981E | ☐ | | |
| | 97D9 20 C3 88 | JSR &88C3 | ☐ | | |
| | 97DC A9 01 | LDA #&01 | ☐ | | |
| | 97DE 60 | RTS | ☐ | | |
| | 97DF 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 97E2 A0 02 | LDY #&02 | ☐ | | |
| | 97E4 B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 97E6 9D 08 0F | STA &0F08,X | ☐ | | |
| | 97E9 C8 | INY | ☐ | | |
| | 97EA B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 97EC 9D 09 0F | STA &0F09,X | ☐ | | |
| | 97EF C8 | INY | ☐ | | |
| | 97F0 B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 97F2 0A | ASL | ☐ | | |
| | 97F3 0A | ASL | ☐ | | |
| | 97F4 5D 0E 0F | EOR &0F0E,X | ☐ | | |
| | 97F7 29 0C | AND #&0C | ☐ | | |
| | 97F9 10 1B | BPL &9816 | ☐ | | |
| | 97FB 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 97FE A0 06 | LDY #&06 | ☐ | | |
| | 9800 B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9802 9D 0A 0F | STA &0F0A,X | ☐ | | |
| | 9805 C8 | INY | ☐ | | |
| | 9806 B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9808 9D 0B 0F | STA &0F0B,X | ☐ | | |
| | 980B C8 | INY | ☐ | | |
| | 980C B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 980E 6A | ROR | ☐ | | |
| | 980F 6A | ROR | ☐ | | |
| | 9810 6A | ROR | ☐ | | |
| | 9811 5D 0E 0F | EOR &0F0E,X | ☐ | | |
| | 9814 29 C0 | AND #&C0 | ☐ | | |
| | 9816 5D 0E 0F | EOR &0F0E,X | ☐ | | |
| | 9819 9D 0E 0F | STA &0F0E,X | ☐ | | |
| | 981C B8 | CLV | ☐ | | |
| | 981D 60 | RTS | ☐ | | |
| | 981E 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 9821 A0 0E | LDY #&0E | ☐ | | |
| | 9823 B1 B0 | LDA (PrivateWorkspacePointer),Y | ☐ | | |
| | 9825 29 0A | AND #&0A | ☐ | | |
| | 9827 F0 02 | BEQ &982B | ☐ | | |
| | 9829 A9 80 | LDA #&80 | ☐ | | |
| | 982B 5D 0F 0E | EOR &0E0F,X | ☐ | | |
| | 982E 29 80 | AND #&80 | ☐ | | |
| | 9830 5D 0F 0E | EOR &0E0F,X | ☐ | | |
| | 9833 9D 0F 0E | STA &0E0F,X | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9836 | 60 | RTS | ☐ | | |
| | 9837 | 20 64 98 | JSR .9864 rd(a)fsp@BC,find catentry,set pwspptr,C=0nf) | ☐ | | |
| | 983A | 90 23 | BCC &985F | ☐ | | |
| CheckFileNotLocked | 983C | B9 0F 0E | LDA &0E0F,Y | ☐ | | |
| | 983F | 10 22 | BPL &9863 | ☐ | | |
| .errFILELOCKED | 9841 | 20 2B 80 | JSR .errFILE | ☐ | | |
| | 9844 | C3 6C 6F 63 6B 65 64 00 | Ãlocked. | ☐ | | |
| CheckFileNotOpen | 984C | 20 3C 98 | JSR CheckFileNotLocked | ☐ | | |
| | 984F | 20 E1 83 | JSR rememberAXY | ☐ | | |
| | 9852 | 20 9E 8F | JSR .8f9e | ☐ | | |
| | 9855 | 90 21 | BCC .checkexit | ☐ | | |
| | 9857 | 4C 02 8F | JMP .errFILEOPEN | ☐ | | |
| .985a | 985A | 20 64 98 | JSR .9864 rd(a)fsp@BC,find catentry,set pwspptr,C=0nf) | ☐ | | |
| | 985D | B0 19 | BCS .checkexit | ☐ | | |
| | 985F | 68 | PLA | ☐ | | |
| | 9860 | 68 | PLA | ☐ | | |
| | 9861 | A9 00 | LDA #&00 | ☐ | | |
| | 9863 | 60 | RTS | ☐ | | |
| .9864 rd(a)fsp@BC,find catentry,set pwspptr,C=0nf) | 9864 | 20 06 81 | JSR read_(a)fsp@(&BC) (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 9867 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 986A | 90 0C | BCC .checkexit | ☐ | | |
| | 986C | 98 | TYA | ☐ | | |
| | 986D | AA | TAX | ☐ | | |
| .986e pwsptr=?10DC/DD | 986E | AD DC 10 | LDA &10DC | ☐ | | |
| | 9871 | 85 B0 | STA PrivateWorkspacePointer | ☐ | | |
| | 9873 | AD DD 10 | LDA &10DD | ☐ | | |
| | 9876 | 85 B1 | STA PrivateWorkspacePointer+1 | ☐ | | |
| .checkexit | 9878 | 60 | RTS | ☐ | | |
| CalcRAM(HIMEM-PAGE+1) | 9879 | A9 83 | LDA #&83 | ☐ | | |
| | 987B | 20 F4 FF | JSR OSBYTE | ☐ | | YX=OSHWM (PAGE) |
| | 987E | 8C D0 10 | STY Page | ☐ | | |
| | 9881 | A9 84 | LDA #&84 | ☐ | | |
| | 9883 | 20 F4 FF | JSR OSBYTE | ☐ | | YX=HIMEM |
| | 9886 | 98 | TYA | ☐ | | |
| | 9887 | 38 | SEC | ☐ | | |
| | 9888 | ED D0 10 | SBC Page | ☐ | | HIMEMpage-OSHWMpage+1 |
| | 988B | 8D D1 10 | STA Himem-Page | ☐ | | |
| | 988E | 60 | RTS | ☐ | | |
| ClaimStaticWorkspace | 988F | A2 0A | LDX #&0A | ☐ | | |
| | 9891 | 20 2C 99 | JSR osbyte8F serv.req | ☐ | | |
| | 9894 | 20 9E 98 | JSR SetPrivateWorkspacePointer(B0) | ☐ | | |
| | 9897 | A0 D5 | LDY #&D5 | ☐ | | |
| | 9899 | A9 FF | LDA #&FF | ☐ | | |
| | 989B | 91 B0 | STA (PrivateWorkspacePointer),Y | ☐ | | |
| | 989D | 60 | RTS | ☐ | | |
| SetPrivateWorkspacePointer(B0) | 989E | 48 | PHA | ☐ | | |
| | 989F | A6 F4 | LDX PagedRomSelector_RAMCopy | ☐ | | |
| | 98A1 | A9 00 | LDA #&00 | ☐ | | |
| | 98A3 | 85 B0 | STA PrivateWorkspacePointer | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 98A5 | BD F0 0D | LDA PagedROM_PrivWorkspaces,X | ☐ | | |
| | 98A8 | 85 B1 | STA PrivateWorkspacePointer+1 | ☐ | | |
| | 98AA | 68 | PLA | ☐ | | |
| | 98AB | 60 | RTS | ☐ | | |
| BLOCK A CLAIM_NMI A=CODE No (0 to 6) | 98AC | 20 E1 83 | JSR rememberAXY | ☑ | | |
| | 98AF | 48 | PHA | ☑ | | |
| | 98B0 | 2C C9 10 | BIT NMIstatus | ☑ | | own NMI? |
| | 98B3 | 30 0E | BMI .alreadyown_NMI | ☑ | | |
| | 98B5 | A9 8F | LDA #&8F | ☑ | | Iss.pg.rom service request |
| | 98B7 | A2 0C | LDX #&0C | ☑ | | service type: NMI CLAIM |
| | 98B9 | 20 34 99 | JSR osbyte Y=FF | ☑ | | |
| | 98BC | 84 A0 | STY NMI_PrevNMIOwner | ☑ | | =Prev.owner of NMI |
| | 98BE | A9 FF | LDA #&FF | ☑ | | |
| | 98C0 | 8D C9 10 | STA NMIstatus | ☑ | | |
| .alreadyown_NMI | 98C3 | 68 | PLA | ☑ | | COPY CODE TO &D00 |
