

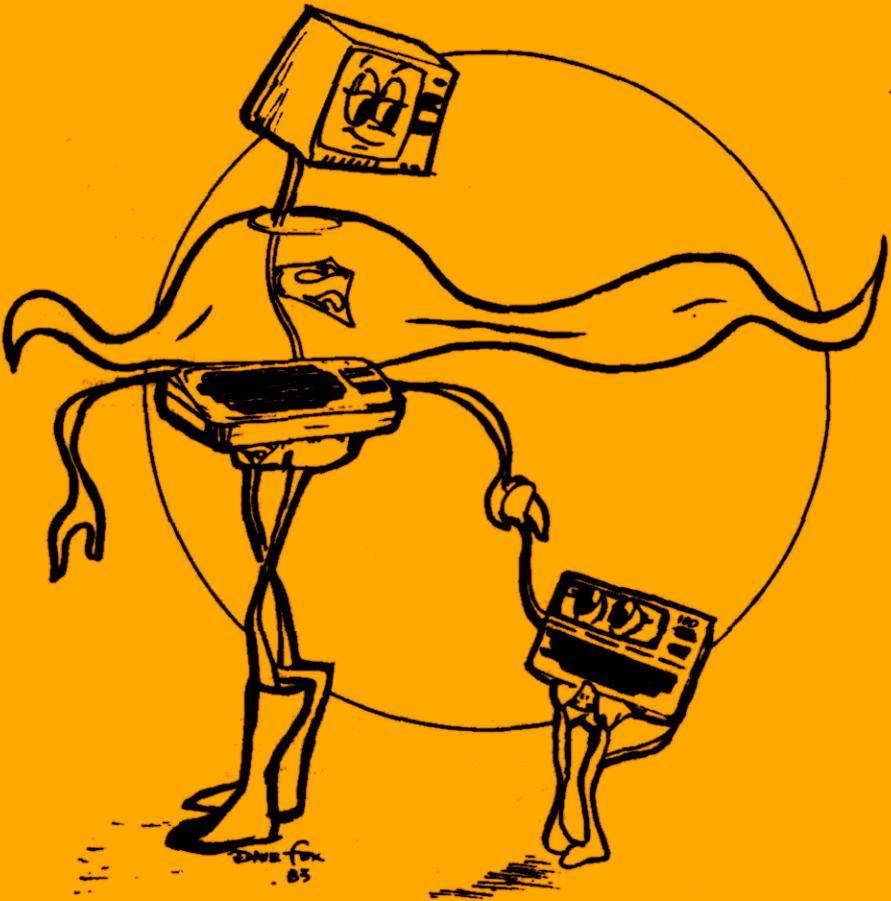


DYNAMIC MEMORIES™

© Tandy Corp./Radio Shack Inc.

AUGUST 1983

Just You and Me
Kid...



AUGUST 1983

Your Steering Committee

Member	SBUG-80 Username	Phone
Discussion Leaders:		
Mike McHenry	(MCHENRY)	(408) 245-4704
Eric Brewer	(BREWER)	(408) 252-9332
Sabri Kawash	(SABRI)	(408) 732-5484
Treasurer:		
Larry Gunderson	(TREAS)	(408) 259-5349
Newsletter Editor:		
Robert Byrd	(EDITOR)	(408) 732-6775
Librarians:		
(disc) Gerry McKee	(GMCKEE)	(408) 926-4063
(tape) Gary Dixon	(GDIXON)	(408) 262-6937
(doc.) Bill Richerson		(408) 257-8267

Other key individuals

Assistant Editor:		
Dave Fox	(DAVEFOX)	(408) 255-3270
Public Relations:		
Ron Carpenter	(RON)	(415) 726-3487
Host Computer:		
SBUG-80	(EVERYONE)	(408) 737-SBUG
SBUG-80 Sysops:		
Robert Byrd	(EDITOR)	(408) 732-6775
Eric Brewer	(BREWER)	(408) 252-9332

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

THE EDITOR'S TWO BITS

Well qanq... It is quickly arriving to the time when we undertake the tremendous task of picking a new and wonderful steering committee. I have not decided weather or not I will attempt another term as editor for Dynamic Memories. The only way that I might be persuaded to run again, depends on the amount of participation from the membership in the next few months before election. If things continue the way they have in the past few months then I most certainly will not waste my time. If you want SBUG to grow then you must participate. I enjoy the sharing that goes on among SBUG members, but there are too few givers and too many takers to make an effective and informative newsletter. With SBUG-80, our BBS, it is too easy to contribute to the newsletter. The decision is yours... I believe in SHARING. Do you?

