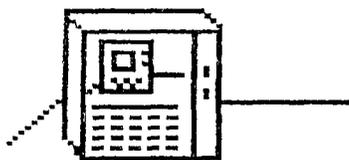


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QB MONITOR

QB-99'ERS U.G. NEWSLETTER

November 1988

The QB MONITOR is the Newsletter of the QB-99'ers User Group, is printed Sept. thru June and sent in exchange for other User Group Newsletters. Send Exchange Newsletter to Frank Cotty, Queensborough Community College, Bayside, NY 11364. Credit original sources.

The QB 99'ers meets the second Saturday of each month September through May, at Queensborough Community College, Bayside New York, room S225, at 2 P.M. Calendar at right shows dates

Dec. 10, 1988
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QB MONITOR ~ QB-99'er NEWSLETTER
EDITOR'S NOTE

The excellent mix of articles continues in this the NOVEMBER issue of the QB MONITOR. I hope there is something in this issue to please all of our members. If there is something you would like us to pay more attention to simply let me or Ed know.

The first article is a continuation of the TI-Writer Tool Box series Ed Machonis has made popular. This time Ed has clearly presented the method he and I use in printing exactly what we want. Exactly - even though we use the dreaded Formatter! If you ever typed a letter, three page report, multiple choice exams etc. this article is worth following. Ed also lets us in on his secret for being able to afford all the printing he does with his TI.

The Widget is a terrific piece of hardware. There is one problem with it though, as those of you who own the Super XB cartridge know. The cure is presented in our exclusive article from Doug Warren. Proceed only at your own risk.

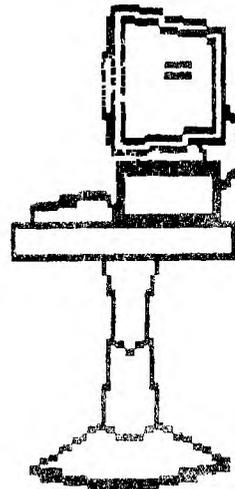
There are times I wish I had a clock and calendar on my TI. I'd use it to imprint date and time on the files and

programs I write. I'd use it to remind me of how long I have been working with MY toy. I'd use it when I don't want to go up stairs to see what time it is..... Now I have that clock built into my TI.. A REAL TIME CLOCK FOR THE TI-99/4A by John Willforth can guide you through making a real time clock for your TI. And, to permit you to start using this clock, two programs, one to set the clock/calendar and one to demonstrate how it is used in a program...Your speech synthesizer will never be the same again.

A little light humor never hurt a computer user (how could you tell?). Technospeak is for us die-hard users.

The program of the month comes from the LA Topics Newsletter. 3-D Title screenHave fun.

Our last Users Group meeting was a demonstration of TI's Microsoft Multiplan. An extension of that demonstration is presented in our November issue of the QB Monitor. The article by Audrey Bucher appeared in the December 1987 issue of the Pug Peripheral, Pittsburgh Users Group.



HIT ANY KEY TO CONTINUE

```

-----
 / TI-WRITER TOOLBOX #5 / \
 /                               / QB \
 | by Ed Machonis | 99ers |
 |                               |
 -----
    
```

LATE NEWS FLASH! By the time you read this, this news will really be late. This is being written in early July and the News is late already. As you will probably read elsewhere in the Monitor, Tony McGovern has presented us with Version 4.10 of Funnelweb.

To quote his Memorial Day transmittal letter, "The good news is that there is a new Configuration program that makes everything even simpler - separate configuration and installation, fully tree structured, windows all over the place."

And that ain't all folks! But it would take the entire article to do justice to it, and also some more experience with it on my part.

One thing you will want to do, is to print out the docs, although I didn't notice very many changes. Documentation is designed to be printed thru the Formatter and, like previous versions, consists of separate files for the various sections. Printed this way, pages are not numbered or identified by section. An inadvertent trip to the floor will shuffle the pages and provide an evening's diversion trying to get it all back in sequence.

