

!A

\*\*\* End of Pass 1

\*\*\* End of Pass 2

```
0800      1          ttl "Load LISA80 Source Code"
0800      2      ;
0800      3      ;
0800      4      ; LOADLISA80.L
0800      5      ;
0800      6      ;
0800      7      ; Load LISA80 Source Code
0800      8      ;
0800      9      ; 2024 February 14
0800     10      ;
0800     11      ;
0800     12      ; DOS 4.5, 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      ; This program loads the DOS 4.5 version of LISA80 into
0800     36      ; Auxiliary memory. The LISA80.3 code interfaces LISA80
0800     37      ; and DOS.
0800     38      ;
0800     39      ;
0010     40      PTR1      epz $10
0012     41      PTR2      epz $12
0033     42      PROMPT    epz $33
0076     43      ASRUN     epz $76
00D8     44      ASONERR   epz $D8
0800     45      ;
0800     46               enz
0800     47      ;
0000     48      ZERO      equ $00
0084     49      CTRLD     equ $84
008D     50      RETURN    equ $8D
00FF     51      NEGONE    equ $FF
0800     52      ;
0000     53      WARMNDX    equ $00
0800     54      ;
0028     55      LISA1PGS   equ $28
0010     56      LISA2PGS   equ $10
0800     57      ;
03D0     58      DOSWARM    equ $3D0
03D3     59      DOSCOLD    equ $3D3
03EA     60      HOOKDOS    equ $3EA
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0800          61 ;
1000          62 PAGE10 equ $1000
D000          63 PAGED0 equ $D000
F800          64 PAGEF8 equ $F800
0800          65 ;
B7C0          66 XFERSTRT equ $B7C0
0800          67 ;
BFFA          68 INITVAL equ $BFFA
0800          69 ;
C008          70 AUXZPOFF equ $C008
C009          71 AUXZPON equ $C009
0800          72 ;
C080          73 RAM2WP equ $C080
C081          74 ROM2WE equ $C081
C082          75 ROM2WP equ $C082
C083          76 RAM2WE equ $C083
C08A          77 ROM1WP equ $C08A
C08B          78 RAM1WE equ $C08B
0800          79 ;
E000          80 COLDSTRT equ $E000
0800          81 ;
FB2F          82 INIT equ $FB2F
FC58          83 HOME equ $FC58
FDED          84 COUT equ $FDED
FE84          85 SETNORM equ $FE84
FE89          86 SETKBD equ $FE89
FE93          87 SETVID equ $FE93
0800          88 ;
0800          89 ;
0900          90 org $900
0900          91 obj $900
0900          92 usr
0900          93 ;
0900          94 ;
0900 20 58 FC 95 jsr HOME
0903 20 EA 03 96 jsr HOOKDOS
0906          97 ;
0906 A0 00 98 ldy #MSG1-MESGS
0908 20 E3 09 99 jsr PRTMSG
090B          100 ;
090B          101 ;
090B          102 ; Load LISA80.1 into Main memory, then copy to Auxiliary
090B          103 ; memory.
090B          104 ;
090B A0 22 105 ldy #MSG2-MESGS
090D 20 E3 09 106 jsr PRTMSG
0910          107 ;
0910 2C 8B C0 108 bit RAM1WE
0913 2C 8B C0 109 bit RAM1WE
0916          110 ;
0916 A2 28 111 ldx #LISA1PGS
0918 20 59 09 112 jsr MOVELISA
091B          113 ;
091B 20 7F 09 114 jsr COPYROM
091E          115 ;
091E          116 ;
091E          117 ; Load LISA80.2 into Main memory, then copy to Auxiliary
091E          118 ; memory.
091E          119 ;
091E A0 3B 120 ldy #MSG3-MESGS
0920 20 E3 09 121 jsr PRTMSG

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0923          122 ;
0923 2C 83 C0 123          bit RAM2WE
0926 2C 83 C0 124          bit RAM2WE
0929          125 ;
