RSC-FORTH V1.6? mit Decompiler

VLIST

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  F8A DECOMPLIST     F53 ADUMP          EF2 CFIND          EC2 VLI
  E8B DLI            C93 DECOMPILE      C5F DOCOL.DSP      C28 CONST.DSP
  BE9 VAR.DSP        B9F USERV.DSP      B6D BRANCH.DSP     AE2 WORD.DSP
  AB5 PDOTQ.DSP      A87 N.             A5E HLESS.DSP      A4C DOES.ADR
  A3B CLIT.ADR       A2A PSCODE.ADR     A17 VAR.ADR        A07 USERV.ADR
  9F5 CONST.ADR      9E3 PDOTQ.ADR      9D1 PLOOP.ADR      9BF BRANCH.ADR
  9AC 0BRANCH.ADR    998 DOCOL.ADR      986 LIT.ADR        976 LOOP.ADR
  943 ENDCASE        91C ENDOF          8F1 OF             8DC CASE
  8AD NDIS           888 DIS            866 DISASS         7FE DISASSEMBLE
  7CC #.DSP          7B4 BIT-ADRESSING.DSP   791 Z.PAGE,Y.DSP   772 INDIRECT.DSP

  759 RELATIVE.DSP   73D ABS.Y.DSP      724 ABS.X.DSP      709 Z.PAGE,X.DSP
  6E8 (IND),Y.DSP    6C8 (IND,X).DSP    6AF IMPLIED.DSP    692 ACCUM.DSP
  67A ZERO-PAGE.DSP   65E ABSOLUTE.DSP   63F IMMEDIATE.DSP   60B DBYTE.DSP
  5E7 BYTE.DSP       590 OPCODE.DSP     54F OFFSET.DSP     53C DOCOL.FLAG
  529 WORD.PTR       518 QUIT.FLAG      506 ADRESS.CTR     4F3 (BLOCK)
  4CA HEX>ASCII      4B6 SEI            4A8 CLI            487 ASCII>HEX
  45D HEX?           440 ZIFFER?        42A OFF            416 ON
  40B TASK          D846 ADMP          D807 ;DUMP         D7CF FORMAT
 D67E FMTRK         D674 BANKEXECUTE   D664 BANKEEC!      D657 BANKC@
 D64C BANKC!        D641 EEC!          D61E CASE:         D5FD MEMTOP
 D5ED SCDR          D5DF SCSR          D5D1 SCCR          D5C3 MCR
 D5B6 IER           D5A9 IFR           D59C PG            D590 PF
 D584 PE            D578 PD            D56C PC            D560 PB
 D554 PA            D548 NMIVEC        D538 IRQVEC        D528 INTVEC
 D518 INTFLG        D4EF C,CON         D4AC .S            D49F MON
 D45B VLIST         D3EC INDEX         D3A0 LIST          D397 ?
 D391 .             D38B .R            D384 D.            D37D D.R
 D375 #S            D36E #             D368 SIGN          D35F #>
 D358 <#            D351 SPACES        D33E WHILE         D31A ELSE
 D301 IF            D2E8 REPEAT        D2CF AGAIN         D2BF END
 D2A9 UNTIL         D291 +LOOP         D279 LOOP          D264 DO
 D257 THEN          D23A ENDIF         D226 BEGIN         D185 FORGET
 D149 AUTOSTART     D110 ?KERNEL       D0BC HWORD         D086 H/C
 D06E '             D068 SEEK          D05F INIT          D056 DWRITE
 D04B DREAD         D041 SELECT        D036 DISK          D023 R/W
 D017 B/SCR         D009 B/BUF         CFED -BCD          CFC9 -->
 CF99 LOAD          CF40 MESSAGE       CF0F >LINE         CEFB .LINE
 CED7 (LINE)        CE94 DUMP          CE69 FLUSH         CE09 BLOCK
 CDBF BUFFER        CD9A EMPTY-BUFFERS  CD72 UPDATE        CD41 +BUF
 CD38 M/MOD         CD2E */            CD27 */MOD         CD1D MOD
 CD15 /             CD0F /MOD          CD06 *             CD00 M/
 CCF9 M*            CCF2 MAX           CCEA MIN           CCE2 DABS
 CCD9 ABS           CCD1 D+-           CCC9 +-            CCC2 S->D
 CCB9 COLD          CC4C ABORT         CC1D QUIT          CC0B (
 CBF9 DEFINITIONS   CBE1 ASSEMBLER     CBC9 FORTH         CB97 VOCABULARY
 CB7D IMMEDIATE     CB2D INTERPRET     CB02 ?STACK        CAE5 DLITERAL
 CAB2 LITERAL       CA94 [COMPILE]     C9F1 CREATE        C9C8 ID.
 C98B ERROR         C977 (ABORT)       C949 -FIND         C8F1 NUMBER
 C8E6 (NUMBER)      C894 WORD          C88B HOLD          C882 BLANKS
 C877 ERASE         C86D FILL          C846              C840 QUERY
 C836 EXPECT        C804 ."            C7FD (.")          C7F4 -TRAILING
 C7E6 TYPE          C7DD COUNT         C7C1 DOES>         C7AF <BUILDS
 C795 ;CODE         C77D (;CODE)       C771 DECIMAL       C765 HEX
 C753 SMUDGE        C73D ]             C72D [             C715 COMPILE
 C6F8 ?CSP          C6E4 ?PAIRS        C6CC ?EXEC         C6B3 ?COMP
 C69B ?ERROR        C686 !CSP          C670 PFAPTR        C656 NFA
 C646 CFA           C63C LFA           C62A LATEST        C604 TRAVERSE
 C5F7 -DUP          C5EE SPACE         C5E4 PICK          C5DB ROT
 C5D3 >             C5CD <             C5C7 U<            C5C0 =
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C5BA -            C5A8 C,           C595 ,            C587 ALLOT
C575 HERE         C560 ,/           C551 ALLOT/       C53E HERE/
C524 DP/          C51C 2-           C515 1-           C50E 2+
C507 1+           C500 PAD          C4F0 LIMIT        C4DE FIRST
C4D4 C/L          C4C9 KHZ          C4BE MODE         C4B2 CSP
C4A7 STATE        C49A CURRENT      C48B CONTEXT      C47C SCR
C471 BLK          C466 PREV         C45A USE          C44F UABORT
C43B VOC-LINK     C42B HEADERLESS   C419 DP           C40F FENCE
C402 WARNING      C3F3 WIDTH        C3E6 OFFSET       C3D8 ULIMIT
C3CA UFIRST       C3BC B/SIDE       C3AE CYLINDER     C39E DISKNO
C393 HLD          C38B DPL          C383 IN           C37C CLD/WRM
C370 BASE         C367 UR/W         C35E UPAD         C355 UC/L
C34C R0           C345 S0           C33E TIB          C336 BL
C32F 4            C329 3            C323 2            C31D 1
C317 0            C303 USER         C2EC CODE         C2D9 VARIABLE
C2BE CONSTANT     C2A3 ;            C285 :            C26F C!
C268 !            C262 C@           C25B @            C255 TOGGLE
C24A +!           C243 BOUNDS       C238 2DUP         C22F DUP
C227 SWAP         C21E 2DROP        C214 DROP         C20B OVER
C202 DNEGATE      C1F6 NEGATE       C1EB D+           C1E4 +
C1DE 0<           C1D5 NOT          C1CD 0=           C1C6 R
C1C0 R>           C1B9 >R           C1B2 LEAVE        C1A8 ;S
C1A1 RP@          C199 RP!          C191 SP!          C189 SP@
C181 XOR          C179 OR           C172 AND          C16A U/
C163 U*           C15C CMOVE        C145 FINIS        C0F9 SOURCE
C0E6 XOFF         C0D5 XON          C0CD CR           C0C6 ?TERMINAL
C0B8 KEY          C0B0 EMIT         C0A7 ENCLOSE      C09B (FIND)
C090 DIGIT        C084 I            C07E (DO)         C075 (+LOOP)
C069 (LOOP)       C05E 0BRANCH      C052 BRANCH       C047 EXECUTE
C03B CLIT         C032 LIT         OK


DECOMPLIST


TASK

DFF9  :
DFFB  ;S



ADMP

D848  :
D84A  CR
D84C  1
D84E  >R
D850  2DUP
D852  1+
D854  SWAP
D856  -
D858  -DUP
D85A  Branch if zero to D87B
D85E  24  ( 18 H )
D861  MIN
D863  >R
D865  OVER
D867  R
D869  ;DUMP
D86B  SWAP
D86D  R>
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D86F  +
D871  SWAP
D873  R>
D875  1+
D877  Branch to D84E
D87B  R>
D87D  Print text: ;
D881  0
D883  D89B Headerless

 D89D LDA  0,X   D89F JSR D8A5   D8A2 JMP F508   D8A5 PHA        D8A6 LSR .A
 D8A7 LSR .A     D8A8 LSR .A     D8A9 LSR .A     D8AA JSR D8BE   D8AD PLA
 D8AE PHA        D8AF CLC        D8B0 ADC 0352   D8B3 STA 0352   D8B6 BCC D8BB
 D8B8 INC 0353   D8BB PLA        D8BC AND # F    D8BE CLC        D8BF ADC #30
 D8C1 CMP #3A    D8C3 BCC D8C7   D8C5 ADC # 6    D8C7 JMP F5EC   D8CA EOR 5220
 D8CD EOR 41     D8CF ???
D885  DUP
D887  D891 Headerless

 D893 LDA  1,X   D895 JSR D8A5   D898 JMP D89D   D89B STA B5D8,X D89E BRK
 D89F JSR D8A5   D8A2 JMP F508   D8A5 PHA        D8A6 LSR .A     D8A7 LSR .A
 D8A8 LSR .A     D8A9 LSR .A     D8AA JSR D8BE   D8AD PLA        D8AE PHA
 D8AF CLC        D8B0 ADC 0352   D8B3 STA 0352   D8B6 BCC D8BB   D8B8 INC 0353
 D8BB PLA        D8BC AND # F    D8BE CLC        D8BF ADC #30    D8C1 CMP #3A
 D8C3 BCC D8C7   D8C5 ADC # 6    D8C7 JMP F5EC   D8CA EOR 5220   D8CD EOR 41
 D8CF ???
D889  D891 Headerless

 D893 LDA  1,X   D895 JSR D8A5   D898 JMP D89D   D89B STA B5D8,X D89E BRK
 D89F JSR D8A5   D8A2 JMP F508   D8A5 PHA        D8A6 LSR .A     D8A7 LSR .A
 D8A8 LSR .A     D8A9 LSR .A     D8AA JSR D8BE   D8AD PLA        D8AE PHA
 D8AF CLC        D8B0 ADC 0352   D8B3 STA 0352   D8B6 BCC D8BB   D8B8 INC 0353
 D8BB PLA        D8BC AND # F    D8BE CLC        D8BF ADC #30    D8C1 CMP #3A
 D8C3 BCC D8C7   D8C5 ADC # 6    D8C7 JMP F5EC   D8CA EOR 5220   D8CD EOR 41
 D8CF ???
D88B  CR
D88D  2DROP
D88F  ;S



;DUMP

D809  :
D80B  Print text: ;
D80F  KHZ
D811  @
D813  >R
D815  0
D817  KHZ
D819  !
D81B  2DUP
D81D  D89B Headerless

 D89D LDA  0,X   D89F JSR D8A5   D8A2 JMP F508   D8A5 PHA        D8A6 LSR .A
 D8A7 LSR .A     D8A8 LSR .A     D8A9 LSR .A     D8AA JSR D8BE   D8AD PLA
 D8AE PHA        D8AF CLC        D8B0 ADC 0352   D8B3 STA 0352   D8B6 BCC D8BB
 D8B8 INC 0353   D8BB PLA        D8BC AND # F    D8BE CLC        D8BF ADC #30
 D8C1 CMP #3A    D8C3 BCC D8C7   D8C5 ADC # 6    D8C7 JMP F5EC   D8CA EOR 5220
 D8CD EOR 41     D8CF ???
D81F  D891 Headerless

 D893 LDA  1,X   D895 JSR D8A5   D898 JMP D89D   D89B STA B5D8,X D89E BRK
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 D89F JSR D8A5   D8A2 JMP F508   D8A5 PHA        D8A6 LSR .A     D8A7 LSR .A
 D8A8 LSR .A     D8A9 LSR .A     D8AA JSR D8BE   D8AD PLA        D8AE PHA
 D8AF CLC        D8B0 ADC 0352   D8B3 STA 0352   D8B6 BCC D8BB   D8B8 INC 0353
 D8BB PLA        D8BC AND # F    D8BE CLC        D8BF ADC #30    D8C1 CMP #3A
 D8C3 BCC D8C7   D8C5 ADC # 6    D8C7 JMP F5EC   D8CA EOR 5220   D8CD EOR 41
 D8CF ???
D821  BOUNDS
D823  (DO)
D825  R
D827  C@
D829  D89B Headerless

 D89D LDA  0,X   D89F JSR D8A5   D8A2 JMP F508   D8A5 PHA        D8A6 LSR .A
 D8A7 LSR .A     D8A8 LSR .A     D8A9 LSR .A     D8AA JSR D8BE   D8AD PLA
 D8AE PHA        D8AF CLC        D8B0 ADC 0352   D8B3 STA 0352   D8B6 BCC D8BB
 D8B8 INC 0353   D8BB PLA        D8BC AND # F    D8BE CLC        D8BF ADC #30
 D8C1 CMP #3A    D8C3 BCC D8C7   D8C5 ADC # 6    D8C7 JMP F5EC   D8CA EOR 5220
 D8CD EOR 41     D8CF ???
D82B  Loop to D825
D82F  KHZ
D831  @
D833  D891 Headerless

 D893 LDA  1,X   D895 JSR D8A5   D898 JMP D89D   D89B STA B5D8,X D89E BRK
 D89F JSR D8A5   D8A2 JMP F508   D8A5 PHA        D8A6 LSR .A     D8A7 LSR .A
 D8A8 LSR .A     D8A9 LSR .A     D8AA JSR D8BE   D8AD PLA        D8AE PHA
 D8AF CLC        D8B0 ADC 0352   D8B3 STA 0352   D8B6 BCC D8BB   D8B8 INC 0353
 D8BB PLA        D8BC AND # F    D8BE CLC        D8BF ADC #30    D8C1 CMP #3A
 D8C3 BCC D8C7   D8C5 ADC # 6    D8C7 JMP F5EC   D8CA EOR 5220   D8CD EOR 41
 D8CF ???
D835  CR
D837  R>
D839  KHZ
D83B  !
D83D  ;S


FORMAT

D7D1  :
D7D3  2
D7D5  *
D7D7  SWAP
D7D9  0
D7DB  (DO)
D7DD  DUP
D7DF  1+
D7E1  SELECT
D7E3  R
D7E5  SEEK
D7E7  1
D7E9  R
D7EB  FMTRK
D7ED  DUP
D7EF  SELECT
D7F1  0
D7F3  R
D7F5  FMTRK
D7F7  Loop to D7DD
D7FB  DROP
D7FD  ;S
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FMTRK <primitive>