| | 98C4 | AA | TAX | ☑ | | |
| | 98C5 | BD 94 99 | LDA .NMI_Table1,X | ☑ | | |
| | 98C8 | 85 B8 | STA &B8 | ☑ | | |
| | 98CA | BD 9B 99 | LDA .NMI_Table2,X | ☑ | | |
| | 98CD | 85 B9 | STA &B9 | ☑ | | |
| | 98CF | BC A2 99 | LDY .NMI_Table3,X | ☑ | | |
| | 98D2 | B1 B8 | LDA (&B8),Y | ☑ | | |
| | 98D4 | 99 00 0D | STA NMIRoutine(D00-D9E),Y | ☑ | | |
| | 98D7 | 88 | DEY | ☑ | | |
| | 98D8 | 10 F8 | BPL &98D2 | ☑ | | |
| | 98DA | E0 02 | CPX #&02 | ☑ | | |
| | 98DC | B0 08 | BCS .claimnmiexit | ☑ | | Code X>=2 |
| | 98DE | A5 F4 | LDA PagedRomSelector_RAMCopy | ☑ | | I.e. DFS Rom no |
| | 98E0 | BC A9 99 | LDY .NMI_Table4,X | ☑ | | Y=offset to store rom no |
| | 98E3 | 99 00 0D | STA NMIRoutine(D00-D9E),Y | ☑ | | 0:D63  1:D43 |
| .claimnmiexit | 98E6 | 60 | RTS | ☑ | | |
| RELEASE_NMI_WaitFDCbusy (A=bitmask)(AXY preserved) | 98E7 | 20 D6 8C | JSR FDC_WaitIfBusy (AXY preserved) | ☑ | | |
| RELEASE_NMI (AXY preserved) | 98EA | 20 E1 83 | JSR rememberAXY | ☑ | | |
| | 98ED | 2C C9 10 | BIT NMIstatus | ☑ | | don't own NMI |
| | 98F0 | 10 0E | BPL .release_nmi_clr10c9 | ☑ | | |
| | 98F2 | 20 E1 83 | JSR rememberAXY | ☑ | | again? |
| | 98F5 | A4 A0 | LDY NMI_PrevNMIOwner | ☑ | | prev.nmi.owner |
| | 98F7 | C0 FF | CPY #&FF | ☑ | | |
| | 98F9 | F0 05 | BEQ .release_nmi_clr10c9 | ☑ | | |
| | 98FB | A2 0B | LDX #&0B | ☑ | | Release NMI space |
| | 98FD | 20 2C 99 | JSR osbyte8F serv.req | ☑ | | type 0b; y=prev.nmi.owner |
| .release_nmi_clr10c9 | 9900 | A9 00 | LDA #&00 | ☑ | | |
| | 9902 | 8D C9 10 | STA NMIstatus | ☑ | | |
| | 9905 | 60 | RTS | ☑ | | end release_nmi |
| osbyte0F flush.in.buf (rem.AXY) | 9906 | 20 E1 83 | JSR rememberAXY | ☐ | | |
| osbyte0F flush.in.buf | 9909 | A9 0F | LDA #&0F | ☐ | | |
| | 990B | A2 01 | LDX #&01 | ☐ | | |
| | 990D | A0 00 | LDY #&00 | ☐ | | |
| | 990F | F0 25 | BEQ &9936 | ☐ | | always |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| osbyteC7 r/w spool hndl = Y | 9911 | A9 C7 | LDA #&C7 | ☐ | | |
| | 9913 | A2 00 | LDX #&00 | ☐ | | |
| | 9915 | F0 F6 | BEQ &990D | ☐ | | always |
| osbyte03 A=outstream | 9917 | AA | TAX | ☐ | | |
| osbyte03 X=outstream | 9918 | A9 03 | LDA #&03 | ☐ | | select output stream |
| | 991A | D0 1A | BNE &9936 | ☐ | | |
| osbyteEC chrdest&YxX | 991C | A9 EC | LDA #&EC | ☐ | | r/w char dest status |
| | 991E | D0 12 | BNE osbyte X=0,Y=FF | ☐ | | |
| osbyteC7 spool hdl | 9920 | A9 C7 | LDA #&C7 | ☐ | | r/w *SPOOL handle |
| | 9922 | D0 0E | BNE osbyte X=0,Y=FF | ☐ | | |
| osbyteEA Tube? | 9924 | A9 EA | LDA #&EA | ☐ | | rd Tube present flag |
| | 9926 | D0 0A | BNE osbyte X=0,Y=FF | ☐ | | |
| osbyteA8 rom p.tbl | 9928 | A9 A8 | LDA #&A8 | ☐ | | rd addr ROM point tbl lo |
| | 992A | D0 06 | BNE osbyte X=0,Y=FF | ☐ | | |
| osbyte8F serv.req | 992C | A9 8F | LDA #&8F | ☐ | | issued pg.rom serv.req |
| | 992E | D0 06 | BNE &9936 | ☐ | | |
| osbyteFF startupopts | 9930 | A9 FF | LDA #&FF | ☐ | | r/w start up opts |
| osbyte X=0,Y=FF | 9932 | A2 00 | LDX #&00 | ☐ | | |
| osbyte Y=FF | 9934 | A0 FF | LDY #&FF | ☐ | | |
| | 9936 | 4C F4 FF | JMP OSBYTE | ☐ | | |
| .!boot_table | 9939 | 4C 2E 21 42 4F 4F 54 0D | L.!BOOT. | ☐ | | |
| | 9941 | 45 2E 21 42 4F 4F 54 0D | E.!BOOT. | ☐ | | |
| .vectors_table | 9949 | 1B FF 1E FF 21 FF 24 FF | .ÿ.ÿ!ÿ$ÿ | ☐ | | |
| | 9951 | 27 FF 2A FF 2D FF | 'ÿ*ÿ-ÿ | ☐ | | |
| .extendedvectors_table | 9957 | 7B 95 00 07 90 00 C1 90 | {•..•.Á• | ☐ | | |
| | 995F | 00 AA 91 00 D0 95 00 93 | .ª'.Ð•." | ☐ | | |
| | 9967 | 8E 00 AA 95 00 | Ž.ª•. | ☐ | | |
| .fscv_table1 | 996C | 1B 8C D3 6B D3 1D E1 DC | .ŒÓkÓ.áÜ | ☐ | | |
| | 9974 | 97 | — | ☐ | | |
| .fscv_table2 | 9975 | 89 90 87 86 87 84 8D 8D | ‰•‡†‡„•• | ☐ | | |
| | 997D | 97 | — | ☐ | | |
| .args_y=0_tableLo | 997E | F1 3C BC | ñ<¼ | ☐ | | |
| .args_y=0_tableHi | 9981 | 8F 9B 95 | •>• | ☐ | | |
| .finv_tablelo | 9984 | 93 85 B4 BF C7 CF A0 A9 | "…´¿ÇÏ © | ☐ | | |
| .finv_tablehi | 998C | 87 87 97 97 97 97 97 97 | ‡‡—————— | ☐ | | |
| .NMI_Table1 | 9994 | 12 32 5D CD A2 BD 87 | .2]Í¢½‡ | ☐ | | |
| .NMI_Table2 | 999B | 8D 8D 8D 8D 8D 8D 8D | ••••••• | ☐ | | |
| .NMI_Table3 | 99A2 | 74 54 00 0F 1A 0F 1A | tT..... | ☐ | | |
| .NMI_Table4 | 99A9 | 63 43 | cC | ☐ | | |
| .gbpbv_table1 | 99AB | B7 7D 7D 65 65 CF 00 14 | ·}}eeÏ.. | ☐ | | |
| | 99B3 | 83 | ƒ | ☐ | | |
| .gbpbv_table2 | 99B4 | 85 97 97 97 97 96 97 97 | …——————— | ☐ | | |
| | 99BC | 96 | – | ☐ | | |
| .gbpbv_table3 | 99BD | 04 02 03 06 07 04 04 04 | ........ | ☐ | | |
| | 99C5 | 04 | . | ☐ | | |
| CMD_DFS | 99C6 | 98 | TYA | ☐ | | *HELP DFS |
| | 99C7 | A2 FF | LDX #&FF | ☐ | | cmd table 1 |
| | 99C9 | A0 0E | LDY #&0E | ☐ | | no.of commands (14) |
| .prthelp | 99CB | 48 | PHA | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 99CC | 20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | print "DFS 0.90" |
| | 99CF | 0D 44 46 53 20 30 2E 39  .DFS 0.9 | ☐ | | |
| | 99D7 | 30 0D                  0. | ☐ | | |
| | 99D9 | 86 B8      STX &B8 | ☐ | | ?&B8=&FF |
| .help_dfs_loop | 99DB | 20 CB 9F  JSR print2spc/add100-2spc | ☐ | | print " "; |
| | 99DE | 20 19 9A  JSR prtcmd@?B8+1 | ☐ | | print cmd & parameters |
| | 99E1 | 20 9A 9F  JSR prtNewLine (A preserved) | ☐ | | print |
