

Classic 99

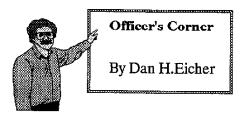
People Helping People

The Official Newsletter of the Hoosier Users Group

September - October 1998

The HUGger's Newsletter

Volume 17 Number 5



Exciting things continue to be worked on for the TI. The latest this past couple of months is Jeff Brown and his continued work on a new assembler for the TI. The other is Michael Becker's introduction of a new speech card for the PBox.

While digging through one of the many boxes of items sent to me by Edgar Dohnmann, I discovered two items that I had never stumbled across before. The first one is called the TI Writer Companion by William G. Browning, PhD. This document fills in all the blanks and omissions that TI left out of their manual. It shows many tips and hints of how to overcome the limitations you might run into, highly recommended! The second item is a compendium for Advanced Diagnostics. If you use Advanced Diagnostics, this is well worth adding to your manuals!

Also among other goodies from Edgar is about a six year set of the Hunter Valley Newsletters. There is a lot of good information in these newsletters. Much of it was contributed by one of their long distance members, Bob Carmany! I plan on slipping in a few of the more interesting items as we go along.

After a very long wait, I was able to get together the list of odds and ends that Carl and Mary Rose Clark were looking to add to their TI systems. I am happy to report that all the hardware and software sent up to them made it in good condition!

Bill continues to look into ways to automate resetting of the BBS. This has generated quite a number of messages on the TI list server.

The July meeting was a success. I demoed the WHT SCSI card and Diablo. August saw the demo of Sound F/X and the DigiPort adapter. Hopefully, we can get AMS support put into these two programs!

The SW99ers have announced a new lower price on AMS cards. The 256K version of the SAMS card is now priced at 55 dollars! Does anyone remember paying \$175 for a Myarc 512K card? The order form is available at www.theriver.com/Public/sw99ug/amsform.html or you can call or write SW99ers PO Box 17831, Tucson, AZ 85731 520.747.5046

I recently picked up a pair of Amiga Joysticks for the TI for less than ten dollars off of www.ebay.com. Ebay is an automated auction facility on the web. It's easy to use and is a good place to hunt down computer equipment of all types!

The September meeting [20th] will be held at Bill Lucid's. I will be doing a demo of the TCP/IP protocol and a demo of RXB. I plan on bringing plenty of handouts!

continued on page 3

Table of Contents

- 1. Snake Dance
- 2. CONV128 Update
- 3. A Fortran Excursion
- 4. Irony (or the Australia/Ohio Connection)
- 5. How TI Calculates A Checksum
- 6. Advanced Diagnostic Addendum
- 7. TI RS232 Repair
- 8. TI Closes Lubbock Plant
- 9. PC99V5 & Diablo

- 100 REM ***********
- 110 REM * SNAKE DANCE *
- 120 REM * VAUGHN SOFTWARE *
- 130 REM ************
- 140 REM
- 150 REM
- 160 REM EXTENDED BASIC
- 170 REM
- 180 RANDOMIZE::CALL CLEAR::CALL SCREEN(2)
- 190 B=RND*190::CALL MAGNIFY(1)::CALL
- CHAR (96, "8")::FOR A=1 TO 28::CALL
- SPRITE (#A, 96, 8, 95, 10, 10, SGN (95B) * A)::NEXT A
- 200 D=RND*20::FOR A=1 TO 28::CALL
- MOTION(#A,D,A*SGN(10D))::NEXT A::C=C+1::IF C<25 THEN
- 200
- 210 FOR A=1 TO 28::CALL COLOR(#A,RND*14+2)::NEXT
- A::C=0::CALL MAGNIFY(2)
- 220 FOR A=1 TO 28::B=RND*14+2::CALL
- PATTERN(#A, 96)::CALL POSITION(#A, U, V)::CALL
- MOTION(#A, SGN(96U)*9, SGN(10V)*9)::NEXT A
- 230 FOR A=1 TO 28::CALL PATTERN(#A, 96)::NEXT A::CALL
- DELSPRITE (ALL)::GOTO 190



Hopefully, by the time the October meeting rolls around, Jamie and I will be complete with the moving process!



Dano

Duo

***** JUST IN *****

Mike Wright has completed work on converting TWO TI manuals to PDF format; the 9918A Programmers Manual and Schachmeister. Schachmeister is the international manual for Video Chess, this manual weighs in at 66 pages!

Lew King of Pennsyvania sent me a copy of the commercial version of Term80 by Jeff Brown, I am attempting to get permission from Jeff to put it up on the BBS!

