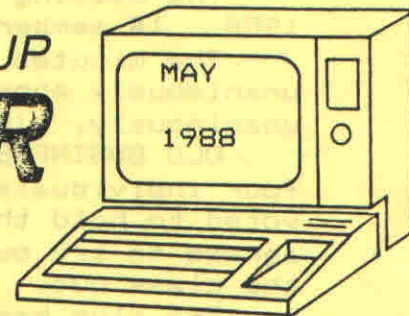


CEDAR VALLEY 99'ER USER GROUP NEWSLETTER



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****NEWSLETTER TOPICS****

1. Future Meeting Location
2. Next Meeting Notes
3. Minutes from the May Meeting
4. New Names for your Disk Drives
5. From the Mailbox
6. Novice's View of Disk Utilities
7. For Sale/Wanted
8. Library Corner

****FUTURE MEETING PLACE****

The JA Building is no longer allowing groups to meet there. We need a new meeting place for July. If you have a location available, please tell our president.

*****NEXT MEETING*****

This month's meeting will be held on June 13, 7:00 PM at the JA Building, 330 Collins Road NE, Cedar Rapids. The topics to be covered are not yet determined as we go to press, but we will probably talk about Funnelweb some more. You are welcome to bring your questions and problems on this and other software.

* MINUTES FROM THE MAY MEETING *

The meeting was called to order by President Jerry Canady on May 9, 1988. 14 members and guests were present.

The minutes from the April meeting were read by the secretary and were unanimously approved. The treasurer's report was made and approved, also unanimously. (We are an agreeable bunch!)

OLD BUSINESS: The assembly language class meeting place and time--those four individuals at the meeting who are interested in continuing the class voted to hold their sessions on Friday nights at John Johnson's home. John agreed to try out this arrangement, at least until his wife and family kick the class out. Call John if you want to get into the class!

The club has received the starter kit from JUG for the UNDB project. We will need volunteers to catalog our newsletter articles from the past year, filling in data using PRBase. Please call Jerry or Gary Bishop if you are interested in helping for this worthwhile project.

Jerry has gathered together in one binder all 45 Tips from the Tigercub, and these are now available for borrowing from our library. Contact Jerry. (Note to Jim Peterson: did you distribute #46 and 47?)

TELCO V4.0 is not yet completed; our library has the latest available version.

NEW BUSINESS: The local Hamfest/Computerfest will be held again in August, this time at the Teamsters Hall. Jerry will be asking for members to man a booth for our group during that weekend.

The toll-free 800-TICARES phone line will be continued, but will change to a regular long distance line. [TI confirmed this at the Texas TI Faire. Ed.]

Gary Bishop has a prom change that will allow substitute CALLS for DSKx, so that one may save key strokes. This prom also allows access to a floppy disk drive when a ramdisk is installed as DSK1.

DISCUSSION ITEMS COVERED: 1. Will the Star printer work with TI Artist? Yes; try the IBM mode on the SG-10 or higher numbered printers.

2. Are "viruses" around that will strike TI systems? Yes.

3. What is the Funlplus program Sister Pat wrote about? It is in our library, and provides several utilities to use in conjunction with Funnelweb.

4. The Adventure Editor software will allow transfer of cassette game files to disk files.

5. The club still has printed instructions for mounting the speech synthesizer inside the console.

6. Can the system look through several drives to find a specific file name? Yes, instructions for this operation are in the disk controller manual.

PROGRAM: Ed Edwards (apparently independently wealthy or a shrewd investor) demonstrated not one, but THREE ram memory cards. He compared cards from Myarc, Rave, and the Horizon Ramdisk, pointing out the similarities and differences between the three. A very interesting demo, but Ed, you forgot to cover where you mount all three in the P Box!

CLASS TIME: No assembly class was held; see comments above under OLD BUSINESS.

Submitted by Jim Green, Secretary draftee pro tem

* * NEW NAMES FOR YOUR DISK DRIVES * *

By Gary Bishop

I have always envied CP/M and MSDOS references to disk drives, just one crisp clear letter to refer to it. "A" is the first disk drive, without a doubt! Well, I have a method to bring this simplicity to the TI world. It has been proven for the TI, Percom, and MG proms in the Corcomp controllers. The chart below should give you an idea of what is about.

