THE GUILFORD 99'ER NEWSLETTER

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OUR NEXT MEETING

DATE: February 7, 1989, Time: 7:30 PM. Place:Glenwood Recreation Center, 2010 S. Chapman Street.

Program for this meeting will be presented by Ben Jones. He will demo the Milton Bradley (MBX) baseball game/voice recognition system.

JANUARY MINUTES

The January 3rd meeting of the Guilford 99er Users' Group was held at the Glenwood Recreation Center in Greensboro, N.C. There were 13 members present and 2 visitors.

The meeting was called to order by Vice President Emmett Hughes at 7:30 P.M. due to the Pres. arriving late. The minutes of the December meeting were read and accepted as read.

OLD BUSINESS:

1. The matter of closing the checking account with Greensboro National Bank was entered into and a motion was made by Andrew Small that the funds would be withdrawn and placed in the Treasure's checking account since there is no service charge involved. The motion was carried. The account will be closed in February after all checks outstanding have been cleared.

NEW BUSINESS:

1. Newsletter Editor George von Seth asked members to donate articles to the newsletter. He indicated that we need material as the source for information is running dry. Anyone having articles for sale or trade are asked to submit them to

George. Also anything wanted, or a program that has a bug or anything else is also newsworthy.

After the business meeting, Bob Carmany demoed the unreleased TI version of Pac Man and Tombstone City. Bob explained that after TI seen the programs, they were afraid of copyright infringement so they changed the Munchman to lay down chains instead of eating dots, and the Saguaro City crosses were changed to the Tombstone City's cactus. A very good demo Bob, thanks.

The secretary then demoed the Wheel of Fortune. The demos went very well with no hitches and I think were enjoyed by all.

Ben Jones agreed to present the Feb. program and display the Milton Bradley expansion system.

The meeting adjurned at 9:30 P.M.

Respectfully submitted,
By: L.F. "Mac" Jones, Sect./Treas.

RAMBYTES

By: "Mac" Jones

It was great seeing so many members attending the Jan. meeting. It is also nice to have Andrew Small, John Goller, Bea and Lester Parker, and Bonnie and Ben Jones join us for another year. They all paid the newsletter dues at the meeting. I think I mentioned before that the dues money is for the newsletter and not necessary to be a member of the group. All members are urged to keep attending meetings, you just will not receive a newsletter unless your money is received by the Feb. meeting.

We had two visitors who had come thinking they were at the right center for the big blue meeting. Since none of us knew of where the meeting was being held, we were not much help. They soon left us as I explained that the TI was not IBM compatable.

Hopefully all of you got everything you wished for from Santa, and also I hope you had a nice New Years Eve. Did you ever see so many bowl games in your life? Seems every channel had one going! It is hard to try to hack and watch to see who is going to score a touchdown at the same time, so I just cut the 'puter off and watched TV.

I am trying to squirrel a few bucks out of the pension for PRESS and TI BASE and hope to be able to afford them soon. I have read the raves about each and like most of you, I want to try them also. It is really great that we still have programmers that are dedicated to giving us more and better programs for our orphan.

The Christmas of 1987, Ray Kazmer of California gave us Woodstock's Christmas Gift. I enjoyed it very much and looked for Ray's contribution for this past Christmas, but if he put one out I missed it. Did anyone see anything from Ray? I have several more of his programs he sent me that year. He said I was the first one to send him some bucks for Woodstock, so he wanted to send me something nice. And nice it was! A DS/SD disk full of good programs that he had either written or modified. It really hurt his feelings when I jokingly told him I had never heard of him. He really seems to be a great guy and programmer.

Well, all the kids have returned to their homes along with the Grandson and "granddogs" and it's so quiet that I am having trouble concentrating so I will just wish you all a Happy New Year.

See you all at the Feb. meeting and until then, enjoy the good TImes.

DISK HACKER

What a colorful picture the name "DISKHACKER" conjures up! Visions of dark rooms and broken program protection. Secretive, nefarious computer types doing all sorts of things. Well, if that's what you think when you read the program title, you are going to be sadly mistaken!