CONV128 Update By Bruce Harrison

Bruce Harrison and his partner are now ONLINE!!! Their Email address is: <rottencat13@hotmail.com>.

Bruce left the following message on the TI list server about a problem with his converter program.

Some time ago, I wrote and distributed (Public Domain) a program called CONV128, which is designed to convert text files from D/F 128 into D/V 80. This works most of the time, but now and then we find a D/F 128 file in which the last record, instead of being "padded out" with spaces to 128 characters, is padded with >1A characters.

This can cause a crash of the program, and because the file it was creating did not close, can leave behind a 1sector "orphan" file on the disk.

I plan to fix this problem and get a revised edition of CONV128 out to Charlie Good and Lew King in the near future. In the meantime, such "problem" files can be fixed by using Birdwell's DSKU on the D/F 128 file. Use file utilities, Find String, and have the DSKU replace all >1A characters with >20. Don't forget then to rewrite the changed sector(s).

If you need help, call me at (301) 2773467 and I'll talk you through the process.

Best Regards, Bruce

[Editors Note: Bruce is one of the real GOOD GUYS of our community!]

A Fortran Excursion By Dan H. Eicher

I dusted off my Fortran 99 disk again; Version 4.4. Before now I had never used these disks, I have always used the MDOS version of Al Beard's Fortran 99. First I ran everything off the floppy and all worked fine. Then I moved it all over to my new Horizon 4000, and it was here my problems began. I got an I/O error when I tried to access the library files d/f80.

With a little detective work, I found that I could not type these files from any of the disk managers. After about three hours of moving hardware around, reloading the ROS and reformating the Horizon and recopying the disk and trying other d/f80 files that would catalog, I determined that what I had was not a hardware or operating system problem, but instead a software problem. So I decided to take a closer look at the diskette itself at the byte sector level to see if I could determine what was going on. I went in with DskU and found the problem. Byte 12 (File Status Flag) of the File descripter record was hosed.

According to Millers Graphics Advanced diagnostics manual, this should be a >80 (and >8 if protected). On one of the files, I was having trouble with (d/v80), it was set to a >90. Changing this byte fixed the file so that it could be read and deleted.

After some further thought, I remembered if not this exact problem, then a very similar problem relating to the Geneve, and the setting of some bits that while the file worked fine on a Geneve would not work with a TI! Since I was pretty sure that Al had made these disks up on his Geneve (to quicken the process of diskette making, I was even more convinced that this old problem had its roots in the Geneve) I posted this information to this TI list server and asked if anyone else had seen this problem. I got the following replies back:

From: ttesch@juno.com (Tim Tesch)

Dano,

The Myarc DSRs sets that particular bit. To fix this problem, I wrote "BackupBitRemover". It's a small program that runs on the TI and clears this bit.

All file types can be "affected". Program files will often show up as a "*" when cataloged by the Horizon MENU program. Barry Traver also wrote a similar program. If you need it, I'll look for it and upload it somewhere... same goes for anyone else.

Tim

Ken Hastings < C_A_T@juno.com> of the Southern California Computer Group writes:

Whenever that program XCOPY is used, it turns on that backups!] reserved bit ("12")! I wish it didn't, but it does and I would REALLY like to know WHY?!

Here is Tim's response:

The intent of the "backup bit" is the same as the "archive" bit on the PC. Its there to let you know whether a file has been modified. This was never really implemented; and XCOPY should clear/reset the bit rather than set it if I recall correctly. Oh well....

Tim

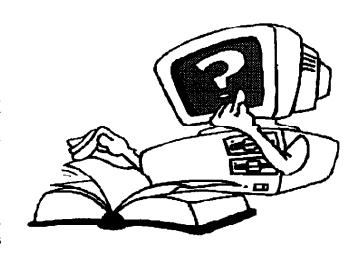
And last but not least, Robert Jones <ri>jo736@airmail.net>, author of the PGram DSR and member of the Dallas 99ers writes:

It has been a while hasn't it? I remember that there was an issue involving the HFDC and the nonstandard bits used for "dsk1 file emulation" and "backup flag" causing problems. The problem you run into is that some routines in some DSRs take shortcuts when testing the flag byte to discover the file's characteristics and fail to mask off the bits they know nothing about before doing the testing. I know for certain that the Grand Ram was deficient in this area. I can't remember about the HRD ver 7.3; never ran ver 8.x because the "gotcha" thing p****ed me off and I tend to be just a wee bit:) on the ornery side.

