

!A

*** End of Pass 1

*** End of Pass 2

```
0800      1          ttl "Install DOS 4.1L Source Code, INSTALL41L.L"
0800      2      ;
0800      3      ;
0800      4      ; INSTALL41L.L
0800      5      ;
0800      6      ;
0800      7      ; Install DOS 4.1L Source Code
0800      8      ;
0800      9      ; 2024 February 14
0800     10      ;
0800     11      ;
0800     12      ; DOS 4.1L, Build 46
0800     13      ;
0800     14      ; 2019 January 18
0800     15      ;
0800     16      ;
0800     17      ; DOS 4.5, Build 06
0800     18      ;
0800     19      ; 2024 February 14
0800     20      ;
0800     21      ;
0800     22      ; Start of Source Code: 0x4000
0800     23      ; Start of Symbol List: 0x7800
0800     24      ;
0800     25      ;
0800     26      ; Copyright (c) 2024 February 14 by
0800     27      ; Walland Philip Vrbancic Jr.
0800     28      ;
0800     29      ; 6223 East Peabody Street
0800     30      ; Long Beach, California 90808
0800     31      ; Unitied States of America
0800     32      ;
0800     33      ; All Rights Reserved
0800     34      ;
0800     35      ; This software is the confidential and
0800     36      ; proprietary intellectual property of
0800     37      ; Walland Philip Vrbancic Jr.
0800     38      ;
0800     39      ;
0800     40      ; Sector to Memory map:
0800     41      ;
0800     42      ; Tk   Sr   Addr   Pgm       Tk   Sr   Addr   Pgm
0800     43      ; --   --   ----   ----       --   --   ----   ----
0800     44      ; 0    0    BF00    BOOT       1    0    AC00    MNGR
0800     45      ; 0    1    BE00    RWTS       1    1    AB00    MNGR
0800     46      ; 0    2    BD00    RWTS       1    2    AA00    MNGR
0800     47      ; 0    3    BC00    RWTS       1    3    A900    MNGR
0800     48      ; 0    4    BB00    RWTS       1    4    A800    CMD
0800     49      ; 0    5    BA00    RWTS       1    5    A700    CMD
0800     50      ; 0    6    B900    RWTS       1    6    A600    CMD
0800     51      ; 0    7    B500    DATA      1    7    A500    CMD
0800     52      ; 0    8    B400    DATA      1    8    A400    CMD
0800     53      ; 0    9    B300    DATA      1    9    A300    CMD
0800     54      ; 0    A    B200    DATA      1    A    A200    CMD
0800     55      ; 0    B    B100    MNGR       1    B    A100    CMD
0800     56      ; 0    C    B000    MNGR       1    C    A000    CMD
0800     57      ; 0    D    AF00    MNGR       1    D    9F00    CMD
0800     58      ; 0    E    AE00    MNGR       1    E    9E00    CMD
0800     59      ; 0    F    AD00    MNGR       1    F    9D00    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      ;
9D00      78      DOSTART   equ  $9D00
B600      79      DOSEND    equ  $B600
B900      80      RWTSTART  equ  $B900
C000      81      BOOTEND   equ  $C000
0800      82      ;
1900      83      PART1     equ  DOSEND-DOSTART
0700      84      PART2     equ  BOOTEND-RWTSTART
0800      85      ;
2000      86      IMAGLEN   equ  PART1+PART2
0800      87      ;
C000      88      KEY       equ  $C000
C010      89      CLRKEY    equ  $C010
0800      90      ;
FC58      91      HOME      equ  $FC58
FD8E      92      CROUT     equ  $FD8E
FD8E      93      PRBYTE    equ  $FD8E
FD8E      94      COUT      equ  $FD8E
0800      95      ;
0800      96      ;
0900      97              org  $900
0900      98              obj  $900
0900      99              usr
0900     100      ;
0900     101      ;
0900 20 58 FC 102              jsr  HOME
0903     103      ;
0903 A0 00 104              ldy  #MSG1-MESGS
0905 20 95 09 105             jsr  PRMSG
0908     106      ;
0908 A0 25 107              ldy  #MSG2-MESGS
090A 20 95 09 108             jsr  PRMSG
090D     109      ;
090D A0 3C 110              ldy  #MSG3-MESGS
090F 20 95 09 111             jsr  PRMSG
0912     112      ;
0912 A0 5B 113              ldy  #MSG4-MESGS
0914 20 95 09 114             jsr  PRMSG
0917     115      ;
0917 20 88 09 116             jsr  GETKEY
091A     117      ;
091A A0 A0 118              ldy  #MSG5-MESGS
091C 20 95 09 119             jsr  PRMSG
091F     120      ;
091F A9 10 121              lda  /IMAGBGN

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0921 8D A7 0A    122      sta USRBUF+1
0924           123      ;
0924 A2 20       124      ldx /IMAGLEN
0926 20 31 09    125      jsr WRDATA
0929           126      ;
0929 A0 B9       127      ldy #MSG6-MESGS
092B 20 95 09    128      jsr PRMSG
092E           129      ;
092E 4C D0 03    130      jmp DOSWARM
0931           131      ;
0931           132      ;
0931 8E 9D 0A    133      WRDATA stx COUNTER
0934           134      ;
0934 A0 9E       135      ^1    ldy #TBLTYPE
0936 A9 0A       136      lda /TBLTYPE
0938           137      ;
0938 20 D9 03    138      jsr RWTS
093B B0 1B       139      bcs >3
093D           140      ;
093D A9 AE       141      lda #"."
093F 20 ED FD    142      jsr COUT
0942           143      ;
0942 EE A7 0A    144      inc USRBUF+1
0945           145      ;
0945 CE A3 0A    146      dec SNUM
0948 10 08       147      bpl >2
094A           148      ;
094A A9 0F       149      lda #15
094C 8D A3 0A    150      sta SNUM
094F           151      ;
094F CE A2 0A    152      dec TNUM
0952           153      ;
0952 CE 9D 0A    154      ^2    dec COUNTER
0955 D0 DD       155      bne <1
0957           156      ;
0957 60          157      rts