 D682 TXA         D683 PHA         D684 LDA # 2     D686 JSR F460    D689 LDA #F4
 D68B LDY # 1     D68D STA 710C    D690 LDX #31     D692 LDA #4E     D694 BIT 7112
 D697 BVS D694    D699 STA 710F    D69C DEX         D69D BNE D694    D69F BIT 7112
 D6A2 BVS D69F    D6A4 STA 710F    D6A7 LDX # B     D6A9 LDA # 0     D6AB BIT 7112
 D6AE BVS D6AB    D6B0 STA 710F    D6B3 DEX         D6B4 BNE D6AB    D6B6 BIT 7112
 D6B9 BVS D6B6    D6BB STA 710F    D6BE LDX # 2     D6C0 LDA #F5     D6C2 BIT 7112
 D6C5 BVS D6C2    D6C7 STA 710F    D6CA DEX         D6CB BNE D6C2    D6CD BIT 7112
 D6D0 BVS D6CD    D6D2 STA 710F    D6D5 LDA #FE     D6D7 BIT 7112    D6DA BVS D6D7
 D6DC STA 710F    D6DF LDA 51      D6E1 BIT 7112    D6E4 BVS D6E1    D6E6 STA 710F
 D6E9 LDA 53      D6EB BIT 7112    D6EE BVS D6EB    D6F0 STA 710F    D6F3 BIT 7112
 D6F6 BVS D6F3    D6F8 STY 710F    D6FB LDA # 1     D6FD BIT 7112    D700 BVS D6FD
 D702 STA 710F    D705 LDA #F7     D707 BIT 7112    D70A BVS D707    D70C STA 710F
 D70F LDX #15     D711 LDA #4E     D713 BIT 7112    D716 BVS D713    D718 STA 710F
 D71B DEX         D71C BNE D713    D71E BIT 7112    D721 BVS D71E    D723 STA 710F
 D726 LDX # B     D728 LDA # 0     D72A BIT 7112    D72D BVS D72A    D72F STA 710F
 D732 DEX         D733 BNE D72A    D735 BIT 7112    D738 BVS D735    D73A STA 710F
 D73D LDX # 2     D73F LDA #F5     D741 BIT 7112    D744 BVS D741    D746 STA 710F
 D749 DEX         D74A BNE D741    D74C BIT 7112    D74F BVS D74C    D751 STA 710F
 D754 LDX #FF     D756 LDA #FB     D758 BIT 7112    D75B BVS D758    D75D STA 710F
 D760 LDA #20     D762 BIT 7112    D765 BVS D762    D767 STA 710F    D76A DEX
 D76B BNE D762    D76D BIT 7112    D770 BVS D76D    D772 STA 710F    D775 LDA #F7
 D777 BIT 7112    D77A BVS D777    D77C STA 710F    D77F LDX #35     D781 LDA #4E
 D783 BIT 7112    D786 BVS D783    D788 STA 710F    D78B DEX         D78C BNE D783
 D78E BIT 7112    D791 BVS D78E    D793 STA 710F    D796 INY         D797 CPY #11
 D799 BEQ D7B2    D79B BIT 7112    D79E BVS D79B    D7A0 STX 710F    D7A3 LDX # 9
 D7A5 LDA # 0     D7A7 BIT 7112    D7AA BVS D7A7    D7AC STA 710F    D7AF JMP D6AB
 D7B2 LDY #4E     D7B4 BIT 7112    D7B7 BVS D7B4    D7B9 BPL D7C1    D7BB STY 710F
 D7BE JMP D7B4    D7C1 PLA         D7C2 TAX         D7C3 JMP F506    D7C6 STX 46
 D7C8 BR4 52,4D   D7CB EOR (D4,X)  D7CD ROR D6,X    D7CF ???


BANKEXECUTE

FF5A  :
FF5C  FF2E Headerless

 FF30 LDA  1      FF32 PHA         FF33 LDA  0,X    FF35 STA  1      FF37 JMP F508
 FF3A ???
FF5E  EXECUTE
FF60  FF3A Headerless

 FF3C PLA         FF3D STA  1      FF3F JMP F719    FF42 ???
FF62   ;C


BANKEEC!

FF52  :
FF54  FF2E Headerless

 FF30 LDA  1      FF32 PHA         FF33 LDA  0,X    FF35 STA  1      FF37 JMP F508
 FF3A ???
FF56  EEC!
FF58  FF3A Headerless

 FF3C PLA         FF3D STA  1      FF3F JMP F719    FF42 ???
FF5A  ;C
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BANKC@

FF4A  :
FF4C  FF2E Headerless

 FF30 LDA  1     FF32 PHA        FF33 LDA  0,X   FF35 STA  1     FF37 JMP F508
 FF3A ???
FF4E  C@
FF50  FF3A Headerless

 FF3C PLA        FF3D STA  1     FF3F JMP F719   FF42 ???
FF52  ;C


BANKC!

FF42  :
FF44  FF2E Headerless

 FF30 LDA  1     FF32 PHA        FF33 LDA  0,X   FF35 STA  1     FF37 JMP F508
 FF3A ???
FF46  C!
FF48  FF3A Headerless

 FF3C PLA        FF3D STA  1     FF3F JMP F719   FF42 ???
FF4A  ;C


EEC! <primitive>

 FEF6 LDY # 4    FEF8 LDA  3,X   FEFA ROR .A     FEFB ROR  2,X   FEFD DEY
 FEFE BNE FEFA   FF00 LDY  2,X   FF02 STY  3     FF04 ROR .A     FF05 ROR .A
 FF06 PHP        FF07 LSR .A     FF08 PLP        FF09 ROR .A     FF0A SEC
 FF0B ROR .A     FF0C STA  2     FF0E LDA #60    FF10 NOP        FF11 NOP
 FF12 LDA  4,X   FF14 RM7  2     FF16 STA  3     FF18 LDA  0,X   FF1A STA 1C
 FF1C LDA  1,X   FF1E STA 1E     FF20 BR5 11,FD  FF23 SM5  2     FF25 LDA #E0
 FF27 NOP        FF28 NOP        FF29 INX        FF2A INX        FF2B JMP F506
 FF2E BMI FF2F   FF30 LDA  1     FF32 PHA        FF33 LDA  0,X   FF35 STA  1
 FF37 JMP F508   FF3A ???


CASE:

D620  :
D622  <BUILDS
D624  SMUDGE
D626  !CSP
D628  ]
D62A  -121  ( FF87 H )
D62E  HERE
D630  2-
D632  !
D634  -1595  ( F9C5 H )
D638  C271 Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
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 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D63A   ;C


MEMTOP

D600  :
D602  DUP
D604  ULIMIT
D606  !
D608  2056  ( 808 H )
D60C  -
D60E  UFIRST
D610  !
D612  EMPTY-BUFFERS
D614  ;S


SCDR

D5EF  DOES> - word
D5F1  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D5F3   ;C


SCSR

D5E1  DOES> - word
D5E3  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D5E5  C416 Headerless

 07D0 SM0 FF     07D2 EOR ( 6,X) 07D4 RTS        07D5 ASL 7C     07D7 ASL 94
 07D9 ASL B1     07DB ASL CA     07DD ASL EA     07DF ASL  B     07E1 RM0 26
 07E3 RM0 3F     07E5 RM0 5B     07E7 RM0 74     07E9 RM0 93     07EB RM0 B6
 07ED RM0 17     07EF SM7 8B     07F1 ???
D5E7   ;C


SCCR

D5D3  DOES> - word
D5D5  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D5D7  C415 Headerless

 D044 ???
D5D9   ;C
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MCR

D5C5  DOES> - word
D5C7  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D5C9  C414 Headerless

 4482 PHA        4483 EOR D8     4485 LSR  4,X   4487 ???
D5CB   ;C



IER

D5B8  DOES> - word
D5BA  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D5BC  C312 Headerless

 81C2 BS7 FF,FF  81C5 BS7 FF,FF  81C8 BS7 FF,FF  81CB BS7 FF,FF  81CE BS7 FF,FF



IFR

D5AB  DOES> - word
D5AD  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D5AF  C311 Headerless

 C271 ???
D5B1   ;C



PG

D59E  DOES> - word
D5A0  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D5A2  C306 Headerless

 F3F8 BS7 FF,FF  F3FB BS7 FF,FF  F3FE BS7 FF,80  F401 ???
D5A4   ;C



PF

D592  DOES> - word
D594  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
```

```
D596  C205 Headerless

 564F BRK        5650 BS7 FF,FF  5653 BS7 FF,FF  5656 BS7 FF, 0  5659 BRK
 565A BRK        565B RTI        565C BRK        565D BRK        565E BRK
 565F BRK        5660 BS7 FF,FF  5663 BS7 FF,FF  5666 BS7 FF,10  5669 BRK
 566A BRK        566B BRK        566C RTI        566D BRK        566E BRK
 566F PHP        5670 INC FF5F,X 5673 BS3 FA,FF  5676 BS7 CF,40  5679 BRK
 567A BRK        567B ???
D598  C750 Headerless

 39C5 BRK        39C6 BRK        39C7 BRK        39C8 BS7 FF,FF  39CB BS7 FF,FF
 39CE BS7 FF, 0  39D1 BRK        39D2 BRK        39D3 BRK        39D4 BRK
 39D5 BRK        39D6 BRK        39D7 BRK        39D8 BS7 FF,FF  39DB BS7 FF,FF
 39DE BS7 FF, 0  39E1 BRK        39E2 BRK        39E3 BRK        39E4 BRK
 39E5 BRK        39E6 BRK        39E7 BRK        39E8 BS7 FF,FF  39EB BS7 FF,FF
 39EE BS7 FF, 0  39F1 BRK        39F2 BRK        39F3 BRK        39F4 BRK
 39F5 BRK        39F6 BRK        39F7 BRK        39F8 SBC 99,X   39FA ???

D59A  D58B Headerless

 50C2 BS7 FF,FF  50C5 BS7 FF,FF  50C8 BCC 50DF   50CA BVC 510D   50CC BVC 50D5
 50CE BRK        50CF ???
D59C  D5A0 Headerless

 D4FB ???
D59E



PE

D586  DOES> - word
D588  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D58A  C204 Headerless

 4F84 JMP 5349   4F87 ???
D58C  C650 Headerless

 4E83 RM1 F7     4E85 ???
D58E  D57F Headerless

 50C2 BS7 FF,FF  50C5 BS7 FF,FF  50C8 BCC 50DF   50CA BVC 510D   50CC BVC 50D5
 50CE BRK        50CF ???
D590  D594 Headerless

 D4FB ???
D592



PD

D57A  DOES> - word
D57C  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D57E  C203 Headerless

 84F7 BS7 FF,FF  84FA BS7 FF,FF  84FD BS7 FF,FF  8500 BS7 FF,FF  8503 BS7 FF,FF
```

```
PC

D56E  DOES> - word
D570  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D572  C202 Headerless

 F7B7 SEC        F7B8 TYA        F7B9 SBC  2,X   F7BB STA  2,X   F7BD TYA
 F7BE SBC  3,X   F7C0 STA  3,X   F7C2 JMP F7A8   F7C5 SM4 F7     F7C7 LDA  2,X
 F7C9 PHA        F7CA LDA  3,X   F7CC JMP F421   F7CF PHP        F7D0 SBC  6,X
 F7D2 SBC D5,X   F7D4 SM7 B5     F7D6 ???
D574  C450 Headerless

 A0C4 BS7 FF,FF  A0C7 BS7 FF,FF  A0CA BS7 FF,FF  A0CD BS7 FF,FF  A0D0 BS7 FF,FF


PB

D562  DOES> - word
D564  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D566  C201 Headerless

 B7C1 BS7 FF,FF  B7C4 BS7 FF,FF  B7C7 BS7 FF,FF  B7CA BS7 FF,FF  B7CD BS7 FF,FF



PA

D556  DOES> - word
D558  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D55A  C200 Headerless

 C1ED STX 4E     C1EF EOR 47     C1F1 EOR (54,X) C1F3 CMP E6     C1F5 CMP (A7,X)
 C1F7 SM7 87     C1F9 ???
D55C  C250 Headerless

 4C47 ???
D55E  D54F Headerless

 50C2 BS7 FF,FF  50C5 BS7 FF,FF  50C8 BCC 50DF   50CA BVC 510D   50CC BVC 50D5
 50CE BRK        50CF ???
D560  D564 Headerless

 D4FB ???
D562


NMIVEC
```

```
D54A  DOES> - word
D54C  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D54E  C242 Headerless

 05C2 SED        05C3 SBC F7     05C5 CLI        05C6 ???
D550  C150 Headerless

 F480 STY F4     F482 LDX 59     F484 CLC        F485 LDA (4E),Y F487 ADC 4E
 F489 PHA        F48A INY        F48B LDA (4E),Y F48D ADC 4F     F48F STA 4F
 F491 PLA        F492 STA 4E     F494 JMP F428   F497 STA E8F4,Y F49A INX
 F49B LDA FE,X   F49D ORA FF,X   F49F BEQ F484   F4A1 CLC        F4A2 LDA 4E
 F4A4 ADC # 2    F4A6 STA 4E     F4A8 BCC F4AC   F4AA INC 4F     F4AC JMP F428
 F4AF LDA (F4),Y F4B1 STX 59     F4B3 TSX        F4B4 INC  1,X   F4B6 BNE F4BA
 F4B8 INC  2,X   F4BA CLC        F4BB LDA  3,X   F4BD SBC  1,X   F4BF LDA  4,X
 F4C1 SBC  2,X   F4C3 BPL F482   F4C5 BVS F482   F4C7 INX        F4C8 INX
 F4C9 INX        F4CA INX        F4CB TXS        F4CC LDX 59     F4CE BVC F4A1
 F4D0 ???
D552  D53F Headerless

 4EC6 STA 3BC4   4EC9 SED        4ECA ???
D554  D558 Headerless

 D4FB ???
D556



IRQVEC

D53A  DOES> - word
D53C  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D53E  C65B Headerless

 03F4 BRK        03F5 BRK        03F6 BRK        03F7 BRK        03F8 BS7 FF,FF
 03FB BS7 FF,FF  03FE BS7 FF,F7  0401 BS4 FF,CF  0404 STY 54     0406 EOR (53,X)
 0408 ???
D540   ;C



INTVEC

D52A  DOES> - word
D52C  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D52E  C65B Headerless

 03F4 BRK        03F5 BRK        03F6 BRK        03F7 BRK        03F8 BS7 FF,FF
 03FB BS7 FF,FF  03FE BS7 FF,F7  0401 BS4 FF,CF  0404 STY 54     0406 EOR (53,X)
 0408 ???
D530   ;C



INTFLG
```

```
D51A  DOES> - word
D51C  D4FB Headerless

 F84B EOR A1F8   F84E BRK        F84F STA  0,X   F851 LDY # 0    F853 STY  1,X
 F855 JMP F428   F858 ???
D51E  C64A Headerless

 F83B AND A1F8,X F83E BRK        F83F PHA        F840 INC  0,X   F842 BNE F846
 F844 INC  1,X   F846 LDA ( 0,X) F848 JMP F423   F84B EOR A1F8   F84E BRK
 F84F STA  0,X   F851 LDY # 0    F853 STY  1,X   F855 JMP F428   F858 ???

