



```

0000 1: ;-----
0000 2: ;
0000 3: ;      Copyright 2006 Intergraded Logic Systems
0000 4: ;      Source Code is Copyright Stephen J. Car
0000 5: ;
0000 6: ;
0000 7: ;      Please do not share this source!
0000 8: ;-----
0000 9: ;      D_test.s
0000 10: ;This Program is trying to ID your System attached Drive H
0000 11: ;
0000 12: ;Updated the screen Print Utility so it will work with the
0000 13: ; This change will also help "Print P:"      8/1
0000 14: ;
0000 15: ;
0000 16: ;Also added code for Control+1 pause of screen to the high
0000 17: ;handling.      8/28/2012      sjc
0000 18: ;
0000 19: ;-----
0000 20: ;      This will search each drive to see what kind of d
0000 21: ;-----
0000 22: ;      Supported Hardware!
0000 23: ;
0000 24: ;      ICD MIO
0000 25: ;      KJ Mio
0000 26: ;      Black Box
0000 27: ;      IDEa      ==>Need to add supp
0000 28: ;      Supera Interface
0000 29: ;      Stock Standard 1050
0000 30: ;      Super Archiver 1050 with Bit Board
0000 31: ;      Happy 1050 with Controler Board
0000 32: ;      Duplicator 1050
0000 33: ;      U.S. Doubler 1050
0000 34: ;      Indus Double Density Drive      ==>Need to add supp
0000 35: ;      SIO2USB      ==>Need to add supp
0000 36: ;      SIO2sd      ==>Need to add supp
0000 37: ;      SIO2IDE      ==>Need to add supp
0000 38: ;      SDrive      ==>Need to add supp
0000 39: ;      Ramdisk Handler      ==>Need to add supp
0000 40: ;      Atari800win Drives      ==>Need to add supp
0000 41: ;
0000 42: ;      AtariAge USB Ape interface
0000 43: ;      SF551 360K & 720k
0000 44: ;
0000 45: ;
0000 46: ;      ~~~~~
0000 47: ;-----
0000 48: ; Notes: o This source code MAY NOT be placed for download
0000 49: ;      o "mea" is a macro that loads the address of the
0000 50: ;      into the pointer specified by the second field.
0000 51: ;-----
0000 52: ; Assembler: MADMAC (tm) ST Cross Assembler (Atari Corp)
0000 53: ;      XASM st and IBM VERSIONS

```

```

0000 54: ;-----
0000 55: com_file_name: .macro
0000 56: ;          dc.b 13,"filename.ext",$9b
0000 57:          dc.b 12,"D_test.com ",$9b
0000 58:          .endm
0000 59:
0000 60: ;~~~~~
0000 61: ; File revision history. Version Number in hex
0000 62: ;
0000 63: file_ver:      equ $12
0000 64: ;~~~~~
0000 65: ; the Month in dec for the first time this revision
0000 66: ;was compiled
0000 67: ;
0000 68: c_month:      equ 9
0000 69: ;~~~~~
0000 70: ; the day in dec for the first time this revision
0000 71: ;was compiled
0000 72: c_day:       equ 5
0000 73: ;~~~~~
0000 74: ; the year in dec for the first time this revision
0000 75: ;was compiled
0000 76: c_year:      equ 2012
0000 77: ;~~~~~
0000 78: ; Type of compiler used in program
0000 79: ;
0000 80: ; 0 = unknown Compiler
0000 81: ; 1 = xasm
0000 82: ; 2 = mac_65
0000 83: ; 3 = basic
0000 84: ; 4 = compiled basic xl
0000 85: ; 5 = C65
0000 86: ; 6 = Action
0000 87: ;
0000 88: ; We can add more as time goes on!
0000 89: ;
0000 90: ;
0000 91: xasm:        equ 1
0000 92: mac_65:      equ 2
0000 93: basic:       equ 3
0000 94: basicxl:     equ 4
0000 95: c65:        equ 5
0000 96: action:      equ 6
0000 97:
0000 98: file_compiler: equ xasm
0000 99: ;~~~~~
0000 100: ; is this relocatable code ?
0000 101: ; anyother value other than 1 or 2 would be unknown
0000 102: r.yes:      equ 1
0000 103: r.no:       equ 2
0000 104: ;
0000 105: ;~~~~~
0000 106: ; Gotta define if it can be relocated

```

```

0000 107: l_relocatable:    equ  r..no
0000 108: ;
0000 109: ;~~~~~
0000 110: ; Gotta define our Header control Byte
0000 111: ;$ff =bypass intro
0000 112: ;$15 = Bypass Dos check
0000 113: r.crl:             equ  $7d
0000 114: r.crlf:            equ  $9b
0000 115: r.space:           equ  $20
0000 116: r.bypassDOS:       equ  $15
0000 117: r.bypass:          equ  $ff
0000 118:
0000 119: l_frstscreenbyte:  equ  r..space
0000 120: ;~~~~~
0000 121: ; The language the output file is in.
0000 122: ;
0000 123: ;
0000 124: ; 0 =   Undefined
0000 125: ; 1 =   English
0000 126: ; 2 =   German
0000 127: ;
0000 128: r.language:        equ  1
0000 129:
0000 130: ;    System Equates
0000 131: ;-----
0000 132: ;
0000 133:
0000 134:
0000 135:
0000 136:
0000 137:             .include  equates
0000 138:             .include  globals
0000 139:             .include  macros
0000 140:
0000 141:             .org  $5000
0000 142:
0000 143:
0000 144:
0000 145:
0000 146:
0000 147:
0000 148: win_start:
0000 149: header_info:
0000 150:             .include  header
52a7 151: ;
52a7 152:
52a7 153: top:
52a7 154:
52a7 a900 155:             lda  #$00
52a9 a000 156:             ldy  #$00
52ab      157: .a:
52ab 990e60 158:             sta  cmdtab2,y
52ae 990e61 159:             sta  cmdtab2+256,y

```

```

52b1 c8 160:          iny
52b2 c000 161:         cpy  #$00
52b4 d0f5 162:         bne  .a
52b6      163:
52b6 a50a 164:         LDA  COMTAB
52b8 38 165:         SEC
52b9 e90a 166:         SBC  # low lsio
52bb 8d0b5e 167:         STA  XSIO+1
52be a50b 168:         LDA  COMTAB+1
52c0 e900 169:         SBC  # high lsio
52c2 8d0c5e 170:         STA  XSIO+2
52c5 a96c 171:         lda  #$6c
52c7 8d0a5e 172:         sta  xsio
52ca      173:
52ca      174:
52ca 200e62 175:         jsr  printsi
52cd 9b 176:         dc.b  $9b
52ce 209192 177:         dc.b  " "
52f4 20fc 178:         dc.b  " ü"
52f6 a0a0a0 179:         dc.b  <+128>," Drive Type Fin
5318 fc9b 180:         dc.b  "ü",$9B
531a 208192 181:         dc.b  " •"
5340 ff 182:         dc.b  $FF
5341      183: ;
5341 a900 184:         lda  #$00
5343 8dc856 185:         sta  cur_drive
5346 a901 186:         lda  #$01
5348 8dca56 187:         sta  cur_drive+2
534b a901 188:         lda  #$01
534d 8dc956 189:         sta  cur_drive+1
5350      190:
5350      191: ;-----
5350      192: ; testing for kpi interface
5350 20c659 193:         jsr  kpi_test
5353      194: ;-----
5353      195: ; testing for the Black Box
5353 206959 196:         jsr  BLACK_BOX
5356      197: ;-----
5356      198: ; Testing for the MIO
5356 200b5a 199:         jsr  MIO_TEST
5359      200: ;-----
5359      201: ; Testing for Atari800win Emulator
5359 202d59 202:         jsr  pc_run
535c      203: ;-----
535c      204: ; Testing for AtariMax Ape Interface
535c 20a25d 205:         jsr  Ape_test
535f      206: ;-----
535f      207: ; Testing for ABBUC SIO2USB Interface
535f 20b85a 208:         jsr  SIO2USB_test
5362      209:
5362      210:
5362      211: ;*****
5362      212:

```

```

5362      213:
5362 200e62 214:      jsr  printsi
5365 208192 215:      dc.b "•"
538a 9b    216:      dc.b $9B
538b ff    217:      dc.b -1
538c      218: ;
538c      219: ;
538c      220: ;
538c      221: ;
538c eec856 222: next:      inc  cur_drive
538f adc856 223:      lda  cur_drive
5392 c90a   224:      cmp  #$09+1
5394 f003   225:      beq  ov_loop
5396 4c1a57 226:      jmp  happy_loop
5399      227:
5399      228: ov_loop:
5399 4c3158 229:      jmp  test_mio
539c      230: top_1:
539c acca56 231:      ldy  cur_drive+2
539f b9de55 232:      lda  config_1,y
53a2 c948   233:      cmp  #'H'
53a4 d021   234:      bne  .a
53a6 207255 235:      jsr  drive
53a9 200e62 236:      jsr  printsi
53ac a0c8e1 237:      dc.b <+128>," Happy 1050
53c1 fc9bff 238:      dc.b "ü",$9B,$FF
53c4 4c3955 239:      jmp  .done
53c7      240: .a:
53c7 c944   241:      cmp  #'D'
53c9 d021   242:      bne  .b
53cb 207255 243:      jsr  drive
53ce 200e62 244:      jsr  printsi
53d1 a0c4f5 245:      dc.b <+128>," Duplicator 1050
53e6 fc9bff 246:      dc.b "ü",$9B,$FF
53e9 4c3955 247:      jmp  .done
53ec      248: .b:
53ec c953   249:      cmp  #'S'
53ee d021   250:      bne  .c
53f0 207255 251:      jsr  drive
53f3 200e62 252:      jsr  printsi
53f6 a0d3f5 253:      dc.b <+128>," Super Archiver 105
540b fc9bff 254:      dc.b "ü",$9B,$FF
540e 4c3955 255:      jmp  .done
5411      256: .c:
5411 c952   257:      cmp  #'R'
5413 d021   258:      bne  .d
5415 207255 259:      jsr  drive
5418 200e62 260:      jsr  printsi
541b a0d3f4 261:      dc.b <+128>," Standard 1050
5430 fc9bff 262:      dc.b "ü",$9B,$FF
5433 4c3955 263:      jmp  .done
5436      264: .d:
5436 c94e   265:      cmp  #'N'

```

```

5438 d021 266:      bne .e
543a 207255 267:     jsr drive
543d 200e62 268:     jsr printsi
5440 a0ceef 269:     dc.b <+128>," No Drive Present
5455 fc9bff 270:     dc.b "ü",$9B,$FF
5458 4c3955 271:     jmp .done
545b      272: ;
545b      273: .e:
545b c955 274:     cmp #'U'
545d d021 275:     bne .f
545f 207255 276:     jsr drive
5462 200e62 277:     jsr printsi
5465 a0d5ae 278:     dc.b <+128>," U.S. Doubler 1050
547a fc9bff 279:     dc.b "ü",$9B,$FF
547d 4c3955 280:     jmp .done
5480      281: .f:
5480 c958 282:     cmp #'X'
5482 d021 283:     bne .g
5484 207255 284:     jsr drive
5487 200e62 285:     jsr printsi
548a a0d8c6 286:     dc.b <+128>," XF-551 Atari Drive
549f fc9bff 287:     dc.b "ü",$9B,$FF
54a2 4c3955 288:     jmp .done
54a5      289: .g:
54a5 c931 290:     cmp #'l'
54a7 d021 291:     bne .h
54a9 207255 292:     jsr drive
54ac 200e62 293:     jsr printsi
54af a0cdc9 294:     dc.b <+128>," MIO Ram Disk
54c4 fc9bff 295:     dc.b "ü",$9B,$FF
54c7 4c3955 296:     jmp .done
54ca      297: .h:
54ca c932 298:     cmp #'2'
54cc d021 299:     bne .i
54ce 207255 300:     jsr drive
54d1 200e62 301:     jsr printsi
54d4 a0c8e1 302:     dc.b <+128>," Hard Disk Partitio
54e9 fc9bff 303:     dc.b "ü",$9B,$FF
54ec 4c3955 304:     jmp .done
54ef      305:
54ef      306: .i:
54ef c949 307:     cmp #'I'
54f1 d046 308:     bne .done
54f3 207255 309:     jsr drive
54f6 200e62 310:     jsr printsi
54f9      311: ;
54f9 a0c9cc 312:     dc.b <+128>," ILS Ram-Disk
550e fc9bff 313:     dc.b "ü",$9B,$FF
5511 4c3955 314:     jmp .done
5514      315: .j:
5514 c94a 316:     cmp #'J'
5516 d021 317:     bne .done
5518 207255 318:     jsr drive

```

```

551b 200e62 319:      jsr  printsi
551e      320: ;      dc.b  <+128>," Hard Disk Partitio
551e c1f4e1 321:      dc.b  <+128>,"Atari Emulator Atr
5533 fc9bff 322:      dc.b  "ü",$9B,$FF
5536 4c3955 323:      jmp   .done
5539      324:
5539      325:
5539      326:
5539      327: ;=====
5539      328: .done:
5539 eeca56 329:      inc   cur_drive+2
553c adca56 330:      lda   cur_drive+2
553f c90a 331:      cmp   #$09+1
5541 f003 332:      beq   tops
5543 4c9c53 333:      jmp   top_1
5546      334: ;
5546      335: ;
5546 200e62 336: tops:      jsr   printsi
5549 209a92 337:      dc.b  " §,,,,,,,,,,,,,,,,,,,,,
5570 60 338:      rts
5571 60 339:      rts
5572 200e62 340: drive:      jsr   printsi
5575 20fc 341:      dc.b  " ü"
5577 a0a0c4 342:      dc.b  <+128>," Drive D"
5580 ff 343:      dc.b  -1
5581 adca56 344:      lda   cur_drive+2
5584 692f 345:      adc   #$2f
5586 6980 346:      adc   #$80
5588 206462 347:      jsr   print
558b 200e62 348:      jsr   printsi
558e baa0a0 349:      dc.b  <+128>,": "
5591 ff 350:      dc.b  $FF
5592 60 351:      rts
5593      352: ;
5593 310062 353: duplicator:  dc.b  $31,0,98,1,0,0,0,0,0,0,0
559f 310048 354: happy:      dc.b  $31,0,72,0,0,0,0,0,0,0,0
55ab 310073 355: super_archiver:  dc.b  $31,0,115,0,0,0,0,0,0,0,2,0
55b7 310053 356: regular_dv:  dc.b  $31,0,83,1,0,0,0,0,0,0,2,0
55c3      357:
55c3 3100 358: us_doubler:  dc.b  $31,0
55c5 4e 359:      dc.b  "N" ;$4e
55c6 40 360:      dc.b  $40
55c7 cd56 361:      dc.w  table
55c9 00000c 362:      dc.b  0,0,$0c,0,0,1
55cf      363: ;
55cf 000000 364: mio_hold:   dc.b  0,0,0,0,0,0,0,0,0,0,0,0,0
55de      365:
55de      366:
55de      367:
55de 000000 368: config_1:   dc.b  0,0,0,0,0,0,0,0,0,0,0,0,0
55ee      369: ; MIO BUFFER SPACE
55ee 204346 370:      dc.b  " CFG TABLE"
55f8      371: m_buffer:   ds.b  193