| | 99E4 | 88        DEY | ☐ | | |
| | 99E5 | D0 F4     BNE .help_dfs_loop | ☐ | | |
| | 99E7 | 68        PLA | ☐ | | |
| | 99E8 | A8        TAY | ☐ | | restore Y |
| .morehelp | 99E9 | A2 A0     LDX #&A0 | ☐ | | more? Eg *HELP DFS UTILS |
| | 99EB | 4C 71 86  JMP UnrecCommand@TextPointer | ☐ | | start cmd @ A3 in table |
| CMD_UTILS | 99EE | 98        TYA | ☐ | | *HELP UTILS |
| | 99EF | A2 74     LDX #&74 | ☐ | | cmd table 2 |
| | 99F1 | A0 05     LDY #&05 | ☐ | | 5 commands |
| | 99F3 | D0 D6     BNE .prthelp | ☐ | | always |
| CMD_NOTHELPTBL | 99F5 | 20 BF 86  JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| | 99F8 | F0 60     BEQ .prtparamexit | ☐ | | null str |
| .cmd_nothelptlb_loop | 99FA | 20 C5 FF  JSR GSREAD | ☐ | | |
| | 99FD | 90 FB     BCC .cmd_nothelptlb_loop | ☐ | | |
| | 99FF | B0 E8     BCS .morehelp | ☐ | | end of str |
| initparam (syntax error if none) | 9A01 | 20 BF 86  JSR GoGSINIT(terminator=spc/cr/") | ☐ | | (if no params then syntax error) |
| | 9A04 | D0 54     BNE .prtparamexit | ☐ | | if not null string |
| .syntaxerr | 9A06 | 20 33 80  JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |
| | 9A09 | DC 53 79 6E 74 61 78 3A  ÜSyntax: | ☐ | | Syntax error (DC) |
| | 9A11 | 20 | ☐ | | |
| | 9A12 | EA        NOP | ☐ | | |
| | 9A13 | 20 19 9A  JSR prtcmd@?B8+1 | ☐ | | add command syntax |
| | 9A16 | 4C 8A 80  JMP prtstr_BRK | ☐ | | force error |
| prtcmd@?B8+1 | 9A19 | A6 B8     LDX &B8 | ☐ | | |
| .prtcmdloop | 9A1B | E8        INX | ☐ | | |
| | 9A1C | BD B8 85  LDA .cmdlist,X | ☐ | | |
| | 9A1F | 30 06     BMI &9A27 | ☐ | | |
| | 9A21 | 20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 9A24 | 4C 1B 9A  JMP .prtcmdloop | ☐ | | |
| | 9A27 | E8        INX | ☐ | | skip address |
| | 9A28 | E8        INX | ☐ | | |
| | 9A29 | 86 B8     STX &B8 | ☐ | | ready for next time |
| | 9A2B | BD B8 85  LDA .cmdlist,X | ☐ | | paramater code |
| | 9A2E | 20 34 9A  JSR prtparam | ☐ | | 1st parameter |
| | 9A31 | 20 05 82  JSR .A>>4 | ☐ | | 2nd parameter |
| prtparam | 9A34 | 20 E1 83  JSR rememberAXY | ☐ | | |
| | 9A37 | 29 0F     AND #&0F | ☐ | | |
| | 9A39 | F0 1F     BEQ .prtparamexit | ☐ | | no parameter |
| | 9A3B | A8        TAY | ☐ | | Y=parameter no. |
| | 9A3C | A9 20     LDA #&20 | ☐ | | |
| | 9A3E | 20 9C 80  JSR prtchr/add100(10DE) A=Chr | ☐ | | print space |
| | 9A41 | A2 00     LDX #&00 | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| .prtparam.2 | 9A43 | BD 5B 9A LDA .parametertable,X | ☐ | | find parameter in table |
| | 9A46 | F0 03 BEQ .prtparam.4 | ☐ | | |
| .prtparam.3 | 9A48 | E8 INX | ☐ | | |
| | 9A49 | D0 F8 BNE .prtparam.2 | ☐ | | |
| .prtparam.4 | 9A4B | 88 DEY | ☐ | | |
| | 9A4C | D0 FA BNE .prtparam.3 | ☐ | | |
| .prtparamloop4 | 9A4E | E8 INX | ☐ | | print parameter |
| | 9A4F | BD 5B 9A LDA .parametertable,X | ☐ | | |
| | 9A52 | F0 06 BEQ .prtparamexit | ☐ | | 0 terminator |
| | 9A54 | 20 9C 80 JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 9A57 | 4C 4E 9A JMP .prtparamloop4 | ☐ | | |
| .prtparamexit | 9A5A | 60 RTS | ☐ | | |
| .parametertable | 9A5B | 00 3C 66 73 70 3E 00 3C .<fsp>.< | ☐ | | |
| | 9A63 | 61 66 73 70 3E 00 28 4C afsp>.(L | ☐ | | |
| | 9A6B | 29 00 3C 73 72 63 20 64 ).<src d | ☐ | | |
| | 9A73 | 72 76 3E 00 3C 64 65 73 rv>.<des | ☐ | | |
| | 9A7B | 74 20 64 72 76 3E 00 3C t drv>.< | ☐ | | |
| | 9A83 | 64 65 73 74 20 64 72 76 dest drv | ☐ | | |
| | 9A8B | 3E 20 3C 61 66 73 70 3E > <afsp> | ☐ | | |
| | 9A93 | 00 3C 6F 6C 64 20 66 73 .<old fs | ☐ | | |
| | 9A9B | 70 3E 00 3C 6E 65 77 20 p>.<new | ☐ | | |
| | 9AA3 | 66 73 70 3E 00 28 3C 64 fsp>.(<d | ☐ | | |
| | 9AAB | 69 72 3E 29 00 28 3C 64 ir>).(<d | ☐ | | |
| | 9AB3 | 72 76 3E 29 00 3C 74 69 rv>).<ti | ☐ | | |
| | 9ABB | 74 6C 65 3E 00 tle>. | ☐ | | |
| CMD_COMPACT | 9AC0 | 20 58 83 JSR GetDriveNo_withInit | ☐ | | |
| .msgCOMPACTINGDRIVE | 9AC3 | 20 65 80 JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9AC6 | 43 6F 6D 70 61 63 74 69 Compacti | ☐ | | |
| | 9ACE | 6E 67 20 64 72 69 76 65 ng drive | ☐ | | |
| | 9AD6 | 20 | ☐ | | |
| | 9AD7 | 8D D2 10 STA &10D2 | ☐ | | |
| | 9ADA | 8D D3 10 STA &10D3 | ☐ | | |
| | 9ADD | 20 CA 80 JSR prthexLoNib (A low nibble) A preserved | ☐ | | |
| | 9AE0 | 20 9A 9F JSR prtNewLine (A preserved) | ☐ | | |
| | 9AE3 | A0 00 LDY #&00 | ☐ | | |
| | 9AE5 | 20 05 8E JSR .updatecat&filetomedia Y=inthndl | ☐ | | |
| | 9AE8 | 20 79 98 JSR CalcRAM(HIMEM-PAGE+1) | ☐ | | |
| | 9AEB | 20 47 83 JSR LoadCurDrvCat (preserve AXY) | ☐ | | load cat |
| | 9AEE | AC 05 0F LDY FilesX8 | ☐ | | |
| | 9AF1 | 84 CC STY &CC | ☐ | | |
| | 9AF3 | A9 02 LDA #&02 | ☐ | | |
| | 9AF5 | 85 CA STA &CA | ☐ | | |
| | 9AF7 | A9 00 LDA #&00 | ☐ | | |
| | 9AF9 | 85 CB STA &CB | ☐ | | |
| .compact loop | 9AFB | A4 CC LDY &CC | ☐ | | |
| | 9AFD | 20 19 82 JSR .Y=Y-8 | ☐ | | |
| | 9B00 | C0 F8 CPY #&F8 | ☐ | | |
| | 9B02 | D0 3C BNE .compact_movefile | ☐ | | |
| .msgDISKCOMPACTED | 9B04 | 20 65 80 JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 9B07 | 44 69 73 6B 20 63 6F 6D   Disk com | ☐ | | |
| | 9B0F | 70 61 63 74 65 64   pacted | ☐ | | |
| | 9B16 | EA          NOP | ☐ | | |
| | 9B17 | 38          SEC | ☐ | | |
| | 9B18 | AD 07 0F    LDA &0F07 | ☐ | | |