0929 A2 10      126          ldx #LISA2PGS
092B 20 59 09 127          jsr MOVELISA
092E          128 ;
092E          129 ;
092E          130 ; Load LISA80.3 into Main memory.
092E          131 ;
092E A0 54      132          ldy #MESG4-MESGS
0930 20 E3 09 133          jsr PRTMESG
0933          134 ;
0933 8D 08 C0 135          sta AUXZPOFF
0936          136 ;
0936 A9 00      137          lda #ZERO
0938 85 33      138          sta PROMPT
093A 85 76      139          sta ASRUN
093C 85 D8      140          sta ASONERR
093E          141 ;
093E 20 A1 09 142          jsr INITHOOK
0941          143 ;
0941 8D 09 C0 144          sta AUXZPON
0944          145 ;
0944 2C 82 C0 146          bit ROM2WP
0947          147 ;
0947 20 84 FE 148          jsr SETNORM
094A 20 2F FB 149          jsr INIT
094D 20 89 FE 150          jsr SETKBD
0950 20 93 FE 151          jsr SETVID
0953          152 ;
0953 2C 80 C0 153          bit RAM2WP
0956          154 ;
0956 4C 00 E0 155          jmp COLDSTRT
0959          156 ;
0959          157 ;
0959 8D 09 C0 158 MOVELISA sta AUXZPON
095C          159 ;
095C A0 00      160          ldy #PAGE10
095E 84 10      161          sty PTR1
0960 84 12      162          sty PTR2
0962          163 ;
0962 A9 10      164          lda /PAGE10
0964 85 11      165          sta PTR1+1
0966          166 ;
0966 A9 D0      167          lda /PAGED0
0968 85 13      168          sta PTR2+1
096A          169 ;
096A B1 10      170 ^1      lda (PTR1),Y
096C 91 12      171          sta (PTR2),Y
096E          172 ;
096E C8          173          iny
096F D0 F9      174          bne <1
0971          175 ;
0971 E6 11      176          inc PTR1+1
0973 E6 13      177          inc PTR2+1
0975          178 ;
0975 CA          179          dex
0976 D0 F2      180          bne <1
0978          181 ;
0978 8D 08 C0 182          sta AUXZPOFF

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097B      183 ;
097B 2C 8A C0 184      bit ROM1WP
097E      185 ;
097E 60      186      rts
097F      187 ;
097F      188 ;
097F      189 ; Copy Main memory ROM to Auxiliary memory RAM.
097F      190 ;
097F 8D 09 C0 191 COPYROM sta AUXZPON
0982      192 ;
0982 2C 81 C0 193      bit ROM2WE
0985 2C 81 C0 194      bit ROM2WE
0988      195 ;
0988 A0 00      196      ldy #PAGEF8
098A A2 F8      197      ldx /PAGEF8
098C      198 ;
098C 84 10      199      sty PTR1
098E      200 ;
098E 86 11      201 ^1      stx PTR1+1
0990      202 ;
0990 B1 10      203 ^2      lda (PTR1),Y
0992 91 10      204      sta (PTR1),Y
0994      205 ;
0994 C8      206      iny
0995 D0 F9      207      bne <2
0997      208 ;
0997 E8      209      inx
0998 D0 F4      210      bne <1
099A      211 ;
099A 8D 08 C0 212      sta AUXZPOFF
099D      213 ;
099D 2C 8A C0 214      bit ROM1WP
09A0      215 ;
09A0 60      216      rts
09A1      217 ;
09A1      218 ;
09A1      219 ; Get address of HOOKDOS and save to RHOOKDOS.
09A1      220 ;
09A1 AE EB 03 221 INITHOOK ldx HOOKDOS+1
09A4 AD EC 03 222      lda HOOKDOS+2
09A7      223 ;
09A7 8E C1 B7 224      stx XFERSTRT+1
09AA 8D C2 B7 225      sta XFERSTRT+2
09AD      226 ;
09AD      227 ;
09AD      228 ; Get address of DOSCOLD and save to RDOSCOLD.
09AD      229 ;
09AD AE D4 03 230      ldx DOSCOLD+1
09B0 AD D5 03 231      lda DOSCOLD+2