Rob...

FORTUNE 100

As a charter member of SBUG I have found that through the years I have received much help and information through the club and its many knowledgeable members. Although I have great sympathy for the plight of the Editor in the lack of material he has been getting from members, I attest to the idea that some of us have written so much for the Newsletter we feel that we have "run dry." I fall into this category, but in the interest of keeping the Newsletter alive and well, and at the risk of providing you with information which is of limited interest, I am launching a Mod 100 column this month. I will be delighted to receive information from any of you who have discovered the wonders of this little machine--information which may be "old hat" to you but which might be a "world of wonder" for a new user. Please take the time to share your thoughts with me so that I might pass them along to the membership in this column.

Although some of the following items were mentioned at last month's meeting, I am including them here just in case our special session on the Mod 100 has caused some of you to purchase or seriously contemplate purchase of a Mod 100. When you do, the information will be in your library.

1. There are several undocumented commands in the User's Manual--ASC() is not listed, but does function. Reverse video is also not mentioned, but it can be invoked in the following manner:

```
Reverse video enable - PRINT CHR$(27)"p"
Reverse video disable - PRINT CHR$(27)"q"
```

2. The version of BASIC used by the Mod 100 requires the use of THEN with each IF statement. When THEN is omitted, the program crashes.

3. Auto-LOGON at SBUG with the 100 is a breeze, much fun. It also saves time! Create the following text file (using the TEXT program) and name the file ADRS.DO.

```
SBUG:737-7284<=?#L^M?:username^M?:password^M?.^C?Y=#MAIL^M?:
R^M?:username^M>:
```

This means:the name of the number to call is SBUG; dial 727-7284; wait two seconds; wait for the # prompt; type L (LOGON) and <ENTER>; wait for a ";" (at the end of the USERNAME: prompt); send your user name and <ENTER>; wait for another ";" (following PASSWORD:); send your password and <ENTER>; wait for a "." at the end of "Date of last bulletin change."; send break (control C) to shorten the logon bulletin--this may be omitted if you don't call the BB frequently; wait for "Y" in READY; wait two seconds; send "#MAIL" and <ENTER>; wait for ";" (after

AUGUST 1983

"Command:); send "R" (to read) and <ENTER>; wait for ":"
(after Username:); send your username and <ENTER>.

This message is used when you enter TELCOM, and press F1 (FIND). Respond with SBUG. After SBUG is located, then press F2 (CALL) and the number will be forwarded to Ma Bell. Log you on the system, omit the bulletin, request *MAIL-READ, give your own user name, and read any mail which is waiting for you. Since getting my Mod 100, I find that I rarely use the Mod I for SBUG BB. I do wish that the system could recognize that I am a Mod 100 and allow me to set the screen width for 40 columns by 8 lines (or, at least, allow me to use control S to stop scrolling and control Q to continue the scroll--SBUG 80 apparently does not recognize these.) If you are not a fast reader, the screen can fly by faster than it can be read (especially when there are many short lines of text.) It is also required that you pay close attention to line length when sending MAIL messages (it is easy to exceed the 64 characters allowed--but this is also true with the Mod I.) I have heard rumors that Eric has something in the works for the BB to allow fuller support of the 100.

4. Be especially careful when transferring files from the Mod 100 to the Mod I. They must not contain Mod 100 graphics characters (entered using the GRAPH key.) It is a simple matter, however, to transfer graphics (for disk storage) by using the appropriate equivalent PRINT CHR\$(n).
5. I followed the suggestion made at last month's meeting that ASCII files can be transferred from SBUG to the Mod 100 by using the SBUG "LIST" command. This can be accomplished as follows:

While in the TELCOM program and at DOS level at SBUG, type LIST followed by the program name. Before the listing's beginning, press the F2 key (DOWNLOAD) and collect all the listing. When the listing has finished, SAVE the file. Remember, this only works with ASCII (text) files. BASIC files cannot be downloaded at this time unless they are first converted to ASCII format. DO NOT attempt to download a file using the DFT and R options--this will not work! As of this moment, I have not determined how to send a file to SBUG using the Mod 100. Any suggestions?