| | 9B1B | E5 CA       SBC &CA | ☐ | | |
| | 9B1D | 48          PHA | ☐ | | |
| | 9B1E | AD 06 0F    LDA &0F06 | ☐ | | |
| | 9B21 | 29 03       AND #&03 | ☐ | | |
| | 9B23 | E5 CB       SBC &CB | ☐ | | |
| | 9B25 | 20 CA 80    JSR prthexLoNib (A low nibble) A preserved | ☐ | | |
| | 9B28 | 68          PLA | ☐ | | |
| | 9B29 | 20 C2 80    JSR prthex(A) A preserved | ☐ | | |
| .msgFREESECTORS | 9B2C | 20 65 80    JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9B2F | 20 66 72 65 65 20 73 65   free se | ☐ | | |
| | 9B37 | 63 74 6F 72 73 0D   ctors. | ☐ | | |
| .argsv_returncurfilesystem | 9B3D | A9 04       LDA #&04 | ☐ | | |
| | 9B3F | 60          RTS | ☐ | | finished compact |
| .compact_movefile | 9B40 | 84 CC       STY &CC | ☐ | | |
| | 9B42 | 20 FC 82    JSR prt_InfoLineif?10c7>=&80,Y=o/set | ☐ | | |
| | 9B45 | A4 CC       LDY &CC | ☐ | | |
| | 9B47 | B9 0E 0F    LDA &0F0E,Y | ☐ | | |
| | 9B4A | 29 30       AND #&30 | ☐ | | |
| | 9B4C | 19 0D 0F    ORA &0F0D,Y | ☐ | | |
| | 9B4F | 19 0C 0F    ORA &0F0C,Y | ☐ | | |
| | 9B52 | F0 5E       BEQ .9bb2 | ☐ | BRX .9bb5 | |
| | 9B54 | A9 00       LDA #&00 | ☐ | | |
| | 9B56 | 85 BE       STA &BE | ☐ | | |
| | 9B58 | 85 C2       STA &C2 | ☐ | | |
| | 9B5A | A9 FF       LDA #&FF | ☐ | | |
| | 9B5C | 18          CLC | ☐ | | |
| | 9B5D | 79 0C 0F    ADC &0F0C,Y | ☐ | | |
| | 9B60 | A9 00       LDA #&00 | ☐ | | |
| | 9B62 | 79 0D 0F    ADC &0F0D,Y | ☐ | | |
| | 9B65 | 85 C6       STA &C6 | ☐ | | |
| | 9B67 | B9 0E 0F    LDA &0F0E,Y | ☐ | | |
| | 9B6A | 08          PHP | ☐ | | |
| | 9B6B | 20 FD 81    JSR .A>>4 and 3 | ☐ | | |
| | 9B6E | 28          PLP | ☐ | | |
| | 9B6F | 69 00       ADC #&00 | ☐ | | |
| | 9B71 | 85 C7       STA FilenameParam | ☐ | | |
| | 9B73 | B9 0F 0F    LDA &0F0F,Y | ☐ | | |
| | 9B76 | 85 C8       STA &C8 | ☐ | | |
| | 9B78 | B9 0E 0F    LDA &0F0E,Y | ☐ | | |
| | 9B7B | 29 03       AND #&03 | ☐ | | |
| | 9B7D | 85 C9       STA &C9 | ☐ | | |
| | 9B7F | C5 CB       CMP &CB | ☐ | | |
| | 9B81 | D0 14       BNE .9b97 | ☐ | | |
| | 9B83 | A5 C8       LDA &C8 | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 9B85 | C5 CA | CMP &CA | ☐ | | |
| | 9B87 | D0 0E | BNE .9b97 | ☐ | | |
| | 9B89 | 18 | CLC | ☐ | | |
| | 9B8A | 65 C6 | ADC &C6 | ☐ | | |
| | 9B8C | 85 CA | STA &CA | ☐ | | |
| | 9B8E | A5 CB | LDA &CB | ☐ | | |
| | 9B90 | 65 C7 | ADC FilenameParam | ☐ | | |
| | 9B92 | 85 CB | STA &CB | ☐ | | |
| | 9B94 | 4C B5 9B | JMP .9bb5 | ☐ | | |
| .9b97 | 9B97 | A5 CA | LDA &CA | ☐ | | |
| | 9B99 | 99 0F 0F | STA &0F0F,Y | ☐ | | |
| | 9B9C | B9 0E 0F | LDA &0F0E,Y | ☐ | | |
| | 9B9F | 29 FC | AND #&FC | ☐ | | |
| | 9BA1 | 05 CB | ORA &CB | ☐ | | |
| | 9BA3 | 99 0E 0F | STA &0F0E,Y | ☐ | | |
| | 9BA6 | A9 00 | LDA #&00 | ☐ | | |
| | 9BA8 | 85 A8 | STA &A8 | ☐ | | move only! |
| | 9BAA | 85 A9 | STA &A9 | ☐ | | (doesn't write cat) |
| | 9BAC | 20 06 9E | JSR .movefilefromdisk1to2 | ☐ | JSR SaveCatToDisk | calls savememblock! |
| | 9BAF | 20 B4 8A | JSR SaveCatToDisk | ☐ | JSR .movefilefromdisk1to2 | cat corrupted? |
| .9bb2 | 9BB2 | 20 E7 98 | JSR RELEASE_NMI_WaitFDCbusy (A=bitmask)(AXY preserved) | ☐ | JSR LoadCurDrvCat (preserve AXY) | |
| .9bb5 | 9BB5 | A4 CC | LDY &CC | ☐ | | |
| | 9BB7 | 20 01 83 | JSR prt_InfoLine(Y=file offset) | ☐ | | |
| | 9BBA | 4C FB 9A | JMP .compact loop | ☐ | | |
| ENABLEDCMD | 9BBD | 2C C8 10 | BIT CMDEnabledIf1 | ☐ | | |
| | 9BC0 | 10 75 | BPL &9C37 | ☐ | | |
| .errNOTENABLED | 9BC2 | 20 33 80 | JSR Brk100_erno (term.=0 causes BRK) | ☐ | | |
| | 9BC5 | BD 4E 6F 74 20 65 6E 61 | ½Not ena | ☐ | | |
| | 9BCD | 62 6C 65 64 00 | bled. | ☐ | | |
| .GetDrives(->10D2&3)&CalcRam&GiveMsg | 9BD2 | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| | 9BD5 | D0 03 | BNE &9BDA | ☐ | | |
| | 9BD7 | 4C 06 9A | JMP .syntaxerr | ☐ | | |
| | 9BDA | 20 5D 83 | JSR GetDriveNo (A=DrvNo,C=0,XY preserved) | ☐ | | |
| | 9BDD | 8D D2 10 | STA &10D2 | ☐ | | |
| | 9BE0 | 20 BF 86 | JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| | 9BE3 | F0 F2 | BEQ &9BD7 | ☐ | | |
| | 9BE5 | 20 5D 83 | JSR GetDriveNo (A=DrvNo,C=0,XY preserved) | ☐ | | |
| | 9BE8 | 8D D3 10 | STA &10D3 | ☐ | | |
| | 9BEB | 98 | TYA | ☐ | | |
| | 9BEC | 48 | PHA | ☐ | | |
| | 9BED | A9 00 | LDA #&00 | ☐ | | |
| | 9BEF | 85 A9 | STA &A9 | ☐ | | |
| | 9BF1 | AD D3 10 | LDA &10D3 | ☐ | | |
| | 9BF4 | CD D2 10 | CMP &10D2 | ☐ | | |
| | 9BF7 | D0 06 | BNE &9BFF | ☐ | | |
| | 9BF9 | A9 FF | LDA #&FF | ☐ | | |
| | 9BFB | 85 A9 | STA &A9 | ☐ | | |
| | 9BFD | 85 AA | STA &AA | ☐ | | |
| | 9BFF | 20 79 98 | JSR CalcRAM(HIMEM-PAGE+1) | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| .msgCOPYINGFROMDRIVE | 9C02  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9C05  43 6F 70 79 69 6E 67 20  Copying | ☐ | | |
| | 9C0D  66 72 6F 6D 20 64 72 69  from dri | ☐ | | |
| | 9C15  76 65 20              ve | ☐ | | |
| | 9C18  AD D2 10  LDA &10D2 | ☐ | | |
| | 9C1B  20 CA 80  JSR prthexLoNib (A low nibble) A preserved | ☐ | | |
| .msgTODRIVE | 9C1E  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9C21  20 74 6F 20 64 72 69 76  to driv | ☐ | | |
| | 9C29  65 20              e | ☐ | | |
| | 9C2B  AD D3 10  LDA &10D3 | ☐ | | |