```



```

56b9      372:
56b9      373:
56b9 20454e 374:          dc.b  " END"
56bd      375:
56bd      376:
56bd 000000 377: m_hold:          dc.b  $00,$00,$00
56c0      378:
56c0 00     379: mio_acc:        dc.b  0      ; accumulator
56c1 00     380: mio_y:          dc.b  0      ; Y register
56c2 00     381: mio_x:          dc.b  0      ; x register
56c3 00     382: mio_stack:      dc.b  0      ; hold the stack
56c4      383:
56c4      384:
56c4 00     385: pbi_device:     dc.b  0              ;0
56c5      386: ;
56c5 00     387: ape_interface:  dc.b  0              ; 0
56c6 00     388: dest_drv_ape:   dc.b  0              ; 1
56c7      389: ;
56c7      390: ;
56c7 00     391: SIO2USB_interface: dc.b  0              ; 0
56c8      392: ;-----
56c8      393: ;
56c8 000000 394: cur_drive:      dc.b  $00,$00,$00,$00,$00
56cd      395: ;
56cd 000000 396: table:          dc.b  0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
56e0      397: ;-----
56e0      398: ; this is the macros that load the acc with $300 to $30b
56e0      399: ;-----
56e0      400: ;
56e0      401: dup_loop:
56e0 a000    402:          ldy  #$00
56e2 b99355  403: .a:      lda  duplicator,y
56e5 990003  404:          sta  $0300,y
56e8 c8     405:          iny
56e9 c00c    406:          cpy  #$0c
56eb 30f5    407:          bmi  .a
56ed adc856  408:          lda  cur_drive
56f0 8d0103  409:          sta  $0301
56f3 200a5e  410:          jsr  XSIO
56f6 ad0303  411:          lda  $0303 ;771
56f9 c98a    412:          cmp  #138
56fb f012    413:          beq  no_d
56fd c98b    414:          cmp  #139
56ff f00b    415:          beq  no_understand
5701 a944    416:          lda  #'D'
5703 ac0103  417:          ldy  $0301
5706 99de55  418:          sta  config_1,y
5709 4c8c53  419:          jmp  next
570c      420: ;
570c      421: no_understand:
570c 4c6657  422:          jmp  super_loop
570f      423: no_d:
570f a94e    424:          lda  #'N'

```

```

5711 ac0103 425:      ldy  $0301
5714 99de55 426:      sta  config_1,y
5717 4c8c53 427:      jmp  next
571a      428: ;
571a      429: happy_loop:
571a a900 430:      lda  #$00
571c 8d885d 431:      sta  got_special
571f 20195b 432:      jsr  statdrv      ; make sure
5722 ad885d 433:      lda  got_special
5725 c9ff 434:      cmp  #$ff
5727 d003 435:      bne  atrnope
5729 4c8c53 436:      jmp  next
572c      437:
572c      438:
572c      439: atrnope:
572c a000 440:      ldy  #$00
572e b99f55 441: hloop:      lda  happy,y
5731 990003 442:      sta  $0300,y
5734 c8 443:      iny
5735 c00c 444:      cpy  #$0c
5737 30f5 445:      bmi  hloop
5739 adc856 446:      lda  cur_drive
573c 8d0103 447:      sta  $0301
573f 200a5e 448:      jsr  XSIO
5742 ad0303 449:      lda  $0303 ;771
5745 c98a 450:      cmp  #138
5747 f012 451:      beq  ho_d
5749 c98b 452:      cmp  #139
574b f00b 453:      beq  ho_understand
574d a948 454:      lda  #'H'
574f ac0103 455:      ldy  $0301
5752 99de55 456:      sta  config_1,y
5755 4c8c53 457:      jmp  next
5758      458: ;
5758      459: ho_understand:
5758 4ce056 460:      jmp  dup_loop
575b      461: ho_d:
575b a94e 462:      lda  #'N'
575d ac0103 463:      ldy  $0301
5760 99de55 464:      sta  config_1,y
5763 4c8c53 465:      jmp  next
5766      466: ;
5766      467: super_loop:
5766 a000 468:      ldy  #$00
5768 b9ab55 469: sloop:      lda  super_archiver,y
576b 990003 470:      sta  $0300,y
576e c8 471:      iny
576f c00c 472:      cpy  #$0c
5771 30f5 473:      bmi  sloop
5773 adc856 474:      lda  cur_drive
5776 8d0103 475:      sta  $0301
5779 200a5e 476:      jsr  XSIO
577c ad0303 477:      lda  $0303

```

```

577f c98a 478:      cmp    #138
5781 f012 479:      beq    so_d
5783 c98b 480:      cmp    #139
5785 f00b 481:      beq    so_understand
5787 a953 482:      lda    #'S'
5789 ac0103 483:      ldy    $0301
578c 99de55 484:      sta    config_1,y
578f 4c8c53 485:      jmp    next
5792      486: ;
5792      487: so_understand:
5792 4ca057 488:      jmp    u_loop
5795      489: ;
5795 a94e 490: so_d:      lda    #'N'
5797 ac0103 491:      ldy    $0301
579a 99de55 492:      sta    config_1,y
579d 4c8c53 493:      jmp    next
57a0      494: ;
57a0      495: u_loop:
57a0 a000 496:      ldy    #$00
57a2 b9c355 497: uloop:      lda    us_doubler,y
57a5 990003 498:      sta    $0300,y
57a8 c8 499:      iny
57a9 c00c 500:      cpy    #$0c
57ab 30f5 501:      bmi    uloop
57ad adc856 502:      lda    cur_drive
57b0 8d0103 503:      sta    $0301
57b3 200a5e 504:      jsr    XSIO
57b6      505:
57b6 ad0303 506:      lda    $0303
57b9 c901 507:      cmp    #$01
57bb d015 508:      bne    uo_d
57bd adce56 509:      lda    table+1
57c0 c901 510:      cmp    #$01
57c2 d00b 511:      bne    uo_understand
57c4 a955 512:      lda    #'U'
57c6 ac0103 513:      ldy    $0301
57c9 99de55 514:      sta    config_1,y
57cc 4c8c53 515:      jmp    next
57cf      516: ;
57cf      517: uo_understand:
57cf 4cdd57 518:      jmp    x_loop
57d2 a94e 519: uo_d:      lda    #'N'
57d4 ac0103 520:      ldy    $0301
57d7 99de55 521:      sta    config_1,y
57da 4c8c53 522:      jmp    next
57dd      523: x_loop:
57dd a901 524:      lda    #$01
57df cdd356 525:      cmp    table+6
57e2 d012 526:      bne    r_loop
57e4 a901 527:      lda    #$01
57e6 cdd556 528:      cmp    table+8
57e9 d00b 529:      bne    r_loop
57eb a958 530:      lda    #'X'