09B3      232 ;
09B3 8E C4 B7 233      stx XFERSTRT+4
09B6 8D C5 B7 234      sta XFERSTRT+5
09B9      235 ;
09B9      236 ;
09B9      237 ; Copy first eight INITVALS to RINITVAL.
09B9      238 ;
09B9 AD FA BF 239      lda INITVAL
09BC 85 10      240      sta PTR1
09BE      241 ;
09BE AD FB BF 242      lda INITVAL+1
09C1 85 11      243      sta PTR1+1

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09C3          244 ;
09C3 A0 07    245      ldy #WARMNDX+7
09C5          246 ;
09C5 B1 10    247 ^1      lda (PTR1),Y
09C7 99 C6 B7 248      sta XFERSTRT+6,Y
09CA          249 ;
09CA 88       250      dey
09CB 10 F8    251      bpl <1
09CD          252 ;
09CD          253 ;
09CD          254 ; Copy Page 3 DOS vectors to PG3VCTRS.
09CD          255 ;
09CD A0 2F    256      ldy #$2F
09CF          257 ;
09CF B9 D0 03 258 ^2      lda DOSWARM,Y
09D2 99 CE B7 259      sta XFERSTRT+14,Y
09D5          260 ;
09D5 88       261      dey
09D6 10 F7    262      bpl <2
09D8          263 ;
09D8          264 ;
09D8          265 ; Get address of XHOOKDOS and save to HOOKDOS.
09D8          266 ;
09D8 A2 FE    267      ldx #XFERSTRT+$3E
09DA A9 B7    268      lda /XFERSTRT+$3E
09DC          269 ;
09DC 8E EB 03 270      stx HOOKDOS+1
09DF 8D EC 03 271      sta HOOKDOS+2
09E2          272 ;
09E2 60       273      rts
09E3          274 ;
09E3          275 ;
09E3 B9 EF 09 276 PRTMSG  lda MSGS,Y
09E6 F0 06    277      beq >1
09E8          278 ;
09E8 20 ED FD 279      jsr COUT
09EB          280 ;
09EB C8       281      iny
09EC D0 F5    282      bne PRTMSG
09EE          283 ;
09EE 60       284 ^1      rts
09EF          285 ;
09EF          286 ;
09EF          287 MSGS:
09EF          288 ;
09EF 8D       289 MSG1    byt RETURN
09F0 CC EF E1 290      asc "Loading LISA80 with DOS 4.5.06H"
09F3 E4 E9 EE
09F6 E7 A0 CC
09F9 C9 D3 C1
09FC B8 B0 A0
09FF F7 E9 F4
0A02 E8 A0 C4
0A05 CF D3 A0
0A08 B4 AE B5
0A0B AE B0 B6
0A0E C8
0A0F 8D 00    291      byt RETURN,ZERO
0A11          292 ;
0A11 8D 84    293 MSG2    byt RETURN,CTRLD
0A13 C2 CC CF 294      asc "BLOAD LISA80.1,A$1000"

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```
0A16 C1 C4 A0
0A19 CC C9 D3
0A1C C1 B8 B0
0A1F AE B1 AC
0A22 C1 A4 B1
0A25 B0 B0 B0
0A28 8D 00      295      byt RETURN,ZERO
0A2A           296      ;
0A2A 8D 84      297      MSG3      byt RETURN,CTRLD
0A2C C2 CC CF   298      asc  "BLOAD LISA80.2,A$1000"
0A2F C1 C4 A0
0A32 CC C9 D3
0A35 C1 B8 B0
0A38 AE B2 AC
0A3B C1 A4 B1
0A3E B0 B0 B0
0A41 8D 00      299      byt RETURN,ZERO
0A43           300      ;
0A43 8D 84      301      MSG4      byt RETURN,CTRLD
0A45 C2 CC CF   302      asc  "BLOAD LISA80.3,A$B7C0"
0A48 C1 C4 A0
0A4B CC C9 D3
0A4E C1 B8 B0
0A51 AE B3 AC
0A54 C1 A4 C2
0A57 B7 C3 B0
0A5A           303      ;
0A5A 8D 84      304      byt RETURN,CTRLD
0A5C CD CF CE   305      asc  "MON C,I,O"
0A5F A0 C3 AC
0A62 C9 AC CF
0A65 8D 00      306      byt RETURN,ZERO
0A67           307      ;
0A67           308      ;

BSAVE LOADLISA80,A$0900,B,L$0167

0A67           309      usr LOADLISA80
0A67           310      ;
0A67           311      ;
0A67           312      stt "LOADLISA80 Symbol List"
0A67           313      ;
0A67           314      ;
0A67           315      end 111

*** End of Assembly
```

