T.I.-dings

from New-JUG/North

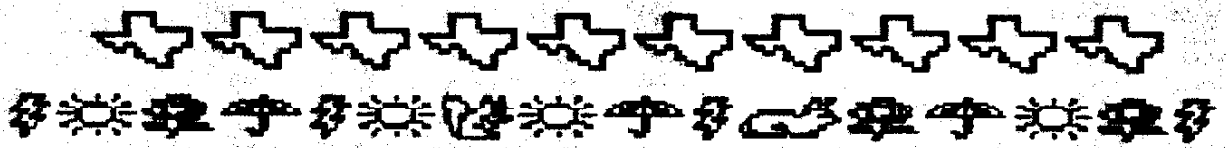
September 1988 **Volume 6 Number 9**

Officers:

President...Bill Staedeli..384-4660
Veep.....Walter Macieski..667-6903
Editor...Henry Hein...607-988-7789
Treasurer...Frank Filice 384-8797
Secretary....Jim Ott..... 790-6052
Librarian.Andy Westner..967-9154

NEXT MEETING: September 20th, Bergenfield H.S. Fac. Den 7-9+ P.M.

Motto: We are a family enjoying the unspeakable peace and freedom of being orphans. (Paraphrased from George Bernard Shaw)



Let us reap the love sown harvest!

How doth the Quayle nest under the Bush?

New Jersey UG/North
P.O. Box 64
Dumont, NJ 07628

Dallas TI Computer UG*
PO Box 29863
Dallas, TX 75229

User Groups: Please Reciprocate!

-TI-dings from NewJUG/North
P.O. Box 64
Dumont, NJ 7628

Editor:
Henry V. Hein
RD #1 Box 343 A
Otego, NY 13825
607-988-7789

This newsletter is a publication of the New Jersey User Group, North, to meet the needs of its members of news of importance to users of the TI/99/4a computer.

Meetings of the said group are held on the third Tuesday of each month at sites, dates, and times listed on the front cover and this column. The editor entertains any contribution and frequently 'borrows' articles and comments of members of other groups used in their NLs. They may be free to use our articles herein provided they give mention of author and/or source. The User Group will not be held responsible for errors and opinions expressed herein either by the editor or other writers. We do request rebuttal or comments sent to the address of the editor in soft or hard copy.

The NEXT MEETING of our UG will be held at the Dumont High School Faculty Lounge on SEPTEMBER 2th, from 7 to 9:3 PM.

Members are advised to keep these future dates on their calendars:

October 18th
November 15th
December 20th
And, if we're still around after that, hopefully
January 17th
February 18th
March 21st, (after TICOFF weekend)
April 25th
May 16

After that, perhaps summer meetings at the Bergenfield Public Library, again hopefully!

Meeting Notes

The last meeting was lightly attended (due to the excessive heat?) and featured a formidable and professional demonstration by Jim Lambert of PICASO! Wish I were there! Nice going Jim!

Jim Ott demonstrated the improved speed capabilities of the latest spell checker for TIW. The treasury is down to $260+.

COMMENT: The cost of printing and mailing of the NL every month is diminishing our treasury fast. I guess reducing the membership fees last December was not too good an idea. We may carry out our expenses this year but can we carry on with an exhausted treasury into the next? Our bills of $33/month for the NL may seem high but we exchange with some 4+ clubs. Some of the latter are thinking of dropping exchanges with NLs which do not publish ORIGINAL material. We may be on their HIT LIST, since very little originality seems to come from our own membership. All we need to keep us going is some REAL input, such as articles on your own discoveries, reviews, programming tips, etc. How about it. I'd like to keep the group alive as much as I can, but I need some input from YOU! We can even survive as well as other clubs with as few as five or six members! DUES and INPUT MUST be higher to do it!

FURTHER COMMENT: Many of our former members have switched, alas, to IBM (heaven?). Not that they may come back into the fold, but wouldn't it be nice at this date to look into the future by asking them to bring their wares to discuss and demo programs they use now? Maybe to have a multi-computer user group such as the Boston Computer Society and a few others emerging throughout the country? It's time to think ahead! I'm sure we can serve others and be well served ourselves. Remember we joined together to share the wealth of knowledge of TI programming, programs, and hidden secrets of our beastie?