DISKHACKER is one of the many top-flight programs from "down under". Now in Version 2.0, it is an excellent tutorial and analysis tool for finding out exactly what is on that disk that you suspect to be a bit "strange". Although it will allow you to see what is on the disk, THERE IS NO PROVISION IN THE PROGRAM FOR COPYING OR EDITING the disk contents.

DISKHACKER loads quite easily from any of the three environments (XB, Mini-Mem, or E/A) that were mentioned in the documentation. The prompts are easy to follow and straight-forward. I encountered no difficulty whatever with the mechanics of the program.

Now, let's step through the program and see what it does. After the title screen "times out" you simply answer a series of simple prompts. Drive number, "S" or "D" for single or double sided disk, the starting track number and the stopping track number and the last prompt asks if you wish to check for CRC errors and deleted check marks. Once you have answered all of the prompts, the track analysis of the disk begins!

Once the analysis is complete, you can look at the data that is presented. The program will show you the true physical number of each track, the side of the disk it is on, the sector numbers within each track. the length of each sector and whether or not the CRC data is correct. It will also show you if there is a data mark for each sector or whether there is a deleted data mark.

All of this data is available on a track-by-track basis. You can page either forward or backwards by using the <FCTN>E and <FCTN>X keys.

Now, you can look at a normal disk and see why it is normal ---or look at a "funny-sectored" disk and see why it is "funny-sectored". It will give you a chance to see how, in some cases, disks are protected. But, once again, let me stress, there is NO PROVISION for defeating any protection with DISKHACKER.

The program is entirely prompt-driven. A couple of minutes spent reading the documentation will answer any questions that you may have about the program. Running the program requires no advanced knowledge in either programming or disk structure. It is VERY user-friendly!

DISKHACKER is delivered with a complete set of documentation files on the disk that are easily printed out with TI-Writer or FUNNELWEB. The 11 pages of documentation are complete, concise, and easy to read. The documention takes you through a brief program description, detailed loading instructions, and into the operation of the program itself — even to the point of describing how the screen looks!

Each of the prompts are explained, in turn, with at least a paragraph of text and there are examples given throughout. Some of the more complicated prompts (ie. track numbers) are explained in greater detail. In fact, so much so that the documentation comprises a "short course" in TI disk structure.

The second part of the documentation concerns a discussion of the data that you get from your analysis and what it all means. Again, everything is written simply and is concise and easy to understand. There is a discussion of TI sector structure and other data lavishly sprinkled in and presented in a readable easily-understood form. Each of the display abbreviations is completely explained.

The last page of the documentation ends with a listing of the various <FCTN> keys and the effect they have on the program. By that time, you should be eagerly waiting to stick a disk into the drive and see what it there!

This is a real toughie! The program is presented to the TI community as "fairware" and contributions are asked. Your conscience should be your guide in sending what you feel the program is worth. Remember, though, it is the ONLY program of its kind in existence for the TI. No other program will show you the wealth of data contained on your disks. It is even more amazing when you consider that it was written by a 16-year-old kid! It is certainly worth $10.00 (or more) to those of us who are technical minded or just plain curious about what makes some of the disks a bit "strange".

It is difficult to give this program anything except the highest grades. It works very smoothly and is easy to use. The documentation is well done, readable, and straight-forward. All in all, it is an excellent programming effort.

The version that I used for this review was the version for the TI controller. Will has written versions for both the CorComp and Myarc controllers as well. When you write to order, specify which version you want. The performance of all three is identical.

In conclusion, I would heartily recommend DISKHACKER to those of you who want to do more with your TI than sit and play TI INVADERS. It is an excellent utility and very useful if you want to know the "why's" and "how's" of TI disk structure and how it is manipulated and juggled about.

Confessions of a Small-TIme User.

By Tony Kleen Guilford (NC) Users Group.

I have a reason for the above byline. I am indeed a very small-time user of home computer. Occasionally, I will write a letter home; usually opting to 'phone home' instead. Mostly, I use TELCO to interact with my company's mainframes, especially when something goes 'bump in the night' with one of the software systems.

In all cases concerning my TI99/4A, I'm not expert at anything; just simply trying hard to stay above water. Even so, I'd like to offer whatever I can to the TI community, whenever I can.