I have found it helpful to create a short file which, when executed by the Formatter, will print all of the Doc files and include a footer on each page showing the page number and the name of the file. I call this file FWDOCPRINT.

```

.FO 4.10 -READ-ME^^^^^^^^^Page %
.IF DSK1.-READ-ME
.FO 4.10 LOAD INFORMATION Page %
.IF DSK1.FWDOC/LOAD
.FO 4.10 UTILITIES^^^^^^^^^Page %
.IF DSK1.FWDOC/UTIL
.FO 4.10 TI-WRITER LOADER Page %
.IF DSK1.FWDOC/TIWR
.FO 4.10 E/A EMULATION^^^^^Page %
.IF DSK1.FWDOC/EASM
.FO 4.10 3UG PROBLEMS^^^^^Page %
.IF DSK1.FWDOC/REPT
    
```

Speaking of execution and the Formatter, have you ever wished to inflict the former upon the latter? Have you watched helplessly as your prized composition emerged from the printer not at all in the form intended? Are you tired of wasting time, ribbon life and paper trying to make the Formatter understand that you really meant something different? The remedy is amazingly simple. DON'T PRINT THRU THE FORMATTER!

Except for the occasional file of documentation created to be so printed, I very seldom print anything thru the Formatter. And I wear out close to a ribbon a month. But you say you want right margin justification; you say you hate windowing; you say you want to include print control codes! I do nearly all of my printing thru the Editor and enjoy all of these features.

My margins default to L=0 I=3 and R=40. (You can do this by editing the last sector of file ED, and when starting out in the command mode, pressing T for Tabs and then Enter.) My monitor will display a full 40 characters, if overscan is a problem set the margins as necessary. Remove line number display with Function Zero. With word wrap on, Control Zero - solid cursor, write your essay or letter. No windowing, what you see is what you typed.

Save your work frequently, you never know when the local power company is going to throw one of their big switches and lock you up. Always double check that you have typed SF and not LF. An inadvertent LF will load in your previous save, wiping out all you added since then.

When done, insert the Formatter commands that you normally would. Insert a line at the beginning and, for example, enter something like this:

```
.LM 10;RM 70;FI;AD
```

Additional lines can be added for centering titles, indenting dates and paragraphs, etc. Hold off on Footers or Headers. One last save after the Format commands have been entered, and then Quit-Exit and select the Formatter.

11-Writer Toolbox #5 Cont'd.....Page 2

With FWB, the Input Filename will default to the file last saved, say DSK2.MYFILE. Press Enter. Instead of accepting the default Print Devicename, type in DSK2.MYFILEF, the F at the end identifying a formatted file. Accept all the other defaults, the drive will engage and your formatted file will be printed to disk.

When done, enter the Editor and Load File DSK2.MYFILEF. You will see your file as it will look when printed, except for a line feed symbol at the end of each line and in place of each carriage return. There will be three blank lines at the beginning, and 6 blank lines after every 58 lines of text, signifying page breaks. It is best to delete these as well as any blank lines at the end of the file.

Take off the Word Wrap with Control Zero (Hollow Cursor). As there are no carriage returns, a reformat will result in a homogenized mess.

Now we start to reap the benefits of printing thru the Editor. Instead of the Formatter controlling the text to be printed on each page, we shall make those decisions. Instead of printing the first line of a paragraph or listing on the bottom of a page, we can print it at the top of the next page. If we want to print a few extra lines on a page, we can insert print control codes at the top of that page to slightly reduce the line spacing for that page. (Don't forget to restore the original spacing for the next page.) This can prevent last pages with just a couple of lines of text.

A popular educator who doubles as a User Group President, prints all his exams thru the Editor, thereby avoiding multiple choice questions which run on to the next page. I'm a great believer in single page letters. Viewing the formatter letter on screen alerts me if the letter is too long. If so, several choices are open to me. I can reduce the line spacing or delete a non-essential paragraph and print the remainder. Or I can reload MYFILE and change margin settings, say LM 6 and RM 74, or shorten

the letter, then resave the file and repeat the process of formatting to disk. A lot easier than repeating a printing.

If you require Headers or Footers, insert them into the formatted file and duplicate them with the Copy command.

In printing out your text, you must append a .LF to your print device name, just as in the Formatter, since a line feed has been provided for each line. Alternatively, all those line feeds can be removed by printing the file, (PF not SF) to C DSK2.MYFILEF (Don't forget the lead C) and then reloading the file before printing with the printer.