| | 9C2E  20 CA 80  JSR prthexLoNib (A low nibble) A preserved | ☐ | | |
| | 9C31  20 9A 9F  JSR prtNewLine (A preserved) | ☐ | | |
| | 9C34  68        PLA | ☐ | | |
| | 9C35  A8        TAY | ☐ | | |
| | 9C36  18        CLC | ☐ | | |
| | 9C37  60        RTS | ☐ | | |
| .insertdisk_2 | 9C38  20 E1 83  JSR rememberAXY | ☐ | | |
| | 9C3B  24 A9     BIT &A9 | ☐ | | |
| | 9C3D  10 0B     BPL .insertdisk_dontprompt | ☐ | | |
| | 9C3F  A9 00     LDA #&00 | ☐ | | |
| | 9C41  F0 0A     BEQ .insertdisk_checkoptwithA | ☐ | | |
| .insertdisk_checkopt2 | 9C43  20 E1 83  JSR rememberAXY | ☐ | | |
| | 9C46  24 A9     BIT &A9 | ☐ | | |
| | 9C48  30 01     BMI .insertdisk_checkopt | ☐ | | |
| .insertdisk_dontprompt | 9C4A  60        RTS | ☐ | | |
| .insertdisk_checkopt | 9C4B  A9 80     LDA #&80 | ☐ | | |
| .insertdisk_checkoptwithA | 9C4D  C5 AA     CMP &AA | ☐ | | |
| | 9C4F  F0 F9     BEQ .insertdisk_dontprompt | ☐ | | |
| .insertdisk A=opt | 9C51  85 AA     STA &AA | ☐ | | |
| .msgINSERT | 9C53  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9C56  49 6E 73 65 72 74 20  Insert | ☐ | | |
| | 9C5D  EA        NOP | ☐ | | |
| | 9C5E  24 AA     BIT &AA | ☐ | | |
| | 9C60  30 0B     BMI .msgDESTINATIION | ☐ | | |
| .msgSOURCE | 9C62  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9C65  73 6F 75 72 63 65     source | ☐ | | |
| | 9C6B  90 0F     BCC .msgDISKANDHITAKEY | ☐ | | |
| .msgDESTINATIION | 9C6D  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9C70  64 65 73 74 69 6E 61 74  destinat | ☐ | | |
| | 9C78  69 6F 6E           ion | ☐ | | |
| | 9C7B  EA        NOP | ☐ | | |
| .msgDISKANDHITAKEY | 9C7C  20 65 80  JSR prtstr (if term.=0,BRK 100,no return) | ☐ | | |
| | 9C7F  20 64 69 73 6B 20 61 6E   disk an | ☐ | | |
| | 9C87  64 20 68 69 74 20 61 20  d hit a | ☐ | | |
| | 9C8F  6B 65 79           key | ☐ | | |
| | 9C92  EA        NOP | ☐ | | |
| | 9C93  20 06 99  JSR osbyte0F flush.in.buf (rem.AXY) | ☐ | | |
| | 9C96  20 E0 FF  JSR OSRDCH | ☐ | | |
| | 9C99  B0 19     BCS .confirmyn_error | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9C9B | 4C 9A 9F | JMP prtNewLine (A preserved) | ☐ | | |
| ConfirmYN (Z=1 if Yes) | 9C9E | 20 06 99 | JSR osbyte0F flush.in.buf (rem.AXY) | ☐ | | |
| | 9CA1 | 20 E0 FF | JSR OSRDCH | ☐ | | |
| | 9CA4 | B0 0E | BCS .confirmyn_error | ☐ | | Osrdch error |
| | 9CA6 | 29 5F | AND #&5F | ☐ | | lower case |
| | 9CA8 | C9 59 | CMP #&59 | ☐ | | "Y" |
| | 9CAA | 08 | PHP | ☐ | | |
| | 9CAB | F0 02 | BEQ .confirmyn_yes | ☐ | | |
| | 9CAD | A9 4E | LDA #&4E | ☐ | | "N" |
| .confirmyn_yes | 9CAF | 20 9C 80 | JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 9CB2 | 28 | PLP | ☐ | | |
| | 9CB3 | 60 | RTS | ☐ | | |
| .confirmyn_error | 9CB4 | A6 B6 | LDX &B6 | ☐ | | |
| | 9CB6 | 9A | TXS | ☐ | | |
| | 9CB7 | 60 | RTS | ☐ | | |
| .errDiskFull2 | 9CB8 | 4C 58 89 | JMP .errDISKFULL | ☐ | | |
| CMD_BACKUP | 9CBB | 20 BD 9B | JSR ENABLEDCMD | ☐ | | |
| | 9CBE | 20 D2 9B | JSR .GetDrives(->10D2&3)&CalcRam&GiveMsg | ☐ | | |
| | 9CC1 | A9 00 | LDA #&00 | ☐ | | |
| | 9CC3 | 85 C9 | STA &C9 | ☐ | | |
| | 9CC5 | 85 CB | STA &CB | ☐ | | |
| | 9CC7 | 85 CA | STA &CA | ☐ | | |
| | 9CC9 | 85 C8 | STA &C8 | ☐ | | |
| | 9CCB | 85 A8 | STA &A8 | ☐ | | |
| | 9CCD | 20 38 9C | JSR .insertdisk_2 | ☐ | | |
| | 9CD0 | AD D2 10 | LDA &10D2 | ☐ | | |
| | 9CD3 | 85 CF | STA CurrentDrv | ☐ | | |
| | 9CD5 | 20 EB 8A | JSR LoadCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | load source cat |
| | 9CD8 | AD 07 0F | LDA &0F07 | ☐ | | |
| | 9CDB | 85 C6 | STA &C6 | ☐ | | |
| | 9CDD | AD 06 0F | LDA &0F06 | ☐ | | |
| | 9CE0 | 29 03 | AND #&03 | ☐ | | |
| | 9CE2 | 85 C7 | STA FilenameParam | ☐ | | |
| | 9CE4 | AD 06 0F | LDA &0F06 | ☐ | | |
| | 9CE7 | 29 F0 | AND #&F0 | ☐ | | |
| | 9CE9 | 8D D8 10 | STA &10D8 | ☐ | | |
| | 9CEC | 20 43 9C | JSR .insertdisk_checkopt2 | ☐ | | |
| | 9CEF | AD D3 10 | LDA &10D3 | ☐ | | |
| | 9CF2 | 85 CF | STA CurrentDrv | ☐ | | |
| | 9CF4 | 20 EB 8A | JSR LoadCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | load target cat |
| | 9CF7 | AD 06 0F | LDA &0F06 | ☐ | | |
| | 9CFA | 29 03 | AND #&03 | ☐ | | |
| | 9CFC | C5 C7 | CMP FilenameParam | ☐ | | |
| | 9CFE | 90 B8 | BCC .errDiskFull2 | ☐ | | |
| | 9D00 | D0 07 | BNE .9d09 | ☐ | | |
| | 9D02 | AD 07 0F | LDA &0F07 | ☐ | | |
| | 9D05 | C5 C6 | CMP &C6 | ☐ | | |
| | 9D07 | 90 AF | BCC .errDiskFull2 | ☐ | | |
| .9d09 | 9D09 | 20 06 9E | JSR .movefilefromdisk1to2 | ☐ | | |

| Label | Code | Zero | New Instruction | Comment |
|---|---|---|---|---|
| | 9D0C  AD 06 0F  LDA &0F06 | ☐ | | |
| | 9D0F  48         PHA | ☐ | | |
| | 9D10  AD 07 0F  LDA &0F07 | ☐ | | |
| | 9D13  48         PHA | ☐ | | |
| | 9D14  20 EB 8A  JSR LoadCurDrvCatalog | ☐ | JSR mmcloadcurdrvcat | load cat |
| | 9D17  68         PLA | ☐ | | |
| | 9D18  8D 07 0F  STA &0F07 | ☐ | | |
| | 9D1B  68         PLA | ☐ | | |
| | 9D1C  29 0F      AND #&0F | ☐ | | |
| | 9D1E  0D D8 10  ORA &10D8 | ☐ | | |
| | 9D21  8D 06 0F  STA &0F06 | ☐ | | |
| | 9D24  4C B4 8A  JMP SaveCatToDisk | ☐ | | save cat |
| CMD_COPY | 9D27  20 5E 82  JSR parameter_afsp | ☐ | | |
| | 9D2A  20 D2 9B  JSR .GetDrives(->10D2&3)&CalcRam&GiveMsg | ☐ | | |
