

!A

*** End of Pass 1

*** End of Pass 2

```
0800      1          ttl "Install DOS 4.5H Source Code, INSTALL45H.L"
0800      2      ;
0800      3      ;
0800      4      ; INSTALL45H.L
0800      5      ;
0800      6      ;
0800      7      ; Install DOS 4.5H Source Code
0800      8      ;
0800      9      ; 2024 February 14
0800     10      ;
0800     11      ;
0800     12      ; DOS 4.5H, Build 06
0800     13      ;
0800     14      ; 2024 February 14
0800     15      ;
0800     16      ;
0800     17      ; Start of Source Code: 0x4000
0800     18      ; Start of Symbol List: 0x7800
0800     19      ;
0800     20      ;
0800     21      ; Copyright (c) 2024 February 14 by
0800     22      ; Walland Philip Vrbancic Jr.
0800     23      ;
0800     24      ; 6223 East Peabody Street
0800     25      ; Long Beach, California 90808
0800     26      ; Unitied States of America
0800     27      ;
0800     28      ; All Rights Reserved
0800     29      ;
0800     30      ; This software is the confidential and
0800     31      ; proprietary intellectual property of
0800     32      ; Walland Philip Vrbancic Jr.
0800     33      ;
0800     34      ;
0800     35      ; Sector to Memory Address map:
0800     36      ;
0800     37      ; Tk  Sr  Addr  Pgm      Tk  Sr  Addr  Pgm
0800     38      ; --  --  ----  ----      --  --  ----  ----
0800     39      ; 0   0   BF00  BOOT      1   5   E400  MNGR
0800     40      ; 0   1   BE00  XFER      1   6   E300  MNGR
0800     41      ; 0   2   DD00* HELP      1   7   E200  MNGR
0800     42      ; 0   3   DC00* HELP      1   8   E100  MNGR
0800     43      ; 0   4   DB00* HELP      1   9   E000  MNGR
0800     44      ; 0   5   DA00* HELP      1   A   DF00  MNGR
0800     45      ; 0   6   D900* HELP      1   B   DE00  MNGR
0800     46      ; 0   7   D800* HELP      1   C   DD00  MNGR
0800     47      ; 0   8   D700* HELP      1   D   DC00  MNGR
0800     48      ; 0   9   D600* INRF      1   E   DB00  CMD
0800     49      ; 0   A   D500* INRF      1   F   DA00  CMD
0800     50      ; 0   B   D400* RWTS      2   0   D900  CMD
0800     51      ; 0   C   D300* RWTS      2   1   D800  CMD
0800     52      ; 0   D   D200* RWTS      2   2   D700  CMD
0800     53      ; 0   E   D100* RWTS      2   3   D600  CMD
0800     54      ; 0   F   D000* RWTS      2   4   D500  CMD
0800     55      ; 1   0   E900  DATA      2   5   D400  CMD
0800     56      ; 1   1   E800  DATA      2   6   D300  CMD
0800     57      ; 1   2   E700  DATA      2   7   D200  CMD
0800     58      ; 1   3   E600  DATA      2   8   D100  CMD
0800     59      ; 1   4   E500  SPCL      2   9   D000  CMD
0800     60      ;
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0800      61      ;
0000      62      ZERO      equ  $00
00FF      63      NEGONE    equ  $FF
0800      64      ;
0002      65      RWTSWRIT  equ  $02
0800      66      ;
0084      67      CTRLD     equ  $84
008D      68      RETURN    equ  $8D
0800      69      ;
0100      70      PAGESIZE  equ  $100
0800      71      ;
03D0      72      DOSWARM   equ  $3D0
03D9      73      RWTS      equ  $3D9
03E8      74      PRTERADR  equ  $3E8
0800      75      ;
1000      76      IMAGBGN   equ  $1000
0800      77      ;
D000      78      DOSTART   equ  $D000
EA00      79      DOSEND    equ  $EA00
D000      80      RWTSTART  equ  $D000
DE00      81      HELPEND   equ  $DE00
BE00      82      XFERSTRT  equ  $BE00
C000      83      BOOTEND   equ  $C000
0800      84      ;
1A00      85      PART1     equ  DOSEND-DOSTART
0E00      86      PART2     equ  HELPEND-RWTSTART
0200      87      PART3     equ  BOOTEND-XFERSTRT
0800      88      ;
2A00      89      IMAGLEN   equ  PART1+PART2+PART3
0800      90      ;
C000      91      KEY       equ  $C000
C010      92      CLRKEY    equ  $C010
0800      93      ;
FC58      94      HOME      equ  $FC58
FD8E      95      CROUT     equ  $FD8E