D520   ;C



C,CON

D4F1  :
D4F3  <BUILDS
D4F5  C,
D4F7  IMMEDIATE
D4F9  DOES>
D4FB  C@
D4FD  STATE
D4FF  @
D501  Branch if zero to D50D
D505  -2984  ( F458 H )
D509  ,
D50B  C,
D50D  ;S



.S

D4AE  :
D4B0  S0
D4B2  @
D4B4  SP@
D4B6  -
D4B8  2
D4BA  /
D4BC  DUP
D4BE  1
D4C0  >
D4C2  Branch if zero to D4D8
D4C6  1
D4C8  (DO)
D4CA  I
D4CC  PICK
D4CE  CR
D4D0  .
D4D2  Loop to D4CA
D4D6  ;S



MON

D4A1  :
D4A3  FFCA Headerless
```

```
 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D4A5  ;S



VLIST

D45D  :
D45F  BASE
D461  @
D463  HEX
D465  CR
D467  CONTEXT
D469  @
D46B  @
D46D  D42E Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D46F  D41A Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D471  Branch if zero to D491
D475  D42E Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D477  D41A Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D479  Branch if zero to D491
D47D  D42E Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
```

```
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D47F  D41A Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D481  Branch if zero to D491
D485  D42E Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D487  CR
D489  D41A Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D48B  0=
D48D  Branch if zero to D46D
D491  DROP
D493  BASE
D495  !
D497  ;S


INDEX

D3EE  :
D3F0  CR
D3F2  1+
D3F4  SWAP
D3F6  (DO)
D3F8  CR
D3FA  I
D3FC  3
D3FE  .R
D400  SPACE
D402  0
D404  I
D406  .LINE
D408  ?TERMINAL
D40A  Branch if zero to D410
D40E  LEAVE
D410  Loop to D3F8
D414  Print text:
```

```
D418  ;S


LIST

D3A2  :
D3A4  BASE
D3A6  @
D3A8  SWAP
D3AA  DECIMAL
D3AC  CR
D3AE  DUP
D3B0  SCR
D3B2  !
D3B4  Print text: SCR #
D3BD  .
D3BF  16  ( 10 H )
D3C2  0
D3C4  (DO)
D3C6  CR
D3C8  I
D3CA  3
D3CC  .R
D3CE  SPACE
D3D0  I
D3D2  SCR
D3D4  @
D3D6  .LINE
D3D8  Loop to D3C6
D3DC  BASE
D3DE  !
D3E0  CR
D3E2  ;S


?

FEEC  :
FEEE  @
FEF0  .
FEF2  ;S


.

FEE4  :
FEE6  S->D
FEE8  D.
FEEA  ;S


.R

FED8  :
FEDA  >R
FEDC  S->D
FEDE  R>
FEE0  D.R
```

```
FEE2  ;S


D.

FECE  :
FED0  0
FED2  D.R
FED4  SPACE
FED6  ;S


D.R

FEB0  :
FEB2  >R
FEB4  SWAP
FEB6  OVER
FEB8  DABS
FEBA  <#
FEBC  #S
FEBE  SIGN
FEC0  #>
FEC2  R>
FEC4  OVER
FEC6  -
FEC8  SPACES
FECA  TYPE
FECC  ;S


#S

FEA0  :
FEA2  #
FEA4  2DUP
FEA6  OR
FEA8  0=
FEAA  Branch if zero to FEA2
FEAE  ;S


#

FE7D  :
FE7F  BASE
FE81  @
FE83  M/MOD
FE85  ROT
FE87  9  ( 9 H )
FE8A  OVER
FE8C  <
FE8E  Branch if zero to FE97
FE92  7  ( 7 H )
FE95  +
FE97  48  ( 30 H )
FE9A  +
FE9C  HOLD
FE9E  ;S
```

```
SIGN

FE6C  :
FE6E  ROT
FE70  0<
FE72  Branch if zero to FE7B
FE76  45  ( 2D H )
FE79  HOLD
FE7B  ;S


#>

FE5C  :
FE5E  2DROP
FE60  HLD
FE62  @
FE64  PAD
FE66  OVER
FE68  -
FE6A  ;S


<#

FE52  :
FE54  PAD
FE56  HLD
FE58  !
FE5A  ;S


SPACES

FE3A  :
FE3C  0
FE3E  MAX
FE40  -DUP
FE42  Branch if zero to FE50
FE46  0
FE48  (DO)
FE4A  SPACE
FE4C  Loop to FE4A
FE50  ;S


WHILE

D340  :
D342  IF
D344  2+
D346  ;S


ELSE
```

```
D31C  :
D31E  2
D320  ?PAIRS
D322  COMPILE
D324  Branch to 989D
D328  0
D32A  ,
D32C  SWAP
D32E  2
D330  ENDIF
D332  2
D334  ;S


IF

D303  :
D305  COMPILE
D307  Branch if zero to 9880
D30B  0
D30D  ,
D30F  2
D311  ;S


REPEAT

D2EA  :
D2EC  >R
D2EE  >R
D2F0  AGAIN
D2F2  R>
D2F4  R>
D2F6  2-
D2F8  ENDIF
D2FA  ;S


AGAIN

D2D1  :
D2D3  1
D2D5  ?PAIRS
D2D7  COMPILE
D2D9  Branch to A4EF
D2DD  ;S


END

D2C1  :
D2C3  UNTIL
D2C5  ;S


UNTIL
```

```
D2AB  :
D2AD  1
D2AF  ?PAIRS
D2B1  COMPILE
D2B3  Branch if zero to A4C9
D2B7  ;S
```

+LOOP

```
D293  :
D295  3
D297  ?PAIRS
D299  COMPILE
D29B  (+LOOP)
D29D  D214 Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D29F  ;S
```

LOOP

```
D27B  :
D27D  3
D27F  ?PAIRS
D281  COMPILE
D283  Loop to A499
D287  ;S
```

DO

```
D266  :
D268  COMPILE
D26A  (DO)
D26C  HERE
D26E  3
D270  ;S
```

THEN

```
D259  :
D25B  ENDIF
D25D  ;S
```

ENDIF

```
D23C  :
D23E  ?COMP
```

```
D240  2
D242  ?PAIRS
D244  HERE
D246  OVER
D248  -
D24A  SWAP
D24C  !
D24E  ;S


BEGIN

D228  :
D22A  ?COMP
D22C  HERE
D22E  1
D230  ;S


FORGET

D187  :
D189  '
D18B  NFA
D18D  DUP
D18F  D1FE Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D191  SWAP
D193  FENCE
D195  @
D197  U<
D199  OR
D19B  21  ( 15 H )
D19E  ?ERROR
D1A0  >R
D1A2  VOC-LINK
D1A4  @
D1A6  R
D1A8  OVER
D1AA  U<
D1AC  Branch if zero to D1C0
D1B0  FORTH
D1B2  DEFINITIONS
D1B4  @
D1B6  DUP
D1B8  VOC-LINK
D1BA  !
D1BC  Branch to D1A6
D1C0  DUP
D1C2  4
D1C4  -
D1C6  PFAPTR
D1C8  LFA
D1CA  @
```

```
D1CC  DUP
D1CE  D1FE Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
D1D0  SWAP
D1D2  R
D1D4  U<
D1D6  OR
D1D8  Branch if zero to D1C6
D1DC  OVER
D1DE  2-
D1E0  !
D1E2  @
D1E4  -DUP
D1E6  0=
D1E8  Branch if zero to D1C0
D1EC  R>
D1EE  DUP
D1F0  PFAPTR
D1F2  CFA
D1F4  DP
D1F6  !
D1F8  DP/
D1FA  !
D1FC  ;S


AUTOSTART

D14B  :
D14D  '
D14F  @
D151  DUP
D153  -14262  ( C84A H )
D157  =
D159  Branch if zero to D16C
D15D  Print text: NAME ERROR
D16A  QUIT
D16C  OVER
D16E  2+
D170  !
D172  -23206  ( A55A H )
D176  SWAP
D178  !
D17A  ;S


?KERNEL

D112  :
D114  '
D116  CFA
D118  -3072  ( F400 H )
D11C  U<
D11E  Branch if zero to D131
```

```
D122  Print text: OUTSIDE
D12D  Branch to D13B
D131  Print text: INSIDE
D13B  ;S


HWORD

D0BE  :
D0C0  HEADERLESS
D0C2  @
D0C4  Branch if zero to D104
D0C8  LATEST
D0CA  PFAPTR
D0CC  CFA
D0CE  DUP
D0D0  @
D0D2  OVER
D0D4  2+
D0D6  =
D0D8  Branch if zero to D0E4
D0DC  HERE/
D0DE  2+
D0E0  OVER
D0E2  !
D0E4  HERE
D0E6  OVER
D0E8  DUP
D0EA  DP
D0EC  !
D0EE  -
D0F0  HERE/
D0F2  2+
D0F4  HERE/
D0F6  2-
D0F8  !
D0FA  HERE/
D0FC  SWAP
D0FE  DUP
D100  ALLOT/
D102  CMOVE
D104  ;S


H/C

D088  :
D08A  1
D08C  HEADERLESS
D08E  !
D090  DUP
D092  DP/
D094  !
D096  CR
D098  Print text: HEADS/
D0A1  .
D0A3  CR
D0A5  Print text: CODES/
D0AE  HERE
D0B0  .
D0B2  ;S
```

```
'

D070  :
D072  -FIND
D074  0=
D076  0
D078  ?ERROR
D07A  DROP
D07C  LITERAL
D07E  ;S


SEEK <primitive>

 FE13 LDY 0316   FE16 LDA 0318,Y FE19 CMP #50    FE1B BCC FE24   FE1D LDA # 3
 FE1F JSR FDAA   FE22 LDA # 0    FE24 STA 710D   FE27 LDA  0,X   FE29 STA 710F
 FE2C LDY 0316   FE2F STA 0318,Y FE32 LDA #13    FE34 JSR FDAA   FE37 JMP F508
 FE3A ???


INIT <primitive>

 FDF3 LDA 710C   FDF6 LDA #FF    FDF8 LDY # 3    FDFA STA 0318,Y FDFD DEY
 FDFE BPL FDFA   FE00 JMP F428   FE03 NOP        FE04 NOP        FE05 TAY
 FE06 LDA # 0    FE08 ROL .A     FE09 ORA FE0D,Y FE0C RTS        FE0D ???


DWRITE <primitive>

 FDC0 JSR FD74   FDC3 JSR FD7F   FDC6 LDA #B0    FDC8 JSR FDB5   FDCB JSR FDD9
 FDCE AND #FD    FDD0 BEQ FDD6   FDD2 DEC 54     FDD4 BNE FDC3   FDD6 JMP FD6F
 FDD9 BIT 7112   FDDC BVS FDD9   FDDE BPL FDAD   FDE0 LDA (51),Y FDE2 STA 710F
 FDE5 INY        FDE6 BNE FDD9   FDE8 INC 52     FDEA DEC 53     FDEC BNE FDD9
 FDEE JMP FD90   FDF1 ???


DREAD <primitive>

 FD59 JSR FD74   FD5C JSR FD7F   FD5F LDA #90    FD61 JSR FDB5   FD64 JSR FD93
 FD67 AND #BF    FD69 BEQ FD6F   FD6B DEC 54     FD6D BNE FD5C   FD6F INX
 FD70 INX        FD71 JMP F84F   FD74 ASL  0,X   FD76 ASL  0,X   FD78 INC  0,X
 FD7A LDA # 5    FD7C STA 54     FD7E RTS        FD7F LDA # 4    FD81 STA 53
 FD83 LDA  2,X   FD85 STA 51     FD87 LDA  3,X   FD89 STA 52     FD8B LDA  0,X
 FD8D STA 710E   FD90 JMP FDA8   FD93 BIT 7112   FD96 BVS FD93   FD98 BPL FDAD
 FD9A LDA 710F   FD9D STA (51),Y FD9F INY        FDA0 BNE FD93   FDA2 INC 52
 FDA4 DEC 53     FDA6 BNE FD93   FDA8 LDA #D4    FDAA JSR FDB5   FDAD LDA 710C
 FDB0 LSR .A     FDB1 BCS FDAD   FDB3 ROL .A     FDB4 RTS        FDB5 STA 710C
 FDB8 LDY # 8    FDBA DEY        FDBB BNE FDBA   FDBD RTS        FDBE CPY #FD
 FDC0 JSR FD74   FDC3 JSR FD7F   FDC6 LDA #B0    FDC8 JSR FDB5   FDCB JSR FDD9
 FDCE AND #FD    FDD0 BEQ FDD6   FDD2 DEC 54     FDD4 BNE FDC3   FDD6 JMP FD6F
 FDD9 BIT 7112   FDDC BVS FDD9   FDDE BPL FDAD   FDE0 LDA (51),Y FDE2 STA 710F
 FDE5 INY        FDE6 BNE FDD9   FDE8 INC 52     FDEA DEC 53     FDEC BNE FDD9
 FDEE JMP FD90   FDF1 ???


SELECT <primitive>

 FD45 LDA  0,X   FD47 LSR .A     FD48 STA 0316   FD4B STY 0317   FD4E JSR FE05
```

```
 FD51 STA 7112   FD54 JMP F508   FD57 EOR 20FD,Y FD5A ???


DISK

FD08  :
FD0A  SWAP
FD0C  796  ( 31C H )
FD10  @
FD12  /MOD
FD14  FF93 Headerless

 FF95 LDA #20    FF97 BIT 7112   FF9A BEQ FFA8   FF9C STA 7112   FF9F STY 5D
 FFA1 DEC 5D     FFA3 BNE FFA1   FFA5 DEY        FFA6 BNE FFA1   FFA8 JSR FDA8
 FFAB JMP FD45   FFAE LDA # 0    FFB0 STA 7112   FFB3 JMP F601   FFB6 ???

FD16  4
FD18  /MOD
FD1A  SEEK
FD1C  SWAP
FD1E  Branch if zero to FD28
FD22  DREAD
FD24  Branch to FD2A
FD28  DWRITE
FD2A  -DUP
FD2C  Branch if zero to FD41
FD30  Print text: DISK ERROR #
FD3F  .
FD41  ;S



R/W

D025  :
D027  UR/W
D029  @
D02B  EXECUTE
D02D  ;S



B/SCR

D019  Constant, value = 1  ( 1 H )



B/BUF

D00B  Constant, value = 1024  ( 400 H )



-BCD

CFEF  :
CFF1  0
CFF3  10  ( A H )
CFF6  U/
CFF8  16  ( 10 H )
CFFB  *
CFFD  OR
```

```
CFFF  ;S



-->

CFCB  :
CFCD  BLK
CFCF  @
CFD1  0=
CFD3  22  ( 16 H )
CFD6  ?ERROR
CFD8  0
CFDA  IN
CFDC  !
CFDE  1
CFE0  BLK
CFE2  +!
CFE4  ;S



LOAD

CF9B  :
CF9D  BLK
CF9F  @
CFA1  >R
CFA3  IN
CFA5  @
CFA7  >R
CFA9  0
CFAB  IN
CFAD  !
CFAF  BLK
CFB1  !
CFB3  INTERPRET
CFB5  R>
CFB7  IN
CFB9  !
CFBB  R>
CFBD  BLK
CFBF  !
CFC1  ;S



MESSAGE

CF42  :
CF44  -DUP
CF46  Branch if zero to CF5C
CF4A  WARNING
CF4C  @
CF4E  Branch if zero to CF5E
CF52  4
CF54  OFFSET
CF56  @
CF58  -
CF5A  .LINE
CF5C  ;S
```

```
>LINE

CF11  :
CF13  SCR
CF15  @
CF17  (LINE)
CF19  OVER
CF1B  SWAP
CF1D  BLANKS
CF1F  0
CF21  WORD
CF23  HERE
CF25  COUNT
CF27  64  ( 40 H )
CF2A  MIN
CF2C  ROT
CF2E  SWAP
CF30  CMOVE
CF32  UPDATE
CF34  ;S


.LINE

CEFD  :
CEFF  (LINE)
CF01  -TRAILING
CF03  TYPE
CF05  ;S


(LINE)

CED9  :
CEDB  >R
CEDD  64  ( 40 H )
CEE0  1024  ( 400 H )
CEE4  */MOD
CEE6  R>
CEE8  +
CEEA  BLOCK
CEEC  +
CEEE  64  ( 40 H )
CEF1  ;S


DUMP

CE96  :
CE98  0
CE9A  (DO)
CE9C  CR
CE9E  DUP
CEA0  0
CEA2  5  ( 5 H )
CEA5  D.R
CEA7  SPACE
CEA9  16  ( 10 H )
CEAC  SWAP
```

```
CEAE  OVER
CEB0  0
CEB2  (DO)
CEB4  DUP
CEB6  C@
CEB8  3
CEBA  .R
CEBC  1+
CEBE  Loop to CEB4
CEC2  SWAP
CEC4  (+LOOP)
CEC6  FFD6 Headerless