| | 9D2D  20 BF 86  JSR GoGSINIT(terminator=spc/cr/") | ☐ | | |
| | 9D30  D0 03      BNE &9D35 | ☐ | | |
| | 9D32  4C 06 9A  JMP .syntaxerr | ☐ | | |
| | 9D35  20 FE 80  JSR read_(a)fsp@TextPointer  (ret.Y=Tpoffset nonblank) | ☐ | | |
| | 9D38  20 38 9C  JSR .insertdisk_2 | ☐ | | |
| | 9D3B  AD D2 10  LDA &10D2 | ☐ | | |
| | 9D3E  20 7E 87  JSR SetCurrentDrive | ☐ | | |
| | 9D41  20 96 82  JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 9D44  B0 03      BCS &9D49 | ☐ | | |
| | 9D46  4C 76 82  JMP err_FILENOTFOUND | ☐ | | |
| | 9D49  84 AB      STY &AB | ☐ | | |
| | 9D4B  20 01 83  JSR prt_InfoLine(Y=file offset) | ☐ | | |
| | 9D4E  A2 00      LDX #&00 | ☐ | | |
| .9d50loop | 9D50  B5 C7      LDA FilenameParam,X | ☐ | | |
| | 9D52  9D 58 10  STA &1058,X | ☐ | | ??10ok |
| | 9D55  B9 08 0E  LDA &0E08,Y | ☐ | | |
| | 9D58  95 C7      STA FilenameParam,X | ☐ | | |
| | 9D5A  9D 50 10  STA &1050,X | ☐ | | ??10ok |
| | 9D5D  B9 08 0F  LDA &0F08,Y | ☐ | | |
| | 9D60  95 BD      STA &BD,X | ☐ | | |
| | 9D62  9D 47 10  STA &1047,X | ☐ | | ??10ok |
| | 9D65  E8         INX | ☐ | | |
| | 9D66  C8         INY | ☐ | | |
| | 9D67  E0 08      CPX #&08 | ☐ | | |
| | 9D69  D0 E5      BNE .9d50loop | ☐ | | |
| | 9D6B  A5 C3      LDA &C3 | ☐ | | |
| | 9D6D  20 FD 81  JSR .A>>4 and 3 | ☐ | | |
| | 9D70  85 C5      STA &C5 | ☐ | | |
| | 9D72  A5 C1      LDA &C1 | ☐ | | |
| | 9D74  18         CLC | ☐ | | |
| | 9D75  69 FF      ADC #&FF | ☐ | | |
| | 9D77  A5 C2      LDA &C2 | ☐ | | |
| | 9D79  69 00      ADC #&00 | ☐ | | |
| | 9D7B  85 C6      STA &C6 | ☐ | | |
| | 9D7D  A5 C5      LDA &C5 | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9D7F | 69 00 | ADC #&00 | ☐ | | |
| | 9D81 | 85 C7 | STA FilenameParam | ☐ | | |
| | 9D83 | AD 4E 10 | LDA &104E | ☐ | | |
| | 9D86 | 85 C8 | STA &C8 | ☐ | | |
| | 9D88 | AD 4D 10 | LDA &104D | ☐ | | |
| | 9D8B | 29 03 | AND #&03 | ☐ | | |
| | 9D8D | 85 C9 | STA &C9 | ☐ | | |
| | 9D8F | A9 FF | LDA #&FF | ☐ | | |
| | 9D91 | 85 A8 | STA &A8 | ☐ | | creat file on target |
| | 9D93 | 20 06 9E | JSR .movefilefromdisk1to2 | ☐ | | |
| | 9D96 | 20 38 9C | JSR .insertdisk_2 | ☐ | | |
| | 9D99 | AD D2 10 | LDA &10D2 | ☐ | | |
| | 9D9C | 20 7E 87 | JSR SetCurrentDrive | ☐ | | |
| | 9D9F | 20 47 83 | JSR LoadCurDrvCat (preserve AXY) | ☐ | | load cat |
| | 9DA2 | A2 07 | LDX #&07 | ☐ | | |
| | 9DA4 | BD 58 10 | LDA &1058,X | ☐ | | ??10ok |
| | 9DA7 | 95 C7 | STA FilenameParam,X | ☐ | | |
| | 9DA9 | CA | DEX | ☐ | | |
| | 9DAA | 10 F8 | BPL &9DA4 | ☐ | | |
| | 9DAC | A4 AB | LDY &AB | ☐ | | |
| | 9DAE | 8C CE 10 | STY &10CE | ☐ | | |
| | 9DB1 | 20 9D 82 | JSR get_cat_nextentry(return:C=1=found,Y=offset) | ☐ | | |
| | 9DB4 | B0 93 | BCS &9D49 | ☐ | | |
| | 9DB6 | 60 | RTS | ☐ | | |
| .createcatfileontarget | 9DB7 | 20 F5 9D | JSR .setvars | ☐ | | |
| | 9DBA | 20 43 9C | JSR .insertdisk_checkopt2 | ☐ | | |
| | 9DBD | AD D3 10 | LDA &10D3 | ☐ | | target drive |
| | 9DC0 | 85 CF | STA CurrentDrv | ☐ | | |
| | 9DC2 | A5 CE | LDA DirectoryParam | ☐ | | |
| | 9DC4 | 48 | PHA | ☐ | | |
| | 9DC5 | 20 47 83 | JSR LoadCurDrvCat (preserve AXY) | ☐ | | load cat |
| | 9DC8 | 20 96 82 | JSR get_cat_firstentry(return:C=1=found,Y=offset) | ☐ | | |
| | 9DCB | 90 03 | BCC &9DD0 | ☐ | | |
| | 9DCD | 20 D1 82 | JSR DeleteCatEntry Y=FileOffset | ☐ | | delete file |
| | 9DD0 | 68 | PLA | ☐ | | |
| | 9DD1 | 85 CE | STA DirectoryParam | ☐ | | |
| | 9DD3 | 20 3F 8A | JSR LoadAddrHi2(?C4=mixed byte : if Host=FFFF) | ☐ | | |
| | 9DD6 | 20 56 8A | JSR ExecAddrHi2(?C4=mixed byte) | ☐ | | |
| | 9DD9 | A5 C4 | LDA &C4 | ☐ | | |
| | 9DDB | 20 FD 81 | JSR .A>>4 and 3 | ☐ | | |
| | 9DDE | 85 C6 | STA &C6 | ☐ | | |
| | 9DE0 | 20 9D 89 | JSR .createfile_2 | ☐ | | create file cat entry |
| | 9DE3 | A5 C4 | LDA &C4 | ☐ | | -> saves cat |
| | 9DE5 | 29 03 | AND #&03 | ☐ | | |
| | 9DE7 | 48 | PHA | ☐ | | |
| | 9DE8 | A5 C5 | LDA &C5 | ☐ | | |
| | 9DEA | 48 | PHA | ☐ | | |
| | 9DEB | 20 F5 9D | JSR .setvars | ☐ | | |
| | 9DEE | 68 | PLA | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9DEF | 85 CA | STA &CA | ☐ | | |
| | 9DF1 | 68 | PLA | ☐ | | |
| | 9DF2 | 85 CB | STA &CB | ☐ | | |
| | 9DF4 | 60 | RTS | ☐ | | |
| .setvars | 9DF5 | A2 11 | LDX #&11 | ☐ | | |
| .setvarsloop | 9DF7 | BD 45 10 | LDA &1045,X | ☐ | | ??10ok |
| | 9DFA | B4 BC | LDY TextPointer_dfs,X | ☐ | | |
| | 9DFC | 95 BC | STA TextPointer_dfs,X | ☐ | | |
| | 9DFE | 98 | TYA | ☐ | | |
| | 9DFF | 9D 45 10 | STA &1045,X | ☐ | | ??10ok |
| | 9E02 | CA | DEX | ☐ | | |
| | 9E03 | 10 F2 | BPL .setvarsloop | ☐ | | |
| | 9E05 | 60 | RTS | ☐ | | |
| .movefilefromdisk1to2 | 9E06 | 20 D1 8B | JSR set_1074/75=&FFFF (AXY preserved) | ☐ | JSR mmcset7475 | moves/copies |
| | 9E09 | A9 00 | LDA #&00 | ☐ | | file |
| | 9E0B | 85 BE | STA &BE | ☐ | | &A8>=&80 create file |
| | 9E0D | 85 C2 | STA &C2 | ☐ | | |
| .movefileloop | 9E0F | A5 C6 | LDA &C6 | ☐ | | |
| | 9E11 | A8 | TAY | ☐ | | |
| | 9E12 | CD D1 10 | CMP Himem-Page | ☐ | | |
| | 9E15 | A5 C7 | LDA FilenameParam | ☐ | | |
| | 9E17 | E9 00 | SBC #&00 | ☐ | | |
| | 9E19 | 90 03 | BCC &9E1E | ☐ | | |
| | 9E1B | AC D1 10 | LDY Himem-Page | ☐ | | |
| | 9E1E | 84 C3 | STY &C3 | ☐ | | |
| | 9E20 | A5 C8 | LDA &C8 | ☐ | | |
