

!A

*** End of Pass 1

*** End of Pass 2

```
0800      1          ttl "Read/Write RWTS Source Code, RW.L"
0800      2      ;
0800      3      ;
0800      4      ; RW.L
0800      5      ;
0800      6      ;
0800      7      ; Read/Write RWTS 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      ; CALL RW,T%,S%,E%[,A%,C%,N%,D%]
0800     36      ;
0800     37      ; RW = Entry address of routine
0800     38      ;
0800     39      ; T% = Track number
0800     40      ;
0800     41      ; Required in command line
0800     42      ;
0800     43      ; S% = Sector number
0800     44      ;
0800     45      ; Required in command line
0800     46      ;
0800     47      ; E% = Return RWTS error code
0800     48      ;
0800     49      ; Required in command line
0800     50      ;
0800     51      ; A% = MSB of data buffer address
0800     52      ;
0800     53      ; Optional in command line
0800     54      ;
0800     55      ; C% = RWTS command
0800     56      ;
0800     57      ; Optional in command line
0800     58      ;
0800     59      ; N% = Slot number
0800     60      ;
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0800      61 ;           Optional in command line
0800      62 ;
0800      63 ;           D% = Drive number
0800      64 ;
0800      65 ;           Optional in command line
0800      66 ;
0800      67 ; This code will execute at any address.
0800      68 ;
0800      69 ;
004A     70 IOBADR      epz $4A
0800     71 ;
00B7     72 CHRGOT      epz $B7
0800     73 ;
00EB     74 IOFLAG      epz $EB
00EC     75 VAR%ADR      epz $EC
00EE     76 E%ADR       epz $EE
0800     77 ;
0800     78           enz
0800     79 ;
0000     80 ZERO        equ $00
0001     81 RWTSREAD    equ $01
007F     82 ASCIMASK    equ $7F
00FF     83 NEGONE      equ $FF
0800     84 ;
00AC     85 COMMA       equ $AC
0800     86 ;
0110     87 JMPVCTR      equ $110
0800     88 ;
0200     89 INPUT       equ $200
0800     90 ;
03D9     91 CALLRWTS     equ $3D9
03E3     92 GETIOCB      equ $3E3
0800     93 ;
DEBE     94 CHKCOM       equ $DEBE
DFE3     95 PTRGET       equ $DFE3
0800     96 ;
FF58     97 IORTS       equ $FF58
0800     98 ;
0800     99 ;
0900    100           org $900
0900    101           obj $900
0900    102           usr
0900    103 ;
0900    104 ;
0900 A9 FF    105           lda #NEGONE
0902 85 EB    106           sta IOFLAG
0904        107 ;
0904        108 ;
0904        109 ; Point to current address on the stack.
0904        110 ;
0904 20 58 FF 111 START      jsr IORTS
0907        112 ;
0907 BA      113           tsx
0908        114 ;
0908 CA      115           dex
0909 CA      116           dex
090A        117 ;
090A 9A      118           txs
090B        119 ;
090B        120 ;
090B        121 ; Create JMP vector to GETVAR.
```

```

090B      122 ;
090B A9 00      123      lda #*-*
090D      124      dfs !-1
090C      125 ;
090C 4C 00 00    126      jmp *-*
090F      127      dfs !-2
090D      128 ;
090D 8D 10 01    129      sta JMPVCTR
0910      130 ;
0910 18          131      clc
0911      132 ;
0911 68          133      pla
0912 69 7F      134      adc #GETVAR-START+2
0914 8D 11 01    135      sta JMPVCTR+1
0917      136 ;
0917 68          137      pla
0918 69 00      138      adc /GETVAR-START+2
091A 8D 12 01    139      sta JMPVCTR+2
091D      140 ;
091D      141 ;
091D      142 ; Get the RWTS ICOB address and set VOLEXT=0, USRBUF=INPUT,
091D      143 ; and CMDCODE=RWTSREAD.
091D      144 ;
091D 20 E3 03    145      jsr GETIOCB
0920      146 ;
0920 84 4A      147      sty IOBADR
0922 85 4B      148      sta IOBADR+1
0924      149 ;
0924 A0 03      150      ldy #3
0926      151 ;
0926 A9 00      152      lda #ZERO
0928 91 4A      153      sta (IOBADR),Y
092A      154 ;
092A A0 08      155      ldy #8
092C      156 ;
092C 91 4A      157      sta (IOBADR),Y
092E      158 ;
092E C8          159      iny
092F      160 ;
092F A9 02      161      lda /INPUT
0931 91 4A      162      sta (IOBADR),Y
0933      163 ;
0933 A0 0C      164      ldy #12
0935      165 ;
0935 A9 01      166      lda #RWTSREAD
0937 91 4A      167      sta (IOBADR),Y
0939      168 ;
0939      169 ;
0939      170 ; Get T% variable data and set the RWTS track number.
0939      171 ;
0939 20 10 01    172      jsr JMPVCTR
093C      173 ;
093C A0 04      174      ldy #4
093E      175 ;
093E 91 4A      176      sta (IOBADR),Y
0940      177 ;
0940      178 ;
0940      179 ; Get S% variable data and set the RWTS sector number.