 AFFA BS7 FF,FF  AFFD BS7 FF,FF  B000 BS7 FF,FF  B003 BS7 FF,FF  B006 BS7 FF,FF



FLUSH

CE6B  :
CE6D  LIMIT
CE6F  FIRST
CE71  -
CE73  1028  ( 404 H )
CE77  /
CE79  1+
CE7B  0
CE7D  (DO)
CE7F  32767  ( 7FFF H )
CE83  BUFFER
CE85  DROP
CE87  Loop to CE7F
CE8B  ;S



BLOCK

CE0B  :
CE0D  OFFSET
CE0F  @
CE11  +
CE13  >R
CE15  PREV
CE17  @
CE19  DUP
CE1B  @
CE1D  R
CE1F  -
CE21  DUP
CE23  +
CE25  Branch if zero to CE59
CE29  +BUF
CE2B  0=
CE2D  Branch if zero to CE41
CE31  DROP
CE33  R
CE35  BUFFER
CE37  DUP
CE39  R
CE3B  1
CE3D  R/W
```

```
CE3F  2-
CE41  DUP
CE43  @
CE45  R
CE47  -
CE49  DUP
CE4B  +
CE4D  0=
CE4F  Branch if zero to CE29
CE53  DUP
CE55  PREV
CE57  !
CE59  R>
CE5B  DROP
CE5D  2+
CE5F  ;S


BUFFER

CDC1  :
CDC3  USE
CDC5  @
CDC7  DUP
CDC9  >R
CDCB  +BUF
CDCD  Branch if zero to CDCB
CDD1  USE
CDD3  !
CDD5  R
CDD7  @
CDD9  0<
CDDB  Branch if zero to CDF1
CDDF  R
CDE1  2+
CDE3  R
CDE5  @
CDE7  32767  ( 7FFF H )
CDEB  AND
CDED  0
CDEF  R/W
CDF1  R
CDF3  !
CDF5  R
CDF7  PREV
CDF9  !
CDFB  R>
CDFD  2+
CDFF  ;S


EMPTY-BUFFERS

CD9C  :
CD9E  FIRST
CDA0  LIMIT
CDA2  OVER
CDA4  -
CDA6  ERASE
CDA8  FIRST
CDAA  DUP
```

```
CDAC  USE
CDAE  !
CDB0  PREV
CDB2  !
CDB4  ;S


UPDATE

CD74  :
CD76  PREV
CD78  @
CD7A  @
CD7C  -32768  ( 8000 H )
CD80  OR
CD82  PREV
CD84  @
CD86  !
CD88  ;S


+BUF

CD43  :
CD45  1028  ( 404 H )
CD49  +
CD4B  LIMIT
CD4D  1028  ( 404 H )
CD51  -
CD53  OVER
CD55  U<
CD57  Branch if zero to CD5F
CD5B  DROP
CD5D  FIRST
CD5F  DUP
CD61  PREV
CD63  @
CD65  -
CD67  ;S


M/MOD

FCF2  :
FCF4  >R
FCF6  0
FCF8  R
FCFA  U/
FCFC  R>
FCFE  SWAP
FD00  >R
FD02  U/
FD04  R>
FD06  ;S


*/

FCE8  :
```

```
FCEA  */MOD
FCEC  SWAP
FCEE  DROP
FCF0  ;S


*/MOD

FCDC  :
FCDE  >R
FCE0  M*
FCE2  R>
FCE4  M/
FCE6  ;S


MOD

FCD4  :
FCD6  /MOD
FCD8  DROP
FCDA  ;S


/

FCCA  :
FCCC  /MOD
FCCE  SWAP
FCD0  DROP
FCD2  ;S


/MOD

FCBE  :
FCC0  >R
FCC2  S->D
FCC4  R>
FCC6  M/
FCC8  ;S


*

FCB6  :
FCB8  U*
FCBA  DROP
FCBC  ;S


M/

FC94  :
FC96  OVER
FC98  >R
FC9A  >R
```

```
FC9C  DABS
FC9E  R
FCA0  ABS
FCA2  U/
FCA4  R>
FCA6  R
FCA8  XOR
FCAA  +-
FCAC  SWAP
FCAE  R>
FCB0  +-
FCB2  SWAP
FCB4  ;S


M*

FC7E  :
FC80  2DUP
FC82  XOR
FC84  >R
FC86  ABS
FC88  SWAP
FC8A  ABS
FC8C  U*
FC8E  R>
FC90  D+-
FC92  ;S


MAX

FC6E  :
FC70  2DUP
FC72  <
FC74  Branch if zero to FC7A
FC78  SWAP
FC7A  DROP
FC7C  ;S


MIN

FC5E  :
FC60  2DUP
FC62  >
FC64  Branch if zero to FC6A
FC68  SWAP
FC6A  DROP
FC6C  ;S


DABS

FC56  :
FC58  DUP
FC5A  D+-
FC5C  ;S
```

```
ABS

FC4E  :
FC50  DUP
FC52  +-
FC54  ;S



D+-

FC42  :
FC44  0<
FC46  Branch if zero to FC4C
FC4A  DNEGATE
FC4C  ;S



+-

FC36  :
FC38  0<
FC3A  Branch if zero to FC40
FC3E  NEGATE
FC40  ;S



S->D

FC2C  :
FC2E  DUP
FC30  0<
FC32  NEGATE
FC34  ;S



COLD <primitive>

 FB4A STY 030E    FB4D LDX #FF     FB4F TXS         FB50 CLD         FB51 CLC
 FB52 LDA # 0     FB54 STA 14      FB56 LDA # 0     FB58 STA 11      FB5A STA 12
 FB5C LDA #C0     FB5E STA 15      FB60 LDA #2F     FB62 STA 18      FB64 LDA # 0
 FB66 STA 1A      FB68 STA 16      FB6A STA 4A      FB6C LDA #6C     FB6E STA 4B
 FB70 LDA #EF     FB72 STA 46      FB74 LDA #F5     FB76 STA 47      FB78 LDA #AE
 FB7A STA 44      FB7C LDA #FF     FB7E STA 45      FB80 LDA # 0     FB82 STA 48
 FB84 LDA # 3     FB86 STA 49      FB88 LDY # 5     FB8A JSR FBEC    FB8D LDA 030E
 FB90 CMP #5A     FB92 BNE FB9B    FB94 LDA 030F    FB97 CMP #A5     FB99 BEQ FBB0
 FB9B LDA #4A     FB9D STA 40      FB9F STA 42      FBA1 STA 5B      FBA3 LDA #FB
 FBA5 STA 41      FBA7 STA 43      FBA9 STA 5C      FBAB LDY # D     FBAD JSR FBEC
 FBB0 LDA #FB     FBB2 STA 4F      FBB4 LDA #F5     FBB6 STA 4E      FBB8 CLI
 FBB9 LDX #C2     FBBB LDA # 4     FBBD STA 5E      FBBF LDY # 0     FBC1 STY 5D
 FBC3 TYA         FBC4 LDA (5D),Y  FBC6 CMP #5A     FBC8 BNE FBDE    FBCA INY
 FBCB LDA (5D),Y  FBCD CMP #A5     FBCF BNE FBDE    FBD1 INY         FBD2 LDA (5D),Y
 FBD4 STA 4E      FBD6 INY         FBD7 LDA (5D),Y  FBD9 STA 4F      FBDB JMP F428
 FBDE LDY 5E      FBE0 INY         FBE1 INY         FBE2 INY         FBE3 INY
 FBE4 BEQ FBDB    FBE6 STY 5E      FBE8 LDY # 0     FBEA BEQ FBC3    FBEC LDA F400,Y
 FBEF STA (48),Y  FBF1 DEY         FBF2 BPL FBEC    FBF4 RTS         FBF5 ???
```

```
ABORT

CC4E  :
CC50  SP!
CC52  CR
CC54  Print text:  RSC-FORTH V1.6
CC66  FORTH
CC68  DEFINITIONS
CC6A  QUIT
CC6C  ;C



QUIT

CC1F  :
CC21  0
CC23  BLK
CC25  !
CC27  [
CC29  RP!
CC2B  CR
CC2D  QUERY
CC2F  INTERPRET
CC31  STATE
CC33  @
CC35  0=
CC37  Branch if zero to CC40
CC3B  Print text: OK
CC40  Branch to CC29
CC44   ;C



(

CC0D  :
CC0F  41  ( 29 H )
CC12  WORD
CC14  ;S



DEFINITIONS

CBFB  :
CBFD  CONTEXT
CBFF  @
CC01  CURRENT
CC03  !
CC05  ;S



ASSEMBLER

CBE3  :
CBE5  C443 Headerless

 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
CBE7  Branch to CBCF
```

```
CBEB   ;C


FORTH

CBCB  :
CBCD  C440 Headerless

 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
CBCF  CONTEXT
CBD1  !
CBD3  ;S


VOCABULARY

CB99  :
CB9B  <BUILDS
CB9D  -24447  ( A081 H )
CBA1  ,
CBA3  CURRENT
CBA5  @
CBA7  2-
CBA9  ,
CBAB  HERE
CBAD  VOC-LINK
CBAF  @
CBB1  ,
CBB3  VOC-LINK
CBB5  !
CBB7  DOES>
CBB9  2+
CBBB  CONTEXT
CBBD  !
CBBF  ;S


IMMEDIATE

CB7F  :
CB81  LATEST
CB83  64  ( 40 H )
CB86  TOGGLE
CB88  ;S


INTERPRET

CB2F  :
CB31  -FIND
CB33  Branch if zero to CB53
CB37  STATE
CB39  @
CB3B  <
CB3D  Branch if zero to CB49
CB41  CFA
CB43  ,
CB45  Branch to CB4D
```

```
CB49  CFA
CB4B  EXECUTE
CB4D  ?STACK
CB4F  Branch to CB6D
CB53  HERE
CB55  NUMBER
CB57  DPL
CB59  @
CB5B  1+
CB5D  Branch if zero to CB67
CB61  DLITERAL
CB63  Branch to CB6B
CB67  DROP
CB69  LITERAL
CB6B  ?STACK
CB6D  Branch to CB31
CB71   ;C
```

?STACK

```
CB04  :
CB06  SP@
CB08  194  ( C2 H )
CB0B  SWAP
CB0D  U<
CB0F  1
CB11  ?ERROR
CB13  SP@
CB15  93  ( 5D H )
CB18  U<
CB1A  7  ( 7 H )
CB1D  ?ERROR
CB1F  ;S
```

DLITERAL

```
CAE7  :
CAE9  STATE
CAEB  @
CAED  Branch if zero to CAF7
CAF1  SWAP
CAF3  LITERAL
CAF5  LITERAL
CAF7  ;S
```

LITERAL

```
CAB4  :
CAB6  STATE
CAB8  @
CABA  Branch if zero to CAD8
CABE  DUP
CAC0  -256  ( FF00 H )
CAC4  AND
CAC6  Branch if zero to CAD2
CACA  COMPILE
CACC  -14953  ( C597 H )
```

```
CAD0  ;S


[COMPILE]

CA96  :
CA98  -FIND
CA9A  0=
CA9C  0
CA9E  ?ERROR
CAA0  DROP
CAA2  CFA
CAA4  ,
CAA6  ;S


CREATE

C9F3  :
C9F5  FIRST
C9F7  HERE/
C9F9  36  ( 24 H )
C9FC  +
C9FE  U<
CA00  2
CA02  ?ERROR
CA04  FIRST
CA06  HERE
CA08  160  ( A0 H )
CA0B  +
CA0D  U<
CA0F  2
CA11  ?ERROR
CA13  -FIND
CA15  Branch if zero to CA2F
CA19  DROP
CA1B  CR
CA1D  NFA
CA1F  ID.
CA21  Print text: NOT UNIQUE
CA2F  HERE
CA31  HERE/
CA33  OVER
CA35  C@
CA37  1+
CA39  CMOVE
CA3B  HERE/
CA3D  DUP
CA3F  C@
CA41  WIDTH
CA43  @
CA45  MIN
CA47  1+
CA49  ALLOT/
CA4B  DP
CA4D  C@
CA4F  253  ( FD H )
CA52  =
CA54  ALLOT
CA56  DUP
CA58  160  ( A0 H )
```

```
CA5B  TOGGLE
CA5D  HERE/
CA5F  1-
CA61  128  ( 80 H )
CA64  TOGGLE
CA66  LATEST
CA68  ,/
CA6A  CURRENT
CA6C  @
CA6E  !
CA70  HERE
CA72  2+
CA74  HEADERLESS
CA76  @
CA78  0=
CA7A  Branch if zero to CA80
CA7E  2+
CA80  DUP
CA82  ,/
CA84  ,
CA86  ;S


ID.

C9CA  :
C9CC  COUNT
C9CE  1-
C9D0  31  ( 1F H )
C9D3  AND
C9D5  2DUP
C9D7  TYPE
C9D9  +
C9DB  @
C9DD  127  ( 7F H )
C9E0  AND
C9E2  EMIT
C9E4  SPACE
C9E6  ;S


ERROR

C98D  :
C98F  WARNING
C991  @
C993  0<
C995  Branch if zero to C99B
C999  (ABORT)
C99B  HERE
C99D  COUNT
C99F  CR
C9A1  TYPE
C9A3  Print text:  ?
C9A9  MESSAGE
C9AB  SP!
C9AD  2DROP
C9AF  IN
C9B1  @
C9B3  BLK
C9B5  @
```

```
C9B7  -82  ( FFAE H )
C9BB  68  ( 44 H )
C9BE  !
C9C0  QUIT
C9C2   ;C
```

(ABORT)

```
C979  :
C97B  UABORT
C97D  @
C97F  EXECUTE
C981  ;S
```

-FIND

```
C94B  :
C94D  BL
C94F  WORD
C951  HERE
C953  CONTEXT
C955  @
C957  @
C959  (FIND)
C95B  DUP
C95D  0=
C95F  Branch if zero to C96B
C963  DROP
C965  HERE
C967  LATEST
C969  (FIND)
C96B  ;S
```

NUMBER

```
C8F3  :
C8F5  0
C8F7  0
C8F9  ROT
C8FB  DUP
C8FD  1+
C8FF  C@
C901  45  ( 2D H )
C904  =
C906  DUP
C908  >R
C90A  +
C90C  -1  ( FFFF H )
C910  DPL
C912  !
C914  (NUMBER)
C916  DUP
C918  C@
C91A  BL
C91C  -
C91E  Branch if zero to C935
```

```
C922  DUP
C924  C@
C926  46  ( 2E H )
C929  -
C92B  0
C92D  ?ERROR
C92F  0
C931  Branch to C910
C935  DROP
C937  R>
C939  Branch if zero to C93F
C93D  DNEGATE
C93F  ;S


(NUMBER)

FB06  :
FB08  1+
FB0A  DUP
FB0C  >R
FB0E  C@
FB10  BASE
FB12  @
FB14  DIGIT
FB16  Branch if zero to FB44
FB1A  SWAP
FB1C  BASE
FB1E  @
FB20  U*
FB22  DROP
FB24  ROT
FB26  BASE
FB28  @
FB2A  U*
FB2C  D+
FB2E  DPL
FB30  @
FB32  1+
FB34  Branch if zero to FB3E
FB38  1
FB3A  DPL
FB3C  +!
FB3E  R>
FB40  Branch to FB08
FB44  R>
FB46  ;S


WORD

C896  :
C898  BLK
C89A  @
C89C  Branch if zero to C8AA
C8A0  BLK
C8A2  @
C8A4  BLOCK
C8A6  Branch to C8AE
C8AA  TIB
C8AC  @
```

