

**SOUTH BAY TRS-80® USERS GROUP**

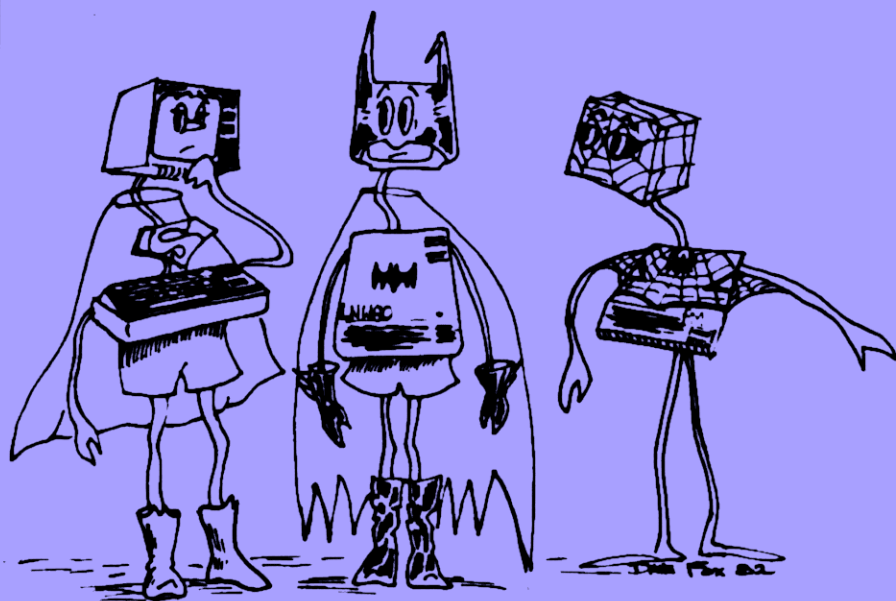


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# **DYNAMIC MEMORIES™**

\* = Tandy Corp./Radio Shack Inc.

**FEBRUARY 1983**



**THE SUPER-MICROS!?!...**

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SBUG meetings are held the 3rd Tuesday of each month in the north east corner of Dysans' building at:

Time - 7:15 to 10:30 PM                      5401 Patrick Henry Drive  
   Santa Clara, Ca

February 15, March 15, April 19

- Features: The meeting will be chaired by Sabri Kawash
- 1) Lobo will give a deminstration of the new MAX-80.
  - 2) Bruce Carso from B & C Computervisions will deminstrate the LNW-80 Model II.
  - 3) Possibly other deminstrations of TRS-80 clones (look-a-likes).
  - 4) If there is any time left, we will finish with Random access...

=====

Send Newsletter articles to:  
c/o Robert Byrd, Editor  
South Bay TRS-80 User Group  
P.O. Box 60116  
Sunnyvale, Ca 94088

Deadline for the March newsletter is; 25 February 83.  
Please, send articles via modem or saved on disc/tape. I  
will see that your media is returned to you. Thanks . . .

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If the need arises feel free to give one of us a call.

RX FOR EYESTRAIN  
ON THE MODEL III

After the SBUG meeting last month and the beautiful displays from the amber and green tubes that Rich Black is selling, I decided to look at my Model III display again.

Rich showed me where he had jumpered a resistor on the video board to change the voltage to the CRT on the open unit he had the green screen on. Although I know just about zero about CRTs and their biasing, I decided to take a look at the biasing on the existing CRT.

Don't ask me why these modifications make a difference, but I feel that my display is so much better than it was that it looks like a different machine. Radio Shack had promised me help in improving the display and they even wrote me a letter and gave me the name of the individual within the company to contact for information, since they admitted that there is a problem with the Model III display. I wrote to him and, as you might guess, never got a reply. (Perhaps Wayne Green is right? Maybe we should sell our Tandy stock if that's their attitude!)

For those who want to try my changes, start by the usual disassembly making sure you don't catch the CRT neck as you remove the top of the case. Remove the connector

and ground lead from the bottom of the case to the upper half and the video board that is on the side of the top of the case.

On the video board locate the green resistor about as big around as a pencil and about 1 inch long. It is on the lower right hand side of the video board. This is R303, 2.2 kOhms, 3 watts. Right below it is R301, 100 kOhms, 1/2 watt. Using 1/2 watt resistors, solder across the larger resistor, R303, an 1.5 kOhm resistor and across the smaller resistor, R301, an 18 kOhm resistor.

Reconnect the connector and ground with the top half on its side next to the bottom and power up the machine cautiously. You will have to readjust the intensity and brightness to see the display. Run a simple BASIC program from cassette BASIC such as: 10 FOR X=1 to 9: PRINT X; NEXT X: GOTO10. Now adjust the focus pot which is the small PC mounted pot at the lower left hand edge of the video board. Be careful not to touch bare components in the area and stay away from the shell of the CRT and its wiring.

If you have the experience that I did, you will find that the display now looks almost as good as my Model I did! You can actually see the characters without straining. When you decrease the contrast or brightness, the characters fade out uniformly and the horizontal lines are not extremely intense as they were before.

Will this damage the CRT? Beats me! Will this work on every Model III? Who knows! Seriously, I have only done this on my own machine. I suspect some experimenting with values might be needed. I may even trim mine up a little more. One resistor adjusts the level of the brightness and allows you to get a bright display at an altered setting of the brightness control. The other resistor influences the sharpness of the characters and if you go too small with it, the characters will break up. You need to try this for yourself. I can't see what possible harm will come from making the change and even though only 1/2 watt resistors are used, even the one bridging the 3 watt resistor doesn't even get warm.

If I shorten the life of my CRT by doing this, then I will have a good excuse for buying one of the low glare tubes from Rich, which is what I would really like to do eventually. I just have a hard time justifying the expenditure even though I spend 15-25 hours a week doing word processing for school papers or using VISICALC.