0958           158      ;
0958 A0 E5       159      ^3    ldy #ERRMSG-MESGS
095A 20 95 09    160      jsr PRMSG
095D           161      ;
095D AD AB 0A    162      lda ERRCODE
0960 20 DA FD    163      jsr PRBYTE
0963           164      ;
0963 20 8E FD    165      jsr CROUT
0966 20 8E FD    166      jsr CROUT
0969           167      ;
0969 AD AB 0A    168      lda ERRCODE
096C           169      ;
096C 4A          170      lsr
096D 4A          171      lsr
096E 4A          172      lsr
096F 4A          173      lsr
0970           174      ;
0970 A8          175      tay
0971           176      ;
0971 BE 80 09    177      ldx RWTS2FM,Y
0974 20 85 09    178      jsr PRERROR
0977           179      ;
0977 20 8E FD    180      jsr CROUT
097A 20 8E FD    181      jsr CROUT
097D           182      ;

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097D 4C D0 03      183      jmp DOSWARM
0980              184      ;
0980              185      ;
0980 03 04 07      186  RWTS2FM  hex 0304070B08
0983 0B 08
0985              187      ;
0985              188      ;
0985 6C E8 03      189  PRTEROR  jmp (PRTERADR)
0988              190      ;
0988              191      ;
0988 2C 10 C0      192  GETKEY   bit CLRKEY
098B              193      ;
098B AD 00 C0      194  ^1      lda KEY
098E              195      ;
098E EA           196      nop
098F              197      ;
098F 10 FA           198      bpl <1
0991              199      ;
0991 2C 10 C0      200      bit CLRKEY
0994              201      ;
0994 60           202      rts
0995              203      ;
0995              204      ;
0995 B9 A1 09      205  PRTMSG   lda MSGS,Y
0998 F0 06         206      beq >1
099A              207      ;
099A 20 ED FD      208      jsr COUT
099D              209      ;
099D C8           210      iny
099E D0 F5         211      bne PRTMSG
09A0              212      ;
09A0 60           213  ^1      rts
09A1              214      ;
09A1              215      ;
09A1              216  MSGS:
09A1              217      ;
09A1 8D           218  MSG1     byt RETURN
09A2 D2 E5 E1      219      asc "Reading DOS 4.1L file into memory."
09A5 E4 E9 EE
09A8 E7 A0 C4
09AB CF D3 A0
09AE B4 AE B1
09B1 CC 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         220      byt RETURN,ZERO
09C6              221      ;
09C6 84           222  MSG2     byt CTRLD
09C7 C2 CC CF      223      asc "BLOAD DOS4.1L,A$1000"
09CA C1 C4 A0
09CD C4 CF D3
09D0 B4 AE B1
09D3 CC AC C1
09D6 A4 B1 B0
09D9 B0 B0
09DB 8D 00         224      byt RETURN,ZERO
09DD              225      ;

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09DD 8D          226  MSG3      byt RETURN
09DE C4 CF D3    227          asc "DOS 4.1L file now in memory."
09E1 A0 B4 AE
09E4 B1 CC 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      228          byt RETURN,ZERO
09FC          229  ;
09FC 8D 8D      230  MSG4      byt RETURN,RETURN
09FE C9 EE F3   231          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      232          byt RETURN,RETURN
0A25 D0 F2 E5   233          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      234          byt RETURN,ZERO
0A41          235  ;
0A41 8D 8D      236  MSG5      byt RETURN,RETURN
0A43 C9 EE F3   237          asc "Installing DOS 4.1L."
0A46 F4 E1 EC
0A49 EC E9 EE
0A4C E7 A0 C4
0A4F CF D3 A0
0A52 B4 AE B1
0A55 CC AE
0A57 8D 8D 00   238          byt RETURN,RETURN,ZERO
0A5A          239  ;
0A5A 8D 8D 8D   240  MSG6      byt RETURN,RETURN,RETURN
0A5D C9 EE F3   241          asc "Installation of DOS 4.1L 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 B1 CC
0A75 A0 E9 F3
0A78 A0 E3 EF
0A7B ED F0 EC
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0A7E E5 F4 E5
0A81 AE
0A82 8D 8D 8D 242      byt RETURN,RETURN,RETURN,ZERO
0A85 00
0A86      243      ;
0A86 8D 8D 244      ERRMSG byt RETURN,RETURN
0A88 C5 F2 F2 245      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      246      byt ZERO
0A9D      247      ;
0A9D      248      ;
0A9D      249      COUNTER dfs 1,ZERO
0A9E      250      ;
0A9E      251      ;
0A9E      252      TBLTYPE dfs 1,1      ; IOB structure block
0A9F 60      253      SNUM16 hex 60      ; slot * 16
0AA0      254      DNUM dfs 1,2      ; drive number
0AA1      255      VOLEXPT dfs 1,ZERO      ; volume number
0AA2      256      TNUM dfs 1,1      ; track number
0AA3      257      SNUM dfs 1,15      ; sector number
0AA4 00 00 258      DCTADR adr *-*      ; address of DCT
0AA6 00 10 259      USRBUF adr IMAGBGN      ; user buffer address
0AA8      260      IOCBPHAS dfs 1,ZERO      ; half phases per track
0AA9 00      261      BYTCNT byt PAGESIZE      ; bytes to read/write
0AAA      262      CMDCODE dfs 1,RWTSWRIT      ; command
0AAB      263      ERRCODE dfs 1,ZERO      ; return error code
0AAC      264      VOLFND dfs 1,ZERO      ; return volume found
0AAD      265      SLOTFND dfs 1,ZERO      ; return slot found
0AAE      266      DRVFND dfs 1,ZERO      ; return drive found
0AAF      267      ;
0AAF      268      ;

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BSAVE INSTALL41L,D1,A\$0900,B,L\$01AF

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0AAF      269      usr INSTALL41L,D1
0AAF      270      ;
0AAF      271      ;
0AAF      272      stt "INSTALL41L Symbol Table"
0AAF      273      ;
0AAF      274      ;
0AAF      275      end 111