RAMBLINGS
By Henry

Recently observed was a demo on packet radio interfacing with computers. But I saw something very similar at the 85 and 86 TICOFFs with our own Mike Doliton, Frank Lees, and Walt Macieski manning the booth and doing the demos. Amazing how IBM, APPLES, AMIGAS, etc., are catching up to TI's capabilities. They were great demos! There were some interesting 'connects.' Now for a course in MORSE CODE and radio theory I may get my TI to the air yet!, flying high and far without those expensive phone bills.

Well, What do you know!?

A short time ago I loaned a friend a few blank disks so that he could get some work done with his APPLE computer since the stores were closed for the weekend. No, it's not due to blue laws, just that around here there just aren't stores that carry them, except those that ARE open during the week. One of them wouldn't format. It turned out that a few bad sectors showed up due to a visible fingernail dent in the READ/WRITE space as I rotated the disk on examination. Neither would my APPLE format it, nor a borrowed IBM clone. But, to my surprise, our beloved TI did, finding only 3 sectors unusable. After formatting (initializing in TI terms) with my Disk Manager 2 cartridge, the disk is usable and the DM automatically locked out the damaged sectors. Now isn't that nice?

Trying to get this column done between thunderstorms is tricky this

time of year. Wish we had them earlier and more often. Our veggie garden is sparse with corn, and tomatoes are not yet ripe though two frosts last week did not kill them. Lots of broccoli, zucchini, cabbage, *et al*. It's a bad year for gardeners and farmers alike. Whatever, we can't blame the weather on the Republicans, nor the prices of food.

Start writing letters!

This month I'm featuring a lengthy tutorial for somewhat advanced TIW users who have large texts to type and/or print. I say "advanced" since everybody by now should have used it for minor tasks such as memo writing and keeping, letterwriting, etc., and how I use TIW for this NL and other lengthy texts. If I appear repetitive please bear with me since each of the tutorials, last month's and this can be independent of each other. Some of the printer fonts used in these columns and the tutorial are samples of what can be done with TIW. I can't even try to duplicate these effects with many other WPs made for other computers, including the much touted APPLEWORKS!

At the end of the tutorial I proselytize to write and get your views known. Yep, I practice what I preach and it pays off. Just last week I had a difference of opinion with an editorial in my local newspaper, *The Daily Star*, and ever since they printed my view on the subject I received phone calls and letters of approval from those who said, "I wish I could write as well." To those who called I told them that you don't have to, just write however they can. If you can speak, you CAN write! I never thought the paper would print it because it WAS lengthy. Club members who want to see the editorial ask John Bonito to show it and see my response. It WAS printed *verbatim* even with a minor typo I never caught in my haste to get it out before the mail pickup on a Saturday.

Whatever your views on important issues of the day, voting in November is just not enough. Let your views be known ahead of time, maybe you can convince others to your way of thinking and *vice versa*. You won't be heard or seen 'crying in the wilderness' of your bathroom shower! Aren't we here to make a better life for ourselves, our progeny, and neighbors?

Get it off your chest! You can feel better for it! And no much a better way than with TIW!

By the way, if anyone got a bad copy of my first tutorial please send be a SASE for a better one or a SASE disk mailer and disk for a soft copy, that is, if you like it!

Next month I'll explain how to use Tom Freeman's *QUADCOLUMN* for those who have it and don't know how to use it.

Some of you members have it from the '86 TICOFF but were afraid to ask how it is used. Believe me, it is a godsend for my NL writing! For those who didn't send $8 to the LA 99ers. See previous NLs for address or get it from Walt Macieski. He's got the whole disk of utilities on it with a hard copy booklet describing them all. It is well worth the price for those anxious to write or copy lengthy texts and printing them in space saving two, three, or four column sheets.

With them, you can really be an expert word processor technician. Even print sideways with one of his utilities!

The price alone beats the commercially made programs made for other computers! Tom Freeman wrote the programs to raise money for the LA 99ers. Wish we had someone as original. Yup, as you can see, it **does** allow for special character printing!

Now the News!

