```
1    * Sample mc codes to monitor times
2    * when context switches occur
3    * both for swapping out and swapping in contexts
4    * from Peersoft MT kernel
5    K6502    =     0
6    K65C02   =     1
7
8    KOPT     =     K6502
9
10           DO    KOPT-K6502
11           XC
12           FIN
13
14           DO    0
15
16   MPHX     MAC
17           DO    KOPT-K6502
18           PHX
19           ELSE
20           TXA
21           PHA
22           FIN
23           <<<
24   MPHY     MAC
25           DO    KOPT-K6502
26           PHY
27           ELSE
28           TYA
29           PHA
30           FIN
31           <<<
32   MPLX     MAC
33           DO    KOPT-K6502
34           PLX
35           ELSE
36           PLA
37           TAX
38           <<<
39   MPLY     MAC
40           DO    KOPT-K6502
41           PLY
42           ELSE
43           PLA
44           TAY
45           FIN
46           <<<
47   STID     MAC
48           LDA   #]1
49           STA   ]2
50           LDA   #>]1
51           STA   ]2+1
52           <<<
53   GOTO     MAC
54           DO    KOPT-K6502
55           BRA   ]1
56           ELSE
57           JMP   ]1
58           FIN
59           <<<
```

```
                        60
                        61              FIN
                        62
                        63   WAITKBD    EQU   795
                        64   BUFKBD     EQU   WAITKBD+1
                        65
                        66   PHM        EQU   $7D2B      Peersoft HIMEM once MAXFILES 1
                        67   PCL        EQU   $3A
                        68   A1L        EQU   $3C
                        69   A2L        EQU   $3E
                        70   A4L        EQU   $42
                        71   MOVE       EQU   $FE2C
                        72
                        73   INSDS2     EQU   $F88C
                        74   PCADJ      EQU   $F953
                        75   LENGTH     EQU   $2F
                        76
                        77   CH         EQU   36
                        78   CV         EQU   37
                        79
                        80   HIMEM      EQU   $73
                        81   FRETOP     EQU   $6F
                        82   ERRFLG     EQU   $D8
                        83
                        84              ORG   $4000
                        85
4000: A9 2B             86   SUITE      LDA   #PHM
4002: 38                87              SEC
4003: E5 73             88              SBC   HIMEM
4005: 8D 40 40          89              STA   :0+1
4008: A9 7D             90              LDA   #>PHM
400A: E5 74             91              SBC   HIMEM+1
400C: 8D 48 40          92              STA   :1+1
                        93
400F: A9 9B             94              LDA   #AROMBA
4011: A0 40             95              LDY   #>AROMBA
4013: 85 3A             96   ]LOOP      STA   PCL
4015: C9 DC             97              CMP   #FCODE-FNDVAR2+AROMBA
4017: 98                98              TYA
4018: E9 42             99              SBC   #>FCODE-FNDVAR2+AROMBA
401A: B0 35             100             BCS   :4
401C: 84 3B             101             STY   PCL+1
                        102             DO    KOPT-K65C02
401E: A2 00             103             LDX   #0
4020: 20 8C F8          104             JSR   MINSDS2
4023: A4 2F             105             LDY   LENGTH
4025: C0 02             106             CPY   #2
4027: D0 22             107             BNE   :3
4029: B1 3A             108             LDA   (PCL),Y
402B: AA                109             TAX
402C: 88                110             DEY
402D: B1 3A             111             LDA   (PCL),Y
402F: A8                112             TAY
4030: C9 2B             113             CMP   #MFIN      Only adresses within range
4032: 8A                114             TXA
4033: E9 7D             115             SBC   #>MFIN
4035: B0 14             116             BCS   :3         Must be < FIN to be relocated
```

```
4037: C0 DA     117           CPY   #FNDVAR2
4039: 8A        118           TXA
403A: E9 7A     119           SBC   #>FNDVAR2  and >= FNDVAR2
403C: 90 0D     120           BCC   :3
403E: 98        121           TYA               ;Relocates address
403F: E9 00     122  :0       SBC   #0
4041: A0 01     123           LDY   #1
4043: 91 3A     124           STA   (PCL),Y     Low byte
4045: C8        125           INY
4046: 8A        126           TXA
4047: E9 00     127  :1       SBC   #0
4049: 91 3A     128           STA   (PCL),Y
404B: 20 53 F9  129  :3       JSR   PCADJ       Adjust PCL to length byte