```
C8AE  IN
C8B0  @
C8B2  +
C8B4  SWAP
C8B6  ENCLOSE
C8B8  HERE
C8BA  34  ( 22 H )
C8BD  BLANKS
C8BF  IN
C8C1  +!
C8C3  OVER
C8C5  -
C8C7  >R
C8C9  R
C8CB  HERE
C8CD  C!
C8CF  +
C8D1  HERE
C8D3  1+
C8D5  R>
C8D7  CMOVE
C8D9  ;S


HOLD

FAF4  :
FAF6  -1  ( FFFF H )
FAFA  HLD
FAFC  +!
FAFE  HLD
FB00  @
FB02  C!
FB04  ;S


BLANKS

FAEC  :
FAEE  BL
FAF0  FILL
FAF2  ;S


ERASE

FAE4  :
FAE6  0
FAE8  FILL
FAEA  ;S


FILL

FABE  :
FAC0  SWAP
FAC2  DUP
FAC4  1
FAC6  <
```

```
FAC8  Branch if zero to FAD2
FACC  2DROP
FACE  DROP
FAD0  ;S



C848  :
C84A  BLK
C84C  @
C84E  Branch if zero to C860
C852  1
C854  BLK
C856  +!
C858  0
C85A  IN
C85C  !
C85E  ?EXEC
C860  R>
C862  DROP
C864  ;S


QUERY

FAAC  :
FAAE  TIB
FAB0  @
FAB2  C/L
FAB4  EXPECT
FAB6  0
FAB8  IN
FABA  !
FABC  ;S


EXPECT

FA45  :
FA47  OVER
FA49  +
FA4B  OVER
FA4D  0
FA4F  OVER
FA51  !
FA53  KEY
FA55  DUP
FA57  13  ( D H )
FA5A  =
FA5C  Branch if zero to FA6A
FA60  DROP
FA62  SPACE
FA64  1
FA66  Branch to FAA2
FA6A  DUP
FA6C  127  ( 7F H )
FA6F  =
FA71  Branch if zero to FA92
FA75  DROP
FA77  3
```

```
FA79  PICK
FA7B  OVER
FA7D  U<
FA7F  NEGATE
FA81  DUP
FA83  NEGATE
FA85  Branch if zero to FA9C
FA89  8  ( 8 H )
FA8C  EMIT
FA8E  Branch to FA9C
FA92  2DUP
FA94  SWAP
FA96  C!
FA98  EMIT
FA9A  1
FA9C  +
FA9E  2DUP
FAA0  =
FAA2  Branch if zero to FA4D
FAA6  2DROP
FAA8  DROP
FAAA  ;S


."

C806  :
C808  34  ( 22 H )
C80B  STATE
C80D  @
C80F  Branch if zero to C823
C813  COMPILE
C815  Print text: ÈwÅKøøø‰Å□÷-ÈwÅãùïù□÷†EXPECÔÿÇGú…QUERÙ-È®úÁ€8ÈJÈtøsÄ;ø-ô□³øsÄø
¯øßøXøÎÆ?÷Ï÷□÷„FILÌBÈÀú…ERASÅfÈæú†BLANKÓoÈîú„HOLÄyÈöú„WORÄ„È˜ÈtøsÄ;ø-ô
sÄ;ø  Î€ô□Çø;ø
C8AE  IN
C8B0  @
C8B2  +
C8B4  SWAP
C8B6  ENCLOSE
C8B8  HERE
C8BA  34  ( 22 H )
C8BD  BLANKS
C8BF  IN
C8C1  +!
C8C3  OVER
C8C5  -
C8C7  >R
C8C9  R
C8CB  HERE
C8CD  C!
C8CF  +
C8D1  HERE
C8D3  1+
C8D5  R>
C8D7  CMOVE
C8D9  ;S


(.")
```

```
FA31  :
FA33  R
FA35  COUNT
FA37  DUP
FA39  1+
FA3B  R>
FA3D  +
FA3F  >R
FA41  TYPE
FA43  ;S


-TRAILING

FA0B  :
FA0D  DUP
FA0F  0
FA11  (DO)
FA13  2DUP
FA15  +
FA17  1-
FA19  C@
FA1B  BL
FA1D  -
FA1F  Branch if zero to FA29
FA23  LEAVE
FA25  Branch to FA2B
FA29  1-
FA2B  Loop to FA13
FA2F  ;S


TYPE

F9EF  :
F9F1  -DUP
F9F3  Branch if zero to FA07
F9F7  BOUNDS
F9F9  (DO)
F9FB  R
F9FD  C@
F9FF  EMIT
FA01  Loop to F9FB
FA05  ;S


COUNT

F9E3  :
F9E5  DUP
F9E7  1+
F9E9  SWAP
F9EB  C@
F9ED  ;S


DOES>

C7C3  :
```

```
C7C5  R>
C7C7  LATEST
C7C9  PFAPTR
C7CB  @
C7CD  !
C7CF  -1595  ( F9C5 H )
C7D3  C271 Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
C7D5   ;C


<BUILDS

C7B1  :
C7B3  0
C7B5  CONSTANT
C7B7  ;S


;CODE

C797  :
C799  ?CSP
C79B  COMPILE
C79D  (;CODE)


(;CODE)

C77F  :
C781  R>
C783  LATEST
C785  PFAPTR
C787  CFA
C789  !
C78B  ;S


DECIMAL

F9BC  :
F9BE  10  ( A H )
F9C1  Branch to F9B6
F9C5   ;C


HEX

F9B1  :
F9B3  16  ( 10 H )
F9B6  BASE
```

```
F9B8  !
F9BA  ;S


SMUDGE

C755  :
C757  LATEST
C759  BL
C75B  TOGGLE
C75D  ;S


]

C73F  :
C741  192  ( C0 H )
C744  STATE
C746  !
C748  ;S


[

C72F  :
C731  0
C733  STATE
C735  !
C737  ;S


COMPILE

C717  :
C719  ?COMP
C71B  R>
C71D  DUP
C71F  2+
C721  >R
C723  @
C725  ,
C727  ;S


?CSP

C6FA  :
C6FC  SP@
C6FE  CSP
C700  @
C702  -
C704  20  ( 14 H )
C707  ?ERROR
C709  ;S


?PAIRS
```

```
C6E6  :
C6E8  -
C6EA  19  ( 13 H )
C6ED  ?ERROR
C6EF  ;S


?EXEC

C6CE  :
C6D0  STATE
C6D2  @
C6D4  18  ( 12 H )
C6D7  ?ERROR
C6D9  ;S


?COMP

C6B5  :
C6B7  STATE
C6B9  @
C6BB  0=
C6BD  17  ( 11 H )
C6C0  ?ERROR
C6C2  ;S


?ERROR

C69D  :
C69F  SWAP
C6A1  Branch if zero to C6A7
C6A5  ERROR
C6A7  DROP
C6A9  ;S


!CSP

C688  :
C68A  SP@
C68C  CSP
C68E  !
C690  ;S


PFAPTR

C672  :
C674  1
C676  TRAVERSE
C678  3  ( 3 H )
C67B  +
C67D  ;S
```

```
NFA

C658  :
C65A  3  ( 3 H )
C65D  -
C65F  -1  ( FFFF H )
C663  TRAVERSE
C665  ;S



CFA

C648  :
C64A  @
C64C  2-
C64E  ;S



LFA

C63E  F922 Headerless

 B538 BS7 FF,FF  B53B BS7 FF,FF  B53E BS7 FF,FF  B541 BS7 FF,FF  B544 BS7 FF,FF



LATEST

C62C  :
C62E  CURRENT
C630  @
C632  @
C634  ;S



TRAVERSE

C606  :
C608  SWAP
C60A  OVER
C60C  +
C60E  127  ( 7F H )
C611  OVER
C613  C@
C615  <
C617  Branch if zero to C60A
C61B  SWAP
C61D  DROP
C61F  ;S



-DUP

F9A5  :
F9A7  DUP
F9A9  Branch if zero to F9AF
F9AD  DUP
```

```
F9AF  ;S



SPACE

F99D  :
F99F  BL
F9A1  EMIT
F9A3  ;S



PICK

F98F  :
F991  DUP
F993  +
F995  SP@
F997  +
F999  @
F99B  ;S



ROT <primitive>

 F976 LDA  4,X   F978 PHA        F979 LDA  2,X   F97B STA  4,X   F97D LDA  0,X
 F97F STA  2,X   F981 LDY  5,X   F983 LDA  3,X   F985 STA  5,X   F987 LDA  1,X
 F989 STA  3,X   F98B TYA        F98C JMP F423   F98F ???


>

F96C  :
F96E  SWAP
F970  <
F972  ;S



< <primitive>

 F956 LDA  2,X   F958 CMP  0,X   F95A LDA  3,X   F95C SBC  1,X   F95E STY  3,X
 F960 BVC F964   F962 EOR #80    F964 BPL F967   F966 INY        F967 STY  2,X
 F969 JMP F508   F96C ???


U< <primitive>

 F942 SEC        F943 LDA  2,X   F945 SBC  0,X   F947 LDA  3,X   F949 SBC  1,X
 F94B TYA        F94C ROL .A     F94D EOR # 1    F94F INX        F950 INX
 F951 JMP F84F   F954 LSR F9,X   F956 LDA  2,X   F958 CMP  0,X   F95A LDA  3,X
 F95C SBC  1,X   F95E STY  3,X   F960 BVC F964   F962 EOR #80    F964 BPL F967
 F966 INY        F967 STY  2,X   F969 JMP F508   F96C ???


=

F938  :
F93A  -
F93C  0=
F93E  ;S
```

```
-

F930  :
F932  NEGATE
F934  +
F936  ;S


C,

C5AA  :
C5AC  HERE
C5AE  C!
C5B0  1
C5B2  ALLOT
C5B4  ;S


,

C597  :
C599  HERE
C59B  !
C59D  2
C59F  ALLOT
C5A1  ;S


ALLOT

C589  :
C58B  DP
C58D  +!
C58F  ;S


HERE

C577  :
C579  DP
C57B  @
C57D  ;S


,/

C562  :
C564  HERE/
C566  !
C568  2
C56A  ALLOT/
C56C  ;S
```

```
ALLOT/

C553  :
C555  DP/
C557  +!
C559  ;S


HERE/

C540  :
C542  DP/
C544  @
C546  ;S


DP/

C526  :
C528  DP
C52A  HEADERLESS
C52C  @
C52E  Branch if zero to C534
C532  2+
C534  ;S


2- <primitive>

 F922 SEC        F923 LDA  0,X   F925 SBC # 2    F927 STA  0,X   F929 BCS F92D
 F92B DEC  1,X   F92D JMP F428   F930 ???


1- <primitive>

 F915 LDA  0,X   F917 BNE F91B   F919 DEC  1,X   F91B DEC  0,X   F91D JMP F428
 F920 ???


2+ <primitive>

 F905 CLC        F906 LDA  0,X   F908 ADC # 2    F90A STA  0,X   F90C BCC F910
 F90E INC  1,X   F910 JMP F428   F913 ORA F9,X   F915 LDA  0,X   F917 BNE F91B
 F919 DEC  1,X   F91B DEC  0,X   F91D JMP F428   F920 ???


1+ <primitive>

 F8FA INC  0,X   F8FC BNE F900   F8FE INC  1,X   F900 JMP F428   F903 ORA F9
 F905 CLC        F906 LDA  0,X   F908 ADC # 2    F90A STA  0,X   F90C BCC F910
 F90E INC  1,X   F910 JMP F428   F913 ORA F9,X   F915 LDA  0,X   F917 BNE F91B
 F919 DEC  1,X   F91B DEC  0,X   F91D JMP F428   F920 ???


PAD

F8F0  :
F8F2  UPAD
F8F4  @
F8F6  ;S
```

```
LIMIT

C4F2  :
C4F4  ULIMIT
C4F6  @
C4F8  ;S


FIRST

C4E0  :
C4E2  UFIRST
C4E4  @
C4E6  ;S


C/L

F8E8  :
F8EA  UC/L
F8EC  @
F8EE  ;S


KHZ

C4CB  User variable, current value = 0  ( 0 H )


MODE

C4C0  User variable, current value = 2  ( 2 H )


CSP

C4B4  User variable, current value = 194  ( C2 H )


STATE

C4A9  User variable, current value = 0  ( 0 H )


CURRENT

C49C  User variable, current value = 820  ( 334 H )


CONTEXT

C48D  User variable, current value = 820  ( 334 H )
```

SCR
C47E User variable, current value = 0 (0 H)

BLK
C473 User variable, current value = 0 (0 H)

PREV
C468 User variable, current value = 0 (0 H)

USE
C45C User variable, current value = 0 (0 H)

UABORT
C451 User variable, current value = -13234 (CC4E H)

VOC-LINK
C43D User variable, current value = 828 (33C H)

HEADERLESS
C42D User variable, current value = 0 (0 H)

DP
C41B User variable, current value = 4214 (1076 H)

FENCE
C411 User variable, current value = 1028 (404 H)

WARNING
C404 User variable, current value = 0 (0 H)

WIDTH

C3F5 User variable, current value = 31 (1F H)

OFFSET

C3E8 User variable, current value = 0 (0 H)

ULIMIT

C3DA User variable, current value = 8192 (2000 H)

UFIRST

C3CC User variable, current value = 6136 (17F8 H)

B/SIDE

C3BE User variable, current value = 320 (140 H)

CYLINDER

C3B0 User variable, current value = -1 (FFFF H)

DISKNO

C3A0 User variable, current value = 0 (0 H)

HLD

F8E5 User variable, current value = 890 (37A H)

DPL

F8E2 User variable, current value = -1 (FFFF H)

IN

F8DF User variable, current value = 12 (C H)

CLD/WRM

F8DC User variable, current value = -23206 (A55A H)

```
BASE
F8D9  User variable, current value = 10  ( A H )

UR/W
F8D6  User variable, current value = -760  ( FD08 H )

UPAD
F8D3  User variable, current value = 894  ( 37E H )

UC/L
F8D0  User variable, current value = 80  ( 50 H )

R0
F8CD  User variable, current value = 255  ( FF H )

S0
F8CA  User variable, current value = 194  ( C2 H )

TIB
F8C7  User variable, current value = 896  ( 380 H )

BL
F8C3  Constant, value = 32  ( 20 H )

4
F8BF  Constant, value = 4  ( 4 H )

3
F8BB  Constant, value = 3  ( 3 H )
```

```
2

F8B7  Constant, value = 2  ( 2 H )


1

F8B3  Constant, value = 1  ( 1 H )


0

F8AF  Constant, value = 0  ( 0 H )


USER

C305  :
C307  CREATE
C309  SMUDGE
C30B  C,
C30D  -1888  ( F8A0 H )
C311  C271 Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
C313   ;C


CODE

C2EE  :
C2F0  ?EXEC
C2F2  CREATE
C2F4  ASSEMBLER
C2F6  D9EE Headerless

 F9C5 LDA 4F     F9C7 PHA        F9C8 LDA 4E     F9CA PHA        F9CB LDY # 2
 F9CD LDA (4C),Y F9CF STA 4E     F9D1 INY        F9D2 LDA (4C),Y F9D4 STA 4F
 F9D6 CLC        F9D7 LDA 4C     F9D9 ADC # 4    F9DB PHA        F9DC LDA 4D
 F9DE ADC # 0    F9E0 JMP F421   F9E3 ???
C2F8  !CSP
C2FA  ;S


VARIABLE

C2DB  :
C2DD  CONSTANT
C2DF  -1900  ( F894 H )
C2E3  C271 Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
```

```
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
C2E5   ;C


CONSTANT

C2C0  :
C2C2  CREATE
C2C4  SMUDGE
C2C6  ,
C2C8  -1911  ( F889 H )
C2CC  C271 Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
C2CE   ;C


;

C2A5  :
C2A7  ?CSP
C2A9  COMPILE


OK
 OK
"
" ?
' LATEST DCL


LATEST

C62C  :
C62E  CURRENT
C630  @
C632  @
C634  ;S


TRAVERSE

C606  :
C608  SWAP
C60A  OVER
C60C  +
C60E  127  ( 7F H )
C611  OVER
C613  C@
```

```
C615  <
C617  Branch if zero to C60A
C61B  SWAP
C61D  DROP
C61F  ;S



-DUP

F9A5  :
F9A7  DUP
F9A9  Branch if zero to F9AF
F9AD  DUP
F9AF  ;S



SPACE

F99D  :
F99F  BL
F9A1  EMIT
F9A3  ;S



PICK

F98F  :
F991  DUP
F993  +
F995  SP@
F997  +
F999  @
F99B  ;S



ROT <primitive>

 F976 LDA  4,X   F978 PHA        F979 LDA  2,X   F97B STA  4,X   F97D LDA  0,X
 F97F STA  2,X   F981 LDY  5,X   F983 LDA  3,X   F985 STA  5,X   F987 LDA  1,X
 F989 STA  3,X   F98B TYA        F98C JMP F423   F98F ???