ONWARD- At the last meeting (Jan 89), I overhead someone asking about issueing printer commands from the TIW. What I'd like to offer is, how I access my OKIDATA printer using a set-up (template) file, and TIW's transliteration commands. I will immediately present the file, and explain the various commands afterwards.

```
.CO DSK.NEWSLETTER(INCLUDE) 870101.
.CO ------------------------------
.CO Fill as many words as will fit.
.CO Adjust words to right margin.
.CO Left Margin at column 008.
.CO Rght Margin at column 126.
.CO ------------------------------
.FI
.AD
.LM 8
.RM 126
.TL 63:63
.TL 33:33
.CO -------------------------
.TL 62:62
.TL 126:46
^CO Transliterate '>' to '.'
.TL 126:126
.TL 62:46
.CO Transliterate '?' to '? '.
.CO Transliterate '!' to '! '.
.TL 63:63,32
.TL 33:33,32
.CO -------------------------
.TL 62:46
.TL 63:63,32
.TL 33:33,32
.CO ------------------------------
.CO Trans CTL U SHFT Q to 5.0 CPI.
.CO Trans CTL U SHFT W to 8.3 CPI.
.CO Trans CTL U SHFT E to 10.0 CPI.
.CO Trans CTL U SHFT R to 16.5 CPI.
.CO ------------------------------
.TL 17:30,31
.TL 23:29,31
.TL 05:30
.TL 18:29
.CO ----------------------------
.CO Trans CTL U SHFT A to 8 LPI.
.CO Trans CTL U SHFT S to 6 LPI.
```

```
.J ------------------------------
.TL 01:27,56
.TL 19:27,54
.CO ------------------------------------
.CO CTL U SHFT O ; graphics card ON.
.CO CTL U SHFT N ; graphics card NOT!
.CO ------------------------------------
.CO Am now set to 8.3 CPI and 6 LPI!
.CO ------------------------------------
.BP
```

The format commands are explained on pages 142 through 144 in the TIW manual. There are, of course, other quick reference charts that can be used. I have seen several of these published by our sister user groups.

To start off, you'll notice that I use a lot of the .CO commands. These are COmment lines, or the dreaded documentation. I cannot overemphasize documentation. Documentation helps the next poor fool understand what it is that you are doing. Remember, that next poor soul may be yourself 3 to 6 monthes from now; and you may have forgotten what it was that you were doing back then. The first line shows where the master file is located. This file, called INCLUDE, is located on a disk, called NEWSLETTER. I call this file INCLUDE because it is used with the TIW's .IF (Include File) command. My first line of each month's newsletter article was always the same, ie., .IF DSK.NEWSLETTER.INCLUDE .

The first group of comments give an idea as to what the following .FI, .AD, .LM 8, and .RM 126 commands will do. The .FI (FIll) command puts as many words on the line that will fit without exceeding the right margin. The .AD (ADjust) command will then adjust the line so that the last character will be placed at the right margin. In this example, the .LM (Left Margin) is placed at the eighth column, and the .RM (Right Margin) is placed at column number 126. This is correct, and valid, only if one is using condensed print, which allows 132 columns per line.

Now, then, we need to talk a little bit about the .TL (transliterate) command. The format of this command is .TL ASCII1:ASCII2,ASCIIn . One can change any ASCII character (here represented by ASCII1) to any other ASCII character, or any other set of ASCII characters.

One thing that I dislike about TIW is that it only places one space after a sentence that ends with a 'question mark' and an 'exclamation mark'. Another problem is that one can never get just one space after the period in a person's middle initial, eg., Carol A. Kleen. Well, this first group of transliterate commands address these complaints. The second command (.TL 63:63,32) will translate ASCII(63), which is the 'question mark' into a string of two ASCII characters, ASCII(63) and ASCII(32); the 'question mark' and the 'space' character. The 'exclamation mark', ASCII(33), is treated similarly. The ASCII(62), greater than, is a different story. Here one is taking a perfectly good character and translating it to some other character, in this case a single 'period'. This type of translation can be done as long as one never needs to print the character being transliterated. When doing the newsletters, I had only a few instances where I absolutely had to print the 'greater than' symbol. In these cases, one has to first translate the character back to itself, then after usage, translate the 'greater than' symbol back to the single 'period'. The main reason for using the 'greater' symbol