                130           GOTO  ]LOOP
                130           DO    KOPT-K6502
                130           BRA   ]1
                130           ELSE
404E: 4C 13 40  130           JMP   ]LOOP
                130           FIN
                130           <<<
                131
4051: AD 77 41  132  :4       LDA   KILLED+1+AROMBA-FNDVAR2
4054: 38        133           SEC
4055: ED 40 40  134           SBC   :0+1
4058: 8D 77 41  135           STA   KILLED+1+AROMBA-FNDVAR2
405B: AD 79 41  136           LDA   KILLED+3+AROMBA-FNDVAR2
405E: ED 48 40  137           SBC   :1+1
4061: 8D 79 41  138           STA   KILLED+3+AROMBA-FNDVAR2
                139
4064: A9 DA     140           LDA   #FNDVAR2
4066: A2 7A     141           LDX   #>FNDVAR2
4068: 38        142           SEC
4069: ED 40 40  143           SBC   :0+1
406C: 85 42     144           STA   A4L
406E: 8A        145           TXA
406F: ED 48 40  146           SBC   :1+1
4072: 85 43     147           STA   A4L+1
                148
                149           STID  AROMBA;A1L
4074: A9 9B     149           LDA   #AROMBA
4076: 85 3C     149           STA   A1L
4078: A9 40     149           LDA   #>AROMBA
407A: 85 3D     149           STA   A1L+1
                149           <<<
                150           STID  MFIN-1+AROMBA-FNDVAR2;A2L
407C: A9 EB     150           LDA   #MFIN-1+AROMBA-FNDVAR2
407E: 85 3E     150           STA   A2L
4080: A9 42     150           LDA   #>MFIN-1+AROMBA-FNDVAR2
4082: 85 3F     150           STA   A2L+1
                150           <<<
4084: A0 00     151           LDY   #0
4086: 20 2C FE  152           JSR   MOVE
4089: A5 73     153           LDA   HIMEM
408B: 38        154           SEC
408C: E9 51     155           SBC   #MFIN-FNDVAR2
408E: 85 73     156           STA   HIMEM
4090: 85 6F     157           STA   FRETOP
```

```
4092: A5 74     158           LDA   HIMEM+1
4094: E9 02     159           SBC   #>MFIN-FNDVAR2
4096: 85 74     160           STA   HIMEM+1
4098: 85 70     161           STA   FRETOP+1
409A: 60        162           RTS
                163
                164           DO    KOPT-K6502
                165 MINSDS2   LDA   (PCL)
                166           LDX   #LN-MC-1
                167 ]LOOP     CMP   MC,X
                168           BEQ   :0
                169           DEX
                170           BPL   ]LOOP
                171           INX               ;X set to zero
                172           JMP   INSDS2
                173 :0        LDA   LN,X
                174           STA   LENGTH
                175           RTS
                176
                177 MC        HEX   DAFA041A3A PHX/PLX/TSB d/INC/DEC
                178           HEX   7C807A5A   JMP (a,X)/BRA d/PLY/PHY
                179           HEX   649E       STZ d/STZ a,X
                180           HEX   0C9C       TSB a/STZ a
                181           HEX   1C14       TRB a/TRB d
                182           HEX   B2         LDA (d)
                183
                184 LN        HEX   0000010000 PHX/PLX/TSB d/INC/DEC
                185           HEX   02010000   JMP (a,X)/BRA d/PLY/PHY
                186           HEX   0102       STZ d/STZ a,X
                187           HEX   0202       TSB a/STZ a
                188           HEX   0201       TRB a/TRB d
                189           HEX   01         LDA (d)
                190           ELSE
                191 MINSDS2   EQU   INSDS2
                192           FIN
                193
                194           DO    KOPT-K6502
                195 AROMBA    ORG   $7CCC
                196           ELSE
                197 AROMBA    ORG   $7ADA
                198           FIN
                199 FNDVAR2
7ADA: A2 1A     200           LDX   #9*3-1
7ADC: BD E6 7A  201 ]LOOP     LDA   ZON,X
7ADF: 9D 00 03  202           STA   $0300,X
7AE2: CA        203           DEX
7AE3: 10 F7     204           BPL   ]LOOP
7AE5: 60        205           RTS
                206 ZON       ORG   $0300
                207 * To generate a click onto speaker
0300: 4C 27 7B  208           JMP   L0          CALL 768
                209 * To display an error message
0303: 4C 2B 7B  210           JMP   L1          CALL 771
                211 * To generate another click onto speaker
0306: 4C 23 7B  212           JMP   L2          CALL 774
                213 * To display current status for given subroutine
0309: 4C 53 7B  214           JMP   L3          CALL 777
```

```
                215  * Routine determining of a coroutine
                216  * waiting for keyboard should be awaken or not.