>

F96C  :
F96E  SWAP
F970  <
F972  ;S


;

C2A5  :
C2A7  ?CSP
C2A9  COMPILE
C2AB  ;S
```

```
:

C287  :
C289  ?EXEC
C28B  !CSP
C28D  CURRENT
C28F  @
C291  CONTEXT
C293  !
C295  CREATE
C297  ]
C299  -1932  ( F874 H )
C29D  C271 Headerless

 F874 LDA 4F     F876 PHA        F877 LDA 4E     F879 PHA        F87A CLC
 F87B LDA 4C     F87D ADC # 2    F87F STA 4E     F881 TYA        F882 ADC 4D
 F884 STA 4F     F886 JMP F428   F889 LDY # 2    F88B LDA (4C),Y F88D PHA
 F88E INY        F88F LDA (4C),Y F891 JMP F421   F894 CLC        F895 LDA 4C
 F897 ADC # 2    F899 PHA        F89A TYA        F89B ADC 4D     F89D JMP F421
 F8A0 LDY # 2    F8A2 CLC        F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA
 F8A8 LDA # 0    F8AA ADC 49     F8AC JMP F421   F8AF ???
C29F   ;C



C! <primitive>

 F86D LDA  2,X   F86F STA ( 0,X) F871 JMP F506   F874 LDA 4F     F876 PHA
 F877 LDA 4E     F879 PHA        F87A CLC        F87B LDA 4C     F87D ADC # 2
 F87F STA 4E     F881 TYA        F882 ADC 4D     F884 STA 4F     F886 JMP F428
 F889 LDY # 2    F88B LDA (4C),Y F88D PHA        F88E INY        F88F LDA (4C),Y
 F891 JMP F421   F894 CLC        F895 LDA 4C     F897 ADC # 2    F899 PHA
 F89A TYA        F89B ADC 4D     F89D JMP F421   F8A0 LDY # 2    F8A2 CLC
 F8A3 LDA (4C),Y F8A5 ADC 48     F8A7 PHA        F8A8 LDA # 0    F8AA ADC 49
 F8AC JMP F421   F8AF ???


! <primitive>

 F85A LDA  2,X   F85C STA ( 0,X) F85E INC  0,X   F860 BNE F864   F862 INC  1,X
 F864 LDA  3,X   F866 STA ( 0,X) F868 JMP F506   F86B ADC B5F8   F86E ???



C@ <primitive>

 F84D LDA ( 0,X) F84F STA  0,X   F851 LDY # 0    F853 STY  1,X   F855 JMP F428
 F858 ???


@ <primitive>

 F83D LDA ( 0,X) F83F PHA        F840 INC  0,X   F842 BNE F846   F844 INC  1,X
 F846 LDA ( 0,X) F848 JMP F423   F84B EOR A1F8   F84E BRK        F84F STA  0,X
 F851 LDY # 0    F853 STY  1,X   F855 JMP F428   F858 ???


TOGGLE <primitive>

 F832 LDA ( 2,X) F834 EOR  0,X   F836 STA ( 2,X) F838 JMP F506   F83B AND A1F8,X
 F83E BRK        F83F PHA        F840 INC  0,X   F842 BNE F846   F844 INC  1,X
 F846 LDA ( 0,X) F848 JMP F423   F84B EOR A1F8   F84E BRK        F84F STA  0,X
 F851 LDY # 0    F853 STY  1,X   F855 JMP F428   F858 ???
```

+! <primitive>

```
 F81A CLC        F81B LDA ( 0,X) F81D ADC  2,X   F81F STA ( 0,X) F821 INC  0,X
 F823 BNE F827   F825 INC  1,X   F827 LDA ( 0,X) F829 ADC  3,X   F82B STA ( 0,X)
 F82D JMP F506   F830 ???
```

BOUNDS <primitive>

```
 F805 LDY  3,X   F807 LDA  2,X   F809 PHA        F80A CLC        F80B ADC  0,X
 F80D STA  2,X   F80F TYA        F810 ADC  1,X   F812 STA  3,X   F814 TYA
 F815 JMP F423   F818 ???
```

2DUP <primitive>

```
 F7F1 DEX        F7F2 DEX        F7F3 LDA  4,X   F7F5 STA  0,X   F7F7 LDA  5,X
 F7F9 STA  1,X   F7FB LDA  2,X   F7FD PHA        F7FE LDA  3,X   F800 JMP F421
 F803 ORA F8     F805 LDY  3,X   F807 LDA  2,X   F809 PHA        F80A CLC
 F80B ADC  0,X   F80D STA  2,X   F80F TYA        F810 ADC  1,X   F812 STA  3,X
 F814 TYA        F815 JMP F423   F818 ???
```

DUP <primitive>

```
 F7E7 LDA  0,X   F7E9 PHA        F7EA LDA  1,X   F7EC JMP F421   F7EF SBC (F7),Y
 F7F1 DEX        F7F2 DEX        F7F3 LDA  4,X   F7F5 STA  0,X   F7F7 LDA  5,X
 F7F9 STA  1,X   F7FB LDA  2,X   F7FD PHA        F7FE LDA  3,X   F800 JMP F421
 F803 ORA F8     F805 LDY  3,X   F807 LDA  2,X   F809 PHA        F80A CLC
 F80B ADC  0,X   F80D STA  2,X   F80F TYA        F810 ADC  1,X   F812 STA  3,X
 F814 TYA        F815 JMP F423   F818 ???
```

SWAP <primitive>

```
 F7D5 LDA  2,X   F7D7 PHA        F7D8 LDA  0,X   F7DA STA  2,X   F7DC LDA  3,X
 F7DE LDY  1,X   F7E0 STY  3,X   F7E2 JMP F423   F7E5 SM6 F7     F7E7 LDA  0,X
 F7E9 PHA        F7EA LDA  1,X   F7EC JMP F421   F7EF SBC (F7),Y F7F1 DEX
 F7F2 DEX        F7F3 LDA  4,X   F7F5 STA  0,X   F7F7 LDA  5,X   F7F9 STA  1,X
 F7FB LDA  2,X   F7FD PHA        F7FE LDA  3,X   F800 JMP F421   F803 ORA F8
 F805 LDY  3,X   F807 LDA  2,X   F809 PHA        F80A CLC        F80B ADC  0,X
 F80D STA  2,X   F80F TYA        F810 ADC  1,X   F812 STA  3,X   F814 TYA
 F815 JMP F423   F818 ???
```

2DROP

F7D1 F506 Headerless

```
 E8E8 BS7 FF,FF  E8EB BS7 FF,FF  E8EE BS7 FF,FF  E8F1 BS7 FF,FF  E8F4 BS7 FF,FF
```

DROP

F7CF F508 Headerless

```
 E8E8 BS7 FF,FF  E8EB BS7 FF,FF  E8EE BS7 FF,FF  E8F1 BS7 FF,FF  E8F4 BS7 FF,FF
```

OVER <primitive>

```
 F7C7 LDA  2,X   F7C9 PHA        F7CA LDA  3,X   F7CC JMP F421   F7CF PHP
 F7D0 SBC  6,X   F7D2 SBC D5,X   F7D4 SM7 B5     F7D6 ???
```

DNEGATE <primitive>

```
 F7B7 SEC        F7B8 TYA        F7B9 SBC  2,X   F7BB STA  2,X   F7BD TYA
 F7BE SBC  3,X   F7C0 STA  3,X   F7C2 JMP F7A8   F7C5 SM4 F7     F7C7 LDA  2,X
 F7C9 PHA        F7CA LDA  3,X   F7CC JMP F421   F7CF PHP        F7D0 SBC  6,X
 F7D2 SBC D5,X   F7D4 SM7 B5     F7D6 ???
```

NEGATE <primitive>

```
 F7A7 SEC        F7A8 TYA        F7A9 SBC  0,X   F7AB STA  0,X   F7AD TYA
 F7AE SBC  1,X   F7B0 STA  1,X   F7B2 JMP F428   F7B5 SM3 F7     F7B7 SEC
 F7B8 TYA        F7B9 SBC  2,X   F7BB STA  2,X   F7BD TYA        F7BE SBC  3,X
 F7C0 STA  3,X   F7C2 JMP F7A8   F7C5 SM4 F7     F7C7 LDA  2,X   F7C9 PHA
 F7CA LDA  3,X   F7CC JMP F421   F7CF PHP        F7D0 SBC  6,X   F7D2 SBC D5,X
 F7D4 SM7 B5     F7D6 ???
```

D+ <primitive>

```
 F789 CLC        F78A LDA  2,X   F78C ADC  6,X   F78E STA  6,X   F790 LDA  3,X
 F792 ADC  7,X   F794 STA  7,X   F796 LDA  0,X   F798 ADC  4,X   F79A STA  4,X
 F79C LDA  1,X   F79E ADC  5,X   F7A0 STA  5,X   F7A2 JMP F506   F7A5 SM2 F7
 F7A7 SEC        F7A8 TYA        F7A9 SBC  0,X   F7AB STA  0,X   F7AD TYA
 F7AE SBC  1,X   F7B0 STA  1,X   F7B2 JMP F428   F7B5 SM3 F7     F7B7 SEC
 F7B8 TYA        F7B9 SBC  2,X   F7BB STA  2,X   F7BD TYA        F7BE SBC  3,X
 F7C0 STA  3,X   F7C2 JMP F7A8   F7C5 SM4 F7     F7C7 LDA  2,X   F7C9 PHA
 F7CA LDA  3,X   F7CC JMP F421   F7CF PHP        F7D0 SBC  6,X   F7D2 SBC D5,X
 F7D4 SM7 B5     F7D6 ???
```

+ <primitive>

```
 F77A CLC        F77B LDA  0,X   F77D ADC  2,X   F77F PHA        F780 LDA  1,X
 F782 ADC  3,X   F784 JMP F6C9   F787 ???
```

0< <primitive>

```
 F76D ASL  1,X   F76F TYA        F770 ROL .A     F771 STY  1,X   F773 STA  0,X
 F775 JMP F428   F778 ???
```

NOT

```
C1D7  F75D Headerless

 00B5 SM7 5D     00B7 SM7  A     00B9 BRK        00BA CMP C1,X   00BC ???

C1D9   ;C
```

0= <primitive>

```
 F75D LDA  0,X   F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY
 F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A
```

```
 F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

R <primitive>

```
 F74E STX 59     F750 TSX        F751 LDA  1,X   F753 PHA        F754 LDA  2,X
 F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X F75E BRK        F75F ORA  1,X
 F761 STY  1,X   F763 BNE F766   F765 INY        F766 STY  0,X   F768 JMP F428
 F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A     F771 STY  1,X   F773 STA  0,X
 F775 JMP F428   F778 ???
```

R> <primitive>

```
 F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X   F746 PLA
 F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y F752 ORA (48,X)
 F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X F75E BRK
 F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY        F766 STY  0,X
 F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A     F771 STY  1,X
 F773 STA  0,X   F775 JMP F428   F778 ???
```

>R <primitive>

```
 F736 LDA  1,X   F738 PHA        F739 LDA  0,X   F73B PHA        F73C JMP F508
 F73F EOR (F7,X) F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X
 F746 PLA        F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y
 F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X
 F75E BRK        F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY
 F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A
 F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

LEAVE <primitive>

```
 F724 STX 59     F726 TSX        F727 LDA  1,X   F729 STA  3,X   F72B LDA  2,X
 F72D STA  4,X   F72F LDX 59     F731 JMP F428   F734 ROL F7,X   F736 LDA  1,X
 F738 PHA        F739 LDA  0,X   F73B PHA        F73C JMP F508   F73F EOR (F7,X)
 F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X   F746 PLA
 F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y F752 ORA (48,X)
 F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X F75E BRK
 F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY        F766 STY  0,X
 F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A     F771 STY  1,X
 F773 STA  0,X   F775 JMP F428   F778 ???
```

;S <primitive>

```
 F719 PLA        F71A STA 4E     F71C PLA        F71D STA 4F     F71F JMP F428
 F722 BIT F7     F724 STX 59     F726 TSX        F727 LDA  1,X   F729 STA  3,X
 F72B LDA  2,X   F72D STA  4,X   F72F LDX 59     F731 JMP F428   F734 ROL F7,X
 F736 LDA  1,X   F738 PHA        F739 LDA  0,X   F73B PHA        F73C JMP F508
 F73F EOR (F7,X) F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X
 F746 PLA        F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y
 F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X
 F75E BRK        F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY
 F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A
 F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

RP@ <primitive>

```
 F70E STX 59     F710 TSX        F711 TXA        F712 LDX 59     F714 JMP F6ED
```

```
 F717 ORA 68F7,Y F71A STA 4E     F71C PLA        F71D STA 4F     F71F JMP F428
 F722 BIT F7     F724 STX 59     F726 TSX        F727 LDA  1,X   F729 STA  3,X
 F72B LDA  2,X   F72D STA  4,X   F72F LDX 59     F731 JMP F428   F734 ROL F7,X
 F736 LDA  1,X   F738 PHA        F739 LDA  0,X   F73B PHA        F73C JMP F508
 F73F EOR (F7,X) F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X
 F746 PLA        F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y
 F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X
 F75E BRK        F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY
 F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A
 F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

RP! <primitive>

```
 F6FF STX 59     F701 LDY # 4    F703 LDA (48),Y F705 TAX        F706 TXS
 F707 LDX 59     F709 JMP F428   F70C ASL 86F7   F70F EOR 8ABA,Y F712 LDX 59
 F714 JMP F6ED   F717 ORA 68F7,Y F71A STA 4E     F71C PLA        F71D STA 4F
 F71F JMP F428   F722 BIT F7     F724 STX 59     F726 TSX        F727 LDA  1,X
 F729 STA  3,X   F72B LDA  2,X   F72D STA  4,X   F72F LDX 59     F731 JMP F428
 F734 ROL F7,X   F736 LDA  1,X   F738 PHA        F739 LDA  0,X   F73B PHA
 F73C JMP F508   F73F EOR (F7,X) F741 DEX        F742 DEX        F743 PLA
 F744 STA  0,X   F746 PLA        F747 STA  1,X   F749 JMP F428   F74C LSR 86F7
 F74F EOR B5BA,Y F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59     F758 JMP F421
 F75B EOR B5F7,X F75E BRK        F75F ORA  1,X   F761 STY  1,X   F763 BNE F766
 F765 INY        F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X)
 F770 ROL .A     F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