While you have your machine apart, consider putting in an NE-2 bulb and series resistor (180 kOhms - 220 kOhms) for a pilot light as was mentioned in 80 Micro, I believe. It fits nicely against the reset button. Be careful to insulate things well and don't let any hot wires get exposed. Solder it to the terminals of the rocker on/off

switch nearest the front edge of the keyboard. I fastened mine to the keyboard matrix shell with some hot melt glue so I could be sure it wouldn't move around and short against something. I noticed that Rich had put in a pilot light like this in one of the machines he had.

Ian Webb

# CREATOR/CMD

This program was written to bypass having to boot up under TRSDOS to sequence a BASIC program properly. The program was needed because CREATOR/BAS (reference 80 Micro, also available on SBUG-80) writes the program it creates out of sequence.

CREATOR/CMD asks for the name of the program to load, searches for it on the disc drives and opens the file. The program then replaces the keyboard driver address with the address of the read routine for the file you want. It then loads and executes BASIC. BASIC (not being too smart) doesn't realize that you have tricked it, so it waits for you to type something for it to do. It does this by calling the keyboard routine (which is now pointing at CREATOR/CMD). CREATOR/CMD is sitting quietly in upper memory waiting for BASIC to look for a character, so when the call comes, it loads a character from the file and returns with it in the 'A' register. When CREATOR/CMD runs out of characters in the file, it restores the keyboard routine pointer, and returns to BASIC with the flags set telling it that no character was typed (after closing the file).

This works because BASIC will insert lines into the proper location in the program (based on the line number) no matter what sequence they are typed in.

This program is a quick job and is not intended to be neat. Use it if you need it, and let me know if any problems arise.

Glenn Vaughn  
GLENN @ SBUG-80

```

;      THIS PROGRAM WAS WRITTEN BY GLENN VAUGHN
;      IT IS PLACED IN THE PUBLIC DOMAIN WITH THE
;      PROVISION THAT IT IS FOR PERSONAL USE ONLY.
;      THE PROGRAM IS NOT TO BE SOLD, BUT MAY BE
;      COPIED AND GIVEN TO ANYONE WHO WANTS IT.
;
;      THE NEED FOR THIS PROGRAM CAME ABOUT BECAUSE
;      NEWDOS80 2.0 DOES NOT RESEQUENCE A BASIC
;      PROGRAM WHEN IT IS LOADED. THE CREATOR WRITES

```

```

; THE PROGRAM IT CREATES OUT OF SEQUENCE,
; REQUIRING THE USE OF SOME DOS OTHER THAN
; NEWDOS80 2.0 TO LOAD THE PROGRAM SO AS TO
; SEQUENCE IT PROPERLY. THIS PROGRAM WILL
; ELIMINATE THAT NEED. IT TRICKS BASIC INTO
; THINKING (I KNOW, COMPUTERS DON'T THINK), THAT
; THE PROGRAM IS BEING ENTERED FROM THE
; KEYBOARD. AS YOU KNOW, THE LINES OF A PROGRAM
; NEED NOT BE IN SEQUENCE WHEN THEY ARE KEYED,
; BASIC WILL INSERT THEM WHERE THEY BELONG.
;
; TO RUN THIS PROGRAM, YOU MUST FIRST SET HIMEM
; TO '59999' "HIMEM,59999<ENTER>" AND EXECUTE
; CREATOR/CMD BY TYPING 'CREATOR' AND PRESSING
; <ENTER>. YOU WILL BE ASKED FOR THE NAME OF THE
; FILE TO LOAD THE PROGRAM WILL SEARCH FOR IT,
; OPEN IT, POINT THE KEYBOARD DEVICE CONTROL
; BLOCK (DCB) TO THE MAIN PROCESSING LOGIC IN
; CREATOR/CMD AND CALL IN BASIC.
; WHEN THE END OF THE INPUT FILE IS REACHED,
; CREATOR/CMD WILL CLOSE IT, RESTORE THE DCB TO
; POINT TO THE REAL KEYBOARD ROUTINE AND RETURN
; TO BASIC TELLING IT THAT NO KEY WAS PRESSED.
;
;
; ORG 60000 ;LOADS INTO HIMEM
GETFIL EQU 441CH ;EXTRACT A FILE SPEC
OPENE EQU 4424H ;OPEN AN EXISTING FILE
;IT IS AN ERROR IF IT
;DOES NOT EXIST
;CLOSE FILE
CLOSE EQU 442BH ;READ 1 BYTE FROM FILE
READB EQU 0013H ;GET A LINE FROM
;KEYBOARD. HL POINTS
;TO THE AREA TO STORE
;DATA, B CONTAINS THE
;NUMBER OF BYTES TO
;GET
;ROM VIDEO ROUTINE
CRT EQU 033H ;ROM KEYBOARD ROUTINE
KEY EQU 02BH ;LOCATION FOR ADDRESS
SAVEK DEFW 0 ;OF KEYBOARD DRIVER
;
M1 DEFM 'ENTER NAME OF PROGRAM TO LOAD'
DEFB 0
;
M2 DEFB 0DH
DEFM 'PROGRAM NOT FOUND'
DEFB 0DH
DEFM 'RUN TERMINATED*****'
DEFB 0
;
ENTRY LD HL,3C00H ;START OF VIDEO RAM
LD DE,3C01H ;START OF VIDEO + 1
LD BC,1023 ;GONNA CLEAR 1024 BYTES
LD (HL),20H ;FILL WITH SPACES
LDIR ;SPREAD THEM AROUND
LD HL,3C00H ;TO START OF VIDEO