030C: 4C C9 7B  217          JMP   L4         CALL 780
                218  * To effectively read keyboard
030F: 4C 01 7B  219          JMP   L5         CALL 783
                220  * Compute address of XC% variable as well as
                221  * IT% variable and XH, XV arrays
0312: 4C 7B 7C  222          JMP   L6         CALL 786
                223  * To store cursor cursor position settings from XH
                224  * and XV arrays
0315: 4C 34 7C  225          JMP   L7         CALL 789
                226  * To restore cursor position settings from XH and
                227  * XV arrays
0318: 4C 00 7C  228          JMP   L8         CALL 792
                229          ORG
                230
                231  * Read the keyboard from coroutine
7B01: A9 FF     232  L5       LDA   #$FF
7B03: 8D 1B 03  233          STA   WAITKBD
7B06: AD 00 C0  234          LDA   $C000
7B09: 30 07     235          BMI   :0
7B0B: 20 06 7D  236          JSR   ISXC1
7B0E: D0 09     237          BNE   :1
7B10: A9 83     238          LDA   #$83
7B12: 8D 1C 03  239  :0       STA   BUFKBD
7B15: EE 1B 03  240          INC   WAITKBD
7B18: 60        241          RTS
7B19: A2 01     242  :1       LDX   #1
7B1B: 8E DB 9C  243          STX   40155
7B1E: CA        244          DEX
7B1F: 8E 1C 03  245          STX   BUFKBD
7B22: 60        246          RTS
                247
7B23: 8D 36 C0  248  L2       STA   $C036
7B26: 60        249          RTS
7B27: 2C 36 C0  250  L0       BIT   $C036
7B2A: 60        251          RTS
                252
                253  ERRNUM   EQU   $DE
                254  ERRLIN   EQU   $DA
                255  CRDO     EQU   $DAFB      Print a carriage return
                256  OUTQUES  EQU   $DB5A      Print a question mark
                257  OUTDO    EQU   $DB5C      Print a character
                258  ERRMESS  EQU   $D260      Error messages to be printed
                259  QTERR    EQU   $D350      Print a quote
                260  STROUT   EQU   $DB3A      Print constant string at [Y,A]
                261  INPRT    EQU   $ED19      Print " IN [Y,A]"
                262
7B2B: 20 FB DA  263  L1       JSR   CRDO
7B2E: 20 5A DB  264          JSR   OUTQUES
7B31: A6 DE     265          LDX   ERRNUM     Error # is in fact an offset...