```

*** End of Assembly

Symbol List starts at 0x7800, ends at 0x7A1C, used 0x021C, remaining 0x3D80

Symbols unsorted:

ZERO	0000	NEGONE	00FF	RWTSWRIT	0002	CTRLD	0084	RETURN	008D
PAGESIZE	0100	DOSWARM	03D0	RWTS	03D9	PRTERADR	03E8	IMAGBGN	1000
DOSTART	9D00	DOSEND	B600	RWTSTART	B900	BOOTEND	C000	PART1	1900
PART2	0700	IMAGLEN	2000	KEY	C000	CLRKEY	C010	HOME	FC58
CROUT	FD8E	PRBYTE	FDDA	COUT	FDED	WRDATA	0931	RWTS2FM	0980
PRTERERROR	0985	GETKEY	0988	PRTMSG	0995	MESGS	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	B600	DOSTART	9D00	DOSWARM	03D0	DRVFND	0AAE	ERRCODE	0AAB
ERRMSG	0A86	GETKEY	0988	HOME	FC58	IMAGBGN	1000	IMAGLEN	2000
IOCBPHAS	0AA8	KEY	C000	MSG1	09A1	MSG2	09C6	MSG3	09DD
MSG4	09FC	MSG5	0A41	MSG6	0A5A	MESGS	09A1	NEGONE	00FF
PAGESIZE	0100	PART1	1900	PART2	0700	PRBYTE	FDDA	PRTERADR	03E8
PRTERERROR	0985	PRTMSG	0995	RETURN	008D	RWTS	03D9	RWTS2FM	0980
RWTSTART	B900	RWTSWRIT	0002	SLOTFND	0AAD	SNUM	0AA3	SNUM16	0A9F
TBLTYPE	0A9E	TNUM	0AA2	USRBUF	0AA6	VOLEXPT	0AA1	VOLFND	0AAC
WRDATA	0931	ZERO	0000						

Symbols numerically sorted:

ZERO	0000	RWTSWRIT	0002	CTRLD	0084	RETURN	008D	NEGONE	00FF
PAGESIZE	0100	DOSWARM	03D0	RWTS	03D9	PRTERADR	03E8	PART2	0700
WRDATA	0931	RWTS2FM	0980	PRTERERROR	0985	GETKEY	0988	PRTMSG	0995
MESGS	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	IMAGBGN	1000
PART1	1900	IMAGLEN	2000	DOSTART	9D00	DOSEND	B600	RWTSTART	B900
KEY	C000	BOOTEND	C000	CLRKEY	C010	HOME	FC58	CROUT	FD8E
PRBYTE	FDDA	COUT	FDED						