| | 9E22 | 85 C5 | STA &C5 | ☐ | | |
| | 9E24 | A5 C9 | LDA &C9 | ☐ | | |
| | 9E26 | 85 C4 | STA &C4 | ☐ | | |
| | 9E28 | AD D0 10 | LDA Page | ☐ | | |
| | 9E2B | 85 BF | STA &BF | ☐ | | |
| | 9E2D | AD D2 10 | LDA &10D2 | ☐ | | source drive |
| | 9E30 | 85 CF | STA CurrentDrv | ☐ | | |
| | 9E32 | 20 38 9C | JSR .insertdisk_2 | ☐ | | |
| | 9E35 | 20 9E 8B | JSR FDC_DriveReady/Reset | ☐ | JSR mmcsetFDCDRV | |
| | 9E38 | 20 C6 87 | JSR .loadmemblock | ☐ | | get block |
| | 9E3B | AD D3 10 | LDA &10D3 | ☐ | | target drive |
| | 9E3E | 85 CF | STA CurrentDrv | ☐ | | |
| | 9E40 | 24 A8 | BIT &A8 | ☐ | | |
| | 9E42 | 10 07 | BPL .movefile_skipcreatecatentry | ☐ | | |
| | 9E44 | 20 B7 9D | JSR .createcatfileontarget | ☐ | | loads & saves |
| | 9E47 | A9 00 | LDA #&00 | ☐ | | target cat |
| | 9E49 | 85 A8 | STA &A8 | ☐ | | (first block only) |
| .movefile_skipcreatecatentry | 9E4B | A5 CA | LDA &CA | ☐ | | |
| | 9E4D | 85 C5 | STA &C5 | ☐ | | |
| | 9E4F | A5 CB | LDA &CB | ☐ | | |
| | 9E51 | 85 C4 | STA &C4 | ☐ | | |
| | 9E53 | AD D0 10 | LDA Page | ☐ | | |
| | 9E56 | 85 BF | STA &BF | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9E58 | 20 43 9C | JSR .insertdisk_checkopt2 | ☐ | | |
| | 9E5B | 20 9E 8B | JSR FDC_DriveReady/Reset | ☐ | JSR mmcsetFDCDRV | |
| | 9E5E | 20 8F 87 | JSR .savememblock | ☐ | | put block |
| | 9E61 | A5 C3 | LDA &C3 | ☐ | | poss buffering req'd |
| | 9E63 | 18 | CLC | ☐ | | |
| | 9E64 | 65 CA | ADC &CA | ☐ | | |
| | 9E66 | 85 CA | STA &CA | ☐ | | |
| | 9E68 | 90 02 | BCC &9E6C | ☐ | | |
| | 9E6A | E6 CB | INC &CB | ☐ | | |
| | 9E6C | A5 C3 | LDA &C3 | ☐ | | |
| | 9E6E | 18 | CLC | ☐ | | |
| | 9E6F | 65 C8 | ADC &C8 | ☐ | | |
| | 9E71 | 85 C8 | STA &C8 | ☐ | | |
| | 9E73 | 90 02 | BCC &9E77 | ☐ | | |
| | 9E75 | E6 C9 | INC &C9 | ☐ | | |
| | 9E77 | 38 | SEC | ☐ | | |
| | 9E78 | A5 C6 | LDA &C6 | ☐ | | |
| | 9E7A | E5 C3 | SBC &C3 | ☐ | | |
| | 9E7C | 85 C6 | STA &C6 | ☐ | | |
| | 9E7E | B0 02 | BCS &9E82 | ☐ | | |
| | 9E80 | C6 C7 | DEC FilenameParam | ☐ | | |
| | 9E82 | 05 C7 | ORA FilenameParam | ☐ | | |
| | 9E84 | D0 89 | BNE .movefileloop | ☐ | | |
| | 9E86 | 60 | RTS | ☐ | | |
| CMD_TYPE | 9E87 | 20 D7 9F | JSR Ltrim@TextPointer+Y | ☐ | | |
| | 9E8A | A9 00 | LDA #&00 | ☐ | | |
| | 9E8C | F0 05 | BEQ &9E93 | ☐ | | |
| CMD_LIST | 9E8E | 20 D7 9F | JSR Ltrim@TextPointer+Y | ☐ | | |
| | 9E91 | A9 FF | LDA #&FF | ☐ | | |
| | 9E93 | 85 AB | STA &AB | ☐ | | |
| | 9E95 | A9 C0 | LDA #&C0 | ☐ | | |
| | 9E97 | 20 CE FF | JSR OSFIND | ☐ | | |
| | 9E9A | A8 | TAY | ☐ | | |
| | 9E9B | A9 0D | LDA #&0D | ☐ | | |
| | 9E9D | C0 00 | CPY #&00 | ☐ | | |
| | 9E9F | D0 1E | BNE &9EBF | ☐ | | |
| .jmp_FILENOTFOUND | 9EA1 | 4C 76 82 | JMP err_FILENOTFOUND | ☐ | | |
| | 9EA4 | 20 D7 FF | JSR &FFD7 | ☐ | | |
| | 9EA7 | B0 1E | BCS &9EC7 | ☐ | | |
| | 9EA9 | C9 0A | CMP #&0A | ☐ | | |
| | 9EAB | F0 F7 | BEQ &9EA4 | ☐ | | |
| | 9EAD | 28 | PLP | ☐ | | |
| | 9EAE | D0 08 | BNE &9EB8 | ☐ | | |
| | 9EB0 | 48 | PHA | ☐ | | |
| | 9EB1 | 20 A2 9F | JSR .9fa2 | ☐ | | |
| | 9EB4 | 20 CE 9F | JSR prtspc/add100-spc | ☐ | | |
| | 9EB7 | 68 | PLA | ☐ | | |
| | 9EB8 | 20 E3 FF | JSR OSASCI | ☐ | | |
| | 9EBB | 24 FF | BIT &FF | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|-------|------|--|------|-----------------|---------|
| | 9EBD | 30 09 | □ | BMI &9EC8 | |
| | 9EBF | 25 AB | □ | AND &AB | |
| | 9EC1 | C9 0D | □ | CMP #&0D | |
| | 9EC3 | 08 | □ | PHP | |
| | 9EC4 | 4C A4 9E | □ | JMP &9EA4 | |
| | 9EC7 | 28 | □ | PLP | |
| | 9EC8 | 20 9A 9F | □ | JSR prtNewLine (A preserved) | |
| | 9ECB | A9 00 | □ | LDA #&00 | Close file |
| | 9ECD | 4C CE FF | □ | JMP OSFIND | Y=hndl (0=all) |
| CMD_DUMP | 9ED0 | 20 D7 9F | □ | JSR Ltrim@TextPointer+Y | |
| | 9ED3 | A9 C0 | □ | LDA #&C0 | openfile |
| | 9ED5 | 20 CE FF | □ | JSR OSFIND | XY pt.name |
| | 9ED8 | A8 | □ | TAY | file hndl. |
| | 9ED9 | F0 C6 | □ | BEQ .jmp_FILENOTFOUND | file not opened |
| | 9EDB | A6 F4 | □ | LDX PagedRomSelector_RAMCopy | |
| | 9EDD | BD F0 0D | □ | LDA PagedROM_PrivWorkspaces,X | |
| | 9EE0 | 85 AD | □ | STA &AD | |
| | 9EE2 | E6 AD | □ | INC &AD | |
| | 9EE4 | 24 FF | □ | BIT &FF | |
| | 9EE6 | 30 E3 | □ | BMI &9ECB | |
| | 9EE8 | A5 A9 | □ | LDA &A9 | |
| | 9EEA | 20 C2 80 | □ | JSR prthex(A) A preserved | |
| | 9EED | A5 A8 | □ | LDA &A8 | |
| | 9EEF | 20 C2 80 | □ | JSR prthex(A) A preserved | |
| | 9EF2 | 20 CE 9F | □ | JSR prtspc/add100-spc | |
| | 9EF5 | A9 07 | □ | LDA #&07 | |
| | 9EF7 | 85 AC | □ | STA &AC | |
| | 9EF9 | A2 00 | □ | LDX #&00 | |
| | 9EFB | 20 D7 FF | □ | JSR &FFD7 | |
| | 9EFE | B0 0D | □ | BCS &9F0D | |
| | 9F00 | 81 AC | □ | STA (&AC,X) | |
| | 9F02 | 20 C2 80 | □ | JSR prthex(A) A preserved | |
| | 9F05 | 20 CE 9F | □ | JSR prtspc/add100-spc | |
| | 9F08 | C6 AC | □ | DEC &AC | |
| | 9F0A | 10 EF | □ | BPL &9EFB | |
| | 9F0C | 18 | □ | CLC | |
| | 9F0D | 08 | □ | PHP | |
| | 9F0E | 90 0E | □ | BCC &9F1E | |
| | 9F10 | 20 65 80 | □ | JSR prtstr (if term.=0,BRK 100,no return) | |
| | 9F13 | 2A 2A 20 | □ | ** | |
| | 9F16 | A9 00 | □ | LDA #&00 | |
| | 9F18 | 81 AC | □ | STA (&AC,X) | |
| | 9F1A | C6 AC | □ | DEC &AC | |
| | 9F1C | 10 F2 | □ | BPL &9F10 | |
| | 9F1E | A9 07 | □ | LDA #&07 | |