```

```

LD      (4020H),HL      ;SAVE IN CURSOR LOC
CALL    FINDFL          ;ROUTINE GET FILE SPEC,
                        ;OPEN IT AND RETURN
LD      HL,(4016H)       ;ADDRESS OF KEYBOARD
                        ;DRIVER ROUTINE. WE
                        ;SAVE IT SO WE CAN
LD      (SAVEK),HL      ;RESTORE IT LATER
                        ;HERE IS WHERE WE SAVE
                        ;ADDRESS OF KEYBOARD
LD      HL,MAIN          ;ROUTINE.
                        ;WE NOW LOAD ADDRESS OF
LD      (4016H),HL      ;MAIN PROCESSING PART
                        ;OF THIS PROGRAM.
LD      DE,FCB3          ;WE STORE IT IN THE
LD      DE,FCB3          ;KEYBOARD DCB
                        ;FCB3 CONTAINS THE
JP      4433H            ;CALL TO BASIC.
                        ;4433H IS THE NEWDOS2.0
                        ;ROUTINE TO LOAD AND EXECUTE
                        ;A '/CMD' FILE. THIS ROUTINE
                        ;WILL NOT RETURN TO THE CALLER,
                        ;BUT WE DON'T CARE BECAUSE
                        ;EACH TIME BASIC CALLS FOR
                        ;A CHARACTER FROM THE KEYBOARD
                        ;THIS PROGRAM WILL BE INVOKED
;
;THE FOLLOWING CODE IS EXECUTED EACH TIME THE KEYBOARD
;ROUTINE IS CALLED. THE KEYBOARD ROUTINE WILL RETURN
;WITH THE 'Z' FLAG SET IF NO KEY WAS PRESSED, SO THIS
;PROGRAM READS A BYTE FROM THE PROGRAM, LOADS IT INTO
;THE 'A' REGISTER, SETS THE 'Z' FLAG OFF (-NZ-) AND
;RETURNS TO CALLER (BASIC). THE ONLY REGISTER AFFECTED
;IS THE 'A' REGISTER.
;
MAIN     PUSH    DE      ;SAVE 'DE' REGISTER
        PUSH    BC      ;SAVE 'BC' REGISTER
        PUSH    HL      ;SAVE 'HL' REGISTER
        LD      DE,FCB  ;POINT TO FILE CONTROL BLOCK
        CALL    READB   ;GO READ 1 BYTE
        JP      NZ,DONE  ;NOT ZERO SET IF END OF FILE
                        ;(-NZ-) COULD BE OTHER TYPE
                        ;ERROR BUT WHO CARES, WE
                        ;WOULD HAVE TO CLOSE THE FILE
                        ;AND RESTORE THE KEYBOARD DCB
                        ;ANYWAY.
        LD      D,A      ;SAVE CHARACTER JUST READ
        LD      A,1      ;LOAD 'A' REGISTER WITH 1
        CP      2        ;COMPARE IT TO 2 (THIS SETS
                        ;THE 'Z' FLAG OFF (-NZ-))
        LD      A,D      ;GET BACK CHARACTER JUST READ
        POP     HL       ;RESTORE THE 'HL' REGISTER
        POP     BC       ;RESTORE THE 'BC' REGISTER
        POP     DE       ;RESTORE THE 'DE' REGISTER
        RET          ;RETURN TO CALLER
DONE     LD      DE,FCB  ;POINT TO FILE CONTROL BLOCK
        CALL    CLOSE   ;GO CLOSE THE FILE

```

# South Bay TRS-80 Users Group

```

LD      (4020H),HL      ;SAVE IN CURSOR LOC
CALL    FINDFL          ;ROUTINE GET FILE SPEC,
                        ;OPEN IT AND RETURN
LD      HL,(4016H)      ;ADDRESS OF KEYBOARD
                        ;DRIVER ROUTINE. WE
                        ;SAVE IT SO WE CAN
                        ;RESTORE IT LATER
LD      (SAVEK),HL      ;HERE IS WHERE WE SAVE
                        ;ADDRESS OF KEYBOARD
                        ;ROUTINE.
LD      HL,MAIN          ;WE NOW LOAD ADDRESS OF
                        ;MAIN PROCESSING PART
LD      (4016H),HL      ;OF THIS PROGRAM.
LD      DE,FCB3          ;WE STORE IT IN THE
                        ;KEYBOARD DCB
LD      DE,FCB3          ;FCB3 CONTAINS THE
                        ;CALL TO BASIC.
JP      4433H            ;4433H IS THE NEWDOS2.0
                        ;ROUTINE TO LOAD AND EXECUTE
                        ;A '/CMD' FILE. THIS ROUTINE
                        ;WILL NOT RETURN TO THE CALLER,
                        ;BUT WE DON'T CARE BECAUSE
                        ;EACH TIME BASIC CALLS FOR
                        ;A CHARACTER FROM THE KEYBOARD
                        ;THIS PROGRAM WILL BE INVOKED
;
;THE FOLLOWING CODE IS EXECUTED EACH TIME THE KEYBOARD
;ROUTINE IS CALLED. THE KEYBOARD ROUTINE WILL RETURN
;WITH THE 'Z' FLAG SET IF NO KEY WAS PRESSED, SO THIS
;PROGRAM READS A BYTE FROM THE PROGRAM, LOADS IT INTO
;THE 'A' REGISTER, SETS THE 'Z' FLAG OFF (-NZ-) AND
;RETURNS TO CALLER (BASIC). THE ONLY REGISTER AFFECTED
;IS THE 'A' REGISTER.
;
MAIN     PUSH    DE      ;SAVE 'DE' REGISTER
        PUSH    BC      ;SAVE 'BC' REGISTER
        PUSH    HL      ;SAVE 'HL' REGISTER
        LD      DE,FCB  ;POINT TO FILE CONTROL BLOCK
        CALL    READB   ;GO READ 1 BYTE
        JP      NZ,DONE  ;NOT ZERO SET IF END OF FILE
                        ;(-NZ-) COULD BE OTHER TYPE
                        ;ERROR BUT WHO CARES, WE
                        ;WOULD HAVE TO CLOSE THE FILE
                        ;AND RESTORE THE KEYBOARD DCB
                        ;ANYWAY.
        LD      D,A      ;SAVE CHARACTER JUST READ
        LD      A,1      ;LOAD 'A' REGISTER WITH 1
        CP      2        ;COMPARE IT TO 2 (THIS SETS
                        ;THE 'Z' FLAG OFF (-NZ-))
        LD      A,D      ;GET BACK CHARACTER JUST READ
        POP     HL       ;RESTORE THE 'HL' REGISTER
        POP     BC       ;RESTORE THE 'BC' REGISTER
        POP     DE       ;RESTORE THE 'DE' REGISTER
        RET         ;RETURN TO CALLER
DONE     LD      DE,FCB  ;POINT TO FILE CONTROL BLOCK
        CALL    CLOSE   ;GO CLOSE THE FILE