When printing the file, if your file will occupy more than one page, specify the line numbers to be printed for each page, i.e., PF followed by 1 59 PIO.LF. Page 2 could be 60 118 PIO.LF, etc.

While most print controls will work with the file produced by the formatter, some will not, particularly any which require overstriking. The problem arises from those line feeds at the end of each line. To play it safe remove the line feeds by PRINTing the FILE (PF) to Disk with a leading C as described above.

Use the Control U mode to insert the print control codes. To maintain right margin justification, you MUST insert the number of blank spaces that will be required for the control codes. Even if blank spaces exist at the beginning of a line, you must still insert the extra spaces required. Character Insert, Function 2, does not work with Control U, so first insert the required number of spaces then back up and type in the printer codes.

If you insert spaces without changing the right margin, you will lose text at the end of the line. To prevent this, first select Tabs in the Command Mode and change that right margin to 79. This should allow insertion of up to 9 blank spaces per line for print control codes.

Print codes can also be placed on any blank line or an inserted line. The line will print as a blank line.

TI-Writer Toolbox #5 Cont'd.....Page 3

ESCape, CHR\$(27), is obtained with the following keystrokes: CNTRL U, FCTN R, CNTRL U. It will require one character space and will appear as a short figure 1 combined with a lower case b. This is the Hex representation of 27, the 1 representing a Hex count of decimal 16 and the b representing decimal 11, for a total of 27.

Codes 1 thru 26 are obtained in the Control U mode by pressing Shift and the respective letter of the alphabet, A=1 and Z=26. My Epson RX-80, accepts an upper case E in lieu of CHR\$(69), E being ASCII 69. Similarly G (ASCII 71) replaces CHR\$(71). In Control U mode, quotation marks and separating semi colons or ampersands are not required. Emphasized, double strike printing only requires 4 spaces. For illustrative purposes, "!" will represent CHR\$(27) as obtained with CNTRL U, FCTN R, CNTRL U. Our code for Emphasized, Double Strike would appear as !E!G. Start underlining would appear as !-1 and stop underlining as !-0.

Once you become familiar with it, you will find Control U easier to use than transliteration and your right margins will remain justified.

If this description sounds complicated, don't let that keep you from trying it. The fault lies with my description not the method.

RE-INKING RIBBONS & WD-40

With all this talk of printing, a word about ribbons is in order. Lately several newsletters have carried articles about restoring ribbons by spraying with WD-40. I tried this a couple of years ago, it works. Then I happened across the following book which contained the excerpted paragraph:

From: EPSON, EPSON, READ ALL ABOUT IT!
by Julie Knott & Dave Porchow

"Warning: Some Epson owners feel that the life of their printer's ribbons can be extended through the liberal application of the lubricant WD-40. This could be the most costly mistake you can make with an Epson printer. The WD-40 will revitalize the dried ink in the ribbon's fabric, but it may also gum up the pins in the printhead. Although the lubricant consistency of WD-40 is ideal for large gears, it is not suitable for close-tolerance pin movement. Your choice as an Epson owner is between buying a new ribbon now or paying for a new printhead later."

I would disagree with classifying WD-40 as a large gear lubricant but the book seems otherwise authoritative and appears to have an Epson connection. I only know of one person who regularly used WD-40 on his ribbons. I also only know of one person who had to replace the print head on his printer. Coincidentally (according to him) both are the same person.

Upon reading the above, I purchased a Mac Inker and am reasonably satisfied with it. I think it is terribly overpriced and if you are handy you can make one. I find re-inked ribbons do not last as long as the originals. Some of my ribbons have been re-inked 6 times and are still going strong. The big advantage is always having a fresh ribbon to throw in at the first sign of weakness. Perhaps that's why they don't seem to last as long. Ink cost is about 10 cent per inking.

The ink used is a special ink and contains lubricant for the print head. It can be obtained from Computer Friends who advertises in Computer Shopper and also sells the Mac Inker. I don't think using stamp pad ink would be a good idea as it lacks the lubricant.