SP! <primitive>

```
 F6F5 LDY # 2    F6F7 LDA (48),Y F6F9 TAX        F6FA JMP F428   F6FD BS7 F6,86
 F700 EOR 04A0,Y F703 LDA (48),Y F705 TAX        F706 TXS        F707 LDX 59
 F709 JMP F428   F70C ASL 86F7   F70F EOR 8ABA,Y F712 LDX 59     F714 JMP F6ED
 F717 ORA 68F7,Y F71A STA 4E     F71C PLA        F71D STA 4F     F71F JMP F428
 F722 BIT F7     F724 STX 59     F726 TSX        F727 LDA  1,X   F729 STA  3,X
 F72B LDA  2,X   F72D STA  4,X   F72F LDX 59     F731 JMP F428   F734 ROL F7,X
 F736 LDA  1,X   F738 PHA        F739 LDA  0,X   F73B PHA        F73C JMP F508
 F73F EOR (F7,X) F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X
 F746 PLA        F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y
 F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X
 F75E BRK        F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY
 F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A
 F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

SP@ <primitive>

```
 F6EC TXA        F6ED PHA        F6EE LDA # 0    F6F0 JMP F421   F6F3 SBC F6,X
 F6F5 LDY # 2    F6F7 LDA (48),Y F6F9 TAX        F6FA JMP F428   F6FD BS7 F6,86
 F700 EOR 04A0,Y F703 LDA (48),Y F705 TAX        F706 TXS        F707 LDX 59
 F709 JMP F428   F70C ASL 86F7   F70F EOR 8ABA,Y F712 LDX 59     F714 JMP F6ED
 F717 ORA 68F7,Y F71A STA 4E     F71C PLA        F71D STA 4F     F71F JMP F428
 F722 BIT F7     F724 STX 59     F726 TSX        F727 LDA  1,X   F729 STA  3,X
 F72B LDA  2,X   F72D STA  4,X   F72F LDX 59     F731 JMP F428   F734 ROL F7,X
 F736 LDA  1,X   F738 PHA        F739 LDA  0,X   F73B PHA        F73C JMP F508
 F73F EOR (F7,X) F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X
 F746 PLA        F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y
 F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X
 F75E BRK        F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY
 F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A
 F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

XOR <primitive>

```
 F6DE LDA  0,X   F6E0 EOR  2,X   F6E2 PHA        F6E3 LDA  1,X   F6E5 EOR  3,X
 F6E7 JMP F6C9   F6EA CPX 8AF6   F6ED PHA        F6EE LDA # 0    F6F0 JMP F421
 F6F3 SBC F6,X   F6F5 LDY # 2    F6F7 LDA (48),Y F6F9 TAX        F6FA JMP F428
 F6FD BS7 F6,86  F700 EOR 04A0,Y F703 LDA (48),Y F705 TAX        F706 TXS
 F707 LDX 59     F709 JMP F428   F70C ASL 86F7   F70F EOR 8ABA,Y F712 LDX 59
 F714 JMP F6ED   F717 ORA 68F7,Y F71A STA 4E     F71C PLA        F71D STA 4F
 F71F JMP F428   F722 BIT F7     F724 STX 59     F726 TSX        F727 LDA  1,X
 F729 STA  3,X   F72B LDA  2,X   F72D STA  4,X   F72F LDX 59     F731 JMP F428
 F734 ROL F7,X   F736 LDA  1,X   F738 PHA        F739 LDA  0,X   F73B PHA
 F73C JMP F508   F73F EOR (F7,X) F741 DEX        F742 DEX        F743 PLA
 F744 STA  0,X   F746 PLA        F747 STA  1,X   F749 JMP F428   F74C LSR 86F7
 F74F EOR B5BA,Y F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59     F758 JMP F421
 F75B EOR B5F7,X F75E BRK        F75F ORA  1,X   F761 STY  1,X   F763 BNE F766
 F765 INY        F766 STY  0,X   F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X)
 F770 ROL .A     F771 STY  1,X   F773 STA  0,X   F775 JMP F428   F778 ???
```

OR <primitive>

```
 F6D0 LDA  0,X   F6D2 ORA  2,X   F6D4 PHA        F6D5 LDA  1,X   F6D7 ORA  3,X
 F6D9 JMP F6C9   F6DC DEC B5F6,X F6DF BRK        F6E0 EOR  2,X   F6E2 PHA
 F6E3 LDA  1,X   F6E5 EOR  3,X   F6E7 JMP F6C9   F6EA CPX 8AF6   F6ED PHA
 F6EE LDA # 0    F6F0 JMP F421   F6F3 SBC F6,X   F6F5 LDY # 2    F6F7 LDA (48),Y
 F6F9 TAX        F6FA JMP F428   F6FD BS7 F6,86  F700 EOR 04A0,Y F703 LDA (48),Y
 F705 TAX        F706 TXS        F707 LDX 59     F709 JMP F428   F70C ASL 86F7
 F70F EOR 8ABA,Y F712 LDX 59     F714 JMP F6ED   F717 ORA 68F7,Y F71A STA 4E
 F71C PLA        F71D STA 4F     F71F JMP F428   F722 BIT F7     F724 STX 59
 F726 TSX        F727 LDA  1,X   F729 STA  3,X   F72B LDA  2,X   F72D STA  4,X
 F72F LDX 59     F731 JMP F428   F734 ROL F7,X   F736 LDA  1,X   F738 PHA
 F739 LDA  0,X   F73B PHA        F73C JMP F508   F73F EOR (F7,X) F741 DEX
 F742 DEX        F743 PLA        F744 STA  0,X   F746 PLA        F747 STA  1,X
 F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y F752 ORA (48,X) F754 LDA  2,X
 F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X F75E BRK        F75F ORA  1,X
 F761 STY  1,X   F763 BNE F766   F765 INY        F766 STY  0,X   F768 JMP F428
 F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A     F771 STY  1,X   F773 STA  0,X
 F775 JMP F428   F778 ???
```

AND <primitive>

```
 F6C0 LDA  0,X   F6C2 AND  2,X   F6C4 PHA        F6C5 LDA  1,X   F6C7 AND  3,X
 F6C9 INX        F6CA INX        F6CB JMP F423   F6CE BNE F6C6   F6D0 LDA  0,X
 F6D2 ORA  2,X   F6D4 PHA        F6D5 LDA  1,X   F6D7 ORA  3,X   F6D9 JMP F6C9
 F6DC DEC B5F6,X F6DF BRK        F6E0 EOR  2,X   F6E2 PHA        F6E3 LDA  1,X
 F6E5 EOR  3,X   F6E7 JMP F6C9   F6EA CPX 8AF6   F6ED PHA        F6EE LDA # 0
 F6F0 JMP F421   F6F3 SBC F6,X   F6F5 LDY # 2    F6F7 LDA (48),Y F6F9 TAX
 F6FA JMP F428   F6FD BS7 F6,86  F700 EOR 04A0,Y F703 LDA (48),Y F705 TAX
 F706 TXS        F707 LDX 59     F709 JMP F428   F70C ASL 86F7   F70F EOR 8ABA,Y
 F712 LDX 59     F714 JMP F6ED   F717 ORA 68F7,Y F71A STA 4E     F71C PLA
 F71D STA 4F     F71F JMP F428   F722 BIT F7     F724 STX 59     F726 TSX
 F727 LDA  1,X   F729 STA  3,X   F72B LDA  2,X   F72D STA  4,X   F72F LDX 59
 F731 JMP F428   F734 ROL F7,X   F736 LDA  1,X   F738 PHA        F739 LDA  0,X
 F73B PHA        F73C JMP F508   F73F EOR (F7,X) F741 DEX        F742 DEX
 F743 PLA        F744 STA  0,X   F746 PLA        F747 STA  1,X   F749 JMP F428
 F74C LSR 86F7   F74F EOR B5BA,Y F752 ORA (48,X) F754 LDA  2,X   F756 LDX 59
 F758 JMP F421   F75B EOR B5F7,X F75E BRK        F75F ORA  1,X   F761 STY  1,X
 F763 BNE F766   F765 INY        F766 STY  0,X   F768 JMP F428   F76B ADC 16F7
 F76E ORA (98,X) F770 ROL .A     F771 STY  1,X   F773 STA  0,X   F775 JMP F428
 F778 ???
```

U/ <primitive>

```
 F67D LDA  4,X   F67F LDY  2,X   F681 STY  4,X   F683 ASL .A     F684 STA  2,X
 F686 LDA  5,X   F688 LDY  3,X   F68A STY  5,X   F68C ROL .A     F68D STA  3,X
 F68F LDA #10    F691 STA 51     F693 ROL  4,X   F695 ROL  5,X   F697 PHP
 F698 SEC        F699 LDA  4,X   F69B SBC  0,X   F69D TAY        F69E LDA  5,X
 F6A0 SBC  1,X   F6A2 BCC F6AC   F6A4 STY  4,X   F6A6 STA  5,X   F6A8 PLP
 F6A9 SEC        F6AA BCS F6B3   F6AC PLP        F6AD BCC F6B3   F6AF STY  4,X
 F6B1 STA  5,X   F6B3 ROL  2,X   F6B5 ROL  3,X   F6B7 DEC 51     F6B9 BNE F693
 F6BB JMP F508   F6BE CPY #F6    F6C0 LDA  0,X   F6C2 AND  2,X   F6C4 PHA
 F6C5 LDA  1,X   F6C7 AND  3,X   F6C9 INX        F6CA INX        F6CB JMP F423
 F6CE BNE F6C6   F6D0 LDA  0,X   F6D2 ORA  2,X   F6D4 PHA        F6D5 LDA  1,X
 F6D7 ORA  3,X   F6D9 JMP F6C9   F6DC DEC B5F6,X F6DF BRK        F6E0 EOR  2,X
 F6E2 PHA        F6E3 LDA  1,X   F6E5 EOR  3,X   F6E7 JMP F6C9   F6EA CPX 8AF6
 F6ED PHA        F6EE LDA # 0    F6F0 JMP F421   F6F3 SBC F6,X   F6F5 LDY # 2
 F6F7 LDA (48),Y F6F9 TAX        F6FA JMP F428   F6FD BS7 F6,86  F700 EOR 04A0,Y
 F703 LDA (48),Y F705 TAX        F706 TXS        F707 LDX 59     F709 JMP F428
 F70C ASL 86F7   F70F EOR 8ABA,Y F712 LDX 59     F714 JMP F6ED   F717 ORA 68F7,Y
 F71A STA 4E     F71C PLA        F71D STA 4F     F71F JMP F428   F722 BIT F7
 F724 STX 59     F726 TSX        F727 LDA  1,X   F729 STA  3,X   F72B LDA  2,X
 F72D STA  4,X   F72F LDX 59     F731 JMP F428   F734 ROL F7,X   F736 LDA  1,X
 F738 PHA        F739 LDA  0,X   F73B PHA        F73C JMP F508   F73F EOR (F7,X)
 F741 DEX        F742 DEX        F743 PLA        F744 STA  0,X   F746 PLA
 F747 STA  1,X   F749 JMP F428   F74C LSR 86F7   F74F EOR B5BA,Y F752 ORA (48,X)
 F754 LDA  2,X   F756 LDX 59     F758 JMP F421   F75B EOR B5F7,X F75E BRK
 F75F ORA  1,X   F761 STY  1,X   F763 BNE F766   F765 INY        F766 STY  0,X
 F768 JMP F428   F76B ADC 16F7   F76E ORA (98,X) F770 ROL .A     F771 STY  1,X
 F773 STA  0,X   F775 JMP F428   F778 ???
```

U* <primitive>

```
 F648 LDA  2,X   F64A STA 51     F64C STY  2,X   F64E LDA  3,X   F650 STA 52
 F652 STY  3,X   F654 LDY #10    F656 ASL  2,X   F658 ROL  3,X   F65A ROL  0,X
 F65C ROL  1,X   F65E BCC F675   F660 CLC        F661 LDA 51     F663 ADC  2,X
 F665 STA  2,X   F667 LDA 52     F669 ADC  3,X   F66B STA  3,X   F66D BCC F675
 F66F INC  0,X   F671 BNE F675   F673 INC  1,X   F675 DEY        F676 BNE F656
 F678 JMP F428   F67B ADC B5F6,X F67E ???
```

CMOVE <primitive>

```
 F628 LDA # 3    F62A JSR F460   F62D CPY 51     F62F BNE F638   F631 DEC 52
 F633 BPL F638   F635 JMP F428   F638 LDA (55),Y F63A STA (53),Y F63C INY
 F63D BNE F62D   F63F INC 56     F641 INC 54     F643 JMP F62D   F646 PHA
 F647 INC B5,X   F649 ???
```

FINIS

```
C147  :
C149  CR
C14B  Print text: OK
C150  Branch to C9B7
C154   ;C
```

SOURCE

```
C0FB  :
C0FD  0
C0FF  BLK
C101  !
C103  [
C105  RP!
C107  XON
C109  0
C10B  IN
C10D  !
C10F  TIB
C111  @
C113  80  ( 50 H )
C116  BOUNDS
C118  (DO)
C11A  KEY
C11C  DUP
C11E  13  ( D H )
C121  =
C123  Branch if zero to C12D
C127  DROP
C129  0
C12B  LEAVE
C12D  I
C12F  C!
C131  Loop to C11A
C135  XOFF
C137  INTERPRET
C139  Branch to C105
C13D   ;C



XOFF

C0E8  :
C0EA  Print text: □
C0EE  ;S



XON

C0D7  :
C0D9  Print text: □
C0DD  ;S



CR <primitive>

 F615 LDA # D    F617 JSR F5EC   F61A LDA # A    F61C JSR F5EC   F61F TYA
 F620 JSR F5EC   F623 JMP F428   F626 PLP        F627 INC A9,X   F629 ???



?TERMINAL <primitive>

 F60C LDA 16     F60E AND # 1    F610 JMP F6ED   F613 ORA F6,X   F615 LDA # D
 F617 JSR F5EC   F61A LDA # A    F61C JSR F5EC   F61F TYA        F620 JSR F5EC
 F623 JMP F428   F626 PLP        F627 INC A9,X   F629 ???
```

KEY <primitive>

```
 F5F8 JSR F5FE   F5FB JMP F6ED   F5FE JMP (0044) F601 LDA 16     F603 AND # 1
 F605 BEQ F601   F607 LDA 17     F609 RTS        F60A ???
```

EMIT <primitive>

```
 F5D6 LDA  0,X   F5D8 CMP # 8    F5DA BNE F5E6   F5DC JSR F5EC   F5DF LDA #20
 F5E1 JSR F5EC   F5E4 LDA # 8    F5E6 JSR F5EC   F5E9 JMP F508   F5EC JMP (0046)
 F5EF BIT 16     F5F1 BVC F5EF   F5F3 STA 17     F5F5 RTS        F5F6 SED
 F5F7 SBC 20,X   F5F9 INC 4CF5,X F5FC SBC 6CF6   F5FF ???
```

ENCLOSE <primitive>

```
 F593 LDA # 2    F595 JSR F460   F598 TXA        F599 SEC        F59A SBC # 8
 F59C TAX        F59D STY  3,X   F59F STY  1,X   F5A1 BNE F5AE   F5A3 INY
 F5A4 BNE F5AE   F5A6 INC 54     F5A8 INC  1,X   F5AA INC  3,X   F5AC INC  5,X
 F5AE LDA (53),Y F5B0 CMP 51     F5B2 BEQ F5A3   F5B4 STY  4,X   F5B6 LDA (53),Y
 F5B8 BNE F5C8   F5BA STY  2,X   F5BC STY  0,X   F5BE TYA        F5BF CMP  4,X
 F5C1 BNE F5C5   F5C3 INC  2,X   F5C5 JMP F428   F5C8 STY  2,X   F5CA INY
 F5CB CMP 51     F5CD BNE F5B6   F5CF STY  0,X   F5D1 JMP F428   F5D4 DEC F5,X
 F5D6 LDA  0,X   F5D8 CMP # 8    F5DA BNE F5E6   F5DC JSR F5EC   F5DF LDA #20
 F5E1 JSR F5EC   F5E4 LDA # 8    F5E6 JSR F5EC   F5E9 JMP F508   F5EC JMP (0046)
 F5EF BIT 16     F5F1 BVC F5EF   F5F3 STA 17     F5F5 RTS        F5F6 SED
 F5F7 SBC 20,X   F5F9 INC 4CF5,X F5FC SBC 6CF6   F5FF ???
```