was simply because it was a (SHIFT .), a location easily remembered by my

The next group of transliterate commands gets us into another topic, that of special characters. Rereading page 98 of the TIW manual is advised if you really want to understand this topic. The Special Character Mode allows for the inclusion of ASCII character codes 0-31 in the text, which allows for the inclusion of printer escape sequences. One presses CTRL U to enter the Special Chracter Mode, and also to exit. Did I mention yet that one should also reference page 146 in the TIW? This page shows ASCII codes 0-31, and what you need to enter in CTRL_U mode to get these characters.
In using my printer, if one wants to print at 8.3 CPI, one needs to enter CTRL_U FCTN_T FCTN_U CTRL_U . If I want to print at 5 CPI, then I enter CTRL_U SHIFT_6 FCTN_U CTRL_U . If you are like me, you do not like to stop your typing to look at your printer manual to determine the string of codes needed, then look at your TIW manual to determine how to enter those codes. What I have done is to place the four values of CPI at four contiguous characters on the QWERTY keyboard; in this case Q W E and R. Entering CTRL_U mode and entering a Q will set my printer at 5 CPI; entering a W, at 8.3 CPI; entering an E, at 10 CPI; and entering an R, at 16.5 CPI. I don't have to remember any printer formatting codes, just simply that I have four CPI settings, low to high, using Q, W, E, and R! In reviewing page 146, you will see that Q, W, E, and R in CTRL_U mode are ASCII 17, 23, 05, and 18. Whenever the TIW Formatter sees these ASCII values, the Formatter will translate the ASCII 17, or 23, or 05, or 18 into my OKIDATA printer formatter codes.
The group of .TL commands used to shift to 8LPI or 6LPI use the same logic as above, only now I'm using the next row of keys.

The final series of .CO commands are strictly documentation to remind me how to shift in and out of the printer's graphic chip. The default setting for my printer is also mentioned.