6. I have successfully used Nicad batteries since I purchased my Mod 100. These batteries are slightly shorter in length than "regular" AA batteries, and require some adjustment of the battery contacts. Roger Anderson reports that the contacts are easily removed and are not difficult to adjust. He also uses a small piece of paper to help hold the batteries in place. BEWARE - when the Nicads begin to "run down," they do so at a very rapid speed. Once the red LOW BATTERY indicator light is illuminated, you have only minutes (or perhaps seconds) before the

SOUTH BAY TRS-80 USERS GROUP

system's going down. I have been reading #MAIL and had my light "go on" and have been disconnected from SBUG (I trust with no problem to the SBUG system!)

7. Don't believe everything you read! (even if it is in 80 MICRO--or perhaps especially if it's in 80 MICRO.) Since Wayne Green has sold the mag. at least we will not have to read many more of his strange editorials! In the August issue, there is a very interesting article--NOTHING'S PERFECT (page 209-10) which state's that Mod 100 "ignores both DSR (Data Set Ready) and CTS (Clear to Send)" signals. I thought that this was, indeed, the fact, but discovered that some Micro communication packages (IBM's Asynchronous Communication Support) require both DSR and CTS. Mine didn't work either! I then remembered that I followed the advice of several of our members who suggested only reversing pins 2 & 3 for my "null modem adaptor." After I also reversed pins 4 & 5, connected pins 6 & 8 to 20 and left only 1 & 7 directly connected, did the DSR and CTS work as it should. I also find that Mr. Barbier (author of the article) apparently has not discovered how to transfer files without the inserted "hard carriage returns." When the WIDTH? prompt appears, if the file is to be sent as it was entered, merely hit ENTER (do not answer any value to the WIDTH prompt.) When a value is entered, hard carriage returns are supplied at the position of the width value, whereas if a null is entered, hard carriage returns appear only where they were in the file before transfer. I consequently find no need to use the little program which Barbier wrote to transfer files to WordStar (as I have been doing successfully for some time.)

The Mod 100 is a favorite of mine and serves my needs very well. It is truly a satellite for my "Mainframes," the Mod I and the IBM PC! Happy computing and remember to share your "fortune 100" thoughts. If you have info or programs for the 100 which you want to leave on the SBUG BB, use the extension "/C" See you next month.

William Ramsey
BILLRAM @ SBUG-80

=====

F O U R P L A Y
SCREEN PLAY

Model 4 users - try the program listed and watch what happens.

Don't ask me to explain it all, but it is obvious that port 132 controls the video. There are now four screen presentations possible:

AUGUST 1983

1. Regular 64 characters by 16 rows
2. Large type 32 characters by 16 rows
3. Model 4 mode 80 characters by 24 rows
4. Model 4 large 40 characters by 24 rows

You will notice the obvious problems of only part of the screen being accessible in the Model 4 screen mode. This is due to a lack of understanding on my part of how the 80 x 24 mode works, but is possibly due to the way BASIC keeps track of the screen presentation. Perhaps working with the DCB for the video this could be fixed.

I would encourage you to "play" with this and report what you find.

```
10 CLS
20 OUT 132,0
30 GOSUB1000
40 PRINT CHR$(23)
50 GOSUB1000
60 OUT 132,4
70 CLS
80 GOSUB1000
90 PRINT CHR$(23)
100 GOSUB1000
110 GOTO10
1000 FOR X=1 TO 150
1010 PRINT X;
1020 NEXT X
1030 CLS
1040 RETURN
```

MORE MEMORY

Everyone can use more memory, right? It used to be that if you had 8 K of memory you were very extravagant. Then 16 K, then 32K then

These days, you need to keep up with the memory race by expanding to enable you to keep up with the Apples. What good does the extra memory do? Not too much....yet. Soon VISICALC should be available to take advantage of the larger memory space and give you spreadsheets of 70K or greater...rather than the 18K now available with Model III VISICALC. Multiplan will also be available for the Model IV very soon the rumor mill says. It will also use this extra memory. CPM Plus will use this extra space and give you larger program areas and faster execution. Of course, this additional memory can only be accessed at this point, from TRSDOS 6.0, using the machine in the Model 4 mode.

