THE GUILFORD 99'ER NEWSLETTER

Bob Carmany, President   Joseph Martin, Newsletter Ed.
Carl Foster, V. Pres.   George vonSeth, Program Lib.
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OUR NEXT MEETING

DATE: October 1, 1985
TIME: 7:00 P.M.
PLACE: Glenwood Recreation Center
        2010 S. Chapman St.

OCTOBER AGENDA

The October meeting will feature a discussion and demonstration of disk and cassette cleaning kits. There is a real difference of opinion as to when and how often to clean your devices, as well as to how they can best be cleaned so a real good discussion should be at hand.

Come share your methods of cleaning and/or any good or bad experiences that you may have had with cleaning kits, etc. Hope to see you all there.

Dave Cohen

HEAD CLEANING

In the October meeting we will discuss the cleanind of your disk drive. But for now, let's go into one problem you will come across with any disk head cleaning system.

It is how to get the disk drive to run for thirty seconds continuously so that the head stays in contact with the cleaning pad and solution. The answer is the following program:

```
10 ON ERROR 30
20 RUN "DSK1.LOAD"
30 ON ERROR 40
40 RETURN
```

Perhaps you have used some other ways to do the same thing. If so, come to the next meeting and share them with us.

Dave Cohen
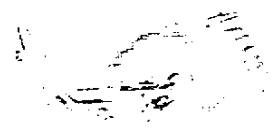
PRESIDENT'S COLUMN

The month of October is upon us and with it comes the first step in the "changing of the guard". It is very important that as many members as possible attend the October meeting. This is the meeting that we will select a Nominating Committee to put together a slate of officers to be presented at our December meeting. So, if you want a voice in the officers that will be working for you this next year, make sure that you attend this meeting!

In addition, we have a program this month about basic maintainance for your TI-99/4A. Dave Cohen has plans to demonstrate both cassette and diskette cleaning kits and procedures. If you want information on keeping your TI "up to snuff" then plan to attend this meeting.

We are still looking for material for the newsletter. Joe Martin has informed me that the volume of material is satisfactory but we would like to be able to publish more original programs and programming tips from our members. Just send any of your originals to the club P.O. Box.

For those of you who have been putting off buying that cartridge, you had better go ahead. Some of the mail-order companies have been unable to get new supplies of cartridges of certain titles. I recently got back a "no longer in stock" letter from TENEX on Music Maker". I am sure that some other titles are also no longer available since Texas Instruments literally "trashed" their remaining stock and buried them in a dump in Rhode Island.

One last reminder! If you haven't paid your dues up to date please do so. With about 800+ programs in our library, you are missing a real opportunity to expand your personal library at no cost except your annual dues.

I am going to make this shorter this month than I have in past newsletters so enough said (or written). 'Til next month----

Bob Carmany

FLOURISH

Here is a short program that will add a "flourish" to your programs. The lines can be combined into one multi-statement line if you have Extended Basic. It is originally from the Delaware Valley Users Group.

```
100 CALL SOUND(110,262,1)
110 CALL SOUND(110,330,1)
120 CALL SOUND(110,392,1)
130 CALL SOUND(270,523,1)
140 CALL SOUND(95,392,1)
150 CALL SOUND(350,523,1)
```

DOING WITHOUT EDITOR/ASSEMBLER

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Have you ever seen a dynamite program that was written in Assembly Language that you wanted but you don't have an Editor/Assembler cartiride available? Well, here is a partial solution to your problem.

If the program is in uncompressed object code, or you can re-write it in object code, you may be able to "do without".

You will need the following to convert the program: TI-Writer or TK-Writer and the program that I will include in this article. Of course, Extended Basic is necessary to load the Assembly Language program into memory.

The first step in the process is to load TI-Writer (or its clone TK-Writer). Then, very carefully copy the uncompressed object code character by character making sure that you don't make any mistakes. After you have checked the text file that you have created very carefully, go back to the main menu of TI-Writer ans select 'F' for files and 'PF' for "Print file". When the prompt asks for a device name, type in DSK1.filename and press ENTER. The text file will then be saved to disk without the tab information.