```



```

LD      HL,(SAVEK)    ;GET ADDRESS OF THE REAL
                        ;KEYBOARD DRIVER.
LD      (4016H),HL    ;RESTORE IT IN THE KEYBOARD
                        ;DEVICE CONTROL BLOCK (DCB)
XOR     A              ;ZERO OUT THE 'A' REGISTER
                        ;THIS ALSO SETS THE 'Z' FLAG (-Z-)
POP     HL             ;RESTORE THE 'HL' REGISTER
POP     BC             ;RESTORE THE 'BC' REGISTER
POP     DE             ;RESTORE THE 'DE' REGISTER
RET     ;RETURN TO BASIC - NEVER TO
                        ;COME BACK TO THIS PROGRAM

DSPMSG  LD      A,(HL)  ;GET CHARACTER
OR      A              ;IS IT A 'OOH'?
RET     Z              ;ALL DONE IF YES
CALL    CRT            ;DISPLAY IT
INC     HL             ;POINT TO NEXT
JP      DSPMSG         ;LOOP TILL DONE

ERROR   JP      4409H   ;JUMP TO DOS AND DISPLAY ERROR
FINDFL  LD      HL,M1    ;POINT TO MESSAGE
CALL    DSPMSG         ;DISPLAY IT
LD      HL,FCB1        ;AREA TO STORE FILE NAME
LD      B,32           ;LENGTH OF FCB
CALL    GETLIN         ;GET FILE NAME
LD      DE,FCB         ;POINT TO FILE CTL BLOCK
LD      HL,FCB1        ;POINT TO FILE NAME
CALL    GETFIL         ;EXTRACT FILE NAME
JP      NZ,ERROR       ;NZ = INVALID NAME
LD      DE,FCB         ;POINT TO EXTRACTED NAME
LD      HL,BUFFER      ;POINT TO FILE BUFFER
LD      BC,0           ;LOGICAL REC LEN = 256
CALL    OPNE           ;OPEN FILE (EXISTING)
JP      NZ,ERROR       ;NZ = FILE NOT FOUND
RET

FCB      DEFM      '          '
FCB1     DEFM      '          '
FCB3     DEFM      'BASIC/CMD'
          DEFB      0DH
          DEFM      '          '
BUFFER   DEFS      512      ;INPUT BUFFER
          END      ENTRY
=====

```

#### ROUTINE FOR SPOOLING PRINTER OUTPUT

Our Editor, Rob Byrd, recently asked me to modify SPOOL/CMD to run on the Model III computer. Thanks to Rob, I discovered how useful spooling can be. It allows you to save all output destined for the printer in a file. You can print the file contents later or merge it with other files and/or new text using SCRIPSIT to produce a finished piece of work. Those of you who have Model I's can use SPOOL/CMD and the required CLOSE/CMD just as they are (available for downloading from SBUG-80). It turned out that the only modification required for the Model III was

to change the memory protect address from 4049H to 4411H. However, I decided to convert to a \$NAME routine to enhance the usefulness of the spooling program.

The modified Assembly Language program will set up \$NAME routines for spooling printer output to a disk file and for closing the file when complete. These routines are for the Model III with NEWDOS/80. To activate the routines simply run SPOOLSET/CMD by typing SPOOLSET from DOS before entering BASIC or other program where printer output will be produced. This will set up both the \$SPOOL and the \$CLOSE routines, which may then be used at any time from DOS or from MINI-DOS via the 'DFG' keys or from BASIC using the command CMD"\$SPOOL" or CMD"\$CLOSE".

When you run \$SPOOL, you will be asked for FILESPEC? Enter the file name you want to use for saving the printer output. IMPORTANT: ALWAYS USE \$CLOSE WHEN YOU HAVE FINISHED SAVING A BATCH OF TEXT! You can then use \$SPOOL and a new FILESPEC to save additional text. Do not attempt to use 'JKL' for screen dump after \$SPOOL has been run!! There is some kind of conflict in the way 'JKL' uses the printer DCB. However, you can get manual screen dumps by using the CNTRL\* (shift down-arrow asterisk). You cannot spool from SCRIPSIT! (Why would you want to?) So be sure you have run \$CLOSE, which also restores the printer DCB, before trying to print from SCRIPSIT.

The listing below was made using the \$SPOOL and \$CLOSE routines while running EDTASM. Then SCRIPSIT was used to append this text and to shorten the listing by deleting string characters and addresses. It is great to be able to do this while running BASIC or EDTASM or VISICALC. Then you can combine all the bits and pieces using SCRIPSIT before actually printing a document.

This utility is available on SBUG-80. To get the machine code program just DFT SPOOLSET/CMD from INDEX and, if you are interested in studying and/or modifying the routine, SPOOLSET/ASM is also available so you will not have to type the program into EDTASM.