With the additional 64K of Model 4 memory, giving the full total of 128K, you can form a very adequate RAM disk (Tandy calls it "memdisk") of about 60K. This means that

SOUTH BAY TRS-80 USERS GROUP

if you have a program that does a disk sort, you can put the files in memdisk and zip through them at a rate better than if you had a hard disk drive and without wear and tear on the media and your drives (and nerves). When you are done sorting through your files, copy them back onto "real" media and they can be saved.

Another thing that you can do, is to load often used SYS files, or even the complete set of SYS files and BASIC into the RAM disk and make that "drive" your system drive. That way you can go in and out of BASIC in perhaps 3 seconds instead of 15 or 20. To do this, you need to remove the passwords on a TRSDOS 6.0 diskette so you can kill SYS files that you don't need. You then, after setting up the RAM disk according to the directions in the manual, transfer to the RAM disk the system files you need plus BASIC/CMD and BASIC/OV1. This will leave you with a full memdisk and no additional room in that "drive". By using the command: SYSTEM (SYSTEM=dn), you can make the created memdisk which you called drive number dn, the system drive. At that point, you can then remove all diskettes and everything works from the "drive" in memory, still giving you 64K of regular memory space.

Another use of the extra memory is as a print spooler. You can form a spooler of 32 or 64K, at your option. Any printing that you want to do can then be dumped to that area and it will access the printer automatically while you do other things. (One slight problem! -- I can't seem to get this feature to work from BASIC - just get an Internal Error - and although the San Jose Computer Center promised me a couple of weeks ago that they would check this with Texas, they haven't let me know it...typical Radio Shack response!)

How do you get the extra 64K? Pay Radio Shack \$150 plus installation charges. I don't know how much the charge is, but \$25 or \$30 would be my guess. OR - Pay an independent about \$150 to do it. OR - do it yourself for about \$75.

What do you need? From Radio Shack National Parts - telephone number 817-870-5662 (call before 8 AM our time and it will cost less than \$1 and put it on your VISA or Master Charge Card) - you need to order:

PAL (Programmable Array Logic) - MX 5725	\$29.95
128K keyboard button - AHC 2303	1.49

Shipping will be 2 or 3 dollars maximum via US mail first class.

From B&C Computer Visions, DOKay, JDR Micro Devices, South Valley, etc. you need eight 64K dynamic RAMS which will run anywhere from \$4.50 to \$6 each for a total of \$40 or \$50.

Installation is easy. Remove the case of the computer exercising the usual Model III precautions being very careful of the CRT neck which you watch through the openings for the drives as you remove things. Remove the shield from the back of the computer exposing the circuit board.

At the bottom center of the board, you will see a socket with a shunt. (Just an IC like package with bars making connections.) Remove that and insert the PAL integrated circuit. At the right of the circuit board, insert the RAM chips in the eight bare sockets. Be careful, of course, to put the chips in with the right orientation. The keyed end is indicated on the ICs and on the circuit board. Also watch carefully so you don't accidentally bend leads while you insert them.

Test things with the case setting besides the machine and if everything works as it used to, reassemble and button things up. Now you can try the RAM disk installation process which is outlined in the manual. Read the directions several times before you decide you can't understand them. Refer to page A-116.

This is the procedure from the TRSDOS 6.0 prompt:

```
Type:      SYSTEM      (DRIVE=4,DRIVER="MEMDISK")      <ENTER>
This will make the "memdisk" drive #4 on the system.
```

Answer the question which appears with a D.
This makes the memdisk occupy the entire 64 K of extra memory.

Answer D to the density question.
Answer Y to the format question.
This will format the "disk" as if it were an actual mechanical rotating drive. You can watch this happening on the screen.

When this is done, do a DIR :4 and see your new drive directory. Practice copying a program from one of your "real" drives to the memory drive and go back again.

You can also verify the existence of the drive by typing:
DEVICE (B=Y)

This will list all the devices and indicate that the Memdisk has been installed.

To remove the memdisk, start again with the SYSTEM (DRIVE=4,DRIVER="MEMDISK") command and answer E which will remove the drive. If you then re-enter the sequence, you can reclaim the drive by NOT formatting, since that area will already have old information written on it.