7B33: BD 60 D2  266  ]LOOP    LDA   ERRMESS,X
7B36: 48        267          PHA
7B37: 20 5C DB  268          JSR   OUTDO
7B3A: E8        269          INX
7B3B: 68        270          PLA
7B3C: 10 F5     271          BPL   ]LOOP
```

```
7B3E: A9 50     272           LDA   #QTERR
7B40: A0 D3     273           LDY   #>QTERR
7B42: 20 3A DB  274           JSR   STROUT
7B45: A5 DA     275           LDA   ERRLIN
7B47: A4 DB     276           LDY   ERRLIN+1
7B49: 20 19 ED  277           JSR   INPRT
                278           DO    KOPT-K6502
                279           STZ   ERRFLG
                280           ELSE
7B4C: A9 00     281           LDA   #0
7B4E: 85 D8     282           STA   ERRFLG
                283           FIN
7B50: 4C FB DA  284           JMP   CRDO
                285
                286  ARYTAB   EQU   $6B
                287  LOWTR    EQU   $9B
                288  AUXPTR   EQU   6
                289  FRMNUM   EQU   $DD67      Evaluate numeric expression
                290  CHKCOM   EQU   $DEBE      Check for a comma
                291  COMBYTE  EQU   $E74C
                292  GETADR   EQU   $E752
                293  ADADR    EQU   $9CD8
                294  OUTSPC   EQU   $DB57      Print a space
                295  LINPRT   EQU   $ED24
                296  LINNUM   EQU   $50
                297  PRTEOL   EQU   $FC9C
                298
                299  * CALL 777,Offset,JT
7B53: 20 BE DE  300  L3        JSR   CHKCOM     Check for a comma
7B56: 20 67 DD  301           JSR   FRMNUM
7B59: 20 52 E7  302           JSR   GETADR
7B5C: A5 51     303           LDA   LINNUM+1    Save offset to stack
7B5E: 48        304           PHA
7B5F: A5 50     305           LDA   LINNUM
7B61: 48        306           PHA
7B62: 20 4C E7  307           JSR   COMBYTE
7B65: 8E 2A 7D  308           STX   XSAV
7B68: 68        309           PLA
7B69: 18        310           CLC
7B6A: 65 6B     311           ADC   ARYTAB
7B6C: 85 9B     312           STA   LOWTR      Array base absolute address
7B6E: 68        313           PLA               ; into LOWTR
7B6F: AA        314           TAX               ;Offset hi byte in X register
7B70: 65 6C     315           ADC   ARYTAB+1
7B72: 85 9C     316           STA   LOWTR+1
7B74: AD D8 9C  317           LDA   ADADR
7B77: 85 06     318           STA   AUXPTR
7B79: AD D9 9C  319           LDA   ADADR+1
7B7C: 85 07     320           STA   AUXPTR+1
7B7E: A0 10     321           LDY   #8+8        INDX from Peersoft program area
7B80: B1 06     322           LDA   (AUXPTR),Y
7B82: A8        323           TAY
7B83: E8        324           INX               ;Comparison with 255
7B84: F0 2F     325           BEQ   KILLED      ;Killed co routine
7B86: A9 20     326           LDA   #´ ´
7B88: CC 2A 7D  327           CPY   XSAV        Are they the same?
7B8B: D0 02     328           BNE   :0
```

```
7B8D: A9 2A     329           LDA   #´*´
7B8F: 20 5C DB  330  :0       JSR   OUTDO
7B92: 20 57 DB  331           JSR   OUTSPC
7B95: A0 11     332           LDY   #8+8+1
7B97: B1 06     333           LDA   (AUXPTR),Y
7B99: 38        334           SEC
7B9A: A0 08     335           LDY   #8
7B9C: F1 9B     336           SBC   (LOWTR),Y
7B9E: AA        337           TAX
7B9F: A9 00     338           LDA   #0
7BA1: 20 24 ED  339           JSR   LINPRT
7BA4: 20 57 DB  340           JSR   OUTSPC
7BA7: A0 09     341           LDY   #9
7BA9: B1 9B     342           LDA   (LOWTR),Y
7BAB: AA        343           TAX
7BAC: C8        344           INY
7BAD: B1 9B     345           LDA   (LOWTR),Y
7BAF: 20 24 ED  346           JSR   LINPRT
7BB2: 4C 9C FC  347  FIN      JMP   PRTEOL
                348
7BB5: A9 1B     349  KILLED   LDA   #KILLDMSG
7BB7: A0 7D     350           LDY   #>KILLDMSG
7BB9: 85 06     351           STA   AUXPTR
7BBB: 84 07     352           STY   AUXPTR+1
7BBD: A0 00     353           LDY   #0
7BBF: B1 06     354  ]LOOP    LDA   (AUXPTR),Y
7BC1: F0 EF     355           BEQ   FIN
7BC3: 20 5C DB  356           JSR   OUTDO
7BC6: C8        357           INY
7BC7: D0 F6     358           BNE   ]LOOP      Always
                359
                360  * SWPIO routine pour la rentree de la routine
                361  * interrogeant le clavier (carry clear upon
                362  * entry).
                363  * Les registres X et Y doivent etre sauvegardes
7BC9: 2C 1B 03  364  L4       BIT   WAITKBD    Sommes nous en attente?