As far as an automated process to clean the files up as, I've done that several times in different programs. To write a standalone program to do nothing else would be more trouble than it's worth unless you're talking about a BUNCH of files. However, if you have the source for any file manager, stripping the bogus bits in the file copy routines is a trivial matter. If your orneries are hangin' out and you insist on doing a standalone, the sledgehammer approach of locating all the FDRs on a diskette using the entries in the file index record, reading each FDR into a buffer, ANDing byte >0C with >CF and rewriting the FDR sector would get the job done in a hurry.

Best regards, Robert

[Editors Note: Tim's Backup Bit Reseter has now been uploaded to the HUG BBS! I have also upload DM1000 Version 6.1 which seems to play very well with the Horizon Ram Disks. The DM1000 came to me via Michael Becker. The backup bit is used by Al BEard's Backup Miser Program to do incremental system backups!]



Irony (or the Australia/Ohio Connection) By Dan H. Eicher

IRONY is defined by Websters as: N. Subtle sarcasm or humor implying the opposite of what is expressed. Or the Australia and Ohio connection.

Rodger Price had written asking if I knew where he could get a copy of Diablo. The only place I had ever seen it was in an advertisement in 99er magazine. With his letter, Rodger had included a copy of the exact same advertisement!

In order to locate this program, I enlisted the help of Tlers on the list server. John Bert of Australia came forward and said he had the program and would be glad to send it on to me.

Back at the Lima fair in May, John Parkens brought a minivan full of TI gear. It was equipment from the recently disbanded CONNI users group. John stated everything was headed for the dumpster, but he didn't want to see that happen, so he brought it all down to the Lima fair to be given away to those who could use.

I picked out several pieces of hardware for our group. I also picked up several shoe boxes full of disk (about 150 diskettes in all), with the intention of using them to reformat and mail out software.

While doing some organizing I pulled these disks out of their home in the shoe box and put them in a diskette case. While doing that, one disk stuck out higher than the rest and I couldn't shut the lid. I pulled that diskette out, and would you believe, it was an ORIGINAL Diablo Diskette! In fact, hand written on the front, it says DEMO - DO NOT SELL.

Diablo was written by Manuel Constantinidis of Australia, and was marketed by Extended Software Company of ?? Yes you guessed it OHIO! The label states Diablo is Copyright 1983.

Now, for the final bit of Irony. The matching diskette and dust jacket (white on blue) is a Control Data Corporation diskette! CDC was owned by Texas Instruments in 1983!

Disclaimer

This newsletter is brought to you through the efforts of officers and members of the Hoosier Users Group. Every member is encouraged to submit articles.

If you have an article you would like to share; or a request for an article, mail it to:

Dan Eicher

2720 Palo Verde Court Indianapolis, IN 46227

Opinions expressed are those of the author and not necessarily those of the Hoosier Users Group.

HOOSIER USERS GROUP OFFICERS

Area Code (317)

President Dan H. Eicher 865-9942

email: eicher@delphi.com

Vice-President Bryant C. Pedigo 255-7381

email: bpedigo@midlink.com

Secretary/Treasurer Greg Larson 783-4575

email: greg.larson@icsbbs.org

How TI Calculates A Checksum

From the Newsletter of the Hunter Valley Users Group, November 1986 issue. By Neil Quigg

What is a checksum?

The checksum is a method of error detection used in data transmission. It is used in many forms ranging from simple summation of data to complex algorithms used in large computer systems.

How is it used?

When data is stored the checksum is calculated and stored within the data. Then when the data is read from the storage medium the checksum is recalculated and the value compared with the stored value. If the values are found to differ the computer will assume that a read error has occurred and issues an error statement accordingly.

How does the TI calculate the checksum?

The E/A checksum value is calculated as the "two's compliment of the sum of the 8 bit ASCII value of each character in a record from the first flag through to and including the checksum flag". This may sound daunting, however, it is relatively simple in practice.

First, let us consider the 8 bit ASCII sum using the screen filling example from Octobers "ASSEMBLY LANGUAGE FOR THE LAYMAN" article. Each character including the 8 blanks has an 8 bit ASCII value. eg. A = 0100 0001 or in hex 41. For the purpose of this exercise and ease of calculations we will use hex values for each character. Now consider the first eight characters of last months object code.

char 0 0 0 4 4 (3 BLANKS) hex 30 30 30 34 34 20 20 20

By adding the hex values we get >0158 continuing this process through the complete record including the checksum flag 7 we get a sum of >0C9B, so far so good. Now >0C9B equals 0000 1100 1001 1011 in binary and for two's compliment we invert each bit and add 1.