The widget disables a cartridge in two ways:

1. The /ROMG signal from finger number 34 is disconnected from the cartridge (note: a pullup resistor is provided for this signal for each cartridge).
2. The -5vdc from finger number 29 is disconnected from the cartridge.

The goal is to modify the widget cartridge slots to allow disabling/enabling of the SUPER XB cartridge.

```
*****  
* WARNING *  
*****
```

The author of this document has not performed the following modification and takes no liability as to its performance.

The manner in which the widget handles the /ROMG signal is correct for the SUPER XB. The -5vdc line, however, is not even used by SUPER XB and is the subject of modification.

The first step is to route the -5vdc back directly to each cartridge slot. The -5vdc line runs from finger 29 to the reset switch and then to the cartridge selection switch. This trace must be cut just shy of the selection switch and routed to pin 29 of each slot. Also, each trace from the selection switch going to pin 29 of each slot must be cut just shy of the selection switch. This will supply each slot with -5vdc at all times irregardless of the state of the selection switch.

Next, the /GS trace from finger 21 must be disconnected from each slot. It now must be routed to the switch to the position which was occupied by the -5vdc trace coming from the reset button. This will be the new signal that we will be switching to each cartridge. Now the selector switch traces which used to go to pin 29 of each slot must now be routed from the selector switch to pin 21 of each slot. That means that the -5vdc line that used to go from the selector switch to pin 29 of slot one now goes to pin 21 of slot one. The -5vdc line that used to go from the selector switch to pin 29 of slot two now goes to pin 21 of slot two. The same procedure for slot three.

One last thing must be added. A pullup resistor of value 3.3k ohms (3300 ohms) must go from +5vdc (finger 19) to pin 21 of each slot. That means three resistors each, going individually from +5vdc to pin 21 of each slot. This is the same way that the /ROMG signal is handled by the widget.

The modification is extensive and again untried.

A REAL TIME CLOCK FOR THE TI-99 4/A
by John F. Willforth

The following is not my original circuit design (I have changed some things however). The credit must go to Gary Emmich and Tony Albanese of the Northern New Jersey Users Group. The circuit below is essentially 1/2 of the REAL TIME CLOCK and DIGITAL CONVERTER circuit they designed and distributed as PUBLIC DOMAIN. The circuit was later etched to a double-sided board, and a kit was distributed which became known as the MBP CARD. Last month I got a reprinted article from the TISHUG, written by John Paine which described the circuit he put inside his speech synthesizer to give the system a REAL TIME CLOCK. The circuit is the clock section of the one originally designed by Gary Emmich, and as such, because the schematic was reduced and not too easily read, and since it is public domain, I thought I would rewrite the article and redraw the schematic.

First the pin numbers to the left of ">--" are the pin numbers on the connector inside the speech synthesizer, those two marked "23" & "24" go to these two pins on the clock chip, and those to the right of the "--X" are the data bus also attached to the same connector inside the speech unit.