0940      180 ;
0940 20 10 01    181      jsr JMPVCTR
0943      182 ;

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0943 A0 05      183      ldy #5
0945           184      ;
0945 91 4A      185      sta (IOBADR),Y
0947           186      ;
0947           187      ;
0947           188      ; Get E% variable address and initialize it to no error.
0947           189      ; Now have all required variables, so clear IOFLAG.
0947           190      ;
0947 20 BE DE    191      jsr CHKCOM
094A 20 E3 DF    192      jsr PTRGET
094D           193      ;
094D 85 EE      194      sta E%ADR
094F 84 EF      195      sty E%ADR+1
0951           196      ;
0951 A0 00      197      ldy #ZERO
0953 98         198      tya
0954           199      ;
0954 91 EE      200      sta (E%ADR),Y
0956           201      ;
0956 C8         202      iny
0957           203      ;
0957 91 EE      204      sta (E%ADR),Y
0959           205      ;
0959 E6 EB      206      inc IOFLAG
095B           207      ;
095B           208      ;
095B           209      ; Get A% variable data if available and set the MSB of the
095B           210      ; RWTS data buffer address.
095B           211      ;
095B 20 10 01   212      jsr JMPVCTR
095E B0 04      213      bcs >1
0960           214      ;
0960 A0 09      215      ldy #9
0962           216      ;
0962 91 4A      217      sta (IOBADR),Y
0964           218      ;
0964           219      ;
0964           220      ; Get C% variable data if available and set the RWTS
0964           221      ; command.
0964           222      ;
0964 20 10 01   223      ^1 jsr JMPVCTR
0967 B0 04      224      bcs >2
0969           225      ;
0969 A0 0C      226      ldy #12
096B           227      ;
096B 91 4A      228      sta (IOBADR),Y
096D           229      ;
096D           230      ;
096D           231      ; Get N% variable data if available and set RWTS slot
096D           232      ; number multiplied by 16.
096D           233      ;
096D 20 10 01   234      ^2 jsr JMPVCTR
0970 B0 08      235      bcs >3
0972           236      ;
0972 0A         237      asl
0973 0A         238      asl
0974 0A         239      asl
0975 0A         240      asl
0976           241      ;
0976 A0 01      242      ldy #1
0978           243      ;

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0978 91 4A      244      sta (IOBADR),Y
097A           245      ;
097A           246      ;
097A           247      ; Get D% variable data if available and set RWTS drive
097A           248      ; number.
097A           249      ;
097A 20 10 01   250      ^3      jsr JMPVCTR
097D B0 25      251      bcs >6
097F           252      ;
097F A0 02      253      ldy #2
0981           254      ;
0981 91 4A      255      sta (IOBADR),Y
0983           256      ;
0983 90 1F      257      bcc >6          ; always taken
0985           258      ;
0985           259      ;
0985           260      ; Embedded subroutine to get the address and data of the
0985           261      ; next command line parameter if it exists.
0985           262      ;
0985 20 B7 00   263      GETVAR    jsr CHRGOT
0988 F0 18      264      beq >5
098A           265      ;
098A 20 BE DE   266      jsr CHKCOM
098D F0 13      267      beq >5
098F           268      ;
098F C9 2C      269      cmp #COMMA&ASCIMASK
0991 F0 0D      270      beq >4
0993           271      ;
0993 20 E3 DF   272      jsr PTRGET
0996           273      ;
0996 85 EC      274      sta VAR%ADR
0998 84 ED      275      sty VAR%ADR+1
099A           276      ;
099A A0 01      277      ldy #1
099C           278      ;
099C B1 EC      279      lda (VAR%ADR),Y
099E           280      ;
099E 18         281      clc
099F           282      ;
099F 60         283      rts
09A0           284      ;
09A0 38         285      ^4      sec
09A1           286      ;
09A1 60         287      rts
09A2           288      ;
09A2           289      ;
09A2           290      ; No more parameters on the command line.
09A2           291      ;
09A2 68         292      ^5      pla
09A3 68         293      pla
09A4           294      ;
09A4           295      ;
09A4           296      ; If IOFLAG is clear set the RWTS IOCB address and
09A4           297      ; call RWTS.
09A4           298      ;
09A4 A5 EB      299      ^6      lda IOFLAG
09A6 30 10      300      bmi >7
09A8           301      ;
09A8 20 E3 03   302      jsr GETIOCB
09AB           303      ;
09AB 20 D9 03   304      jsr CALLRWTS