(FIND) <primitive>

```
 F537 LDA # 2    F539 JSR F460   F53C STX 59     F53E LDY # 0    F540 LDA (51),Y
 F542 EOR (53),Y F544 AND #3F    F546 BNE F575   F548 INY        F549 LDA (51),Y
 F54B EOR (53),Y F54D ASL .A     F54E BNE F573   F550 BCC F548   F552 LDX 59
 F554 DEX        F555 DEX        F556 DEX        F557 DEX        F558 CLC
 F559 TYA        F55A ADC # 3    F55C ADC 51     F55E STA  2,X   F560 LDY # 0
 F562 TYA        F563 ADC 52     F565 STA  3,X   F567 STY  1,X   F569 LDA (51),Y
 F56B STA  0,X   F56D LDA # 1    F56F PHA        F570 JMP F421   F573 BCS F57A
 F575 INY        F576 LDA (51),Y F578 BPL F575   F57A INY        F57B LDA (51),Y
 F57D TAX        F57E INY        F57F LDA (51),Y F581 STA 52     F583 STX 51
 F585 ORA 51     F587 BNE F53E   F589 LDX 59     F58B LDA # 0    F58D PHA
 F58E JMP F421   F591 ???
```

DIGIT <primitive>

```
 F50F SEC        F510 LDA  2,X   F512 SBC #30    F514 BMI F52E   F516 CMP # A
 F518 BMI F521   F51A SEC        F51B SBC # 7    F51D CMP # A    F51F BMI F52E
 F521 CMP  0,X   F523 BPL F52E   F525 STA  2,X   F527 LDA # 1    F529 PHA
 F52A TYA        F52B JMP F423   F52E TYA        F52F PHA        F530 INX
 F531 INX        F532 JMP F423   F535 RM3 F5     F537 LDA # 2    F539 JSR F460
 F53C STX 59     F53E LDY # 0    F540 LDA (51),Y F542 EOR (53),Y F544 AND #3F
 F546 BNE F575   F548 INY        F549 LDA (51),Y F54B EOR (53),Y F54D ASL .A
 F54E BNE F573   F550 BCC F548   F552 LDX 59     F554 DEX        F555 DEX
 F556 DEX        F557 DEX        F558 CLC        F559 TYA        F55A ADC # 3
 F55C ADC 51     F55E STA  2,X   F560 LDY # 0    F562 TYA        F563 ADC 52
 F565 STA  3,X   F567 STY  1,X   F569 LDA (51),Y F56B STA  0,X   F56D LDA # 1
 F56F PHA        F570 JMP F421   F573 BCS F57A   F575 INY        F576 LDA (51),Y
 F578 BPL F575   F57A INY        F57B LDA (51),Y F57D TAX        F57E INY
 F57F LDA (51),Y F581 STA 52     F583 STX 51     F585 ORA 51     F587 BNE F53E
 F589 LDX 59     F58B LDA # 0    F58D PHA        F58E JMP F421   F591 ???
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I

C086  F74E Headerless

 5986 BRK        5987 BRK        5988 BS7 FF,FF  598B BS7 FF,FF  598E BS7 FF, 4
 5991 BRK        5992 BRK        5993 BRK        5994 BRK        5995 BRK
 5996 BRK        5997 BRK        5998 BS7 FF,FF  599B BS7 FF,FF  599E BS7 FF, 0
 59A1 BRK        59A2 BRK        59A3 BRK        59A4 BRK        59A5 ???

C088   ;C


(DO) <primitive>

 F4FA LDA  3,X   F4FC PHA        F4FD LDA  2,X   F4FF PHA        F500 LDA  1,X
 F502 PHA        F503 LDA  0,X   F505 PHA        F506 INX        F507 INX
 F508 INX        F509 INX        F50A JMP F428   F50D BR0 F5,38  F510 LDA  2,X
 F512 SBC #30    F514 BMI F52E   F516 CMP # A    F518 BMI F521   F51A SEC
 F51B SBC # 7    F51D CMP # A    F51F BMI F52E   F521 CMP  0,X   F523 BPL F52E
 F525 STA  2,X   F527 LDA # 1    F529 PHA        F52A TYA        F52B JMP F423
 F52E TYA        F52F PHA        F530 INX        F531 INX        F532 JMP F423
 F535 RM3 F5     F537 LDA # 2    F539 JSR F460   F53C STX 59     F53E LDY # 0
 F540 LDA (51),Y F542 EOR (53),Y F544 AND #3F    F546 BNE F575   F548 INY
 F549 LDA (51),Y F54B EOR (53),Y F54D ASL .A     F54E BNE F573   F550 BCC F548
 F552 LDX 59     F554 DEX        F555 DEX        F556 DEX        F557 DEX
 F558 CLC        F559 TYA        F55A ADC # 3    F55C ADC 51     F55E STA  2,X
 F560 LDY # 0    F562 TYA        F563 ADC 52     F565 STA  3,X   F567 STY  1,X
 F569 LDA (51),Y F56B STA  0,X   F56D LDA # 1    F56F PHA        F570 JMP F421
 F573 BCS F57A   F575 INY        F576 LDA (51),Y F578 BPL F575   F57A INY
 F57B LDA (51),Y F57D TAX        F57E INY        F57F LDA (51),Y F581 STA 52
 F583 STX 51     F585 ORA 51     F587 BNE F53E   F589 LDX 59     F58B LDA # 0
 F58D PHA        F58E JMP F421   F591 ???


(+LOOP) <primitive>

 F4D2 INX        F4D3 INX        F4D4 STX 59     F4D6 LDA FF,X   F4D8 PHA
 F4D9 PHA        F4DA LDA FE,X   F4DC TSX        F4DD INX        F4DE INX
 F4DF CLC        F4E0 ADC  1,X   F4E2 STA  1,X   F4E4 PLA        F4E5 ADC  2,X
 F4E7 STA  2,X   F4E9 PLA        F4EA BPL F4BA   F4EC CLC        F4ED LDA  1,X
 F4EF SBC  3,X   F4F1 LDA  2,X   F4F3 SBC  4,X   F4F5 JMP F4C3   F4F8 ???


(LOOP) <primitive>

 F4B1 STX 59     F4B3 TSX        F4B4 INC  1,X   F4B6 BNE F4BA   F4B8 INC  2,X
 F4BA CLC        F4BB LDA  3,X   F4BD SBC  1,X   F4BF LDA  4,X   F4C1 SBC  2,X
 F4C3 BPL F482   F4C5 BVS F482   F4C7 INX        F4C8 INX        F4C9 INX
 F4CA INX        F4CB TXS        F4CC LDX 59     F4CE BVC F4A1   F4D0 ???


0BRANCH <primitive>

 F499 INX        F49A INX        F49B LDA FE,X   F49D ORA FF,X   F49F BEQ F484
 F4A1 CLC        F4A2 LDA 4E     F4A4 ADC # 2    F4A6 STA 4E     F4A8 BCC F4AC
 F4AA INC 4F     F4AC JMP F428   F4AF LDA (F4),Y F4B1 STX 59     F4B3 TSX
 F4B4 INC  1,X   F4B6 BNE F4BA   F4B8 INC  2,X   F4BA CLC        F4BB LDA  3,X
 F4BD SBC  1,X   F4BF LDA  4,X   F4C1 SBC  2,X   F4C3 BPL F482   F4C5 BVS F482
 F4C7 INX        F4C8 INX        F4C9 INX        F4CA INX        F4CB TXS
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```
 F4CC LDX 59     F4CE BVC F4A1   F4D0 ???


BRANCH

F480  F484 Headerless

 B118 BS7 FF,FF  B11B BS7 FF,FF  B11E BS7 FF,FF  B121 BS7 FF,FF  B124 BS7 FF,FF



EXECUTE <primitive>

 F473 LDA  0,X   F475 STA 4C     F477 LDA  1,X   F479 STA 4D     F47B INX
 F47C INX        F47D JMP 004B   F480 STY F4     F482 LDX 59     F484 CLC
 F485 LDA (4E),Y F487 ADC 4E     F489 PHA        F48A INY        F48B LDA (4E),Y
 F48D ADC 4F     F48F STA 4F     F491 PLA        F492 STA 4E     F494 JMP F428
 F497 STA E8F4,Y F49A INX        F49B LDA FE,X   F49D ORA FF,X   F49F BEQ F484
 F4A1 CLC        F4A2 LDA 4E     F4A4 ADC # 2    F4A6 STA 4E     F4A8 BCC F4AC
 F4AA INC 4F     F4AC JMP F428   F4AF LDA (F4),Y F4B1 STX 59     F4B3 TSX
 F4B4 INC  1,X   F4B6 BNE F4BA   F4B8 INC  2,X   F4BA CLC        F4BB LDA  3,X
 F4BD SBC  1,X   F4BF LDA  4,X   F4C1 SBC  2,X   F4C3 BPL F482   F4C5 BVS F482
 F4C7 INX        F4C8 INX        F4C9 INX        F4CA INX        F4CB TXS
 F4CC LDX 59     F4CE BVC F4A1   F4D0 ???


CLIT <primitive>

 F45A LDA (4E),Y F45C PHA        F45D TYA        F45E BEQ F41B   F460 ASL .A
 F461 STA 50     F463 LDA  0,X   F465 STA 0051,Y F468 INX        F469 INY
 F46A CPY 50     F46C BNE F463   F46E LDY # 0    F470 RTS        F471 ???



LIT <primitive>

 F410 LDA (4E),Y F412 PHA        F413 INC 4E     F415 BNE F419   F417 INC 4F
 F419 LDA (4E),Y F41B INC 4E     F41D BNE F421   F41F INC 4F     F421 DEX
 F422 DEX        F423 STA  1,X   F425 PLA        F426 STA  0,X   F428 BIT 4A
 F42A BMI F445   F42C LDY # 1    F42E LDA (4E),Y F430 STA 4D     F432 DEY
 F433 LDA (4E),Y F435 STA 4C     F437 CLC        F438 LDA 4E     F43A ADC # 2
 F43C STA 4E     F43E BCC F442   F440 INC 4F     F442 JMP 004B   F445 BVS F42C
 F447 LDA 5B     F449 STA 4C     F44B LDA 5C     F44D STA 4D     F44F LDA #40
 F451 STA 4A     F453 LDY # 0    F455 JMP 004B   F458 ???

OK

VLI

DCL   DECOMPLIST   DECOMPLIST   DECOMPLIST   DECOMPLIST   ADUMP   CFIND   VL
I   DLI   DECOMPILE   DOCOL.DSP   CONST.DSP   VAR.DSP   USERV.DSP   BRANCH.DSP
 WORD.DSP   PDOTQ.DSP   N.   HLESS.DSP   DOES.ADR   CLIT.ADR   PSCODE.ADR   VAR.
ADR   USERV.ADR   CONST.ADR   PDOTQ.ADR   PLOOP.ADR   BRANCH.ADR   0BRANCH.ADR
 DOCOL.ADR   LIT.ADR   LOOP.ADR   ENDCASE   ENDOF   OF   CASE   NDIS   DIS   DIS
ASS   DISASSEMBLE   #.DSP   BIT-ADRESSING.DSP   Z.PAGE,Y.DSP   INDIRECT.DSP   RE
LATIVE.DSP   ABS.Y.DSP   ABS.X.DSP   Z.PAGE,X.DSP   (IND),Y.DSP   (IND,X).DSP
IMPLIED.DSP   ACCUM.DSP   ZERO-PAGE.DSP   ABSOLUTE.DSP   IMMEDIATE.DSP   DBYTE.D
SP   BYTE.DSP   OPCODE.DSP   OFFSET.DSP   DOCOL.FLAG   WORD.PTR   QUIT.FLAG   AD
RESS.CTR   (BLOCK)   HEX>ASCII   SEI   CLI   ASCII>HEX   HEX?   ZIFFER?   OFF
ON

TASK   ADMP   ;DUMP   FORMAT   FMTRK   BANKEXECUTE   BANKEEC!   BANKC@   BA
NKC!   EEC!   CASE:   MEMTOP   SCDR   SCSR   SCCR   MCR   IER   IFR   PG   PF
```

```
PE   PD   PC   PB   PA   NMIVEC   IRQVEC   INTVEC   INTFLG   C,CON   .S   MON
VLIST   INDEX   LIST   ?   .   .R   D.   D.R   #S   #   SIGN   #>   <#   SPACES
  WHILE   ELSE   IF   REPEAT   AGAIN   END   UNTIL   +LOOP   LOOP   DO   THEN
ENDIF   BEGIN   FORGET   AUTOSTART   ?KERNEL   HWORD   H/C   '   SEEK   INIT   D
WRITE   DREAD   SELECT   DISK   R/W   B/SCR   B/BUF   -BCD   -->   LOAD   MESSAG
E   >LINE   .LINE   (LINE)   DUMP   FLUSH   BLOCK   BUFFER   EMPTY-BUFFERS   UPD
ATE   +BUF   M/MOD   */   */MOD   MOD   /   /MOD   *   M/   M*   MAX   MIN   DAB
S   ABS   D+-   +-   S->D   COLD   ABORT   QUIT   (   DEFINITIONS   ASSEMBLER
FORTH   VOCABULARY   IMMEDIATE   INTERPRET   ?STACK   DLITERAL   LITERAL   [COMP
ILE]   CREATE   ID.   ERROR   (ABORT)   -FIND   NUMBER   (NUMBER)   WORD   HOLD
  BLANKS   ERASE   FILL   QUERY   EXPECT   ."   (.")   -TRAILING   TYPE   COU
NT   DOES>   <BUILDS   ;CODE   (;CODE)   DECIMAL   HEX   SMUDGE   ]   [   COMPIL
E   ?CSP   ?PAIRS   ?EXEC   ?COMP   ?ERROR   !CSP   PFAPTR   NFA   CFA   LFA   L
ATEST   TRAVERSE   -DUP   SPACE   PICK   ROT   >   <   U<   =   -   C,   ,   ALL
OT   HERE   ,/   ALLOT/   HERE/   DP/   2-   1-   2+   1+   PAD   LIMIT   FIRST
  C/L   KHZ   MODE   CSP   STATE   CURRENT   CONTEXT   SCR   BLK   PREV   USE
UABORT   VOC-LINK   HEADERLESS   DP   FENCE   WARNING   WIDTH   OFFSET   ULIMIT
  UFIRST   B/SIDE   CYLINDER   DISKNO   HLD   DPL   IN   CLD/WRM   BASE   UR/W
 UPAD   UC/L   R0   S0   TIB   BL   4   3   2   1   0   USER   CODE   VARIABLE
 CONSTANT   ;   :   C!   !   C@   @   TOGGLE   +!   BOUNDS   2DUP   DUP   SWAP
 2DROP   DROP   OVER   DNEGATE   NEGATE   D+   +   0<   NOT   0=   R   R>   >R
 LEAVE   ;S   RP@   RP!   SP!   SP@   XOR   OR   AND   U/   U*   CMOVE   FINIS
 SOURCE   XOFF   XON   CR   ?TERMINAL   KEY   EMIT   ENCLOSE   (FIND)   DIGIT
I   (DO)   (+LOOP)   (LOOP)   0BRANCH   BRANCH   EXECUTE   CLIT   LIT   OK
```