Now, load the following program:

```
1 @=1::CALL CLEAR::DISPLAY
AT(2,5):"80 COLUMN CONVERTER"::
DISPLAY AT(5,@):"THIS PROGRAM WILL
CONVERT A":"'DIS/VAR 80' TEXT FILE
TO A"
```

```
2 DISPLAY AT(7,@):"'DIS/FIX 80'
FILE.":::FOR A=@ TO 3000::NEXT A
::CALL CLEAR::INPUT "FILE TO
CONVERT ":A$::CALL CLEAR
```

```
3 INPUT "FILE TO CREATE":B$::OPEN
#2:B$,DISPLAY, FIXED 80::OPEN
#@:A$,DISPLAY, VARIABLE 80 4 LINPUT
#@:C$::PRINT #2:C$::PRINT C$::IF
EOF(@) THEN 230::GOTO 4 5 CLOSE
#2::CLOSE #@::END
```

Then, simply follow the prompts as they appear on the screen and the program will take the text file written with TI-Writer and convert it to a RUNnable Assembly Language program.

To load the program into expanded memory type in the following:

```
        CALL INIT::CALL
LOAD("DSK1.NAME")
```

where NAME is the name of the file that you have created with the conversion program.

You can then use CALL LINK to access the program from Extended Basic or Basic with MINI MEMORY.

You now have the power to write Assembly Language programs to disk even thought you may not have the Editor/Assembler cartridge.

Bob Carmany

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HYPHENATOR
A TI-Writer Utility
by Herman Geshwind

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One of the nice features of TI-Writer is the ability to type in word-wrap mode, which speeds up typing by allowing you to concentrate on text without having to worry about exceeding the right margin.

There is a draw-back, though, to word-wrap in that longer words which would exceed the right margin are scrolled to the next line in their entirety.

The disadvantage of this system becomes obvious when text is printed out using the FORMATTER when there is a tendency for the right margin to have the "jaggies".

Using the right-margin-flush feature (.AD) of FORMATTER provides only a partial cure since now FORMATTER inserts blank spaces between words to fill up the line. The amount of white space inserted varies with the number of characters that need to be filled with the result that text can be rather blotchy in appearance.

The only sure way to improve the appearance is to re-edit word-wrap text and to hyphenate as much as possible where lines break.

Unfortunately, the EDITOR of TI-Writer is not quite up to that task:

At the most, the EDITOR can display 80 characters per line whereas the FORMATTER and most printers can handle Elite (up to 96 characters) or Compressed (up to 132 characters) per line. In

such a case the EDITOR is of no help.

A further hindrance is that the EDITOR will display imbedded print commands which is helpful in creating text but a serious obstacle in fine tuning right margins. Typical examples are string commands to turn super- or subscript on or off or the "ampersand" or "at" commands of TI-Writer for underlining and double strike.

Quite often for ease in typing and editing users elect to fix the right margin at 40 characters to do away with horizontal scrolling. An attempt to judge the final appearance of text by resetting tabs to final form and using the "Reformat" command can be misleading since previously entered indentations are then ignored.

HYPHENATOR is an editing utility for TI-writer that succeeds in addressing all these problems:

HYPHENATOR can handle print widths , or right margins of up to 160 characters.

HYPHENATOR properly accounts for imbedded print commands, be they the TI-Writer "at" or "ampersand" type or special character mode (CTRL U) transliterate symbols.

HYPHENATOR makes it possible to change margin settings within a document for quoted text that needs to be indented further.

HYPHENATOR recognizes a double "ampersand" or "at" symbol as a character to be printed rather than as a non-printing control character.

HYPHENATOR allows for the FORMATTER idiosyncracy of

.nserting two blanks following a period even though only one space might have been keyed in.

The program is a stand-alone utility that can be loaded using the LOAD AND RUN option of the Editor/Assembler or Mini-Memory cartridge. After loading, HYPHENATOR will prompt for the name of the input file (the name of the document created with TI- Writer EDITOR) and a name for an output file which HYPHENATOR will create in TI-Writer format. The use of either a single disk drive or two disk drives is supported. The original text file will not be altered in any way.