```

```

57ed ac0103 531:      ldy  $0301
57f0 99de55 532:      sta  config_1,y
57f3 4c8c53 533:      jmp  next
57f6      534: ;
57f6      535: r_loop:
57f6 a000 536:      ldy  #$00
57f8 b9b755 537: rloop:      lda  regular_dv,y
57fb 990003 538:      sta  $0300,y
57fe c8 539:      iny
57ff c00c 540:      cpy  #$0c
5801 30f5 541:      bmi  rloop
5803 adc856 542:      lda  cur_drive
5806 8d0103 543:      sta  $0301
5809 200a5e 544:      jsr  XSIO
580c ad0303 545:      lda  $0303 ;771
580f c98a 546:      cmp  #138
5811 f00f 547:      beq  ro_d
5813 c98b 548:      cmp  #139
5815 f016 549:      beq  ro_understand
5817 a952 550:      lda  #'R'
5819 ac0103 551:      ldy  $0301
581c 99de55 552:      sta  config_1,y
581f 4c8c53 553:      jmp  next
5822      554: ;
5822      555: ro_d:
5822 a953 556:      lda  #'S'
5824 ac0103 557:      ldy  $0301
5827 99de55 558:      sta  config_1,y
582a 4c8c53 559:      jmp  next
582d      560: ro_understand:
582d 4c8c53 561:      jmp  next
5830 60 562:      rts
5831      563:
5831      564:
5831      565:
5831      566:
5831      567:
5831      568:
5831      569: ;*****
5831      570: ;Going through MIO data set looking for Ramdisk Hard drive
5831      571: ;
5831      572: test_mio:
5831 ad0e56 573:      lda  m_buffer+22
5834 c940 574:      cmp  #$40
5836 d00a 575:      bne  t_2
5838 a931 576:      lda  #'1'
583a a001 577:      ldy  #$01
583c 99de55 578:      sta  config_1,y
583f 4c5058 579:      jmp  t_3
5842      580: t_2:
5842 ad0e56 581:      lda  m_buffer+22
5845 c980 582:      cmp  #$80
5847 d007 583:      bne  t_3

```

```

5849 a932 584:      lda  #'2'
584b a001 585:      ldy  #$01
584d 99de55 586:     sta  config_1,y
5850      587: ;-----
5850      588: t_3:
5850 ad1656 589:     lda  m_buffer+30
5853 c940 590:     cmp  #$40
5855 d00a 591:     bne  t_4
5857 a931 592:     lda  #'1'
5859 a002 593:     ldy  #$02
585b 99de55 594:     sta  config_1,y
585e 4c6f58 595:     jmp  t_5
5861      596: t_4:
5861 ad1656 597:     lda  m_buffer+30
5864 c980 598:     cmp  #$80
5866 d007 599:     bne  t_5
5868 a932 600:     lda  #'2'
586a a002 601:     ldy  #$02
586c 99de55 602:     sta  config_1,y
586f      603: ;-----
586f      604: t_5:
586f ad1e56 605:     lda  m_buffer+38
5872 c940 606:     cmp  #$40
5874 d00a 607:     bne  t_6
5876 a931 608:     lda  #'1'
5878 a003 609:     ldy  #$03
587a 99de55 610:     sta  config_1,y
587d 4c8e58 611:     jmp  t_7
5880      612: t_6:
5880 ad1e56 613:     lda  m_buffer+38
5883 c980 614:     cmp  #$80
5885 d007 615:     bne  t_7
5887 a932 616:     lda  #'2'
5889 a003 617:     ldy  #$03
588b 99de55 618:     sta  config_1,y
588e      619: ;-----
588e      620: t_7:
588e ad2656 621:     lda  m_buffer+46
5891 c940 622:     cmp  #$40
5893 d00a 623:     bne  t_8
5895 a931 624:     lda  #'1'
5897 a004 625:     ldy  #$04
5899 99de55 626:     sta  config_1,y
589c 4cad58 627:     jmp  t_9
589f      628: t_8:
589f ad2656 629:     lda  m_buffer+46
58a2 c980 630:     cmp  #$80
58a4 d007 631:     bne  t_9
58a6 a932 632:     lda  #'2'
58a8 a004 633:     ldy  #$04
58aa 99de55 634:     sta  config_1,y
58ad      635: ;-----
58ad      636: t_9:

```

```
58ad ad2e56 637:      lda  m_buffer+54
58b0 c940 638:      cmp  #$40
58b2 d00a 639:      bne  t_10
58b4 a931 640:      lda  #'1'
58b6 a005 641:      ldy  #$05
58b8 99de55 642:      sta  config_1,y
58bb 4ccc58 643:      jmp  t_11
58be      644: t_10:
58be ad2e56 645:      lda  m_buffer+54
58c1 c980 646:      cmp  #$80
58c3 d007 647:      bne  t_11
58c5 a932 648:      lda  #'2'
58c7 a005 649:      ldy  #$05
58c9 99de55 650:      sta  config_1,y
58cc      651: ;-----
58cc      652: ;-----
58cc      653: t_11:
58cc ad3656 654:      lda  m_buffer+62
58cf c940 655:      cmp  #$40
58d1 d00a 656:      bne  t_12
58d3 a931 657:      lda  #'1'
58d5 a006 658:      ldy  #$06
58d7 99de55 659:      sta  config_1,y
58da 4ceb58 660:      jmp  t_13
58dd      661: t_12:
58dd ad3656 662:      lda  m_buffer+62
58e0 c980 663:      cmp  #$80
58e2 d007 664:      bne  t_13
58e4 a932 665:      lda  #'2'
58e6 a006 666:      ldy  #$06
58e8 99de55 667:      sta  config_1,y
58eb      668: ;-----
58eb      669: ;-----
58eb      670: t_13:
58eb ad3e56 671:      lda  m_buffer+70
58ee c940 672:      cmp  #$40
58f0 d00a 673:      bne  t_14
58f2 a931 674:      lda  #'1'
58f4 a007 675:      ldy  #$07
58f6 99de55 676:      sta  config_1,y
58f9 4c0a59 677:      jmp  t_15
58fc      678: t_14:
58fc ad3e56 679:      lda  m_buffer+70
58ff c980 680:      cmp  #$80
5901 d007 681:      bne  t_15
5903 a932 682:      lda  #'2'
5905 a007 683:      ldy  #$07
5907 99de55 684:      sta  config_1,y
590a      685: ;-----
590a      686: ;-----
590a      687: t_15:
590a ad4656 688:      lda  m_buffer+78
590d c940 689:      cmp  #$40
```

```

590f d00a 690:      bne  t_16
5911 a931 691:      lda  #'1'
5913 a008 692:      ldy  #$08
5915 99de55 693:      sta  config_1,y
5918 4c2959 694:      jmp  t_17
591b      695: t_16:
591b ad4656 696:      lda  m_buffer+78
591e c980 697:      cmp  #$80
5920 d007 698:      bne  t_17
5922 a932 699:      lda  #'2'
5924 a008 700:      ldy  #$08
5926 99de55 701:      sta  config_1,y
5929      702: ;-----
5929 4c9c53 703: t_17:      jmp  top_1
592c 60    704:      rts
592d      705:
592d      706: ;
592d      707: ;
592d      708: ;
592d      709: ;-----
592d      710: ;   Check to see if we are running on an emulator
592d      711: ;
592d      712: pc_run:
592d a000 713:      ldy  #$00
592f b91a03 714: .a:      lda  $031a,y
5932 c948 715:      cmp  #'H' ; WAS THE EDITOR
5934 f008 716:      beq  .exit
5936 c8    717:      iny
5937 c8    718:      iny
5938 c8    719:      iny
5939 c024 720:      cpy  #36
593b d0f2 721:      bne  .a
593d 60    722:      rts
593e      723: ;
593e      724: .exit:
593e      725:
593e 200e62 726:      jsr  printsi
5941 20fc 727:      dc.b  "ü"
5943 a0a0c1 728:      dc.b  <+128>," Atari800win Emula
5965      729:
5965 fc9b 730:      dc.b  "ü",$9B
5967 ff    731:      dc.b  -1
5968      732:
5968 60    733:      RTS
5969      734: ;
5969      735:
5969      736:
5969      737:
5969      738: ;*****
5969      739: ; Checking on the black box if it is present!
5969      740: ;
5969      741: BLACK_BOX
5969 78    742:      SEI