Previous	DSK1.	DSK2.	DSK3.	(DSK4.)
Reference				

Corcomp	dsk1.	dsk2.	dsk3.	dsk4.	only
---------	-------	-------	-------	-------	------

Additional	A.	B.	C.	(D.)
references	1.	2.	3.	(4.)

Corcomp	a.	b.	c.	d.
only				

This means if you are tired of typing RUN "DSK1.LOAD" (or in my case, just plain lazy and looking for a better way), well RUN "A.LOAD" or RUN "1.LOAD" will work just as well. The previous names are still available, you have new synonyms for your drives.

You must have access to a prom reader and programmer, and if you are like me, an UV prom eraser will be necessary. This project requires removal of the present proms in your controller, and replacement with sockets. You must also obtain replacement proms, and install them in your controller. Of course, don't attempt this project unless you are sure of what you are doing. Severe damage can be done to a circuit card if the proper techniques are not followed. In this text, a "rom" is a pre-programmed read only memory, just like the one found in the controller card to start with. A "prom" is an erasable and re-usabe version of a rom, and is what we will need a couple of to get the job done.

I now turn your attention to section D of the TI Console and Peripheral Expansion Reference manual, page 54. The following discussion is modeled after the example DSR presented there, with my own hand disassembly of the contents of the TI disk controller ROMS. You can follow the listing on your own disk drive with the following commands in Minimemory or Editor Assembler. As it turns out, the example appears to be almost exactly what was used in the TI disk driver DSR!

With the Minimemory cartridge plugged in, select Easy Bug, and then hit enter twice. You should have a "?" prompt staring at you. Type C1100 then hit enter. Type 01 then enter, and your disk controller LED should come on. At this point, the disk controller roms are in place in the memory space between >4000 and >5FFF. To view the contents of the disk controller roms, type a period, then M4000, then enter. You should see AA, which is a signal to the system that this is a valid DSR. Press the space bar to advance the memory counter and display each subsequent byte. Follow along with the commented listing I have provided to understand what is going on.

When you are through with peeking into the disk controller DSR roms, type a period, then C1100 and enter. Type 00 as a response, and the disk controller LED should go out. If you are curious as to why the display shows >00 at location >C1100 the second time, when you wrote a >01 the first time, this is because the data gets latched into a register on the disk controller card, and controls the enabling of the roms. It isn't

actually a memory location like ram, where you can read what you write. Actually, it is more like a write only address that controls the operation of the cards.

Well, now that you have entered and exited the deep dark world of DSR roms, we need to patch the chain of device names to include our new ones. The patch is made to the last valid name in the existing chain, pointing to an unused area in the roms. We then add some of our own valid DSR names, and these point to the code that controls the original drive names. Actually, you could patch into this chain anything you want, such as your name, funny characters such as #%, or whatever suits your fancy. The locations listed in the disassembly are valid only for the TI disk controller. This same technique has successfully been used for other types of controllers. The only thing you need is to find some unused space in the roms, and patch the chain to point there.

I found an additional advantage in running the drive names this way. With a ramdisk configured as DSK1, you can still access all the files on the first physical drive by using the "A.FILENAME". The calling program must allow you to specify the device name, and not be hardwired to answer the "DSK?" prompt with only a number.

Well, on to the hardware stuff, and the actual removal of the roms. First, you must disassemble the controller card by removing the four screws and covers. Next, the existing roms are removed. They are the two large chips next to the largest chip on the board. Personally, I find a plunger type solder-sucker works the best. Make note of the numbers on each rom, and their orientation. This means make a drawing of which way the notch is pointing on the existing roms. Two 24 pin sockets are needed. Even sockets have an orientation, usually a notched corner, or a dot for pin 1. Keep this lined up with the original pin one from the roms, so there is no confusion when installing replacement roms after they are programmed. Solder in the sockets.

I used 2532 proms for the replacements. The existing roms, once removed, can be read as 2532's, regardless of the obscure numbers printed on top of them. They are actually called 2332, which just means they are pre-programmed roms. So to read the original TI roms, tell your prom reader you are looking at 2332's. 2532 proms are becoming a little scarce, but are still available. I have the modifications to use the more common 2732 proms. Send me a SASE for the details on this.