Once the proper files are set up, HYPHENATOR will read in a paragraph of text which can be up to 5280 characters long (a full page, single-spaced).

According to the margin and indentation information for which HYPHENATOR has prompted, the first block of text will be displayed (five lines) with an end-of-line marker exactly on that character which would be the last character to be printed by FORMATTER, with all non-printing characters, extra spaces, etc. already accounted for.

If the end-of-line marker points to a space or the last character of a word, no further action is necessary except for pressing the <ENTER> key to bring up the next line.

If the EOL marker points to the middle of a word, a decision needs to be made whether hyphenation is possible. If yes the editing cursor <FCTN S> should be moved to the last character prior to the hyphen and a hyphen symbol keyed in. HYPHENATOR will supply the necessary prompts to complete the job.

If hyphenation should not be possible, moving the cursor to the first blank and pressing <ENTER> would complete the job.

Once all the lines of a particular block have been edited a screen message will prompt for writing the block out to the disk file.

For speed and convenience, HYPHENATOR has a number of imbedded defaults. Thus empty lines or lines with only format control characters are written to the output file without user intervention.

An "Oops" feature can be invoked at any time by pressing <CTRL 1> to go back to the beginning of the paragraph. This comes in handy if there should be any second thoughts about a line just completed.

<CTRL 3> and <CTRL 4> toggle the screen display color which make it possible to display many combinations of screen and text color.

<CTRL 2> invokes the margin/indentation set option to change these values at any time.

<CTRL 9> writes out the remainder of an input file without further editing to the output file. This comes in handy where only a portion of text needs that final touch.

Any time a line of text is displayed on the screen, minor editing is possible. Thus "recieve" can be changed to "receive". The limitation is that the new text must have the same length as the original text.

HYPHENATOR is written in Assembler and thus is very fast. A test with a 59 sector compressed

(HYPHENATOR, CONTINUED:) print document could be "fine-tuned" in under twenty minutes.

The use of a pocket dictionary in conjunction with HYPHENATOR is strongly recommended. Due to the memory limitations of the 99/4A system, HYPHENATOR can only show WHERE to hyphenate. The "IF" and "HOW" is up to the user. This is where a pocket dictionary comes in handy.

All-in-all, HYPHENATOR is an excellent utility along the lines of Tom Kirk's AUTO SPELL CHECK to make a good product, such as TI-Writer, even better.

HYPHENATOR complete with four and one half pages of documentation on disk is available from the author:

Wayne L.Stith
715 Timken Drive
Richmond, VA 23229

for $10.00. Source code in addition to object code and documentation is available for $15.00.

Wayne is a good friend of mine and thus I was available to test a number of HYPHENATOR versions, starting with one in Extended Basic. It turned out that XB just did not offer the speed that is necessary to accomplish this editing task. Over many months, Wayne wrote several versions of an Assembler HYPHENATOR with the present release being the best blend of speed and user convenience.

WARRANTY NOTES

Several weeks ago, I got a chance to test the five-year warranty offered by NEWPORT CONTROLS on their PROSTICK II joystick. Mine gave up after just over a year of fast and furious use. The problem was a broken spring in the firing mechanism. I wrote to the company and they told me that I could either send the joystick back to them with $5 to cover shipping and handling or take the option of repairing it myself (they enclosed a parts price list).

After weighing the options and comparative prices (it was cheaper to send the joystick back to the company). I mailed the joystick off expecting a six-week delay in getting it back in working condition (Kay White did say that they usually had a 24-hour turn around time). Much to my surprise, 10 days after I put the joystick in the mail, a UPS truck pulled up with my repaired joystick. Not only was it in top condition, but along with a letter of explanation, there was an additional spring enclosed in the event that I didn't like the playing action on the one that they installed.

In these days of "fractured" and ignored warranties, I feel that the service and performance of the PROSTICK II joystick from NEWPORT CONTROLS is one of the best investments that I have made for my TI. Incidently, I now have two of them and my TI-produced joysticks are somewhere in a box in the back of a closet.