So. 0000 1100 1001 1011 becomes 1111 0011 0110 0100 add on 1 in hex F 3 6 5 behold our checksum! Now back to last months example.

After the object code is altered to produce the character B instead of A the loader issues a checksum error. This is because when the data is loaded the checksum calculated differs from that imbedded in the data. This problem was overcome by introducing the checksum flag 8 which instructs the loader to ignore the checksum. The alternateive is correct the checksum value. To do this let us consider the actual data change made. The object code was altered from 41 to 42 so our 8 bit ASCII values changed from 34 31 to 34 32 so our ASCII sum would change from >0C9B to >0C9C.

>0C9C = 0000 1100 1001 1100 invert 1111 0011 0110 0011 add one 1 two com. 1111 0011 0110 0100 HEX F 3 6 4

Now if the fill screen example is changed from character A to B and the checksum value was changed from F365 to F364 and saved the OPTION 3 LOAD AND RUN should not issue an error.



Advanced Diagnostic Addendum

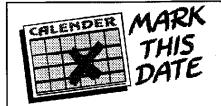
The Serial Number of your Advanced Diagnostics program, for the warranty card, is the first item on the catalog list when you use the Disk Directory or DD Command on the Diags diskette. The Serial Number is preceded by a space character and it appears something like this: UUAF00001

After releasing Advanced Diagnostics for testing it was discovered that a few items needed a better explanation. They are as follows:

- 1. To exit Diags press FCTN 5 BEGIN twice. The first time will take you to the Diags title screen and the second time will take you to the Computers title screen.
- 2. The Command Files on this disk were intended for use on a normal diskette. If you execute them on the Diags diskette you will most likely receive Seek Error error message.
- 3. There is a Command File named DEMO on the Diags disk. This file will demonstrate the Programmable power of Advanced Diagnostics. Type in "Command File DSK1.DEMO" on the command line & press enter to run it.
- 4. If you have the CorComp Disk Controller card you can install the disk manager on the Diags disk with the INSTALLMGR Command File. This MUST be done before anything else is written to the Diags disk. Otherwise the manager may write over those added files. Type in "Command File DSK1.INSTALLMGR" on the command line and press enter to run it. After it is loaded follow the instructions that appear on your screen.

NOTE: DO NOT use this Command File to install the disk manager on any of your other disks!! The Diags diskette was set up with sectors 2 and 48 through 144 left free to leave room for the disk manager.

- 5. High Speed Command Files can only be stopped when the PAUSE command is executed and you press FCTN 5 BEGIN. Slow Speed Command Files can be stopped by pressing any key on the keyboard at any time.
- press FCTN 0 SCREEN DUMP, you can press FCTN 4 changes or having to reread in the sector. CLEAR to abort the screen dump.



Tentative HOOSIER USERS GROUP Meeting Schedule

Sep. 20, 1998

Oct. 18, 1998

Nov. 15, 1998

Dec. 20, 1998

Mark your calendars!!

Hoosier User Group meeting place TO BE ANNOUNCED prior to meeting. Meetings start at 2:00pm.

HUG supports the following computers: TI 99/4A and Myarc 9640 Geneve

7. The MOTOR SPEED Command is stopped by pressing any key on the keyboard. You may, however, have to hold it down for a little while for it to take effect. This time is determined by the sample_rate parameter. If you are using a large sample rate parameter, say 30, then it could take up to 6 seconds for the key press to be detected. A good sample rate to use is between 7 and 15. This sample rate parameter is the number of index pulses to count before calculating the drives motor speed. At 300 RPM there are 5 index pulses per second.

NOTE: Since this command uses the floppies index pulse to calculate the motor speed you MUST have a diskette in the drive in order to test the drive.

8. Along with "COMMAND FILE REDO" you may now also use the REDO command with Edit Sector (EDIT SECTOR REDO or ES REDO or ES R). This allows you to 6. If your OUTPUT DEVICE (see) is not ready when you page the Edit Buffer back onto the screen without losing your

TI RS232 Repair

From the Newsletter of the Hunter Valley Users Group, May 1987 issue.

By Albery Anderson

Patient: TI RS232 Card (PE. Box type)

Symptoms: RS232 operations function as normal, BUT PIO will not output correct characters to printer when called on to do so.

Example: PIM TEQT, 1014545890=QUEPTYUIMPAQD

instead of

PIO TEST. 1234567890=QUERTYUIOP/ASD

This particular case would not return a carriage return and therefore would not line feed the printer.

Cure: Removal of the suspect 74LS245 Bidirectional buffer designated U3 on the RS232 Card and replacement (optionally in a socket) with a brand new specimen.