Vigo Smith  
VIGO @ SBUG-80

```

      ORG      OFDF0H
START DEFS     04H
      DEFM    'SPOOL'      ;$SPOOL WILL RUN ROUTINE
      JR      SETUP
      ORG      4411H        ;HIMEM STORAGE-MODEL III
      DEFW    OFDF0H
;REFERENCE: 80 MICRO MARCH 1980 PAGE 46 *** H. S. GENTRY
;THIS IS THE PRINTER SPOOLER - WHEN LOADED
;IT WILL INTERCEPT ALL PRINTER OUTPUT AND
;STORE IT IN A 256 BYTE BUFFER WHEN THE
;BUFFER IS FULL THE DATA IS WRITTEN TO

```

; THE SPECIFIED FILE. THE SPOOL FILE MUST  
 ; BE CLOSED BY RUNNING THE SYSTEM PROGRAM  
 ; CLOSE.

```

;
DISP      EQU      4467H
INPUT     EQU      40H
PRDD      EQU      4026H
DOS       EQU      402DH
CLOSE     EQU      4428H
INIT      EQU      4420H
WRITE     EQU      443CH
;

```

```

;
      ORG      0FE00H
SETUP    LD      HL,MSG1          ; LOG ON
          CALL   DISP
          LD      HL,INBFR
          LD      B,32
          CALL   INPUT
          LD      A,B            ; GET ACTUAL #
          OR      A
          JR      Z,SETUP        ; NO INPUT
          EX      DE,HL
          ADD     A,E            ; ADDRESS+#
          LD      L,A            ; LOW ADDRESS
          LD      A,D            ; HI ADD
          ADC     A,0
          LD      H,A            ; HI ADDRESS
          LD      (HL),20H       ; BLANK CR
; INBFR NOW HAS FILE SPEC WITH TRAILING BLANKS
; INIT THE FILE

```

```

          LD      HL,BUFFER      ; PLACE
          LD      DE,INBFR      ; DCB
          LD      B,0
          CALL   INIT           ; OPEN IT
          JR      Z,OK           ; Z=1 IF OK
          LD      HL,ERM
          CALL   DISP
          JP      DOS            ; AND GET OUT
OK        LD      HL,(PRDD)      ; OLD DRIVER
          LD      (SAVDD),HL     ; SAVE IT
          LD      HL,DRIVE       ; NEW DRIVER
          LD      (PRDD),HL      ; PUT IT IN
          JP      DOS            ; DONE

```

; FILE IS OPEN - THIS IS THE ACTUAL DRIVER  
 ; IT WILL STUFF THE CHARACTERS IN THE BUFFER  
 ; IF THE BUFFER IS FULL A WRITE TO THE DISK  
 ; WILL BE DONE

```

;
DRIVE    PUSH     HL
          PUSH     AF
          LD      HL,(PRT)       ; POINT TO BUFFER
          LD      (HL),C         ; SAVE CHARACTER
          INC     HL
          LD      (PRT),HL
          LD      A,(CCNT)       ; COUNT
          CP      OFFH           ; DUN

```

```

-----
                JR      Z,OUT
                INC      A                      ;COUNT IT
                LD        (CCNT),A              ;PUT IT BACK
POP             POP      AF
                POP      HL
                RET                      ;GO BACK
OUT            PUSH     BC
                PUSH     DE
                PUSH     IX
                PUSH     IY
                LD        DE,INBFR              ;DCB
                CALL     WRITE
                LD        HL,BUFFER
                LD        (PRT),HL              ;RESTORE POINTER
                XOR      A                      ;A=0
                LD        (CCNT),A
                POP      IY
                POP      IX
                POP      DE
                POP      BC
                JR        POP

;THIS IS THE CLOSE ROUTINE - CALLED BY
;THE CLOSE FUNCTION TO CLOSE OUT THE LAST
;RECORD AND THEN CLOSE THE FILE
START2  DEFS      04
        DEFM      'CLOSE '                  ;*CLOSE WILL RUN
KLOSE   LD        A,(CCNT)                  ;COUNT
        OR        A
        JR        Z,KLOS                    ;NO DATA CLOSE FILE
;DATA IN FILE - NULL REMAINDER THEN WRITE AND CLOSE
        LD        HL,(PRT)
LOPC    LD        (HL),0
        CP        OFFH                      ;DUN
        JR        Z,WRIT                    ;FULL WRITE IT
        INC      A
        INC      HL
        JR        LOPC

;THIS IS THE WRIT TO THE DISK ROUTING
WRIT    LD        DE,INBFR                  ;DCB
        CALL     WRITE

;THIS IS THE CLOSE ROUTINE - IT WILL CLOSE THE
;FILE
KLOS    LD        DE,INBFR                  ;DCB
        CALL     CLOSE
        LD        HL,(SAVDD)
        LD        (PRDD),HL                ;RESTORE PRINTER
        JP        DOS                       ;DONE
BEGIN   LD        HL,START                  ;ROUTINE START ADDRESS
        CALL     NAME                       ;*NAME ENQUEUE
        LD        HL,START2                ;*CLOSE ROUTINE
        CALL     NAME
        JP        DOS                       ;RETURN TO DOS

NAME     EQU      4461H
PRT      DEFW     BUFFER
CCNT     DEFW     0
SAVDD    DEFW     0

```

February 1983

```
INBFR  DEFM  '
MSG1   DEFM  'SPOOL FILESPEC?'
      DEFB  3
ERM    DEFM  'SPOOL ERROR'
      DEFB  3
BUFFER DEFB  0
      END    BEGIN
```

=====

SBUG-80 MAIL CORNER

<Message from PETE at SBUG-80 01/01/83 20:59:57>  
RE: 'DIRALL/V2F' DISK DIRECTORY PACKAGE

REVISION BY PETE HUNTSINGER 'PETE'  
PLEASE NOTE THE REVISED 'DIRALL/V2F' PACKAGE NOW  
ON THE BOARD. THIS REVISION HAS MANY ADDED FEATURES  
OVER THE ORIGINAL CURRENTLY LISTED.

FIRST: YOU CAN NOW USE FOUR DIGIT DISK NUMBERS INSTEAD  
OF ONLY THREE. THIS ALLOWS A 3 DIGIT NUMBER AND A LETTER  
TO DESIGNATE DISK SIDE.