FDDA      96      PRBYTE    equ  $FDDA
FDED      97      COUT      equ  $FDED
0800      98      ;
0800      99      ;
0900      100      org      $900
0900      101      obj      $900
0900      102      usr
0900      103      ;
0900      104      ;
0900 20 58 FC 105      jsr     HOME
0903      106      ;
0903 A0 00      107      ldy    #MSG1-MESGS
0905 20 95 09 108      jsr    PRTMSG
0908      109      ;
0908 A0 25      110      ldy    #MSG2-MESGS
090A 20 95 09 111      jsr    PRTMSG
090D      112      ;
090D A0 3C      113      ldy    #MSG3-MESGS
090F 20 95 09 114      jsr    PRTMSG
0912      115      ;
0912 A0 5B      116      ldy    #MSG4-MESGS
0914 20 95 09 117      jsr    PRTMSG
0917      118      ;
0917 20 88 09 119      jsr    GETKEY
091A      120      ;
091A A0 A0      121      ldy    #MSG5-MESGS

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091C 20 95 09      122      jsr PRTMESG
091F              123      ;
091F A9 10         124      lda /IMAGBGN
0921 8D A7 0A      125      sta USRBUF+1
0924              126      ;
0924 A2 2A         127      ldx /IMAGLEN
0926 20 31 09      128      jsr WRDATA
0929              129      ;
0929 A0 B9         130      ldy #MESG6-MESGS
092B 20 95 09      131      jsr PRTMESG
092E              132      ;
092E 4C D0 03      133      jmp DOSWARM
0931              134      ;
0931              135      ;
0931 8E 9D 0A      136      WRDATA stx COUNTER
0934              137      ;
0934 A0 9E         138      ^1    ldy #TBLTYPE
0936 A9 0A         139      lda /TBLTYPE
0938              140      ;
0938 20 D9 03      141      jsr RWTS
093B B0 1B         142      bcs >3
093D              143      ;
093D A9 AE         144      lda #". "
093F 20 ED FD      145      jsr COUT
0942              146      ;
0942 EE A7 0A      147      inc USRBUF+1
0945              148      ;
0945 CE A3 0A      149      dec SNUM
0948 10 08         150      bpl >2
094A              151      ;
094A A9 0F         152      lda #15
094C 8D A3 0A      153      sta SNUM
094F              154      ;
094F CE A2 0A      155      dec TNUM
0952              156      ;
0952 CE 9D 0A      157      ^2    dec COUNTER
0955 D0 DD         158      bne <1
0957              159      ;
0957 60            160      rts
0958              161      ;
0958 A0 E5         162      ^3    ldy #ERRMESG-MESGS
095A 20 95 09      163      jsr PRTMESG
095D              164      ;
095D AD AB 0A      165      lda ERRCODE
0960 20 DA FD      166      jsr PRBYTE
0963              167      ;
0963 20 8E FD      168      jsr CROUT
0966 20 8E FD      169      jsr CROUT
0969              170      ;
0969 AD AB 0A      171      lda ERRCODE
096C              172      ;
096C 4A            173      lsr
096D 4A            174      lsr
096E 4A            175      lsr
096F 4A            176      lsr
0970              177      ;
0970 A8            178      tay
0971              179      ;
0971 BE 80 09      180      ldx RWTS2FM,Y
0974 20 85 09      181      jsr PRTEROR
0977              182      ;

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```
0977 20 8E FD 183      jsr CROUT
097A 20 8E FD 184      jsr CROUT
097D      185      ;
097D 4C D0 03 186      jmp DOSWARM
0980      187      ;
0980      188      ;
0980 03 04 07 189  RWTS2FM  hex 0304070B08
0983 0B 08
0985      190      ;
0985      191      ;
0985 6C E8 03 192  PRTEROR  jmp (PRTERADR)
0988      193      ;
0988      194      ;
0988 2C 10 C0 195  GETKEY   bit CLRKEY
098B      196      ;
098B AD 00 C0 197  ^1      lda KEY
098E      198      ;
098E EA      199      nop
098F      200      ;
098F 10 FA      201      bpl <1
0991      202      ;
0991 2C 10 C0 203      bit CLRKEY
0994      204      ;
0994 60      205      rts
0995      206      ;
0995      207      ;
0995 B9 A1 09 208  PRTMSG   lda MSGS,Y
0998 F0 06      209      beq >1
099A      210      ;
099A 20 ED FD 211      jsr COUT
099D      212      ;
099D C8      213      iny