7BCC: 10 31     365           BPL   :00        Non, retour avec carry clear
7BCE: 2C 00 C0  366           BIT   $C000      Something from keyboard to read?
7BD1: 30 2C     367           BMI   :00        yes: exit with carry clear
                368  * Nothing on keyboard and in the waiting state so ask
                369  * ourselves: are we the last coroutine to be alive?
                370           MPHY
                370           DO    KOPT-K6502
                370           PHY
                370           ELSE
7BD3: 98        370           TYA
7BD4: 48        370           PHA
                370           FIN
                370           <<<
7BD5: 20 06 7D  371           JSR   ISXC1
7BD8: F0 23     372           BEQ   :11
                373           MPHX
                373           DO    KOPT-K6502
                373           PHX
                373           ELSE
7BDA: 8A        373           TXA
7BDB: 48        373           PHA
```

```
                        373           FIN
                        373           <<<
7BDC: AD D8 9C          374           LDA   ADADR
7BDF: 85 3C             375           STA   A1L
7BE1: AD D9 9C          376           LDA   ADADR+1
7BE4: 85 3D             377           STA   A1L+1
7BE6: A0 08             378           LDY   #8          start at offset for MSB
7BE8: A2 00             379           LDX   #0          count of alive routines in X
7BEA: B1 3C             380  ]LOOP     LDA   (A1L),Y
7BEC: C9 FF             381           CMP   #$FF
7BEE: F0 05             382           BEQ   :0          Dead routine, so fetch next one
7BF0: E8                383           INX
7BF1: E0 02             384           CPX   #2          If more than one other coroutine
7BF3: B0 06             385           BCS   :1          alive, so exit with carry set
7BF5: C8                386  :0       INY               ;Get next coroutine "pointer" MSB
7BF6: C0 10             387           CPY   #16         End of table?
7BF8: 90 F0             388           BCC   ]LOOP       No: loop
7BFA: 18                389           CLC
                        390  :1       MPLX
                        390           DO    KOPT-K6502
                        390           PLX
                        390           ELSE
7BFB: 68                390           PLA
7BFC: AA                390           TAX
                        390           <<<
                        391  :11      MPLY
                        391           DO    KOPT-K6502
                        391           PLY
                        391           ELSE
7BFD: 68                391           PLA
7BFE: A8                391           TAY
                        391           FIN
                        391           <<<
7BFF: 60                392  :00      RTS
                        393
                        394  * Restore cursor setting from XH and XV arrays
                        395  MONVTAB  EQU   $FB5B
7C00: 20 69 7C          396  L8       JSR   GETYOFF
                        397           MPHY
                        397           DO    KOPT-K6502
                        397           PHY
                        397           ELSE
7C03: 98                397           TYA
7C04: 48                397           PHA
                        397           FIN
                        397           <<<
7C05: AD 24 7D          398           LDA   ADXV
7C08: AE 25 7D          399           LDX   ADXV+1
7C0B: 20 24 7C          400           JSR   :0
7C0E: 20 5B FB          401           JSR   MONVTAB
                        402           MPLY
                        402           DO    KOPT-K6502
                        402           PLY
                        402           ELSE
7C11: 68                402           PLA
7C12: A8                402           TAY