SECOND: THE DIRECTORY FILE NOW WILL CONTAIN ALL IMPORTANT  
DISK INFORMATION; DISK NAME-DISK DATE-NUMBER OF FREE  
GRAINS-DISK NUMBER. YOU CAN DO A MULTIPLE DISK DELETE,  
ALONG WITH DISK ADDITIONS IN A SINGLE PASS. ADDED IS THE  
ABILITY TO CREATE A FILE'DIRLIST' WITH SCRIPSIT (NOTE USE  
WIDTH=64) AND 'LIST' FROM PROGRAM FURTHER DETAILS FOR A  
GIVEN DISK MERGE WILL AUTOMATICALLY ACCOMMODATE UP TO EIGHT  
DISK FILES OF UP TO 40 DISKS WITHOUT USER CONCERN  
OVER RESERVING BUFFERS ALSO, PROTECTION IS NOW BUILT IN TO  
INSURE USER WILL NOT UNKNOWINGLY WRITE OVER AN EXISTENT  
DISK INDEX FILE. THERE ARE MANY MORE FEATURES, BUT I DON'T  
FEEL I SHOULD HOLD UP THE BOARD WITH MY 'SNAIL PACE'  
TYPING. TRY IT OR LEAVE A MESSAGE IF YOU HAVE FURTHER  
QUESTIONS.

USERS. I NEED ASSISTANCE. THIS IS A REWRITE OF A REWRITE  
AND THE CODE IS A LITTLE MESSY. ALSO, I FEEL I'M TOO CLOSE  
TO THE PROGRAM NOW AND I AM HAVING DIFFICULTY RESOLVING  
TWO REMAINING PROBLEMS WITH THE PROGRAM.

FIRST: IN SORT-BY-FILE USING PRE-SORTED FILES YOU GET A  
'-' AT THE END OF EACH FILE LIST; WHY I DON'T KNOW

SECOND: MERGE BY FILE. THE SCREEN PRINT IS A JAMMED  
FOUR COLUMN LIST AND I WOULD LIKE TO CHANGE THIS TO  
THREE TO CLEAN-UP THE PROGRAM. THIS PROBLEM  
RESULTED FROM EXPANDING DISK NUMBER TO FOUR PLACES.  
ALL LPRINT FORMATS A LETTER PERFECT. CHEERS, HAPPY  
USE AND PLEASE, PLEASE GIVE FEEDBACK.

<Message from COMPVISN at SBUG-80 01/03/83 11:13:41>  
RE: NEW

JUST GOT IN TRS 2.3 COMMENTED BY IJG. IT IS OVER 300 PAGES OF DETAILED INFORMATION. I WISH WE HAD MORE INFORMATION LIKE THIS AROUND. PRICE IS \$29.95.

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DIABLO HAS ANNOUNCED A PRICE REDUCTION IN THEIR LETTER QUALITY DAISY WHEEL HOME COMPUTER PRINTER THE 620. NEW PRICE IS \$1395. MY PRICE WILL BE \$1195.

\*\*\*\*\*

NEW GAMES IN ARE DEMON SEED, CYBORG, CHICKEN, LUCIFERS REALM (AN ADVENTURE), REAR GUARD, CRAZY PAINTER AND LASER BALL.

<Message from BERNIE at SBUG-80 01/06/83 00:50:29>  
RE: Items for sale.

Comprint 912 printer which uses aluminized paper. \$330.

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Trendata printer (Selectric Typewriter) with electronics, mounted in caster table stand also an add on tractor feeder, 4 different typing elements, complete typewriter service manual, cable for attaching to Model I and a driver program. The typewriter may be used in a LOCAL mode. \$550.

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SOFTWARE: (DISK)

French to English translation TLF-50.	\$10.
Deluxe Personal Finance.	\$15.
Information Storage & Retrieval. (ISAR)	\$25.
Level II Basic (4 disks, 8 lessons)	\$12.
Check Write (R A Shmina) Personal Finance	\$10.
Interactive Data Manager	\$15.

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ORIGINAL TAPES:

Cload Magazine (12) March '78-Feb '79 (This would be a nice library gift.)	\$22.
Level II Data Conversion.	\$2.
Level II Program Conversion.	\$2.
Blackjack & Backgammon (Level I)	\$2.
Level II Blackjack & Backgammon	\$2.
Radio Shack Terminal II	\$2.
Recipe Conversion & Message Center 26-1601	\$1.
Keyboard Debounce Systems & KBFIX (side 1)	
Keyboard Debounce/Real Time Clock System	
\$RELO (side 2) both Level II	\$3.
Misc other tapes (some with programs)	\$1.50

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BOOK: TRS-80 Disk & Other Mysteries \$15.  
Paper for printer (5 boxes some carbon) ea. \$17.50

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Contact Bernie (Thompson) Phone (408) 867-7453  
or via Bulletin Board (weekly check in). <BERNIE>

I plan to have some items with me at each meeting, if you want to see a particular item there, let me know. Or drop by at 20738 Woodward Ct. Saratoga by appointment.

February 1983  
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<Message from RON at SBUG-80 01/06/83 10:21:18>  
RE: MICROSHHELL, UNIX FOR CP/M USERS

I JUST BOUGHT T MICROSHHELL WHICH IS A PSEUDO-UNIX FOR ANY STANDARD CP/M SYSTEM. IT HAS 'PIPES' & OTHER EXOTIC THINGS I HAVEN'T GOTTEN AROUND TO PLAYING WITH IT (BECAUSE I ALWAYS KEEP MY COMPUTER IN A MESS OF NON-WORKING PIECES), BUT WOULD BE HAPPY TO SHOW IT TO SOMEONE WITH A CP/M ADAPTER BOARD IN THEIR TRS-80. ALSO, I ORDERED A DEMO VERSION OF JANUS (ADA SUBSET) FOR \$30! I'M AFRAID IT MAY NEED 56K MEMORY, SO ONLY THE MARTIN CP/M ADAPTER BOARD MAY BE USEABLE. ANYWAY, THE MANUAL SHOULD BE WORTH THE \$30.