```

```
09AE 90 08      305      bcc >7
09B0            306      ;
09B0            307      ;
09B0            308      ; Return the RWTS error code.
09B0            309      ;
09B0 A0 0D      310      ldy #$0D
09B2            311      ;
09B2 B1 4A      312      lda (IOBADR),Y
09B4            313      ;
09B4 A0 01      314      ldy #1
09B6            315      ;
09B6 91 EE      316      sta (E%ADR),Y
09B8            317      ;
09B8 60         318      ^7      rts
09B9            319      ;
09B9            320      ;
```

BSAVE RW,A\$0900,B,L\$00B9

```
09B9            321      usr RW
09B9            322      ;
09B9            323      ;
09B9            324      stt "RW Symbol Table"
09B9            325      ;
09B9            326      ;
09B9            327      end 111
```

*** End of Assembly

Symbol List starts at 0x7800, ends at 0x78D2, used 0x00D2, remaining 0x3EC2

Symbols unsorted:

IOBADR	004A	CHRGOT	00B7	IOFLAG	00EB	VAR%ADR	00EC	E%ADR	00EE
ZERO	0000	RWTSREAD	0001	ASCIMASK	007F	NEGONE	00FF	COMMA	00AC
JMPVCTR	0110	INPUT	0200	CALLRWTS	03D9	GETIOCB	03E3	CHKCOM	DEBE
PTRGET	DFE3	IORTS	FF58	START	0904	GETVAR	0985		

Symbols alphabetically sorted:

ASCIMASK	007F	CALLRWTS	03D9	CHKCOM	DEBE	CHRGOT	00B7	COMMA	00AC
E%ADR	00EE	GETIOCB	03E3	GETVAR	0985	INPUT	0200	IOBADR	004A
IOFLAG	00EB	IORTS	FF58	JMPVCTR	0110	NEGONE	00FF	PTRGET	DFE3
RWTSREAD	0001	START	0904	VAR%ADR	00EC	ZERO	0000		

Symbols numerically sorted:

ZERO	0000	RWTSREAD	0001	IOBADR	004A	ASCIMASK	007F	COMMA	00AC
CHRGOT	00B7	IOFLAG	00EB	VAR%ADR	00EC	E%ADR	00EE	NEGONE	00FF
JMPVCTR	0110	INPUT	0200	CALLRWTS	03D9	GETIOCB	03E3	START	0904
GETVAR	0985	CHKCOM	DEBE	PTRGET	DFE3	IORTS	FF58		