N E W S B Y T E S

By Henry

Computer Shopper September 88 issue offers readers an excellent guide on a wave of super XB cartridges, enhancements, etc. Buy it, borrow it from a friend or library. Good reading, good advice, with prices and addresses of suppliers. TI's XB cartridge is all I have for now, but at least I know where to get a replacement, if necessary, with update commands!

A friend informed me his TI cartridge doesn't work anymore. I told him that it wasn't necessary anymore and to throw it away. Ever since the McGoverns produced FUNLWEB we are able to get rid of excess baggage. Who knows, I may yet throw away my E/A cartridge, too, for that matter, AND my DM cartridge.

What? ME WORRY?

The virus has hit IBM's, its clones, and now making the rounds with APPLES hooked up to on-line BBSs and wire services. Haven't heard of it in the TI community. I guess TIs are immune, yet the TI community is very largely involved in on-line services and BBSs. Maybe the 'bugger' couldn't find a way to infect us.

JIM PETERSON of *TIGERCUB* Software has his TIPS FROM TIGERCUB Vol. 3 ready. It has another 49 programs and files for only $1. See April's NL for TI Support Listings. JP has been supporting us for a long time now with his programming tips, tutorials, and perhaps hundreds of useful BASIC and XB programs. Keep him in mind! Some of his files were used in a few *TI-dings* issues last year.

John Bonito recently wrote to ask how to set up a value file to print labels. I think I have an answer, at

labels. I think I have an answer, at last, since I last wrote him that I wasn't sure. My suggestion is to use the PF command in EDIT mode of TIW after making sure the files allow for proper label spacing. That is, for standard labels 15/16" by 3 1/2", allow 3 or 4 lines of data, with 3 or 2 blank lines, respectively, between data. This is what I do in all my mailings. If you don't like the asterisks in your mailing list, edit them out and save as a companion file, that is with a similar name but with an "L" or "-L" to designate a LABEL file. Hope I answered your question, John, and thanks for the question! P.S. Thanks for the little cartoon, too!

Prices of IBM computers, clones, and other hardware are rising due to costs of chips. I guess MYARC is having its troubles because of this, too. There are still a few bargains out there begging for buyers. It's the older models/clones that are near or at bargain prices. Remember that they are slower and may not have the memory size to handle the promised big OS/2 programs written for the 286 and 386 chip models. Buttt.! there are so many useful programs FOR THE ASKING out there that can do very well with only (?) 512 or 640K. Boy what we could do with those K's on our TIs!

Caveat emptor!

On a visit to a Radio Shack store last month I saw a very likeable portable IBM clone with a color LCD display. They wanted about $1795. I don't know if it had the new 286 chip but it seemed fast enough for me. It featured 768K, and two 3 1/2" drives, built in graphics, etc., but guess what! If you have 5 1/2" disks full of programs you must buy a special connector, NOT MADE BY RADIO SHACK, to hook up an external standard floppy drive. If I had the connector all I'd need to use is one of my half heights I use for the TI in a power supply. They don't even sell the connector! You must by a CUSTOM MADE rig from someone the store manager will designate for, guess what, $269. What kind of marketing is this? Sure, he says, you could use a null modem to download. But don't you need another IBM/Clone to do it? Another question remains: is it FULLY compatible with ALL IBM software? Note my column two or three months ago. Radio Shack has a history of too much proprietism for me to dare. Any feedback?

Gleanings from Micropendium

by Frank Filice
Vol.5 No.6,July,1988

TI-WRITER TUTORIAL II

by Henry Hein

There are people who buy programs, borrow them, copy them, and even bury them unused on a shelf. For some reason some of us just accumulate them and have a fear of not succeeding with their intended use. Some documentations seem awesomely complicated and you feel *stack,* fearful of really giving them and themselves a test. I felt the same way when I saw that big tome of a book explaining the first version of TI-Writer. But I was determined to learn. I never had the slightest idea of computerese, never really went through more than a test run. It really was from others what all the rest in the book means. Sure I was a busy guy before retiring to the sticks. Now I'm just as busy, if not more, getting ideas together, researching, helping friends with problems, reciprocally, of course, and a host of other things. I even bought a high speed modem and never hooked it up yet fearing that I would be hooked for time glued to the computer. Believe me, I have very little time. My biggest time saver is TI-Writer.