```

```

596a a902 743:      LDa  #2
596c 8dc0d1 744:      STa  BB_Sensel
596f a010 745:      ldy  #$10
5971      746: .a
5971 a202 747:      ldx  #2
5973 b900d8 748:      LDa  bb_rom,Y
5976 ddc259 749:      cmp  .e,X
5979 f007 750:      beq  .b
597b c8 751:      INY
597c d0f3 752:      bne  .a
597e 4cba59 753:      jmp  .d
5981 60 754:      RTS
5982      755: ;
5982      756: .b
5982 c8 757:      INY
5983 ca 758:      DEX
5984 300a 759:      bmi  .c
5986 b900d8 760:      LDa  bb_rom,Y
5989 ddc259 761:      cmp  .e,X
598c d0e3 762:      bne  .a
598e f0f2 763:      beq  .b
5990      764: .c
5990 200e62 765:      jsr  printsi
5993 20fc 766:      dc.b  " ü"
5995 a0a0c2 767:      dc.b  <+128>," Black Box IS pres
59b7 fc9b 768:      dc.b  "ü",$9B
59b9 ff 769:      dc.b  -1
59ba      770: ;
59ba      771: .d
59ba d8 772:      CLD
59bb a900 773:      LDa  #0
59bd 8dc0d1 774:      STa  BB_Sensel
59c0 58 775:      CLI
59c1 60 776:      RTS
59c2      777: ;
59c2 d00829 778: .e      dc.b  $D0,$08,$29,$00
59c6      779: ;
59c6      780:
59c6      781: ;*****
59c6      782: ;
59c6      783: ;routine to check for the kpi
59c6      784: ;
59c6      785: kpi_test:
59c6 78 786:      sei
59c7 a928 787:      lda  #$28
59c9 8dffd1 788:      sta  PBIBANK      ;turn on ram a
59cc ad01d6 789:      lda  pbi_ram+1
59cf c943 790:      cmp  #'C'
59d1 d036 791:      bne  .no_kpi
59d3 ad07d6 792:      lda  pbi_ram+7
59d6 c94b 793:      cmp  #'K'      ;as in KProdu
59d8 d02f 794:      bne  .no_kpi      ;if it ain't
59da a900 795:      lda  #$00

```



```

59dc 8dff d1 796:          sta  $d1ff      ; added code f
59df          797:
59df 200e 62 798:          jsr  printsi
59e2 20fc 799:          dc.b  " ü"
59e4 a0a0 a0 800:          dc.b  <+128>,"  KPI is present
5a06 fc9b 801:          dc.b  "ü",$9B
5a08 ff 802:          dc.b  -1
5a09          803:
5a09          804:
5a09          805:
5a09          806: .no_kpi:
5a09 58 807:          cli
5a0a 60 808:          rts          ;or whicheve
5a0b          809: ;
5a0b          810: ;
5a0b          811: ;-----
5a0b          812: ; This Routen Tests for a MIO in system
5a0b          813: ;
5a0b          814: ;
5a0b          815: MIO_TEST:
5a0b 8dc0 56 816:          sta  mio_acc
5a0e 8cc1 56 817:          sty  mio_y
5a11 8ec2 56 818:          stx  mio_x
5a14 ba 819:          tsx
5a15 8ec3 56 820:          stx  mio_stack
5a18          821: ;          sei
5a18          822:
5a18 a514 823:          lda  $14
5a1a c514 824: .a:          cmp  $14
5a1c f0fc 825:          beq  .a
5a1e 38 826:          SEC
5a1f ade0 d1 827:          LDa  $d1e0
5a22 8dbd 56 828:          STa  M_HOLD
5a25 ade2 d1 829:          LDa  $d1e2
5a28 8dbe 56 830:          STa  M_HOLD+1
5a2b a900 831:          LDa  #$00
5a2d 8de0 d1 832:          STa  $d1e0
5a30 a920 833:          LDa  #$20
5a32 8de2 d1 834:          STa  $d1e2
5a35 a943 835:          LDa  #'C'
5a37 cd01 d6 836:          cmp  pbi_ram+1
5a3a d00a 837:          bne  .no_mio
5a3c cd0a d6 838:          cmp  pbi_ram+10
5a3f d005 839:          bne  .no_mio
5a41 a901 840:          lda  #$01
5a43 8dc4 56 841:          sta  pbi_device
5a46          842:
5a46          843: .no_mio:
5a46 a900 844:          lda  #$00      ; this rese
5a48 8de0 d1 845:          sta  $d1e0
5a4b 8de2 d1 846:          sta  $d1e2
5a4e          847: ;          CLI
5a4e          848:

```

```

5a4e adc056 849:      lda  mio_acc
5a51 acc156 850:      ldy  mio_y
5a54 aec256 851:      ldx  mio_x
5a57 aec356 852:      ldx  mio_stack
5a5a 9a 853:          txs
5a5b adc456 854:      lda  pbi_device
5a5e c900 855:      cmp  #$00
5a60 f049 856:      beq  .done
5a62 857:
5a62 200e62 858:      jsr  printsi
5a65 20fc 859:      dc.b " ü"
5a67 a0a0a0 860:      dc.b <+128>," ICD MIO Present
5a89 fc9b 861:      dc.b "ü",$9B
5a8b ff 862:      dc.b -1
5a8c 863: ;          sei
5a8c 864:
5a8c 865:
5a8c a900 866:      lda  #$00
5a8e 8de0d1 867:      sta  $d1e0
5a91 a920 868:      lda  #$20
5a93 8de2d1 869:      sta  $d1e2
5a96 a000 870:      ldy  #$00
5a98 871: .b:
5a98 b900d6 872:      lda  $d600,y
5a9b 99f855 873:      sta  m_buffer,y
5a9e c8 874:          iny
5a9f c0c1 875:      cpy  #193
5aa1 d0f5 876:      bne  .b
5aa3 a900 877:      lda  #$00
5aa5 8de0d1 878:      sta  $d1e0
5aa8 8de2d1 879:      sta  $d1e2
5aab 880: .done:
5aab 881: ;          cli
5aab adbd56 882:      lda  m_hold
5aae 8de0d1 883:      sta  $d1e0
5ab1 adbe56 884:      lda  m_hold+1
5ab4 8de2d1 885:      sta  $d1e2
5ab7 886:
5ab7 60 887:          rts
5ab8 888: ;*****
5ab8 889: ;Attempt to download time from SIO2USB.
5ab8 890: ;Which will tell me SIO2USB is present
5ab8 891: ;*****
5ab8 892:
5ab8 893: SIO2USB_test:
5ab8 20c95a 894:      jsr  ck_sio2usb
5abb 3006 895:      bmi  .a
5abd a9ff 896:      lda  #$ff
5abf 8dc756 897:      sta  SIO2USB_interface
5ac2 60 898:          rts
5ac3 899: .a:
5ac3 a900 900:      lda  #$00
5ac5 8dc756 901:      sta  SIO2USB_interface