                        402           FIN
```

```
                        402           <<<
7C13: AD 22 7D          403           LDA   ADXH
7C16: AE 23 7D          404           LDX   ADXH+1
7C19: 20 24 7C          405           JSR   :0
7C1C: 85 24             406           STA   CH
7C1E: A9 80             407           LDA   #128
7C20: 8D DA 9C          408           STA   40154
7C23: 60                409           RTS
                        410
7C24: 18                411  :0       CLC
7C25: 65 6B             412           ADC   ARYTAB
7C27: 85 3C             413           STA   A1L
7C29: 8A                414           TXA
7C2A: 65 6C             415           ADC   ARYTAB+1
7C2C: 85 3D             416           STA   A1L+1
7C2E: B1 3C             417           LDA   (A1L),Y
                        418           DO    KOPT-K6502
                        419           DEC
                        420           ELSE
7C30: 38                421           SEC
7C31: E9 01             422           SBC   #1
                        423           FIN
7C33: 60                424           RTS
                        425  * Store cursor position into XH and XV arrays
7C34: 20 69 7C          426  L7       JSR   GETYOFF
7C37: A6 24             427           LDX   CH
7C39: AD 22 7D          428           LDA   ADXH
7C3C: 65 6B             429           ADC   ARYTAB
7C3E: 85 3C             430           STA   A1L
7C40: AD 23 7D          431           LDA   ADXH+1
7C43: 20 60 7C          432           JSR   :0
7C46: A6 25             433           LDX   CV
7C48: AD 24 7D          434           LDA   ADXV
7C4B: 18                435           CLC
7C4C: 65 6B             436           ADC   ARYTAB
7C4E: 85 3C             437           STA   A1L
7C50: AD 25 7D          438           LDA   ADXV+1
7C53: 20 60 7C          439           JSR   :0
7C56: A2 01             440           LDX   #1
7C58: 8E DB 9C          441           STX   40155
7C5B: CA                442           DEX
7C5C: 8E DA 9C          443           STX   40154
7C5F: 60                444           RTS
                        445
7C60: 65 6C             446  :0       ADC   ARYTAB+1
7C62: 85 3D             447           STA   A1L+1
7C64: E8                448           INX
7C65: 8A                449           TXA
7C66: 91 3C             450           STA   (A1L),Y
7C68: 60                451           RTS
                        452
7C69: A0 01             453  GETYOFF  LDY   #1
7C6B: AD 28 7D          454           LDA   ADIT
7C6E: 85 3C             455           STA   A1L
7C70: AD 29 7D          456           LDA   ADIT+1
7C73: 85 3D             457           STA   A1L+1
7C75: B1 3C             458           LDA   (A1L),Y
```

```
7C77: 0A        459           ASL
7C78: A8        460           TAY
7C79: C8        461           INY
7C7A: 60        462           RTS
                463
                464  VNPTRG90 EQU   $9CD3
                465  VNARRG91 EQU   $9CD1
                466
                467  DIMFLG   EQU   $10
                468  SUBFLG   EQU   $14
                469  VARNAM   EQU   $81
                470  VALTYP   EQU   $11
                471  INTTYP   EQU   $12
                472  VARPNT   EQU   $83
                473
7C7B: A9 00     474  L6       LDA   #0
7C7D: A2 D8     475           LDX   #"X"
7C7F: A0 C3     476           LDY   #"C"
7C81: 20 E2 7C  477           JSR   L60
7C84: A9 02     478           LDA   #2
7C86: A2 C9     479           LDX   #"I"
7C88: A0 D4     480           LDY   #"T"
7C8A: 20 E2 7C  481           JSR   L60
7C8D: A9 00     482           LDA   #0
7C8F: A2 D8     483           LDX   #"X"
7C91: A0 C8     484           LDY   #"H"
7C93: 20 A2 7C  485           JSR   L61
7C96: 90 09     486           BCC   :0
7C98: A9 02     487           LDA   #2