SOUTH BAY TRS-80 USERS GROUP

It goes without saying that you must write whatever is on that drive to a "real" physical diskette to save it, as turning off the power will destroy any data that has been saved. If you need to reset the machine, you will likely find that information is still in the RAM disk, but you will have to re-enable the drive and NOT format it when you recreate it.

W A N T E D

How about contributing information and facts you find about the Model 4 for publication in our newsletter? If you don't want to do the writing, give me a call and let me commit it to paper. (408) 867-9533.

Perhaps we want to start thinking about a Model 4 special interest group????

I would also like to get a list of Model 4 users/owners. If you qualify, how about leaving me your name, address and telephone number so we can see how many people might be interested in a special group?

Either call me or leave me the information at our regular meetings.

TANDY RUMORS

A recent publication says that Jon Shirley has left Tandy and will be an executive at Microsoft effective the first of August.

Wayne Green has sold his magazines for several tens of millions of dollars (couldn't determine if it is only the computer magazines or all, including his Ham magazine). He is rumored to be thinking of putting into action his plan to start a computer "university".

At least two new TRS-80 oriented magazines (monthlies) are said to be near publication.

Ian Webb
IANWEBB @ SBUG-80

PHONES PHONES PHONES PART 2

This month, before someone dies from curiosity, I'll tell you how to safely connect devices to the phone line. One thing you must remember is these devices are NOT FCC approved. They meet and to some extent are better than what the FCC requires, and when used properly will give no cause for concern on your part or that of the Phone Company. Because of the different rules and regulations, it is necessary that I tell you this. Now on to the hardware.

Before you can begin any project, you need a parts list and a place to find the special parts.

qty.	desc.	appx price.
1	600 ohm 1:1 transformer	5.00
1	52 ohm 1/2 watt resistor	.50
1	47 uf 50volt capacitor	1.70
1	spst switch	1.50

The address for the transformer is:

Black Box Co.
P.O. Box 12800
Pittsburg, PA 15241 (412) 746-2910

Write and ask for their catalog, or order the transformer. It costs about \$5.00, but it is a good transformer. There are other transformers that are cheaper, but they do not come close in quality. With transformers, you get what you pay for.

The schematic is as follows:

```

in/out-----! !-----) (-----<><><>----- tip(green)
                47uf      ) (      50 ohm
                        ) (
                        ) (
                        ) (
ground-----) (-----! !----- ring(red)
                transformer      switch

```

Now for the limitations:

Any signal that is applied to the in/out must NEVER exceed -9.0 dbm. and that's the LAW. (unless it is tones for dialing, then it's -6.0 dbm)

Any applied signal must NEVER exceed 3000 Hz in frequency. That limitation is because phone equipment cannot handle a bandwidth any higher without causing crosstalk.

As you can see, there is only one line for input to and output from the device. A simple circuit is needed to split them. The circuit to separate transmit (input) and receive (output) is called '2 to 4 wire' and will be here

SOUTH BAY TRS-80 USERS GROUP

next issue. The circuit will also give you some control over the amplification of what you receive (necessary for future projects).

It will take you a while to get the parts or the ambition to do the project. By that time, the next issue of Dynamic Memories (and the second part of this project) will be arriving at your place and mine.

Happy hunting until next time...

Ronal Thompson
RONAL @ SBUG-80

SBUG-80 MAIL CORNER

<Message from COMPVSN at SBUG-80 07/08/83 02:25:48>
RE: HOLMES VID-80/CPM UPGRADE

Hi out there. I do not get on much anymore but thought I should mention that I have installed my first Holmes Engr. VID-80/CPM/112K RAM upgrade for a TRS III. It went in very easy and worked perfectly when I powered it up.

Main Features:

- BOX24 display without special patches.
- CPM 2.2 with a few extra programs.
- Good documentation on video control and BIOS.
- It is a 9x8in well done PCB with no jumpers running all over it like the TRS IV
- The Z-80 and video chips on the TRS III plug into it and it plugs into the Z-80 socket, the video and power plus two jumpers plug in and your done.

Minor dislikes so far:

- The RF Shield stays off.
- BOX24 video not compatible with all software (to be expected)
- Long delivery time, and a few other minor things, that I just do not remember right now.