P.S.- I BOUGHT TRSDOS2.3 DECODED FROM BRUCE CARSO (COMPUTERVISIONS). IT LOOKS \*\*GREAT\*\*. LOTS OF TUTORIAL TEXT, NOT JUST ASSEMBLY CODE!!! HE ALSO TALKED ME INTO A BOOK CALLED INSIDE SUPER UTILITY. IT'S A TUTORIAL ON USING SU+, BUT HAS LOADS OF VALUABLE INFO ON DISKS/DOS'S. EXPENSIVE (\$20) AND SMALL (80 PAGES, EXCLUDING SU+ ENTRY POINTS) BUT INTERESTING & USEFUL ENOUGH TO MAKE IT WORTH IT. (IJG IS COMING OUT WITH AN UPGRADE TO THE 1ST BOOK, DOS MYSTERIES BY PENNINGTON IN 'N' MONTHS; THAT WOULD BE A BETTER ALTERNATIVE.

P.P.S.- WHILE I'M IN A TYPEATIVE MOOD, I HAVE A DESIGN FOR A CP/M PC BOARD--WOULD ANYONE WANT TO DONATE A LARGE AMOUNT OF PC BOARD LAYOUT & ETCHING HELP TO ME?  
RE: SBUG-80 DISKS--SOUTH VALLEY EL. HAS DOUBLE SIDED 8" FOR ABOUT \$250 EACH. IF WE COULD GET 20 MORE MEMBERS, \$25 MAYBE SBUG COULD BUY IT'S OWN 2.4 MEGABYTES!!!  
(I'M REMOTELY THINKING OF GETTING A MAX-80 FROM LOBO; IF I DID I WOULD NEED MY 8" DRIVES BACK).

<Message from GLENN at SBUG-80 01/09/83 01:56:54>  
RE: BASICPRT/CMD

I HAVE UPLOADED TWO FILES TO THE SYSTEM.

- 1) BASICPRT/ASM ASSEMBLY SOURCE FOR BASICPRT/CMD
- 2) BASICPRT/CMD A BASIC PROGRAM LISTER

THE PROGRAM 'BASICPRT/CMD' WILL LIST BASIC PROGRAMS FROM DISC. IT WILL GENERATE A NEW LINE FOR EACH 'I' ENCOUNTERED IN THE SOURCE, IT ALSO INDENTS AND PRINTS ALL 'ELSE' AND 'THEN' STATEMENTS ON A SEPARATE LINE. THE PROGRAM MUST BE IN THE BINARY COMPRESSED FORMAT - IT CANNOT BE SAVED IN ASCII.

THE PROGRAM IS WRITTEN FOR THE MODEL I BUT SHOULD BE EASY TO MODIFY FOR THE MODEL III. THE SOURCE IS FULLY COMMENTED (MY FINGER TIPS ARE GONE FROM TYPING) BUT I WILL ANSWER

BEFORE ANYONE COMES BACK AT ME - I KNOW SOME OF THE PROGRAM COULD BE WRITTEN TO BE LESS REDUNDANT, BUT IT IS WRITTEN FOR EASIER MODIFICATION.

South Bay TRS-80 Users Group

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TRY IT AND LET ME KNOW WHAT YOU THINK.

GLENN

<Message from TIHULK at SBUG-80 01/10/83 20:34:19>  
RE: MAX-80

LOOK IN THE JAN. 17, 1983 ISSUE OF INFOWORLD FOR REVIEW  
OF LORD'S NEW COMPUTER THE MAX80. LOOKS LIKE A REAL VALUE.  
WITH A LITTLE LUCK I WILL HAVE ONE SOON.

TIHULK

<Message from RON at SBUG-80 01/11/83 13:37:32>  
RE: MAX-80 GREAT VALUE (TIHULK MSG)

ANYONE ELSE HAVE ANY INFO ON IT? I THINK IT WOULD BE  
PERFECT FOR ME--A WORKING SYSTEM IN A CLEAN CASE!!  
FULL CP/M. I BET I WILL ~~NOT~~ RUN SUPER UTILITY,  
MY MOST USED SOFTWARE.  
JERRY, WHEN IS YOURS COMING?

<Message from MSILLS at SBUG-80 01/12/83 20:51:45>  
RE: COMPILERS

I would like to talk with anyone who has used ACCEL2 or  
ACCEL3. I have tried Microsoft's Compiler and found it  
too complicated and frankly too difficult to use. Recently  
I tried ZBASIC, but it seems to require considerable  
translation before ZBASIC can compile (and frankly I'm  
not able to deal with the translating yet.)  
If anyone can offer their opinion of Accel I'd really  
welcome it.

Please contact me here at SBUG-80 or at home -- 225-0607  
Mark Sills (MSILLS)

<Message from EDITOR at SBUG-80 01/13/83 22:02:08>  
RE: Info on someone using an Altair 8800 system.

Hi gang... I would like to talk to someone who  
owns and uses an Altair system. If anyone knows  
someone who does, would you have them get in touch  
with me? I want to set it up using CP/M. I would  
appreciate the help... Please have them give  
me a call. (408) 732-6775

Thanx... Rob...

<Message from JLYNCH at SBUG-80 01/15/83 08:34:50>  
RE: TOUCH-UP PAINT FOR MOD III

WOULD ANYONE OUT THERE KNOW WHERE I CAN BUY TOUCH-UP  
PAINT TO COVER NICKS ON THE MOD III CASE? I KNOW THERE  
WAS A SHORT INFO ITEM ON SPRAY PAINT THAT MATCHES THE  
MOD III IN A COMPUTER MAGAZINE A FEW MONTHS AGO BUT I  
WOULD PREFER A BRUSH ON TYPE. WOULD APPRECIATE THE  
HELP.

<Message from PETE at SBUG-80 01/15/83 23:48:25>



RE: DIRECTORY PROGRAMS

RECENTLY I PLACED A REVISION TO DIRALL CALLED DIRALL/V2A FOR WHICH I PUT NEARLY 60 HOURS CLEANING UP. I DON'T KNOW IF ANY OF YOU DOWNLOADED IT BUT I DO KNOW I RECEIVED 'ZERO' RESPONSE TO MY REQUEST FOR COMMENTS. I'VE BEEN RECENTLY TOLD BY A MASS. FIRM TO REWRITE THE PROGRAM IN ASSEMBLY FOR A TIDY SUM; A TESTIMONIAL THAT THEIR MUST BE SOME 'GUTS' TO WHAT I ADDED. WHAT INCENTIVE IS THEIR TO SHARE WITH FELLOW MEMBERS IF THEIR IS 'ZERO' FEEDBACK???