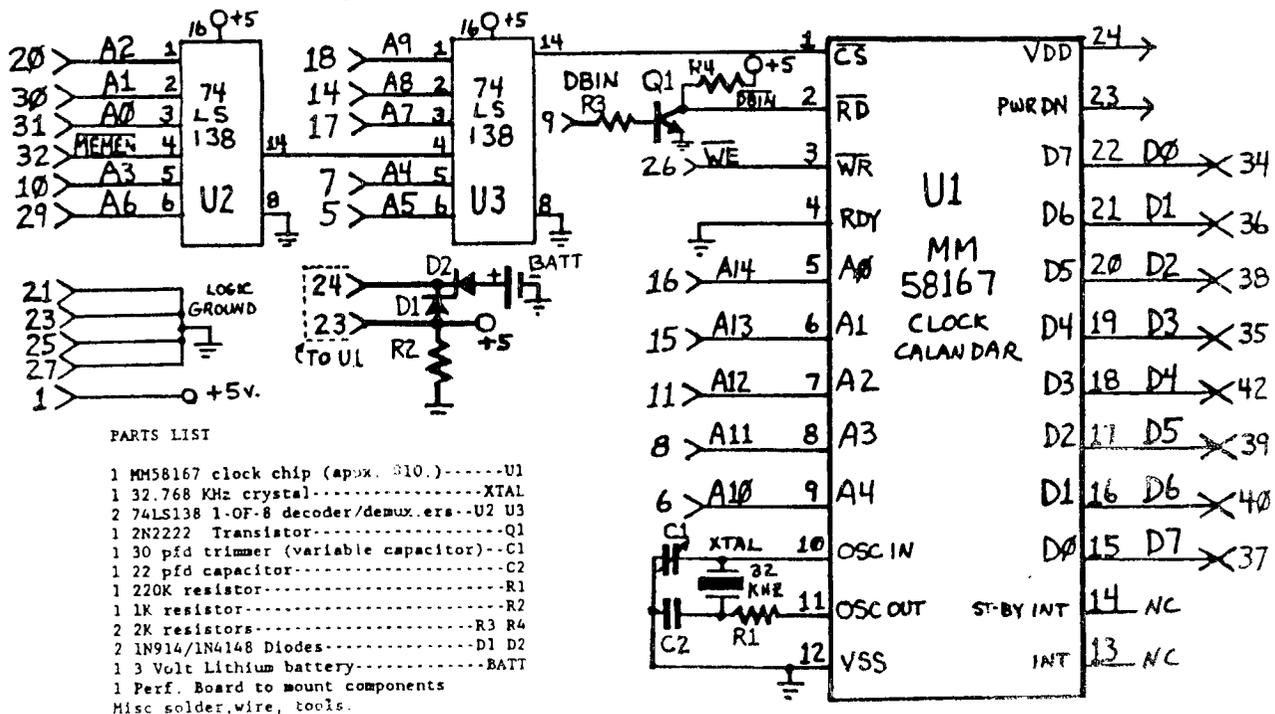
The circuit consists of two 1-of-8 decoder/demultiplexer (74LS138s), which decode the address lines to select the clock chip at -31168 to -31154 which select the clock functions, the MM58167 clock chip, the osc. circuit, Q1 to invert DBIN, and the battery back-up circuit. The entire circuit may be put on a small RADIO SHACK perf. board and installed inside the Speech Synthesizer.

John Johnson's MENU program accesses the clock automatically, I've included original CLOCKSET and TIME programs with this article. If you would like more information contact me at the following : call (412) 527-6656, R.D. #1 Box 73A Jeannette, PA 15644. Here are the addresses to peek and load (poke) and an xbasic command to reset the sound (the sound chip is at this address).

- 31168 - Thousands of seconds
- 31166 - Tens & Hundreds
- 31164 - Seconds
- 31162 - Minutes
- 31160 - Hours
- 31158 - Day of week
- 31156 - Date
- 31154 - Month

* To reset sound. "CALL SOUND(1,20000,30)"

* The data required by the above addresses is in "BCD" and will need converted.



```

10 REM *****
20 REM **          **
30 REM **    CLOCKSET    **
40 REM **          **
50 REM *****
100 REM THIS PROGRAM IS USED TO SET THE CLOCK.
110 REM THIS PROGRAM NEED ONLY BE RUN IF THE TIME DRIFTS OR WHEN BATTERIES ARE
    REPLACED.
120 CALL INIT
130 DEF SET=X+6*INT(X/10) ! CONVERTS DECIMAL TO BCD FOR OUTPUT TO CLOCK.
140 INPUT "MONTH 1-12 ":X
150 MO=SET
160 INPUT "DAY OF MONTH 1-31 ":X
170 D=SET
180 INPUT "DAY OF WEEK 1-7 SUN=1 ":DW
190 INPUT "HOUR 0-23 ":X
200 H=SET
210 INPUT "MIN 0-59 ":X
220 M=SET
230 INPUT "SEC 0-59 ":X
240 S=SET
250 CALL LOAD(-31164,S,0,M,0,H,0,DW,0,D,0,MO) ! SET CLOCK
260 CALL SOUND(1,20000,30) ! RESET SOUND GENERATOR
270 CALL CLEAR
280 STOP