Read the contents of the roms into a disk file for later patching. The chip next to the largest chip is called U26, and has the DSR code for addresses >4000 to >4FFF. The next chip over is U27, and contains code for >5000 to >5FEF. Note that >5FF0 to >5FFF is not available to us in U27, because these addresses are trapped out, and used for the control registers for the large chip on the card, the FD1771 floppy disk controller chip.

After the disk files are patched with your new names, program the patched file into blank proms. As you program each part, put a piece of tape over the erasure window, and mark on it the address that it contains, either >4000 or >5000. This will prevent mixing up the chips later.

Well, install the chips in the sockets, with the >4000 chip occupying the U26 socket, and the >5000 chip in the U27 socket. Carefully check all your solder connection for bridges and shorts, and make sure all the prom pins are seated correctly in the socket. At this point, the card is operational with the described modifications. Enjoy!

* * * FROM THE MAILBOX * * *

The following articles have appeared in recent user group newsletters; you may receive a copy of any article by asking one of the officers. Articles appearing in multiple newsletters are only referenced to the first newsletter I see the article in.

Review of TELCO, a new terminal emulator program; list of TI supporters. (Newsnet 99er, April 1988)

Basic games from Regina; c99 input and output files; software contest on Delphi; review of the Boston TI Fayuh; organizing a hard disk; Geneve questions and answers; reviews of Super Space II, PC Transfer, Archiver II V2.4, and Calendar Maker. (MICROpendium, April 1988)

Tips for TI Artist; a poor man's disk system (hardware project). San Diego TI SIG, April 1988)

A fix for Funnelweb V4.0 for the RS command; review of Star NX1000 printer; make a data disk for Certificate 99. (Quad Cities TIers, May 1988)

Configure Funnelweb for a 2 disk drive system; an 8 line "pegjump" program; Funnelweb flow charts; Horizon ramdisk information. (QB Monitor, May 1988)

TI Multiplan #5; John Willforth's list of TI groms available for repair of modules. (Aloha 99ers, May 1988)

Let's talk Ramdisks, part VI (Grand Ram); Getting the Most from your Cassette System #14 (cassette files); TI Writer Tips #5; Tips for Beginners #12; Multiplan, part 7; PR Base bugs debugged by the author; hints for requesting Shareware programs. (PUG Peripheral, May 1988)

First installment on a type-in stock market program BIG BUCKS; a proposed system for universally cataloging disks. (Bluegrass 99 Computer Society, May 1988)

A review of Command DOS, from RYTE Data; updates on the UNDB project; reviews of TI-KEYS and EZ-KEYS; review of PRINT WIZARD. Johnson Space Center UG, Mar/April 1988)

An open letter of dissatisfaction on the Myarc 9640 software void; TI Artist function summary; review of PRINT WIZARD. (Suncoast Beeper, April 1988)

Review of VIDEOFLEX; new PEEKS and POKES. (San Fernando Valley 99ers, May 1988)

Basic type-in baseball statistics program by Regena; c99 dictionary files; adding a mouse to the TI; review of PLUS!; supertrace type-in program from Jim Peterson; Geneve sound chip access; Texas TI Faire notes. (MICROpendium, May 1988)

Build a surge protector for your TI. (Central Iowa User Group, May 1988)

9640 programming notes; discussion of Super Space cart, Super 4TH software, and artificial intelligence; assembly program plays a sound list; Bytemaster catalog. (Smart Programmer, February 1987 issue)

Second installment of Big Bucks (see above); review of PLUS! with a good explanation of .IF, .TL, and TIW special character mode. (Bluegrass 99 Computer Society, June 1988)

Modification of the Checksum program; tips on PRBase; converting XB screens to TI Artist instances; a two-way communication program for simultaneous telecommunications. (Cin-Day News, May 1988)

TI Multiplan, #6. (Aloha 99ers, June 1988)

Reviews of the Dallas TI Faire. (Forest Lane User Group, June 1988)

How to generate printer codes in TI Writer; announcement of a new data base program; TI Writer printer code table; more news from the Texas TI Faire. (Johnson Space Center 99ers, May 1988)

Speeding the auto-repeat cursor in Funnelweb; review of Horizon ramdisk with Geneve; Good Old Days, part 3. (SNUGLETter, May 1988)

Assembly language tutorial for beginners; proposed usage of an 8K DSR card. (Penn-Ohio Users Group, May 1988)
 Many hardware tips for do-it-yourselfers; a survey of cables used on the TI. (San Diego TI SIG, May 1988)

NOVICE VIEW OF DISK UTILITIES

MICROPENDIUM in its February issue told it as it is...even for a greenhorn...everything that was said is true! I tried every aspect except the Myarc disk set up which I do not have and the string utilities which I am not experienced enough to try and make a valid comment.