All in all it looks like the best CPM BOX24 mod available to date for the TRS III. They are talking about dropping the Model I version do to low interest.

If anyone wants more information contact me (Bruce) at B&C Computervisions (408) 554-0666.

<Message from GMCKEE at SBUG-80 07/08/83 22:04:06>
RE: DISK DRIVE BARGAINS

Shuqart SA 400(1) type 40 track \$130
Shuqart 35 Tk SSDD OK \$115 ea
Shuqart SAB00-801 \$150 ea
Shuqart Double Sided (80 TRACK) MODEL SA460
 Tested Double Density, OK \$200 EACH
Shuqart SAB01-800r \$ SSDD OK \$225 ea
TRS-80 MOD I Level II 16K Kbd \$190

AUGUST 1983

Amber screen crt \$60 cash and carry
PC board and print for disk drive p/s \$7 ea
Call GMCREE ans mach (408) 926-4063 day-or-night.

<Message from BREWER at SBUG-80 07/10/83 17:32:30>
RE: 16 Bits and you...
Hi...

As the computer market stands right now, I have not seen a 16 bit system offered by a major manufacturer that is really worth the money (this includes IBM). The main problem with the prepackaged systems right now is that they are just modified versions of the old 8 bit software. Making the system 16 bits by no means increases the speed of 8 bit software (it actually decreases). My opinion is that if you want to go to 16 bit, go with a IEEE 696 standard S-100 system. You can start off with a 68000, 8086, 8088, 186, or Z-8000 processor and then grow to a 32 bit system just by changing your CPU card. You can also still run your 8080, 8085, Z-80 in the system just by changing your CPU again. The memory and all other peripherals still stay the same!!!

--Eric

<MESSAGE from PHANTOM at SBUG-80 07/10/83 19:18:41>
RE: FOR SALE MODEL I

I have purchased a new LNW and now have little use for the 4 computers I have. So I have for sale a TRS-80 MODEL I 48K WITH EXPANSION RS 232 DOUBLE DENSITY BOARD LOWER CASE MOD AND A HI/LOW SPEED MOD NUMERICAL PAD
I will consider all offers.

So please if you wish to make a fair offercall
DAYS 408 248-8770

HOME 408 984-8779

Thanks ...

<Message from EDITOR at SBUG-80 07/11/83 10:24:57>
RE: MAXPRINTplus...

I have received a letter from Courtney Krebiel from PEGGYTRONICS concerning a patch to remove a small bug in the program "MAXPRINTplus" only... The patch is as follows:

Memory location EF07H:

is: 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00

should be: CD 6D FC 0E 44 CD 30 FC C9 C5 E5 7E
FE 0D 2B 03 CD 7E FC E1 C1 C9

Memory location FBF1H:

is: CD 7E FC C1 E1

should be: C1 E1 CD 10 EF

Memory location FC7EH:

is: CD 6D FC 0E 44 CD 30 FC CD A1 FC

SOUTH BAY TRS-80 USERS GROUP

should be: CD A1 FC B7 C8 F5 CD 07 EF F1 00

Rob...

<Message from RON at SBUG-80 07/11/83 18:02:59>
RE: PRICE WARS (THE \$300 M3!)

THOSE HEARTBREAKINGLY LOW PRICES I MENTIONED A FEW WEEKS AGO WERE JUST WHAT I'D ADVISE MY MOMMIE TO PAY, ABOUT 1/2 R/S CURRENT LIST (WHY SHOULD USED COST MORE THAN WHOLESALE, WHOLESALE USUALLY 1/2 TO 1/3 OFF LIST) SORRY, GERRY, FOR HAVING SUCH A DEPRESSING \$ OPINION OF CURRENT MARKET. P.S. (TO MAKE IT ALL WORSE!) MOD 1 48K MODEM 40TRK DRIVE \$399 WORKING. (YES, I HAVE IT) BUT ... LNW E/I & MODEM HAVE NO CASE & SOMETIMES SOLDER JOINT PROBLEMS; FUNNY WANG CRT.I DON'T MEAN TO PUT DOWN TRS; IT IS STILL MY FAVORITE; I WOULDN'T TRADE MINE (WITH CP/M MAPPER 1&2 & 8") FOR AN IBM OR APPLE OR ... !!!