Bob Carmany

REVIEW: MICROSOFT MULTIPLAN
BY Herman Geshwind

It is almost a truism to say that VisiCalc was the cause of the Home and Personal Computer revolution. What made this software such a run-away hit was that for the first time a non-DPer could use an AppleII and in relatively short time develop a computer application that would have taken many mandays to do using a more traditional high level computer language.

While VisiCalc was a best seller in its days there were some limitations. The major one was that the entire VisiCalc program had to reside in computer memory which meant that there was very little workspace left for the user if the total system had only 64K or less.

The success of VisiCalc spawned a host of imitators or products that offered even more functions and required less memory. Microsoft's MultiPlan is such a product.

To be able to run with smaller systems such as the TI-99/4A, the Commodore 64, etc., MultiPlan is structured in such a way that only a small portion of the program is memory resident. Other program parts and functions will be "paged in" as required from disk.

A second measure to assure the effectiveness of MultiPlan in a small system is the ability of MultiPlan to work with more than one disk file at a time. (VisiCalc by comparison can only work with one file). Up to six external disk files can be "linked" to provide the user with a surprising amount of "virtual" workspace.

While many "VisiClones" and "Calcs" were a cheap imitation of VisiCalc with a paucity of functions and capabilities, MultiPlan is a serious, professional product with all the capabilities of a spreadsheet product such as Lotus 1-2-3. MultiPlan even has such advanced features as the capability to solve simultaneous equations with iterative calculations.

Like with many products there is not only sunshine and the limitation of MultiPlan for the 99/4A is that it will not win a speed contest with Lotus 1-2-3. The fact that not all of MultiPlan is memory resident makes for quite a number of disk accesses as does the external file link. For the home user where speed is not exactly everything compared to being able to program rather sophisticated applications with a minimum of effort this will be not too much of a handicap.

I used MultiPlan to do my 1983 Income Tax. By linking Schedule A, Residential Energy Credit, NC State Income Tax and several other forms I was able to let the 99-4A and MultiPlan do all the grunt work for me. Setting up all the forms and calculations with MultiPlan was not much of an effort and well worth it since I expect to use it again next year.

Another application for MultiPlan is budgeting and financial tracking where the printer support of MultiPlan comes in handy.

The MultiPlan manual includes a very thorough tutorial and an extensive reference section. The MultiPlan diskette has an on-line "Help" file. Additionally, MultiPlan is menu-driven so that even occasional and casual use is easy.

System requirement is at least one diskette drive, 32K memory expansion. TI Printer or equivalent is desirable. The list price for MultiPlan is $99.95. The supply is good and bargains can still be had around town.

This month, we are going to look at some of the data base programs that are available for the TI.

If you have a small business or just want to organize a large number of records, data base programs will help you get the job done easier and faster.

The first one that we will look at is DATA BASE 99 from Quality 99 Software. The specifications say that you can create records of 28 characters in 28 fields with up to 245 characters per record. Storage is 350 records per single sided disk with a sort on any field and you can select any subfile. This program is available on disk and retails for about $34.95.

The DATA BASE MANAGEMENT SYSTEM from Navarone Industries comes in the form of a cartridge. It allows custom designed input screens and sorting by multiple keys. It requires a disk system to operate and comes with an instruction manual. The latest versions of the manual will make up for the deficiencies that existed when the product first came out. It sells for about $59.00.

NAME-IT from Extended Software is another data base manager that stores 250 records (disk) and up to 2500 characters (cassette) in 9 28 character fields with built-in sort routines. The disk version is supposed to sort 250 records in 100 seconds. It is advertised as compatible with TI-Writer and TYPEWRITER for the generation of form letters and other written

reports. It has the advantage of being available on both diskette and cassette. The cassette version is $27.95 and the disk version is $29.95.

ACORN 99 from Oak Tree Systems handles both first and second level entries of up to 56 items per data base. It also has a report generator to utilize and 80 column or wider printer. It allows for copying any subset or sorted subset. It requires 32K and a disk system. The price on this one is $49.95.

Of course, there are other data base management programs on the market including the Personal Records Keeping module and the prices and specifications vary widely. If you are in the market for a data base system, look around before you shop.