Symbol List starts at 0x7800, ends at 0x79CC, used 0x01CC, remaining 0x3DCC

### Symbols unsorted:

PTR1	0010	PTR2	0012	PROMPT	0033	ASRUN	0076	ASONERR	00D8
ZERO	0000	CTRLD	0084	RETURN	008D	NEGONE	00FF	WARMNDX	0000
LISA1PGS	0028	LISA2PGS	0010	DOSWARM	03D0	DOSCOLD	03D3	HOOKDOS	03EA
PAGE10	1000	PAGED0	D000	PAGEF8	F800	XFERSTRT	B7C0	INITVAL	BFFA
AUXZPOFF	C008	AUXZPON	C009	RAM2WP	C080	ROM2WE	C081	ROM2WP	C082
RAM2WE	C083	ROM1WP	C08A	RAM1WE	C08B	COLDSTRT	E000	INIT	FB2F
HOME	FC58	COUT	FDED	SETNORM	FE84	SETKBD	FE89	SETVID	FE93
MOVELISA	0959	COPYROM	097F	INITHOOK	09A1	PRTMSG	09E3	MESGS	09EF
MESG1	09EF	MESG2	0A11	MESG3	0A2A	MESG4	0A43		

### Symbols alphabetically sorted:

ASONERR	00D8	ASRUN	0076	AUXZPOFF	C008	AUXZPON	C009	COLDSTRT	E000
COPYROM	097F	COUT	FDED	CTRLD	0084	DOSCOLD	03D3	DOSWARM	03D0
HOME	FC58	HOOKDOS	03EA	INIT	FB2F	INITHOOK	09A1	INITVAL	BFFA
LISA1PGS	0028	LISA2PGS	0010	MESG1	09EF	MESG2	0A11	MESG3	0A2A
MESG4	0A43	MESGS	09EF	MOVELISA	0959	NEGONE	00FF	PAGE10	1000
PAGED0	D000	PAGEF8	F800	PROMPT	0033	PRTMSG	09E3	PTR1	0010
PTR2	0012	RAM1WE	C08B	RAM2WE	C083	RAM2WP	C080	RETURN	008D
ROM1WP	C08A	ROM2WE	C081	ROM2WP	C082	SETKBD	FE89	SETNORM	FE84
SETVID	FE93	WARMNDX	0000	XFERSTRT	B7C0	ZERO	0000		

### Symbols numerically sorted:

ZERO	0000	WARMNDX	0000	PTR1	0010	LISA2PGS	0010	PTR2	0012
LISA1PGS	0028	PROMPT	0033	ASRUN	0076	CTRLD	0084	RETURN	008D
ASONERR	00D8	NEGONE	00FF	DOSWARM	03D0	DOSCOLD	03D3	HOOKDOS	03EA
MOVELISA	0959	COPYROM	097F	INITHOOK	09A1	PRTMSG	09E3	MESGS	09EF
MESG1	09EF	MESG2	0A11	MESG3	0A2A	MESG4	0A43	PAGE10	1000
XFERSTRT	B7C0	INITVAL	BFFA	AUXZPOFF	C008	AUXZPON	C009	RAM2WP	C080
ROM2WE	C081	ROM2WP	C082	RAM2WE	C083	ROM1WP	C08A	RAM1WE	C08B
PAGED0	D000	COLDSTRT	E000	PAGEF8	F800	INIT	FB2F	HOME	FC58
COUT	FDED	SETNORM	FE84	SETKBD	FE89	SETVID	FE93		