```

INPUT DAY AND TIME
AND CONVERTS TO BCD

```

-----
10 REM *****
20 REM **          **
30 REM **    TIME    **
40 REM **          **
50 REM *****
100 REM THIS PROGRAM DEMONSTRATES HOW THE CLOCK IS ACCESSED BY A PROGRAM.
110 CALL CLEAR
120 DIM WK$(7),MO$(12)
130 DEF TIME=X-6*INT(X/16) ! CONVERTS BCD OUTPUT OF CLOCK TO DECIMAL.
140 FOR DW=1 TO 7
150 READ WK$(DW)
160 NEXT DW
170 FOR DM=1 TO 12
180 READ MO$(DM)
190 NEXT DM
200 DATA Sun,Mon,Tues,Wednes,Thurs,Fri,Satur
210 DATA January,February,March,April,May,June,July
220 DATA August,September,October,November,December
230 GOTO 380
240 CALL PEEK(-31164,X1,X2,X3,X4,X5) ! READ SEC. MIN. & HOUR X2&X4 NOT USED
250 X=X1 :: SEC$=STR$(TIME)
260 IF X1<10 THEN SEC$="0"&SEC$
270 X=X3 :: MIN$=STR$(TIME)
280 IF X3<10 THEN MIN$="0"&MIN$
290 X=X5 :: HR=TIME :: M$=" AM"
300 IF HR>11 THEN M$=" PM"
310 IF HR=0 THEN HR=12
320 IF HR>12 THEN HR=HR-12
330 HR$=STR$(HR)
340 TI$=HR$&" "&MIN$&" ":"&SEC$&M$
350 DISPLAY AT(6,11):TI$ ! DISPLAY TIME ON SCREEN
360 IF X1+X3+X5=213 THEN 380 ! UPDATE DAY & DATE AT MIDNIGHT.
370 GOTO 240
380 CALL PEEK(-31158,X1,X2,D,X4,X5) ! READ DAY, DATE & MONTH
390 X=D :: D$=STR$(TIME)
400 X=X5 :: X5=TIME
410 L1$="Today is "&WK$(X1)&"day"
420 L1=INT((32-LEN(L1$))/2)
430 DISPLAY AT(2,L1):L1$
440 L2$=MO$(X5)&" "&D$&"", 1988"
450 L2=INT((32-LEN(L2$))/2)
460 DISPLAY AT(4,L2):L2$
470 GOTO 240

```

ASSIGNS NAMES TO VARIABLES.

CHANGES INTO STRING FOR
DISPLAY PURPOSES

CONVERT TO STRING & DISPLAY

Some people, especially government employees and computer programmers, speak in a language which is a bit strange to the mediocre mind, like mine. The following are some "tongue in cheek" examples. See if you can decipher them. They are often heard sayings or technospeakingly "Ancient adages impinging on ones otological apparatus with intermittent regularity". Well, you get the idea! (If you ca't fugure them out, answers listed on page 10.)