<Message from MCHENRY at SBUG-80 01/16/83 21:04:13>  
RE: MX-80 RIBBON RELOADS...

Hi All....I purchased three of the MX-80 ribbon reloads from the club and had some problems loading them into the cassettes. The instructions tell you to make sure that you unwind the ribbon from the roll without twisting it. I found this hard to do and ended up with a mess that took about an hour to untangle. For the next one I tried a new method....Put a nail or something in the center of the tape roll and unroll the tape into a clean bucket or box. Then feed the end of the loop through the open tape cassette, close it up, and wind the tape back into the cassette. This worked great with no twisting or tangles. By the way, Wisk laundry cleaner works great to get ink off your hands.  
See you all Tuesday.  
Mike

<Message from ROGERAND at SBUG-80 01/18/83 22:45:52>  
RE: MICROSOFT

HI ALL,  
THE NEW COPY OF COMPUTRONICS (FEB. 83) HAS THE FOLLOWING IN THEIR "NEWS AND RUMORS COLUMN":  
WE HAD A BIG SURPRISE RECENTLY WHEN WE TRIED TO REPLENISH OUR INVENTORY BY PLACING AN ORDER FOR TRS-80 SOFTWARE FROM MICROSOFT. WE COULD HARDLY BELIEVE IT, BUT WE WERE INFORMED THAT ONCE THEIR PRESENT LOW SUPPLIES RUN OUT, THERE WILL BE NO MORE TRS-80 MODEL I/III SOFTWARE AVAILABLE FROM MICROSOFT.  
THE ARTICLE GOES ON TO TALK ABOUT THE FACT THAT THE TRS-80 MADE MICROSOFT WHAT IT IS TODAY.  
FOOD FOR THOUGHT, HUH?  
ROGERAND

<Message from EDITOR at SBUG-80 01/19/83 12:40:11>  
RE: Membership & Dues!

Hi again... Remember the agreement that we made when you paid for your account on SBUG-80. What agreement? It was decided that there would be a one time \$25 fee for an account on SBUG-80 provided you maintain in good standings your membership with SBUG. So, if you have not paid your dues for 83 please send it to SBUGs' P.O. Box right away... (IN NEWSLETTER)

Why the concern? Well, for one thing I'm an unemployed student struggling through college. I don't mind helping out with some (LOTS) of my free time but, don't ask me to dig in my pocket because I will pull out nothing but pocket thread! This is all for you and if you want this organization to work then realize that the publisher of the newsletter will not take pocket thread in payment. Could you imagine what would happen when Ma Bell opens our payment and observes a few denim strings... (SBUG-80 cut off!)

Come on gang help out... Is \$18 per year, \$1.50 per month, all that much?

I think SBUG is the best!

What do you think? Rob...

<Message from BILLRAM at SBUG-80 01/20/83 14:48:48>  
RE: WANTED

I have a friend who is looking to buy a used MODIII. If you know of one for sale at a somewhat reasonable price, please leave a message for me here of call 408 255-2854 (Bill -- evenings) or 415 497-3188 (ask for Florence and identify your reason for calling.) The latter number is the Music Department at Stanford.

<Message from PHANTOM at SBUG-80 01/21/83 19:41:36>  
RE: ORCH 85

HI ALL,

I am looking for information about the Orch85. I would like to find a patch to the main program to use the DOS keyboard driver so that it can be used with a program to execute a disk full of programs, rather than just the single line that is normally available. Also the schematic I got at the last meeting was for Orch80. Does anyone have a schematic for the Orch85 a dual channel Orch80. If there is a way to drive this device in the background I will need a schematic in order to do this

Any or all help in this matter would be greatly appreciated. In the mean time I will keep poking away with Tasmon.

The Phantom....

<Message from ROGERAND at SBUG-80 01/22/83 13:51:32>  
RE: NEW SOFTWARE STORE

THERE IS A NEW SOFTWARE STORE IN SUNNYVALE ON THE EL CAMINO.

SOFTWARE CENTER

730 E. EL CAMINO REAL

BETWEEN WOLFE AND FAIR OAKS NEXT TO THE BLACK ANGUS RESTAURANT.

I WAS IN THE STORE FOR A SHORT TIME THEY APPEAR TO

South Bay TRS-80 Users Group

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HAVE A GOOD STOCK OF BOOKS TRS-80, ATARI, & IBM SOFTWARE.  
THEY ARE GOING TO HAVE A GRAND OPENING ON FEB. 26.

THEY ALSO ARE GOING TO HOLD SEMINARS AND ARE INTERESTED IN COMING TO MEETINGS AND GIVING TALKS. THEY WILL ALSO HAVE A TRS-80 LOOK-A-LIKE FOR TESTING PROGRAMS BEFORE BUYING.

ROGERAND

<Message from BLAINE at SBUG-80 01/22/83 15:03:29>  
RE: UCSD PASCAL

Does anyone have information on versions of UCSD PASCAL for the Model I? I was told that the best version is sold by Softec Micro Systems but can find no reference. Are there other versions of PASCAL on the Model I that are better?  
Thanks, Dick

<Message from MSILLS at SBUG-80 01/23/83 22:16:13>  
RE: THANKS

I have had the pleasure of using the SBUG-80 Bulletin Board for several months now. I continue to enjoy "Getting on the Board" and have learned a good deal from the interaction, as well as from the programs that I have downloaded. I firmly believe that a word (actually several words) of thanks are in order for the people that make the Board run. I am really not sure that I know them all so if I miss any one please excuse my ignorance. Anyway to Rob, Eric, Mike and the others that I have no doubt missed, thanks it is a BLAST !!

Mark Sills

South Bay TRS-80 Users Group  
P.O. Box 60116  
Sunnyvale, Ca 94088

**FIRST CLASS MAIL**