099E D0 F5      214      bne PRTMSG
09A0      215      ;
09A0 60      216      ^1      rts
09A1      217      ;
09A1      218      ;
09A1      219  MSGS:
09A1      220      ;
09A1 8D      221  MSG1    byt RETURN
09A2 D2 E5 E1 222      asc "Reading DOS 4.5H file into memory."
09A5 E4 E9 EE
09A8 E7 A0 C4
09AB CF D3 A0
09AE B4 AE B5
09B1 C8 A0 E6
09B4 E9 EC E5
09B7 A0 E9 EE
09BA F4 EF A0
09BD ED E5 ED
09C0 EF F2 F9
09C3 AE
09C4 8D 00      223      byt RETURN,ZERO
09C6      224      ;
09C6 84      225  MSG2    byt CTRLD
09C7 C2 CC CF 226      asc "BLOAD DOS4.5H,A$1000"
09CA C1 C4 A0
09CD C4 CF D3
09D0 B4 AE B5
09D3 C8 AC C1
09D6 A4 B1 B0
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09D9 B0 B0
09DB 8D 00      227      byt RETURN,ZERO
09DD          228      ;
09DD 8D      229      MSG3      byt RETURN
09DE C4 CF D3  230      asc "DOS 4.5H file now in memory."
09E1 A0 B4 AE
09E4 B5 C8 A0
09E7 E6 E9 EC
09EA E5 A0 EE
09ED EF F7 A0
09F0 E9 EE A0
09F3 ED E5 ED
09F6 EF F2 F9
09F9 AE
09FA 8D 00      231      byt RETURN,ZERO
09FC          232      ;
09FC 8D 8D      233      MSG4      byt RETURN,RETURN
09FE C9 EE F3  234      asc "Insert diskette into Slot 6, Drive 2."
0A01 E5 F2 F4
0A04 A0 E4 E9
0A07 F3 EB E5
0A0A F4 F4 E5
0A0D A0 E9 EE
0A10 F4 EF A0
0A13 D3 EC EF
0A16 F4 A0 B6
0A19 AC A0 C4
0A1C F2 E9 F6
0A1F E5 A0 B2
0A22 AE
0A23 8D 8D      235      byt RETURN,RETURN
0A25 D0 F2 E5  236      asc "Press any key to continue."
0A28 F3 F3 A0
0A2B E1 EE F9
0A2E A0 EB E5
0A31 F9 A0 F4
0A34 EF A0 E3
0A37 EF EE F4
0A3A E9 EE F5
0A3D E5 AE
0A3F 8D 00      237      byt RETURN,ZERO
0A41          238      ;
0A41 8D 8D      239      MSG5      byt RETURN,RETURN
0A43 C9 EE F3  240      asc "Installing DOS 4.5H."
0A46 F4 E1 EC
0A49 EC E9 EE
0A4C E7 A0 C4
0A4F CF D3 A0
0A52 B4 AE B5
0A55 C8 AE
0A57 8D 8D 00   241      byt RETURN,RETURN,ZERO
0A5A          242      ;
0A5A 8D 8D 8D   243      MSG6      byt RETURN,RETURN,RETURN
0A5D C9 EE F3  244      asc "Installation of DOS 4.5H is complete."
0A60 F4 E1 EC
0A63 EC E1 F4
0A66 E9 EF EE
0A69 A0 EF E6
0A6C A0 C4 CF
0A6F D3 A0 B4
0A72 AE B5 C8
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0A75 A0 E9 F3
0A78 A0 E3 EF
0A7B ED F0 EC
0A7E E5 F4 E5
0A81 AE
0A82 8D 8D 8D 245      byt RETURN,RETURN,RETURN,ZERO
0A85 00
0A86      246      ;
0A86 8D 8D 247      ERRMSG byt RETURN,RETURN
0A88 C5 F2 F2 248      asc "Error from RWTS = 0x"
0A8B EF F2 A0
0A8E E6 F2 EF
0A91 ED A0 D2
0A94 D7 D4 D3
0A97 A0 BD A0
0A9A B0 F8
0A9C 00      249      byt ZERO
0A9D      250      ;
0A9D      251      ;
0A9D      252      COUNTER dfs 1,ZERO
0A9E      253      ;
0A9E      254      ;
0A9E      255      TBLTYPE dfs 1,1      ; IOB structure block
0A9F 60      256      SNUM16 hex 60      ; slot * 16
0AA0      257      DNUM dfs 1,2      ; drive number
0AA1      258      VOLEXPT dfs 1,ZERO      ; volume number
0AA2      259      TNUM dfs 1,2      ; track number
0AA3      260      SNUM dfs 1,9      ; sector number
0AA4 00 00      261      DCTADR adr *-*      ; address of DCT
0AA6 00 10      262      USRBUF adr IMAGBGN      ; user buffer address
0AA8      263      IOCBPHAS dfs 1,ZERO      ; half phases per track
0AA9 00      264      BYTCNT byt PAGESIZE      ; bytes to read/write
0AAA      265      CMDCODE dfs 1,RWTSWRIT      ; command
0AAB      266      ERRCODE dfs 1,ZERO      ; return error code
0AAC      267      VOLFND dfs 1,ZERO      ; return volume found
0AAD      268      SLOTFND dfs 1,ZERO      ; return slot found
0AAE      269      DRVFND dfs 1,ZERO      ; return drive found
0AAF      270      ;
0AAF      271      ;

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BSAVE INSTALL45H,D1,A\$0900,B,L\$01AF

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0AAF      272      usr INSTALL45H,D1
0AAF      273      ;
0AAF      274      ;
0AAF      275      stt "INSTALL45H Symbol Table"
0AAF      276      ;
0AAF      277      ;
0AAF      278      end 111