<Message from IANWEBB at SBUG-80 07/12/83 09:41:03>
RE: OPERATING SYSTEMS

Since there is so much discussion about operating systems, I might as well get in my 2 cents worth. I am using TRSDOS 6.0 right now on the Model 4. I am just learning the comm program, but it seems to work OK so far. (I can't tell when I exceed the 64 width though since it is 80 column display). The more I work with TRSDOS 6.0 (LDOS), the more I see it to be a quite sophisticated and powerful operating system. I still like NEWDOS/80, but without one to support the Model 4 features, there isn't much choice. Does anyone out there use the LDOS communication program for communication with this BBS? Does it DFT properly? Guess I'll have to read the documentation for a change and experiment!

<Message from RON at SBUG-80 07/13/83 17:04:15>
RE: FREE HUB RINGS! (SAMPLES FROM MANUF.)

I SAW AD & CALLED & GOT A COUPLE DOZEN HUB RING SAMPLES AND A LITTLE INSERTER GIZZIE, ALL FREE! 213-698-7793 ALSO ANOTHER AD JUST APPEARED: 414-332-8100 LET 'ALL' KNOW IF U GET SOME.... (HUB RINGS ARE THE CENTER HOLE REINFORCER FOR DISKETTES)

<Message from ROGERAND at SBUG-80 07/13/83 20:41:35>
RE: HUB RINGS

I HAVE A HUBRING KIT THAT I WILL BRING TO A MEETING SOMETIME IF SOMEONE WANTS TO DO THEIR DISKS AT THE MEETING. YOU MUST SUPPLY YOUR OWN RINGS AND DO THEM AT THE MEETING AS THE MANDREL SET COST ME \$35.00 AND I DON'T WANT TO LOSE IT. LEAVE A NOTE HERE ON THE BOARD PRIOR TO A MEETING. THE RINGS AREN'T EXPENSIVE AND CAN BE PURCHASED FROM IMAC CORP. ON WOLF ROAD CORNER OF EVYLYN SUNNYVALE,CA..
ROGERAND

AUGUST 1983

<Message from IANWEBB at SBUG-80 07/17/83 12:06:24>
RE: MODEL 4

I am discovering that the TRSDOS 6.0 has some undocumented features. If you have an LDOS manual, try LDOS commands, since many of them will work. For example: You can format for double-sided drives using the(SIDES=2) option for FORMAT (undocumented in the TRSDOS 6.0 manual). You can set the step rate to 6 ms with SYSTEM (DRIVE=dn,STEP=0) which is also undocumented. You can set the boot rate with BSTEP=0 similarly. You will need to do a SYSGEN to lock that information in. The LOG command also works the way it is supposed to do for LDOS, even though the TRSDOS manual calls it a hard disk function.

Please share what else you find!

<Message from TMMCD at SBUG-80 07/18/83 11:55:31>
RE: Printer for Sale
Hi All,

I am selling a Microline 80A printer, it has given me good service over the last 1.3 years. It has friction and pin paper feed.

<Message from IANWEBB at SBUG-80 07/20/83 15:08:26>
RE: MODEL 4 - INFO

Anyone with interesting Model 4 information which they would be willing to share is encouraged to write it up for the newsletter. If you aren't able to do that and would be willing to have it shared, please send me info on what you are doing or have found out/and or give me a telephone call (408) 867-9533 and I will write it up for the newsletter I would like to get a list of Model 4 users/owners. How about sending me information about club members or BBS members (S-BUG 80) who use the Model 4. Addresses and telephone numbers would be nice to include also.

THANK!!!!

<Message from GMCCKE at SBUG-80 07/21/83 22:47:49>
RE: MDX-3 EUREKA

IS ALL YOU GOTTA DO IS THROW MONEY... MICRO DESIGN COMES THROUGH. HAVE CHECKED OUT TWO OF THE FOUR CONTROLLERS (MOD 3) FOR DISK OPERATION. ALL SEEMS OK!!! ANYONE READY TO NEGOTIATE FOR PURCHASE OF SAME, SOMEWHERE NEAR MY COST??? GMCCKE (408) 926-4063 LEAVE MESSAGE...

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

FIRST CLASS MAIL