| | 9F20 | 85 AC | □ | STA &AC | |
| | 9F22 | A1 AC | □ | LDA (&AC,X) | |
| | 9F24 | C9 7F | □ | CMP #&7F | |
| | 9F26 | B0 04 | □ | BCS &9F2C | |

| Label | Code | | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|---|
| | 9F28 | C9 20 | CMP #&20 | ☐ | | |
| | 9F2A | B0 02 | BCS .cmd_dump_prtchr | ☐ | | |
| | 9F2C | A9 2E | LDA #&2E | ☐ | | |
| .cmd_dump_prtchr | 9F2E | 20 E3 FF | JSR OSASCI | ☐ | | |
| | 9F31 | C6 AC | DEC &AC | ☐ | | |
| | 9F33 | 10 ED | BPL &9F22 | ☐ | | |
| | 9F35 | 20 9A 9F | JSR prtNewLine (A preserved) | ☐ | | |
| | 9F38 | A9 08 | LDA #&08 | ☐ | | |
| | 9F3A | 18 | CLC | ☐ | | |
| | 9F3B | 65 A8 | ADC &A8 | ☐ | | |
| | 9F3D | 85 A8 | STA &A8 | ☐ | | |
| | 9F3F | 90 02 | BCC &9F43 | ☐ | | |
| | 9F41 | E6 A9 | INC &A9 | ☐ | | |
| | 9F43 | 28 | PLP | ☐ | | |
| | 9F44 | 90 9E | BCC &9EE4 | ☐ | | |
| | 9F46 | B0 83 | BCS &9ECB | ☐ | | |
| CMD_BUILD | 9F48 | 20 D7 9F | JSR Ltrim@TextPointer+Y | ☐ | | |
| | 9F4B | A9 80 | LDA #&80 | ☐ | | |
| | 9F4D | 20 CE FF | JSR OSFIND | ☐ | | |
| | 9F50 | 85 AB | STA &AB | ☐ | | |
| | 9F52 | 20 A2 9F | JSR .9fa2 | ☐ | | |
| | 9F55 | 20 CE 9F | JSR prtspc/add100-spc | ☐ | | |
| | 9F58 | A6 F4 | LDX PagedRomSelector_RAMCopy | ☐ | | |
| | 9F5A | BC F0 0D | LDY PagedROM_PrivWorkspaces,X | ☐ | | |
| | 9F5D | C8 | INY | ☐ | | |
| | 9F5E | 84 AD | STY &AD | ☐ | | |
| | 9F60 | A2 AC | LDX #&AC | ☐ | | |
| | 9F62 | A0 FF | LDY #&FF | ☐ | | |
| | 9F64 | 84 AE | STY &AE | ☐ | | |
| | 9F66 | 84 B0 | STY PrivateWorkspacePointer | ☐ | | |
| | 9F68 | C8 | INY | ☐ | | |
| | 9F69 | 84 AC | STY &AC | ☐ | | |
| | 9F6B | 84 AF | STY &AF | ☐ | | |
| | 9F6D | 98 | TYA | ☐ | | |
| | 9F6E | 20 F1 FF | JSR OSWORD | ☐ | | OSWORD 0, XY=&AC |
| | 9F71 | 08 | PHP | ☐ | | |
| | 9F72 | 84 AA | STY &AA | ☐ | | |
| | 9F74 | A4 AB | LDY &AB | ☐ | | |
| | 9F76 | A2 00 | LDX #&00 | ☐ | | |
| | 9F78 | F0 07 | BEQ &9F81 | ☐ | | |
| | 9F7A | A1 AC | LDA (&AC,X) | ☐ | | |
| | 9F7C | 20 D4 FF | JSR OSBPUT | ☐ | | |
| | 9F7F | E6 AC | INC &AC | ☐ | | |
| | 9F81 | A5 AC | LDA &AC | ☐ | | |
| | 9F83 | C5 AA | CMP &AA | ☐ | | |
| | 9F85 | D0 F3 | BNE &9F7A | ☐ | | |
| | 9F87 | 28 | PLP | ☐ | | |
| | 9F88 | B0 08 | BCS .9f92 | ☐ | | |
| | 9F8A | A9 0D | LDA #&0D | ☐ | | |

| Label | Code | | | Zero | New Instruction | Comment |
|-------|------|---|---|------|-----------------|---------|
| | 9F8C | 20 D4 FF | JSR OSBPUT | ☐ | | |
| | 9F8F | 4C 52 9F | JMP &9F52 | ☐ | | |
| .9f92 | 9F92 | A9 7E | LDA #&7E | ☐ | | ack.ESCAPE |
| | 9F94 | 20 F4 FF | JSR OSBYTE | ☐ | | |
| | 9F97 | 20 CB 9E | JSR &9ECB | ☐ | | |
| prtNewLine (A preserved) | 9F9A | 48 | PHA | ☐ | | print New line |
| | 9F9B | A9 0D | LDA #&0D | ☐ | | |
| | 9F9D | 20 9C 80 | JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 9FA0 | 68 | PLA | ☐ | | |
| | 9FA1 | 60 | RTS | ☐ | | end |
| .9fa2 | 9FA2 | F8 | SED | ☐ | | word &A8+=1 BCD |
| | 9FA3 | 18 | CLC | ☐ | | |
| | 9FA4 | A5 A8 | LDA &A8 | ☐ | | |
| | 9FA6 | 69 01 | ADC #&01 | ☐ | | |
| | 9FA8 | 85 A8 | STA &A8 | ☐ | | |
| | 9FAA | A5 A9 | LDA &A9 | ☐ | | |
| | 9FAC | 69 00 | ADC #&00 | ☐ | | |
| | 9FAE | 85 A9 | STA &A9 | ☐ | | |
| | 9FB0 | D8 | CLD | ☐ | | |
| | 9FB1 | 18 | CLC | ☐ | | |
| | 9FB2 | 20 B7 9F | JSR .9fb7 | ☐ | | |
| | 9FB5 | A5 A8 | LDA &A8 | ☐ | | |
| .9fb7 | 9FB7 | 48 | PHA | ☐ | | |
| | 9FB8 | 08 | PHP | ☐ | | |
| | 9FB9 | 20 05 82 | JSR .A>>4 | ☐ | | |
| | 9FBC | 28 | PLP | ☐ | | |
| | 9FBD | 20 C1 9F | JSR .9fc1 | ☐ | | |
| | 9FC0 | 68 | PLA | ☐ | | |
| .9fc1 | 9FC1 | AA | TAX | ☐ | | |
| | 9FC2 | B0 02 | BCS .9fc6 | ☐ | | |
| | 9FC4 | F0 08 | BEQ prtspc/add100-spc | ☐ | | |
| .9fc6 | 9FC6 | 20 CA 80 | JSR prthexLoNib (A low nibble) A preserved | ☐ | | |
| | 9FC9 | 38 | SEC | ☐ | | |
| | 9FCA | 60 | RTS | ☐ | | |
| print2spc/add100-2spc | 9FCB | 20 CE 9F | JSR prtspc/add100-spc | ☐ | | print two spaces |
| prtspc/add100-spc | 9FCE | 48 | PHA | ☐ | | print space |
| | 9FCF | A9 20 | LDA #&20 | ☐ | | |
| | 9FD1 | 20 9C 80 | JSR prtchr/add100(10DE) A=Chr | ☐ | | |
| | 9FD4 | 68 | PLA | ☐ | | |
| | 9FD5 | 18 | CLC | ☐ | | |
| | 9FD6 | 60 | RTS | ☐ | | end |
| Ltrim@TextPointer+Y | 9FD7 | BA | TSX | ☐ | | |
| | 9FD8 | A9 00 | LDA #&00 | ☐ | | |
| | 9FDA | 9D 07 01 | STA &0107,X | ☐ | | ?? |
| | 9FDD | 88 | DEY | ☐ | | |
| .ltrimloop | 9FDE | C8 | INY | ☐ | | |
| | 9FDF | B1 F2 | LDA (TextPointer),Y | ☐ | | |
| | 9FE1 | C9 20 | CMP #&20 | ☐ | | ignore spaces |
| | 9FE3 | F0 F9 | BEQ .ltrimloop | ☐ | | |

| Label | Code | | Zero | New Instruction | Comment |
|---|---|---|---|---|---|
| | 9FE5 | C9 0D | CMP #&0D | ☐ | | don't expect CR |
| | 9FE7 | D0 03 | BNE .ltrimnoerror | ☐ | | |
| | 9FE9 | 4C 06 9A | JMP .syntaxerr | ☐ | | |
| .ltrimnoerror | 9FEC | A9 00 | LDA #&00 | ☐ | | |
| | 9FEE | 85 A8 | STA &A8 | ☐ | | |
| | 9FF0 | 85 A9 | STA &A9 | ☐ | | |
| | 9FF2 | 48 | PHA | ☐ | | |
| | 9FF3 | 98 | TYA | ☐ | | YX=T.P.+Y |
| | 9FF4 | 18 | CLC | ☐ | | |
| | 9FF5 | 65 F2 | ADC TextPointer | ☐ | | |
| | 9FF7 | AA | TAX | ☐ | | |
| | 9FF8 | A5 F3 | LDA TextPointerHi | ☐ | | |
| | 9FFA | 69 00 | ADC #&00 | ☐ | | |
| | 9FFC | A8 | TAY | ☐ | | |
| | 9FFD | 68 | PLA | ☐ | | |
| | 9FFE | 60 | RTS | ☐ | | |
| | 9FFF | 6D | m | ☐ | | |