```

*** End of Assembly

Symbol List starts at 0x7800, ends at 0x7A3A, used 0x023A, remaining 0x3D62

Symbols unsorted:

ZERO	0000	NEGONE	00FF	RWTSWRIT	0002	CTRLD	0084	RETURN	008D
PAGESIZE	0100	DOSWARM	03D0	RWTS	03D9	PRTERADR	03E8	IMAGBGN	1000
DOSTART	D000	DOSEND	EA00	RWTSTART	D000	HELPEND	DE00	XFERSTRT	BE00
BOOTEND	C000	PART1	1A00	PART2	0E00	PART3	0200	IMAGLEN	2A00
KEY	C000	CLRKEY	C010	HOME	FC58	CROUT	FD8E	PRBYTE	FDDA
COUT	FDED	WRDATA	0931	RWTS2FM	0980	PRTERORR	0985	GETKEY	0988
PRTMSG	0995	MSG5	09A1	MSG1	09A1	MSG2	09C6	MSG3	09DD
MSG4	09FC	MSG5	0A41	MSG6	0A5A	ERRMSG	0A86	COUNTER	0A9D
TBLTYPE	0A9E	SNUM16	0A9F	DNUM	0AA0	VOLEXPT	0AA1	TNUM	0AA2
SNUM	0AA3	DCTADR	0AA4	USRBUF	0AA6	IOCBPHAS	0AA8	BYTCNT	0AA9
CMDCODE	0AAA	ERRCODE	0AAB	VOLFND	0AAC	SLOTFND	0AAD	DRVFND	0AAE

Symbols alphabetically sorted:

BOOTEND	C000	BYTCNT	0AA9	CLRKEY	C010	CMDCODE	0AAA	COUNTER	0A9D
COUT	FDED	CROUT	FD8E	CTRLD	0084	DCTADR	0AA4	DNUM	0AA0
DOSEND	EA00	DOSTART	D000	DOSWARM	03D0	DRVFND	0AAE	ERRCODE	0AAB
ERRMSG	0A86	GETKEY	0988	HELPEND	DE00	HOME	FC58	IMAGBGN	1000
IMAGLEN	2A00	IOCBPHAS	0AA8	KEY	C000	MSG1	09A1	MSG2	09C6
MSG3	09DD	MSG4	09FC	MSG5	0A41	MSG6	0A5A	MSG5	09A1
NEGONE	00FF	PAGESIZE	0100	PART1	1A00	PART2	0E00	PART3	0200
PRBYTE	FDDA	PRTERADR	03E8	PRTERORR	0985	PRTMSG	0995	RETURN	008D
RWTS	03D9	RWTS2FM	0980	RWTSTART	D000	RWTSWRIT	0002	SLOTFND	0AAD
SNUM	0AA3	SNUM16	0A9F	TBLTYPE	0A9E	TNUM	0AA2	USRBUF	0AA6
VOLEXPT	0AA1	VOLFND	0AAC	WRDATA	0931	XFERSTRT	BE00	ZERO	0000

Symbols numerically sorted:

ZERO	0000	RWTSWRIT	0002	CTRLD	0084	RETURN	008D	NEGONE	00FF
PAGESIZE	0100	PART3	0200	DOSWARM	03D0	RWTS	03D9	PRTERADR	03E8
WRDATA	0931	RWTS2FM	0980	PRTERORR	0985	GETKEY	0988	PRTMSG	0995
MSG5	09A1	MSG1	09A1	MSG2	09C6	MSG3	09DD	MSG4	09FC
MSG5	0A41	MSG6	0A5A	ERRMSG	0A86	COUNTER	0A9D	TBLTYPE	0A9E
SNUM16	0A9F	DNUM	0AA0	VOLEXPT	0AA1	TNUM	0AA2	SNUM	0AA3
DCTADR	0AA4	USRBUF	0AA6	IOCBPHAS	0AA8	BYTCNT	0AA9	CMDCODE	0AAA
ERRCODE	0AAB	VOLFND	0AAC	SLOTFND	0AAD	DRVFND	0AAE	PART2	0E00
IMAGBGN	1000	PART1	1A00	IMAGLEN	2A00	XFERSTRT	BE00	KEY	C000
BOOTEND	C000	CLRKEY	C010	RWTSTART	D000	DOSTART	D000	HELPEND	DE00
DOSEND	EA00	HOME	FC58	CROUT	FD8E	PRBYTE	FDDA	COUT	FDED