```

```

5ac8 60 902:      rts
5ac9      903: ck_sio2usb:
5ac9 a20b 904:      ldx  #$0B
5acb bd0a5b 905: .a:      lda  .cmdtab,x
5ace 9d0003 906:      sta  $300,x
5ad1 ca 907:      dex
5ad2 10f7 908:      bpl  .a
5ad4 200a5e 909:      jsr  xsio
5ad7 ad0303 910:      lda  $303
5ada c901 911:      cmp  #$01
5adc f001 912:      beq  .got_it
5ade      913:
5ade 60 914:      rts
5adf      915: .got_it:
5adf 200e62 916:      jsr  printsi
5ae2 20fc 917:      dc.b  "ü"
5ae4      918: ;      dc.b  <+128>," AtariMax Ape I
5ae4 a0a0d3 919:      dc.b  <+128>," SIO2USB Interface
5b06 fc9b 920:      dc.b  "ü",$9B
5b08 ff 921:      dc.b  -1
5b09 60 922:      rts
5b0a      923:
5b0a      924: .cmdtab:
5b0a 71 925:      dc.b  $71
5b0b 00 926:      dc.b  $00
5b0c 02 927:      dc.b  $02
5b0d 40 928:      dc.b  $40
5b0e cd63 929:      dc.w  su2.buf
5b10 0700 930:      dc.w  7
5b12 8000 931:      dc.w  128
5b14 00 932:      dc.b  0
5b15 00 933:      dc.b  0
5b16 00 934:      dc.b  0
5b17 00 935:      dc.b  0
5b18 00 936:      dc.b  0
5b19      937:
5b19      938:
5b19      939:
5b19      940:
5b19      941: ;~~~~~
5b19      942: ;This is pulling percom config out of your drive
5b19      943: ;
5b19      944: ;
5b19      945: statdrv:
5b19 a931 946:      lda  #$31
5b1b 8d0003 947:      sta  $300
5b1e adc856 948:      lda  cur_drive
5b21 8d0103 949:      sta  $301
5b24 a94e 950:      lda  #'N'
5b26 8d0203 951:      sta  $0302
5b29 a940 952:      lda  #$40
5b2b 8d0303 953:      sta  $0303
5b2e a962 954:      lda  # low huh_data

```

```

5b30 8d0403 955:      sta  $0304
5b33 a95d 956:      lda  # high huh_data
5b35 8d0503 957:      sta  $0305
5b38 a90c 958:      lda  #$0c
5b3a 8d0803 959:      sta  $0308
5b3d a900 960:      lda  #$00
5b3f 8d0903 961:      sta  $0309
5b42 8d0a03 962:      sta  $030a
5b45 8d0b03 963:      sta  $030b
5b48 200a5e 964:      jsr  XSIO
5b4b ad0303 965:      lda  $0303
5b4e c901 966:      cmp  #$01
5b50 f001 967:      beq  .huh_1
5b52      968:
5b52 60 969:      rts
5b53      970: .huh_1:
5b53 a900 971:      lda  #$00
5b55 8dc656 972:      sta  dest_drv_ape
5b58      973:
5b58 ad7e5d 974:      lda  huh_data_d+9
5b5b c901 975:      cmp  #$01
5b5d d003 976:      bne  .e
5b5f 8dc656 977:      sta  dest_drv_ape
5b62      978: ;*****
5b62      979: ;Add code here to check for RamDisk
5b62      980: ;
5b62      981: .e:
5b62 ad7e5d 982:      lda  huh_data_d+9
5b65 c949 983:      cmp  #'I'
5b67 d01c 984:      bne  .f
5b69 ad7f5d 985:      lda  huh_data_d+10
5b6c c94c 986:      cmp  #'L'
5b6e d015 987:      bne  .f
5b70 ad805d 988:      lda  huh_data_d+11
5b73 c953 989:      cmp  #'S'
5b75 d00e 990:      bne  .f
5b77 a949 991:      lda  #'I'
5b79 ac0103 992:      ldy  $0301
5b7c 99de55 993:      sta  config_1,y
5b7f a9ff 994:      lda  #$ff
5b81 8d885d 995:      sta  got_special
5b84 60 996:      rts
5b85      997: .f:
5b85 ad7d5d 998:      lda  huh_data_d+8
5b88 c901 999:      cmp  #$01
5b8a d015 1000:      bne  .g
5b8c ad7e5d 1001:      lda  huh_data_d+9
5b8f c9c0 1002:      cmp  #$c0
5b91 d00e 1003:      bne  .g
5b93 a94a 1004:      lda  #'J'
5b95 ac0103 1005:      ldy  $0301
5b98 99de55 1006:      sta  config_1,y
5b9b a9ff 1007:      lda  #$ff

```

```

5b9d 8d885d 1008:          sta  got_special
5ba0      1009:
5ba0 60   1010:          rts
5ba1      1011:
5ba1      1012:
5ba1      1013:
5ba1      1014:
5ba1      1015: .g:
5ba1      1016: ;*****
5ba1      1017:
5ba1 ad1fd0 1018:          lda  consol
5ba4 c907   1019:          cmp  #$07
5ba6 d001   1020:          bne  .tam
5ba8 60   1021:          rts
5ba9      1022: .tam:
5ba9 200e62 1023:          jsr  printsi
5bac 202020 1024:          dc.b  "    Drive configuration
5bd7 ad625d 1025:          lda  huh_data
5bda 204b5d 1026:          jsr  sub_error
5bdd 200e62 1027:          jsr  printsi
5be0 6e756d 1028:          dc.b  "number of tracks",$9B,$FF
5bf2 ad635d 1029:          lda  huh_data+1
5bf5 204b5d 1030:          jsr  sub_error
5bf8 200e62 1031:          jsr  printsi
5bfb 537465 1032:          dc.b  "Step rate! normaly 1",$9B,
5c11 ad645d 1033:          lda  huh_data+2
5c14 204b5d 1034:          jsr  sub_error
5c17 200e62 1035:          jsr  printsi
5c1a 536563 1036:          dc.b  "Sector/Track high byte",$9
5c32 ad655d 1037:          lda  huh_data+3
5c35 204b5d 1038:          jsr  sub_error
5c38 200e62 1039:          jsr  printsi
5c3b 536563 1040:          dc.b  "Sector/Track LOW byte",$9B
5c52 ad665d 1041:          lda  huh_data+4
5c55 204b5d 1042:          jsr  sub_error
5c58 200e62 1043:          jsr  printsi
5c5b 4d6178 1044:          dc.b  "Max head number",$9B,$FF
5c6c ad675d 1045:          lda  huh_data+5
5c6f 204b5d 1046:          jsr  sub_error
5c72 200e62 1047:          jsr  printsi
5c75 44656e 1048:          dc.b  "Density -0=s, 4 double, 8
5c95 ad685d 1049:          lda  huh_data+6
5c98 204b5d 1050:          jsr  sub_error
5c9b 200e62 1051:          jsr  printsi
5c9e 427974 1052:          dc.b  "Byte/sector h byte 1=256 0
5cbe ad695d 1053:          lda  huh_data+7
5cc1 204b5d 1054:          jsr  sub_error
5cc4 200e62 1055:          jsr  printsi
5cc7 427974 1056:          dc.b  "Byte/sector l byte 0=256 1
5ce7 ad6a5d 1057:          lda  huh_data+8
5cea 204b5d 1058:          jsr  sub_error
5ced 200e62 1059:          jsr  printsi
5cf0 447269 1060:          dc.b  "Drive present flag -return