Bob Carmany

This month we have a little gem for you that is written in TI Forth. It is a 3 Pass Disk Copy utility for those of you with a single disk drive. The documentation for the screens appears in the last screen. I hope that you enjoy this month's entry in the Forth Forum.

These Forth screens come from Doug Smith and were placed in public domain via Craig Miller.

Bob Carmany

Screen #98

```
0 ( 3 Pass Disk Copy - Doug Smith ) BASE-> DECIMAL FORGET MENU
1 : CLS 16 SYSTEM ; : VMBW 2 SYSTEM ; : VMBR 6 SYSTEM ;
2 0 VARIABLE AREA 15360 ALLOT 0 VARIABLE PL
3 : TX CLS 5 10 GOTOXY 52 0 33660 C! 10 SYSTEM ;
4 : M1 TX ." INSERT COPY DISK-PRESS ANY KEY " KEY DROP ;
5 : M2 TX ." INSERT MASTER - PRESS ANY KEY " KEY DROP ;
6 : PR ." ENTER W TO COPY DISK IN DRIVE 1 " ;
7 : M3 TX ." COMMAND COMPLETED " CR CR CR ." " PR ;
8 : FU PL @ 20 + PL @ 5 + DO I BLOCK AREA 2 + I PL @ 5 + - 1024
9 * + 1024 CMOVE LOOP ;
10 : BU PL @ 5 + PL @ DO I BLOCK UPDATE LOOP M1 FLUSH ;
11 : DR PL @ 10 + PL @ 5 + DO AREA 2+ I PL @ 5 + - 1024 * + I
12 BUFFER 1024 CMOVE UPDATE LOOP FLUSH PL @ 15 + PL @ 10 + DO
13 AREA 2+ I PL @ 5 + - 1024 * + I BUFFER 1024 CMOVE UPDATE
14 LOOP FLUSH PL @ 20 + PL @ 15 + DO AREA 2+ I PL @ 5 + -
15 1024 * + I BUFFER 1024 CMOVE UPDATE LOOP FLUSH ; -->
```

Screen #99

```
0 ( 3 Pass Disk Copy cont.  )
1 : BFU PL @ 28 + PL @ 20 + DO I BLOCK 5120 I PL @ - 20 - 1024
2 * + 1024 VMBW LOOP PL @ 20 + BLOCK 3072 1024 VMBW
3 PL @ 29 + BLOCK 1122 1024 VMBW ;
4 : BDR PL @25 + PL @ 20 + DO 5120 I PL @ - 20 - 1024 * + I
5 BUFFER 1024 VMBR UPDATE LOOP FLUSH PL @ 28 + PL @ 25 +
6 DO 5120 I PL @ - 20 - 1024 * + I BUFFER 1024 VMBR UPDATE
7 LOOP 3072 PL @ 28 + BUFFER 1024 VMBR UPDATE
8 1122 PL @ 29 + BUFFER 1024 VMBR UPDATE FLUSH ;
9 : PAS M2 .  BFU FU BU BDR DR ;
10 : CHR 2048 98 255 20 SYSTEM 3072 1024 255 20 SYSTEM ;
11 : CY 0 PL ! 30 / 2+ 1 DO I PAS 30 PL +! LOOP
12 SP! M3 CR CR CHR ABORT ;
13 : W 89 CY ; ( Note: or 29 CY , 59 CY copies part of the disk )
14 0 DISK_LO ! 0 33730 C! ( QUIT ON )
15 R->BASE TX PR
```

Screen #100

```
0 ( Instructions for 3 Pass Single Drive Disk Copy )
1
2 This program does not require any - (dash) Options to be
3 Loaded into memory.  It will automatically clear out any that may
4 be loaded, since it requires almost all of the available memory.
5 After you are finished copying your disks place your Forth
6 system disk in drive one and type in COLD and press ENTER to
7 reload the Forth system back into memory.  To copy an entire
8 single sided disk type W and press ENTER, then follow the
9 prompts on the screen until the command is done.
10
11 Given Free To Public Domain
12 Doug Smith
13 5021 Nicholas Rd.
14 Waldorf, MD 20601
15 301 645-1432
```

GUILFORD 99'ER USERS' GROUP NEWSLETTER

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