7C9A: A2 D8     488           LDX   #"X"
7C9C: A0 D6     489           LDY   #"V"
7C9E: 20 A2 7C  490           JSR   L61
7CA1: 60        491  :0       RTS
                492
7CA2: 48        493  L61      PHA
                494           DO    KOPT-K6502
                495           STZ   VALTYP
                496           STZ   DIMFLG
                497           ELSE
7CA3: A9 00     498           LDA   #0
7CA5: 85 11     499           STA   VALTYP
7CA7: 85 10     500           STA   DIMFLG
                501           FIN
7CA9: A9 40     502           LDA   #$40
7CAB: 85 14     503           STA   SUBFLG
7CAD: 86 81     504           STX   VARNAM
7CAF: 84 82     505           STY   VARNAM+1
7CB1: A9 82     506           LDA   #$82
7CB3: 85 12     507           STA   INTTYP
7CB5: 20 DF 7C  508           JSR   :2
7CB8: 68        509           PLA
7CB9: 90 1F     510           BCC   :0
7CBB: AA        511           TAX
7CBC: A0 04     512           LDY   #4
7CBE: B1 9B     513           LDA   (LOWTR),Y
7CC0: 49 41     514           EOR   #$41       16bits and 1 dimension
7CC2: 18        515           CLC
```

```
7CC3: D0 15     516           BNE   :0
7CC5: A5 9B     517           LDA   LOWTR
7CC7: 69 07     518           ADC   #5+2       C currently clear
7CC9: A4 9C     519           LDY   LOWTR+1
7CCB: 90 01     520           BCC   :1
7CCD: C8        521           INY
                522  * Address in Y,A
7CCE: 38        523  :1       SEC
7CCF: E5 6B     524           SBC   ARYTAB
7CD1: 9D 22 7D  525           STA   ADXH,X
7CD4: 98        526           TYA
7CD5: E5 6C     527           SBC   ARYTAB+1
7CD7: 9D 23 7D  528           STA   ADXH+1,X
                529           DO    KOPT-K6502
                530  :0       STZ   SUBFLG
                531           ELSE
7CDA: A9 00     532  :0       LDA   #0
7CDC: 85 14     533           STA   SUBFLG
                534           FIN
7CDE: 60        535           RTS
7CDF: 6C D1 9C  536  :2       JMP   (VNARRG91)
                537
7CE2: 48        538  L60      PHA
                539           DO    KOPT-K6502
                540           STZ   VALTYP
                541           STZ   DIMFLG
                542           STZ   SUBFLG
                543           ELSE
7CE3: A9 00     544           LDA   #0
7CE5: 85 11     545           STA   VALTYP
7CE7: 85 10     546           STA   DIMFLG
7CE9: 85 14     547           STA   SUBFLG
                548           FIN
7CEB: 86 81     549           STX   VARNAM
7CED: 84 82     550           STY   VARNAM+1
7CEF: A9 82     551           LDA   #$82
7CF1: 85 12     552           STA   INTTYP
7CF3: 20 03 7D  553           JSR   :1
7CF6: 68        554           PLA
7CF7: AA        555           TAX
7CF8: A5 83     556           LDA   VARPNT
7CFA: 9D 26 7D  557           STA   ADXC,X
7CFD: A5 84     558           LDA   VARPNT+1
7CFF: 9D 27 7D  559           STA   ADXC+1,X
7D02: 60        560           RTS
7D03: 6C D3 9C  561  :1       JMP   (VNPTRG90)
                562
7D06: AD 27 7D  563  ISXC1    LDA   ADXC+1
7D09: 85 3D     564           STA   A1L+1
7D0B: AD 26 7D  565           LDA   ADXC
7D0E: 85 3C     566           STA   A1L
                567           DO    KOPT-K6502
                568           LDA   (A1L)
                569           BNE   :00
                570           LDY   #1
                571           ELSE
7D10: A0 00     572           LDY   #0
```

```
7D12: B1 3C     573           LDA   (A1L),Y
7D14: D0 04     574           BNE   :00
7D16: C8        575           INY
                576           FIN
7D17: 98        577           TYA
7D18: 51 3C     578           EOR   (A1L),Y
7D1A: 60        579  :00      RTS
                580  FCODE
7D1B: CB C9 CC  581  KILLDMSG ASC   "KILLED"
7D1E: CC C5 C4
7D21: 00        582           DFB   0