1. Avian species of identical plumage congregate.
2. Freedom from encrustations of noxious substances is contiguous to conformity with devine prescription.
3. Pulcriteude possesses solely cutaneous profundity.
4. A superannuated canine is immune to indoctrination in innovative maneuvers.
5. Ululate not, over precipitated lacteal secretion.
6. All that coruscates with resplendence will not assay auriferous.
7. The existence of visible vapors from ignited carbonateous materials confirms conflagration.
8. Mendicants are interdicted from elective recipiency.
9. Probity gratifies reflexively
10. Male cadavers are unyielding of fallacious testimony.
11. Inhabitants of vitreous edifaces ill-advisedly catapult petreous projectiles.
12. Ergonomia exclusive of diversion renders John a hebetudinous progeny.
13. He who cachinates ultimately, cachinates optimally.
14. Abstenation from speculatory undertaking precludes attainment.
15. Missiles of lingeous and nonmetallic mineral consistency have potential for fracturing my osseous structure, but malicious appellations are eternally innocous.

```
10 CALL CLEAR :: CALL SCREEN
(6):: FOR I=2 TO 10 :: CALL
COLOR(I,2,16):: NEXT I !234
20 CALL CHAR(111,"0",112,"FF
FFFFFFFFFFFFFF",113,"0000005
5",110,"000000FF")!086
30 GOSUB 8000 ! *** PALETTE
!255
40 CALL HCHAR(8,9,110,14)::
DISPLAY AT(9,7)SIZE(-14):"TA
PEoCATALOGER" :: CALL HCHAR(
10,9,110,14)!170
50 DISPLAY AT(13,12)SIZE(-5)
:"*o*o*" :: DISPLAY AT(16,9)
SIZE(-10):"CoDEoMARTI" :: CA
LL HCHAR(17,11,110,10)!025
60 GOSUB 8040 ! *** PAUSE !1
50
70 GOSUB 8100 ! WHITE/WIPE !
155
100 PRINT ,"END" !240
110 END !139
8000 FOR X=5 TO 20 :: CALL H
CHAR(X,8,111,16):: NEXT X !1
73
8010 CALL VCHAR(6,24,112,16)
!035
8020 CALL HCHAR(21,9,112,15)
!020
8030 RETURN !136
8040 CALL KEY(0,K,S):: IF K>
31 THEN 8080 !034
8050 FOR I=1 TO 50 :: NEXT I
!206
8060 CT=CT+1 :: IF CT=13 THE
N 8080 !088
8070 IF S=0 THEN 8040 !142
8080 CT=0 :: RETURN !088
8090 ! **** WHITE/WIPE ****
!024
8100 FOR I=6 TO 19 :: DISPLA
Y AT(I,6)SIZE(-15):"oooooooo
oooooooo" :: NEXT I :: RETURN
!180
```

Well, I'm out of coffee for you
next month. Chick

REPRINT BAYOU BYTE 2/88

MULTIPLAN

HUDREY BUCHER

In this article I'd like to just pass along a few helpful hints I have learned from various sources concerning the use of Multiplan. When I first purchased my Multiplan package, I dutifully made a back up copy, only to find that it would not run. Chuck at the Computer Bug helped me out on this problem by reminding me that the disk containing the Multiplan files must be named TIMP.

From the Decatur 99er's User Group newsletter, I learned that the time it takes to initialize MP and the response time when it is working with the overlay file is affected by the location of the files on the disk. You can load the files in the desired order by copying them one at a time to a newly initialized disk named TIMP. The best order seems to be: OVERLAY, MPHLP, MPCHAR, MPDATA, MPINTR, and then MPBASE.

Although two drives are recommended for MP, it is possible to run it with only one drive. Before I purchased my second drive, I found it helpful to eliminate the help file from my working disk, thereby freeing up 158 sectors for a data file. I simply made a new disk for each application of MP that I wanted to use in order to eliminate having to switch disks.

If you do have two disk drives, please note that Multiplan will load automatically from any disk drive. Therefore you may put your MP disk in drive 2 and use drive 1 for your data disk as this is the default in the program. If you choose to use drive 1 for your MP disk, you have two options. You must either use a sector editor to change the defaults or upon entering MP, select the Transfer Options command by pressing T, then the letter O. Advance to the set up field by using control A and designate the data file drive as DSK2. Press enter and you're ready to go. If you prefer to change the default, I suggest you copy the file MPINTR onto a new disk. Load up your favorite sector editor and edit sector 22 which will be the first data sector. Shift into ASCII screen mode and find the words DSK1. Change this to DSK2 and it will automatically load from drive 2. Note that it will not show up in the Transfer Option as DSK2, just as DSK1 did not show up. While you are in the sector editor, you may want to change the default for your printer to PIO if you have a parallel printer. Simply replace the words RS232 with PIO. The RS232 data after that should be blanked out by using the space bar. Now write the sector back to disk and you are in business.

TI has released some enhancements for the Multiplan disk that speeds it up a little and also gives you auto repeat when moving the cursor around the screen. If you do not have these, I will be glad to furnish them to you.

I like to print out most of my spreadsheets in condensed print and was disappointed there was no way to do this from within MP. I made a small program to initialize the printer and tried to remember to run it first. Then one day I saw an ad in Micropendium for a Fairware Program called TIMP PRINT by J&B Mathis that allowed you to enter print controls from within your spreadsheet. It works great using the xternal copy command. I will be putting a copy of this in our library.

Next month we'll take a look at setting up a template. If you have any hints you'd like to share please send them in.