Attached as I have been to DM1000, even before I had the DOCS and much more so since, I marvel at all DISK UTILITIES 4.0 by John Birdwell can do. When I got the original version, last year I was too green to appreciate its potential and had put it on the back burner. This version has had a workout already!

In our last newsletter, it mentioned a DM1000 4.0, it will be interesting to see what added capabilities it has. Can it possibly offer yet more!

One of the joys of the this version of DISK UTILITIES is the ease in use, the comment capability on the various reports, the ability to compare disks for differences, the listing of sector numbers which makes it possible to track down the Hex code of a specific graphic. I didn't try that this time, but it is obviously there. I was too busy comparing two disks I thought were different and weren't and trying out all the other areas, dating comments I could add etc.!

John's asking price is \$15 which is very little for a large amount of technology. The updated version is \$5.00 for registered owners.

Try it you'll like it!

Sr. Pat Taylor, SVM

* * * FOR SALE / WANTED * * *

FOR SALE: 300 baud direct connect Volksmodem with cable. \$35. Bruce Winter, 393-0610

WANTED: "The Attack" game cartridge. FOR SALE: Ralph Molesworth's "Introduction to Assembly Language for the TI Home Computer," in new condition, asking \$10. Microsoft Multiplan for TI, new, \$20. TI Trek, with manual and disk \$4. Extra Extended Basic book, \$4. Commodore VIC-20, in box with modulator, manuals, \$20, or would donate to a worthy cause if it was made known to me. Gary Bishop, 319-377-9574 after 5 PM CST.

WANTED: TI power supply (wall plug and transformer); joystick (not TI original). Jim Green, 377-4073

FOR SALE: Complete TI system, TV, software, speech, etc. College student (former group member) needs cash for school. \$300 takes the package, or pieces are priced individually. Dave Reinhart, 377-0661. See Jim Green for complete list of items.

* * * LIBRARY CORNER * * *

Our library is still growing as you can see by the following list. If you have any programs to add or would like to have a copy of any of these new ones (or old ones), please let me know! We still have about 25 new disks for \$.30 each, so let us know if you need new disks.

The following programs are on disk #171.

M-COPIER is an E/A shareware disk copier program from Mike Dodd. It makes a copy of your original disk and places all file headers, in order, at the start of your disk, which should save some wear and tear on your disk drives.

WOODSTOCK is an excellent graphics program in Ex. Basic of Snoopy's friend Woodstock, celebrating Christmas.

APPLEJAM: XB: Watch our TI battle Apple computers.

BREAKDANCING: Basic. A very simple program of 5 figures breakdancing.

LIFE: A classic computer simulation. Based on the idea of a population which goes through life cycles to form new generations. Written in Assembly language.

TI KEYS: A shareware program by Wes Johnston. Requires XB. It will redefine up to 36 keys so that when typed as control keys, they will display up to 31 characters of text or code. Has instructions.

FUNLPLUS V4.3: A shareware program by Jack Sughrue. It is a companion/utilities set to use with the Australian shareware program Funlwriter. It is a collection of templates, articles, documentation, codes, and programs. Requires two disks to get all the files. These are on disks #172 and #173.

RAG SOFTWARE ASSEMBLER: Shareware by R. A. Green. It is a macro assembler whic is compatible with the TI assembler except for some instructions and assembler directives not supported by the TI. It has several important improvements: 1) a macro facility, 2) improved listing format, 3) improved diagnostic format, 4) a cross reference listing, and 5) runs independent of any module. I don't have time to review this one totally. Would someone like to give it a try and write something for the newsletter? [I second that! Ed.] It has instructions, and I can print them for you if necessary. All these files are on disk #174.

Bruce Winter

* * * FOR SALE / WANTED * * *

NEXT MEETING

MONDAY, JUNE 13

7:00 PM --- JA BUILDING

LAST MEETING IN THIS FACILITY!

MORE EXPLANATION ABOUT FUNNELWEB

NEWS FROM OTHER USER GROUPS

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