                583  * Actually offsets from start of array segment are stored
7D22: 00 00     584  ADXH     DA    0
7D24: 00 00     585  ADXV     DA    0
7D26: 00 00     586  ADXC     DA    0
7D28: 00 00     587  ADIT     DA    0
7D2A: 00        588  XSAV     DS    1
                589
                590  MFIN
                591           ERR   *-PHM
                592           ORG


--End assembly, 748 bytes, Errors: 0


Symbol table - alphabetical order:

   A1L     =$3C        A2L     =$3E        A4L     =$42        ADADR   =$9CD8
   ADIT    =$7D28      ADXC    =$7D26      ADXH    =$7D22      ADXV    =$7D24
   AROMBA  =$409B      ARYTAB  =$6B        AUXPTR  =$06        BUFKBD  =$031C
   CH      =$24        CHKCOM  =$DEBE      COMBYTE =$E74C      CRDO    =$DAFB
   CV      =$25        DIMFLG  =$10        ERRFLG  =$D8        ERRLIN  =$DA
   ERRMESS =$D260      ERRNUM  =$DE        FCODE   =$7D1B      FIN     =$7BB2
   FNDVAR2 =$7ADA      FRETOP  =$6F        FRMNUM  =$DD67      GETADR  =$E752
   GETYOFF =$7C69   MD GOTO    =$8000      HIMEM   =$73        INPRT   =$ED19
   INSDS2  =$F88C      INTTYP  =$12        ISXC1   =$7D06      K6502   =$00
   K65C02  =$01        KILLDMSG=$7D1B      KILLED  =$7BB5      KOPT    =$00
   L0      =$7B27      L1      =$7B2B      L2      =$7B23      L3      =$7B53
   L4      =$7BC9      L5      =$7B01      L6      =$7C7B      L60     =$7CE2
   L61     =$7CA2      L7      =$7C34      L8      =$7C00      LENGTH  =$2F
   LINNUM  =$50        LINPRT  =$ED24      LOWTR   =$9B        MFIN    =$7D2B
   MINSDS2 =$F88C      MONVTAB =$FB5B      MOVE    =$FE2C   MD MPHX    =$8000
MD MPHY    =$8000   MD MPLX    =$8000   MD MPLY    =$8000      OUTDO   =$DB5C
   OUTQUES =$DB5A      OUTSPC  =$DB57      PCADJ   =$F953      PCL     =$3A
   PHM     =$7D2B      PRTEOL  =$FC9C      QTERR   =$D350   MD STID    =$8000
   STROUT  =$DB3A      SUBFLG  =$14     ?  SUITE   =$4000      VALTYP  =$11
   VARNAM  =$81        VARPNT  =$83        VNARRG91=$9CD1      VNPTRG90=$9CD3
   WAITKBD =$031B      XSAV    =$7D2A      ZON     =$7AE6   V  ]LOOP   =$7BEA


Symbol table - numerical order:

   K6502   =$00        KOPT    =$00        K65C02  =$01        AUXPTR  =$06
   DIMFLG  =$10        VALTYP  =$11        INTTYP  =$12        SUBFLG  =$14
   CH      =$24        CV      =$25        LENGTH  =$2F        PCL     =$3A
```

```
   A1L      =$3C        A2L      =$3E        A4L      =$42        LINNUM   =$50
   ARYTAB   =$6B        FRETOP   =$6F        HIMEM    =$73        VARNAM   =$81
   VARPNT   =$83        LOWTR    =$9B        ERRFLG   =$D8        ERRLIN   =$DA
   ERRNUM   =$DE        WAITKBD  =$031B      BUFKBD   =$031C   MD MPHX     =$8000
MD MPHY     =$8000   MD MPLX     =$8000   MD MPLY     =$8000   MD STID     =$8000
MD GOTO     =$8000   ?  SUITE    =$4000      AROMBA   =$409B      FNDVAR2  =$7ADA
   ZON      =$7AE6      L5       =$7B01      L2       =$7B23      L0       =$7B27
   L1       =$7B2B      L3       =$7B53      FIN      =$7BB2      KILLED   =$7BB5
   L4       =$7BC9   V  ]LOOP    =$7BEA      L8       =$7C00      L7       =$7C34
   GETYOFF  =$7C69      L6       =$7C7B      L61      =$7CA2      L60      =$7CE2
   ISXC1    =$7D06      FCODE    =$7D1B      KILLDMSG =$7D1B      ADXH     =$7D22
   ADXV     =$7D24      ADXC     =$7D26      ADIT     =$7D28      XSAV     =$7D2A
   PHM      =$7D2B      MFIN     =$7D2B      VNARRG91 =$9CD1      VNPTRG90 =$9CD3
   ADADR    =$9CD8      ERRMESS  =$D260      QTERR    =$D350      CRDO     =$DAFB
   STROUT   =$DB3A      OUTSPC   =$DB57      OUTQUES  =$DB5A      OUTDO    =$DB5C
   FRMNUM   =$DD67      CHKCOM   =$DEBE      COMBYTE  =$E74C      GETADR   =$E752
   INPRT    =$ED19      LINPRT   =$ED24      INSDS2   =$F88C      MINSDS2  =$F88C
   PCADJ    =$F953      MONVTAB  =$FB5B      PRTEOL   =$FC9C      MOVE     =$FE2C
```