```

```

5d11 ad6b5d 1061:      lda   huh_data+9
5d14 204b5d 1062:      jsr   sub_error
5d17 200e62 1063:      jsr   printsi
5d1a 6e6f74 1064:      dc.b  "not used",$9B,$FF
5d24 ad6c5d 1065:      lda   huh_data+10
5d27 204b5d 1066:      jsr   sub_error
5d2a 200e62 1067:      jsr   printsi
5d2d 6e6f74 1068:      dc.b  "not used",$9B,$FF
5d37 ad6d5d 1069:      lda   huh_data+11
5d3a 204b5d 1070:      jsr   sub_error
5d3d 200e62 1071:      jsr   printsi
5d40 6e6f74 1072:      dc.b  "not used",$9B
5d49 ff     1073:      dc.b  $FF
5d4a 60     1074:      rts
5d4b      1075: sub_error:
5d4b 8d615d 1076:      sta   .dan_k
5d4e 200e62 1077:      jsr   printsi
5d51 2024ff 1078:      dc.b  " $",$FF
5d54 ad615d 1079:      lda   .dan_k
5d57 20895d 1080:      jsr   drive_error
5d5a 200e62 1081:      jsr   printsi
5d5d 2020ff 1082:      dc.b  " ",$FF
5d60 60     1083:      rts
5d61      1084: ;
5d61 00     1085: .dan_k:      dc.b  0
5d62 000000 1086: huh_data:      dc.b  0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
5d75 000000 1087: huh_data_d:      dc.b  0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
5d88      1088:
5d88 00     1089: got_special:      dc.b  0
5d89      1090:
5d89      1091: drive_error:
5d89 48     1092:      pha
5d8a 4a     1093:      lsr
5d8b 4a     1094:      lsr
5d8c 4a     1095:      lsr
5d8d 4a     1096:      lsr
5d8e 20945d 1097:      jsr   .a
5d91 68     1098:      pla
5d92 290f   1099:      and   #$0f
5d94 c90a   1100: .a:      cmp   #$0a
5d96 b004   1101:      bcs   .b
5d98 0930   1102:      ora   #$30
5d9a d002   1103:      bne   .c
5d9c 6936   1104: .b:      adc   #$36
5d9e 206462 1105: .c:      jsr   print
5da1 60     1106:      rts
5da2      1107: ;
5da2      1108: ;
5da2      1109:
5da2      1110:
5da2      1111:
5da2      1112: ;*****
5da2      1113: ;   Attempt to download time from APE.

```

```

5da2      1114: ; Which Tells me Ape Interface is Present
5da2      1115: ;*****
5da2      1116:
5da2      1117: Ape_test:
5da2      1118:
5da2 20b35d 1119:      jsr   ck_ape
5da5 3006 1120:      bmi   .a
5da7 a9ff 1121:      lda   #$ff
5da9 8dc556 1122:      sta   ape_interface
5dac 60 1123:      rts
5dad      1124:
5dad      1125: .a:
5dad a900 1126:      lda   #$00
5daf 8dc556 1127:      sta   ape_interface
5db2 60 1128:      rts
5db3      1129:
5db3      1130:
5db3      1131: ck_ape:
5db3      1132:
5db3 a20b 1133:      ldx   #$0B
5db5 bdf5d 1134: .a:      lda   cmdtab,x
5db8 9d0003 1135:      sta   $300,x
5dbb ca 1136:      dex
5dbc 10f7 1137:      bpl   .a
5dbe 200a5e 1138:      jsr   xsio
5dc1 ad0303 1139:      lda   $303
5dc4 c901 1140:      cmp   #$01
5dc6 f006 1141:      beq   got_ape
5dc8 a9ff 1142:      lda   #$ff
5dca 8dc556 1143:      sta   ape_interface
5dcd      1144:
5dcd 60 1145:      rts
5dce      1146: got_ape:
5dce      1147:
5dce 200e62 1148:      jsr   printsi
5dd1 20fc 1149:      dc.b  " ü"
5dd3 a0a0a0 1150:      dc.b  <+128>," AtariMax Ape I
5df5 fc9b 1151:      dc.b  "ü",$9B
5df7 ff 1152:      dc.b  -1
5df8 a900 1153:      lda   #$00
5dfa 8dc556 1154:      sta   ape_interface
5dfd 60 1155:      rts
5dfe      1156:
5dfe      1157: cmdtab:
5dfe 31 1158:      dc.b  $31
5dff 05 1159:      dc.b  $05
5e00 93 1160:      dc.b  $93      ;Remote con
5e01 40 1161:      dc.b  $40
5e02 0e60 1162:      dc.w  cmdtab2
5e04 00 1163:      dc.b  0
5e05 00 1164:      dc.b  0
5e06 0001 1165:      dc.w  256
5e08 f1 1166:      dc.b  $F1      ;f8  ;$f

```

```

5e09 00 1167:          dc.b  $00          ; Remote Co
5e0a      1168:
5e0a      1169:
5e0a      1170:
5e0a 4c59e4 1171: XSIO:          jmp  siov
5e0d 60 1172:          rts
5e0e      1173:
5e0e      1174:
5e0e      1175:
5e0e      1176:
5e0e      1177:
5e0e      1178: ape_version:      ds.b  512
600e      1179:
600e      1180: cmdtab2:          ds.b  512
620e      1181:
620e      1182:
620e      1183: ;
620e      1184: ;-----
620e      1185: ;prints! Routeen macro
620e      1186: ;this is a slow print to the screen
620e      1187: ;usage jsr  prints!
620e      1188: ; .byte $9b," string to be printed",$ff
620e      1189: ;-----
620e      1190: ;
620e      1191: prints!:
620e 68 1192:          pla
620f 8d1f62 1193:          sta  .pstr+1
6212 68 1194:          pla
6213 8d2062 1195:          sta  .pstr+2
6216 ee1f62 1196: .prsl:      inc  .pstr+1
6219 d003 1197:          bne  .pstr
621b ee2062 1198:          inc  .pstr+2
621e adffff 1199: .pstr:      lda  $ffff
6221 c9ff 1200:          cmp  #$ff
6223 f006 1201:          beq  .estri
6225 206462 1202:          jsr  fast_output
6228 4c1662 1203:          jmp  .prsl
622b ad2062 1204: .estri:      lda  .pstr+2
622e 48 1205:          pha
622f ad1f62 1206:          lda  .pstr+1
6232 48 1207:          pha
6233 60 1208:          rts
6234      1209: ;
6234      1210: ;
6234      1211:
6234      1212: ;
6234      1213: ;-----
6234      1214: ;actual screen handler
6234      1215: ;screen offset definitions
6234      1216: ;-----
6234      1217: scr_offset:
6234 0000 1218:          dc.w  0
6236 2800 1219:          dc.w  40

```



```

6238 5000 1220:      dc.w  80
623a 7800 1221:      dc.w 120
623c a000 1222:      dc.w 160
623e c800 1223:      dc.w 200
6240 f000 1224:      dc.w 240
6242 1801 1225:      dc.w 280
6244 4001 1226:      dc.w 320
6246 6801 1227:      dc.w 360
6248 9001 1228:      dc.w 400
624a b801 1229:      dc.w 440
624c e001 1230:      dc.w 480
624e 0802 1231:      dc.w 520
6250 3002 1232:      dc.w 560
6252 5802 1233:      dc.w 600
6254 8002 1234:      dc.w 640
6256 a802 1235:      dc.w 680
6258 d002 1236:      dc.w 720
625a f802 1237:      dc.w 760
625c 2003 1238:      dc.w 800
625e 4803 1239:      dc.w 840
6260 7003 1240:      dc.w 880
6262 9803 1241:      dc.w 920
6264      1242: ;
6264      1243: print:
6264      1244: fast_output:
6264 855a 1245:      sta  $5a
6266 ad0407 1246:      lda  sc.redirect
6269 c902 1247:      cmp  #print_p
626b f01f 1248:      beq  .go_cio
626d      1249: .leo:
626d adff02 1250:      lda  $02ff      ; CONTROL 1
6270 c900 1251:      cmp  #$00
6272 d0f9 1252:      bne  .leo
6274      1253:
6274 a55a 1254:      lda  $5a
6276 c920 1255:      cmp  #32
6278 9004 1256:      bcc  .do_look
627a c97d 1257:      cmp  #125
627c 9013 1258:      bcc  .do_here
627e a000 1259: .do_look:      ldy  #0
6280 b98763 1260: .lookup:      lda  .char_table,y
6283 f00c 1261:      beq  .do_here
6285 c55a 1262:      cmp  $5a
6287 f003 1263:      beq  .go_cio
6289 c8 1264:      iny
628a d0f4 1265:      bne  .lookup
628c      1266:
628c      1267:
628c a55a 1268: .go_cio:      lda  $5a
628e 4c9763 1269:      jmp  putlocal
6291      1270:
6291      1271:
6291 a000 1272: .do_here:      ldy  #0