Cost approx. \$2.50 and the usual disclaimers on risking the health of your equipment apply. ie. Whatever you do is at your own risk.

Results: Success! My PIO port now communicates with my trusty printer in a dialect that I can now interpret.





Hoosier Users Group, Indianapolis, IN 300/1200/2400/4800/9600 8N1

317-782-9942

BBS sysop: William M. Lucid email: lucid@indy.net

TI Closes Lubbock Plant

Texas Instruments Company has decided to close their Lubbock, Texas plant. For many many years, this site was the heart of their consumer electronics division.

From News Headlines:

The Texas Instruments will be eliminating 3,500 jobs worldwide due to the weak semiconductor market. The Lubbock plant is 700,000 square feet, not including the grounds.

This is a short excerpt from the below mentioned web address:

"TI begins phasedown operations in Lubbock in August. The move is expected to eliminate 680 jobs, although one third of the employees will be offered other positions at plants in Dallas and Houston."

Tom Wills, of the SW99ers, who spearheaded and coordinated this years FestWest held at the facility said: "See the following web site for information on TI's closing of the Lubbock facility. It looks like it was a good thing we had Fest West '98 at the facility this year."

The web page URL is http://www.lubbockonline.com/stories/062098 /0620980010.shtml

PC99V5 & DIABLO

by Roger Price H.U.G.

The meeting in July was interesting with Dan's demos. One was a demo of a game called Diablo with a short story behind this game. I had been looking thru old 99er magazines anticipation of selling some of I stumbled across an article about the game. I sent Dan a note him that the game looked interesting and I would like to obtain a copy of it. Dan did not have it, but located a copy in Australia, where the program originated. The game is slow enough that it runs well for being in extended basic. Our own Mr. Dan Eicher is on the cover of Micropendium in the July/Aug issue.

Pc99v5 is here and it is planned to be the final version as the author has nothing left to put in it. I am not going to repeat all the features as reviews have and will continue to be by others, if you take made Micropendium. Perhaps there will be articles in other newsletters that we reprint covering this fine product. One Οf the thinas I discovered about it was that you could use floppy disks to store "disks" on. This is not recommended except to load as the floppies are easily corrupted if the "disk" is written to. A second thing I figured out was that could load and use files for SuperSpace because the cartridge space is there in PC99V3 but you have to know how to use it. For example the rules are that you can only have one cartridge loaded or it will not work. That must be the E/A cartridge. I felt it was information that should have been printed for the benefit of others that have the Superspace cartridge and have some saved off cartridges or a program that uses the space. Who would believe that YOU can have the Superspace disabled and still use it? you can! All that the enable really does is that when you save the configuration it checks to see if you complied with the rules of having only the E/A cartridge loaded.

If there is more than one cartridge that uses the space at >6000 then it will warn you of the error.

With PC99V5 the OPA cartridge is always enabled so you can in effect have two cartridges loaded and still use Superspace since your module count is only one and you can only have that being the E/A cartridge. So basically if you remember to make the correct setup, you do not have to mess with changing the Superspace setup to enable or disable because it really is always enabled and has been there at least version 3 since I since started with that version and checked it. None of the versions give you the Superspace programs. You have to have had the cartridge to get that. Let us remember that with the 994/A console you can not use extended basic and the superspace cartridge at the same time because you can only have one cartridge plugged in at one time. Only one slot. So there are no extended programs that depend on the Superspace cartridge. You can use the E/ A cartridge to load programs that use the Superspace space. If anyone b face like demo, I can load Centipede or Defender into the Superspace space. >6000-7fff

(TI-994A, PERFECT COLUMNIZER, 99/4 IMPAUT PRINTER)





Hoosier Users Group Dan H. Eicher 2720 Palo Verde Court Indianapolis, IN 46227

Forwarding and Address Correction Requested

Next meeting September 20!!

Hoosier Users Group S&T BBS 300/1200/2400/4800/9600 Baud 8N1 317-782-9942 24 Hours Daily

Phone:	:lism-H
City, State, Zip	
Address:	
Name:	

72234 VI , siloqensibnI

Hoosier Users Group Dan H. Eicher 2720 Palo Verde Court

completed application to:

New memberships and renewals are \$20.00/year. Make check or money order payable to Hoosier Users Group. Send

Below you will find an application for membership in the Hoosier Users Group. Active membership entitles you to the Newsletter, up and down loading rights on the HUGbbs, attendance and voting rights at regular club meetings, access to the HUGger Library of Programs, special club activities and special guest speakers for one year.