Well, I do hope that I haven't confused the issue more. Please feel free to ask questions at the monthly meetings. I will be more than happy to help if all possible. Thank you for your support...

```
100 @=0 :: [=1 :: ]=2 :: _=3 :: \=4 :: GOTO 110 :: A$,CHOICE$,FILE$,P$,PRINT$,Z$ :: A,DE,F,K,L,S,Z :: CALL CLEAR :: CALL KEY :: CALL SCREEN :: !@P-

110 ! ***************
120 ! *  UNIVERSAL  *
130 ! * FILE READER *
140 ! *     BY      *
150 ! * BOB CARMANY *
160 ! * VERSION 4.0 *
170 ! *     XB      *
180 ! ***************
190 ON BREAK NEXT
200 CALL CLEAR :: CALL SCREEN(5):: DISPLAY AT(1,8):"FILE READER":"       VERSION 4.0":" "&RPT$("-",24):: DISPLAY AT(14,[):" "&RPT$("-",24)
210 DISPLAY AT(10,\)BEEP:"INSTRUCTIONS (Y/N)? N" :: ACCEPT AT(10,24)VALIDATE("YyNn") SIZE(-[):CHOICE$ :: DISPLAY AT(10,\):RPT$(" ",24):: IF CHOICE$="N" OR CHOICE$="n" THEN 220 ELSE GOSUB 550
220 DISPLAY AT(8,[)BEEP:"Device.Filename":">" :: ACCEPT AT(9,])SIZE(15):FILE$ :: IF FILE$="" THEN 220 :: CALL ERASE
230 DISPLAY AT(16,[):"Device.Filename" :: DISPLAY AT(17,[):">"&FILE$
240 DISPLAY AT(8,[)BEEP:"File Descriptors (Choose 1)" :: DISPLAY AT(9,[):"1) DISPLAY ,VARIABLE":"2) DISPLAY ,FIXED"
250 DISPLAY AT(11,[):"3) INTERNAL ,VARIABLE":"4) INTERNAL ,FIXED" :: DISPLAY AT(13,20):"1" :: ACCEPT AT(13,20)VALIDATE("1234")SIZE(-[):A :: CALL ERASE
260 DISPLAY AT(8,[)BEEP:"Record Length" :: DISPLAY AT(9,6):"80" :: ACCEPT AT(9,6)VALIDATE(DIGIT)SIZE(-_):L :: CALL ERASE
270 ON A GOTO 280,290,300,310
280 ON ERROR 610 :: DISPLAY AT(20,[):"DISPLAY ,VARIABLE" :: DISPLAY AT(20,19):L :: OPEN #[:FILE$,INPUT ,DISPLAY ,VARIABLE L :: GOTO 320
290 ON ERROR 610 :: DISPLAY AT(20,[):"DISPLAY ,FIXED" :: DISPLAY AT(20,16):L :: OPEN #[:FILE$,INPUT ,DISPLAY ,FIXED L :: GOTO 320
300 ON ERROR 610 :: DISPLAY AT(20,[):"INTERNAL ,VARIABLE" :: DISPLAY AT(20,20):L :: OPEN #[:FILE$,INPUT ,INTERNAL,VARIABLE L :: GOTO 320
310 ON ERROR 610 :: DISPLAY AT(20,[):"INTERNAL ,FIXED" :: DISPLAY AT(20,17):L :: OPEN #[:FILE$,INPUT ,INTERNAL,FIXED L :: GOTO 320
320 DISPLAY AT(8,[):"Parameter Flag ":"1 For DISPLAY Files":"2 For INTERNAL Files" :: DISPLAY AT(10,22):"1" :: ACCEPT AT(10,22)VALIDATE("12")SIZE(-[):Z :: CALL ERASE
330 F=Z
340 DISPLAY AT(8,[)BEEP:"Printout of file? (Y/N) N" :: ACCEPT AT(8,25)VALIDATE("YyNn")SIZE(-[):P$
350 IF P$="N" OR P$="n" THEN 450
360 DISPLAY AT(8,[)BEEP:"Printer devicename     " :: DISPLAY AT(10,[):">PID" :: ACCEPT AT(10,])SIZE(-_):PRINT$
370 DISPLAY AT(23,[):"Printer >"&PRINT$ :: CALL ERASE
380 ON ERROR 610 :: OPEN #]:PRINT$,OUTPUT,DISPLAY
390 IF EOF([)THEN 510
400 ON F GOTO 410,420
410 LINPUT #[:A$ :: GOTO 430
420 INPUT #[:A$
430 CALL KEY(@,K,S):: IF K=13 THEN 530 :: IF S<>@ THEN 430 ELSE PRINT A$ :: PRINT #]:A$
440 GOTO 390
450 IF EOF([)THEN 520
460 ON F GOTO 470,480
470 LINPUT #[:A$ :: GOTO 490
480 INPUT #[:A$
490 CALL KEY(@,K,S):: IF K=13 THEN 530 :: IF S<>@ THEN 490 ELSE PRINT A$
500 GOTO 450
510 CLOSE #]
520 CLOSE #[
525 FOR DE=1 TO 2000 :: NEXT DE
530 DISPLAY AT(12,[)ERASE ALL:"Read Another File? (Y/N) N" :: ACCEPT AT(12,26)SIZE(-[)VALIDATE("YyNn"):Z$ :: IF Z$="Y" OR Z$="y" THEN 200 ELSE 540
540 END
550 DISPLAY AT(1,[)ERASE ALL:"To use this program, simply":"follow the input prompts":"as they appear on the screen"
560 DISPLAY AT(9,[):"The 'Record Length' prompt":"is the record length that":"appears at the end of the":"file description":"(ie. D/V 80)"
570 DISPLAY AT(16,[):"You may stop the screen":"scrolling by pressing ANY":"key or <ENTER> to abort the":"file presentation":
580 FOR DE=[ TO 3000 :: NEXT DE
590 CALL CLEAR :: DISPLAY AT(1,8):"FILE READER":"VERSION 4.0":" "&RPT$("-",24):: DISPLAY AT(14,[):" "&RPT$("-",24):: RETURN
600 !@P+
610 CALL CLEAR :: CALL SCREEN(7):: DISPLAY AT(12,[):"YOU HAVE JUST ENCOUNTERED A":"FATAL I/O FILE ERROR.":"PLEASE RE-ENTER YOUR FILE"
620 DISPLAY AT(15,[):"PARAMETERS" :: FOR DE=] TO 1000 :: NEXT DE :: RUN

630 SUB ERASE :: DISPLAY AT(8,[):RPT$(" ",162)
640 SUBEND
```