```

```

6293 a55d 1273:      lda  $5d
6295 915e 1274:      sta  ($5e),y
6297 a55a 1275:      lda  $5a
6299 c99b 1276:      cmp  #$9b
629b f044 1277:      beq  .docr
629d 206663 1278: .notcr:      jsr  .get_adr
62a0 a55a 1279:      lda  $5a
62a2 297f 1280:      and  #$7f
62a4 c920 1281:      cmp  #32
62a6 9007 1282:      bcc  .add64
62a8 c960 1283:      cmp  #96
62aa 9009 1284:      bcc  .sub32
62ac 4cb862 1285:      jmp  .asis
62af 18 1286: .add64:      clc
62b0 6940 1287:      adc  #64
62b2 4cb862 1288:      jmp  .asis
62b5 38 1289: .sub32:      sec
62b6 e920 1290:      sbc  #32
62b8 245a 1291: .asis:      bit  $5a
62ba 1002 1292:      bpl  .xxlate
62bc 0980 1293:      ora  #$80
62be a000 1294: .xxlate:      ldy  #0
62c0 915e 1295:      sta  ($5e),y
62c2 e655 1296:      inc  $55
62c4 e663 1297:      inc  $63
62c6 a555 1298:      lda  $55
62c8 c928 1299:      cmp  #40
62ca b019 1300:      bcs  .next_row
62cc c8 1301:      iny
62cd b15e 1302:      lda  ($5e),y
62cf 855d 1303:      sta  $5d
62d1 0980 1304:      ora  #$80
62d3 aef002 1305:      ldx  752
62d6 d002 1306:      bne  .nocurs1
62d8 915e 1307:      sta  ($5e),y
62da e65e 1308: .nocurs1:      inc  $5e
62dc d002 1309:      bne  .nooav
62de e65f 1310:      inc  $5e+1
62e0 60 1311: .nooav:      rts
62e1 a900 1312: .docr:      lda  #0
62e3 8563 1313:      sta  $63
62e5 a552 1314: .next_row:      lda  $52
62e7 8555 1315:      sta  $55
62e9 e654 1316:      inc  $54
62eb a454 1317:      ldy  $54
62ed c018 1318:      cpy  #24
62ef b013 1319:      bcs  .scroll
62f1 206663 1320:      jsr  .get_adr
62f4 a000 1321:      ldy  #0
62f6 b15e 1322:      lda  ($5e),y
62f8 855d 1323:      sta  $5d
62fa aef002 1324:      ldx  752
62fd d004 1325:      bne  .nocurs2

```

```

62ff 0980 1326:      ora  #$80
6301 915e 1327:      sta  ($5e),y
6303 60 1328: .nocurs2:      rts
6304      1329:
6304 c654 1330: .scroll:      dec  $54
6306 a558 1331:      lda  $58
6308 8568 1332:      sta  $68
630a 18 1333:      clc
630b 6928 1334:      adc  #40
630d 855e 1335:      sta  $5e
630f a559 1336:      lda  $58+1
6311 8569 1337:      sta  $68+1
6313 6900 1338:      adc  #0
6315 855f 1339:      sta  $5e+1
6317 a000 1340:      ldy  #0
6319 a203 1341:      ldx  #3
631b b15e 1342: .sloop:      lda  ($5e),y
631d 9168 1343:      sta  ($68),y
631f c8 1344:      iny
6320 d0f9 1345:      bne  .sloop
6322 e65f 1346:      inc  $5e+1
6324 e669 1347:      inc  $68+1
6326 ca 1348:      dex
6327 d0f2 1349:      bne  .sloop
6329 b15e 1350: .sloop2:      lda  ($5e),y
632b 9168 1351:      sta  ($68),y
632d c8 1352:      iny
632e c098 1353:      cpy  #152
6330 90f7 1354:      bcc  .sloop2
6332 a558 1355:      lda  $58
6334 18 1356:      clc
6335 6998 1357:      adc  #920&$ff
6337 855e 1358:      sta  $5e
6339 a559 1359:      lda  $58+1
633b 6903 1360:      adc  #920/256
633d 855f 1361:      sta  $5e+1
633f a000 1362:      ldy  #0
6341 98 1363:      tya
6342 915e 1364: .clear:      sta  ($5e),y
6344 c8 1365:      iny
6345 c028 1366:      cpy  #40
6347 90f9 1367:      bcc  .clear
6349 aef002 1368:      ldx  752
634c d006 1369:      bne  .nocurs3
634e a980 1370:      lda  #$80
6350 a455 1371:      ldy  $55
6352 915e 1372:      sta  ($5e),y
6354 a900 1373: .nocurs3:      lda  #0
6356 855d 1374:      sta  $5d
6358 a55e 1375:      lda  $5e
635a 18 1376:      clc
635b 6555 1377:      adc  $55
635d 855e 1378:      sta  $5e

```

```

635f a55f 1379:      lda  $5e+1
6361 6900 1380:      adc  #0
6363 855f 1381:      sta  $5e+1
6365 60    1382:      rts
6366 a554 1383: .get_adr:      lda  $54
6368 0a    1384:      asl
6369 a8    1385:      tay
636a a558 1386:      lda  $58
636c 18    1387:      clc
636d 793462 1388:      adc  scr_offset,y
6370 855e 1389:      sta  $5e
6372 a559 1390:      lda  $58+1
6374 793562 1391:      adc  scr_offset+1,y
6377 855f 1392:      sta  $5e+1
6379 a55e 1393:      lda  $5e
637b 18    1394:      clc
637c 6555 1395:      adc  $55
637e 855e 1396:      sta  $5e
6380 a55f 1397:      lda  $5e+1
6382 6900 1398:      adc  #0
6384 855f 1399:      sta  $5e+1
6386 60    1400:      rts
6387      1401: .char_table:
6387 1b1c1d 1402:      dc.b 27,28,29,30,31,125,126,127
638f 9c9d9e 1403:      dc.b 156,157,158,159,253,254,255
6397      1404:
6397      1405:
6397      1406: putlocal:
6397 a20b 1407:      ldx  #11
6399 8e4203 1408:      stx  $0342
639c a200 1409:      ldx  #0
639e 8e4803 1410:      stx  $0348
63a1 8e4903 1411:      stx  $0349
63a4 4c56e4 1412:      jmp  $e456
63a7      1413: ;
63a7      1414:
63a7      1415:
63a7      1416:
63a7      1417: ;
63a7      1418: ;
63a7 86b6 1419: .getkey:      stx  $b6
63a9 84b7 1420:      sty  $b7
63ab 20c463 1421:      jsr  .a
63ae c99b 1422:      cmp  #$9b
63b0 f00d 1423:      beq  .b
63b2 c97e 1424:      cmp  #$7e
63b4 f009 1425:      beq  .b
63b6 297f 1426:      and  #$7f
63b8 c961 1427:      cmp  #$61
63ba 9003 1428:      bcc  .b
63bc 38    1429:      sec
63bd e920 1430:      sbc  #$20
63bf a6b6 1431: .b:      ldx  $b6

```

```
63c1 a4b7 1432:          ldy  $b7
63c3 60   1433:          rts
63c4      1434:
63c4 ad25e4 1435: .a:          lda  $e420+5
63c7 48   1436:          pha
63c8 ad24e4 1437:          lda  $e420+4
63cb 48   1438:          pha
63cc 60   1439:          rts
63cd      1440:
63cd      1441:
63cd      1442: ;-----
63cd      1443: su2.buf:      ds.b  128
644d      1444: ;-----
644d      1445:
644d      1446:
644d      1447: WIN_END:      ds.b  0
644d      1448: ;
644d      1449: ;
```

End assembly: no errors