Over the years I've gotten to know TIW well, thanks to many in the club, outside of the club, and from afar. I'll attempt to remove some of the doubts and fears of those who feel intimidated by using the best program they have or get in their possession for our humble *beastie.*

Writing term papers, press releases, resumes, news articles, letters to editors, are some milestones in peoples' lives. The most common need for the ordinary guy using a home computer though, is writing letters and filing them electronically to save space.

But still, there are families out there whose members may have a need to share a home computer for other tasks other than letterwriting.

Looking for a job? Doing a serious term paper or scholarly work? A press release for your club, church, charity, political party, PTA, etc., are all worthy and worthwhile tasks, even for the amateur. Since we are blessed with a formidable word processor, yes, formidable, these tasks are made so simply. Of course, there are many other computers with hosts of WPs made for them, but nothing so unique as our own TIW, through the thoughtfulness of many who have contributed much in enhancing TIW capabilities to include graphics and pseudo-graphics using TI's unique disk filing system.

Last month's tutorial suggested using TIW in 40 column EDIT mode. I forgot to mention how to do this. HIT F/9 to get to the COMMAND LINE and set your SCREEN margins. Leave the L at zero and use the right arrow key to get to 39. Type in the letter R and now you have your SCREEN margin. To get rid of the numbers you now hit line #s by hitting F/zero simultaneously. If you don't mind the screen jumping on you for the few characters typed into the screen, (I don't) forget it. To return do the same thing. From now on think of the F/ symbols meaning FUNCTION, C/ meaning CONTROL, and S/ meaning SHIFT.

Doing term papers and technical documents require their own protocols prescribed by teachers or standards set by higher authorities, the same for press releases, letters to editors, etc. For the latter, a call to your local newspaper editor will gladly clue you in. Almost all require double spacing, for editor's or teacher's notations, and in either PICA or ELITE type. Margins for each would be different in each case because of the size of type chosen. More on that below.

The latest computer printers (dot matrix) allow for a variety of fonts, symbols, and font styles and sizes. This enables writers to italicise titles of books, foreign words, superscript footnote codes, eg.[1], and subscript chemical symbols, eg.H_2O. You can adorn your TITLE PAGE in ENLARGED letters or even *ITALIC* enlarged. The old required method of underlining titles is passe, now with the advent of the new printers. Editors have a little less to do since underlining meant to rewrite in italics anyway. Other tricks dot matrix printers use for emphasis are BOLD, EMPHASIZED, for SOLID and BROKEN UNDERLINING, DOUBLE UNDERLINING, etc. I haven't tried the latter yet, since it isn't necessary with all the other options TIW makes available at my fingertips. Underlining is becoming passe anyway unless you're using your old typewriter.

Making your document attractive as possible enhances grades or chances of publication, and using download

characters can help a great deal. How we use 'download' characters mentioned above does not require a great deal of knowledge. With TIW you can keep them on file on your resource disk, if you have multiple drives, and call them up at will at the start in EDIT mode, .IF DSK3.TLS1. Yes, I keep it on my TIW disk, along with several other print utilities in my third drive. I use a file disk to start up drive 1 with a little load program "10 RUN DSK3.LOAD" in XB mode.

Now what do I mean by a .TLS1 file. Let's start making one without too much ado. I suggest copying it in EDIT mode, that is, the lines below without the explanations:

.TL 123:27,52

This is a TL command transliterating an ASCII key, namely, the left brace key accessed by F/F FunctionF and making it a print command when encountering the the left bracket key to print *Italics*

.TL 125:27,53

This commands the printer to cease printing *Italics* when the right bracket key is pressed, after a word or phrase or title.

.TL 91:27,83,0

NOTE: All TL commands are NUMERICAL. Turns on the Superscript ^{1007} in this case with the LEFT BRACE key BEFORE the number with F/R

.TL 93:27,83,1

Turns on the Subscript H_2CO_4 whatever that is, ALSO BEFORE the number with the RIGHT BRACE key with F/T.

.TL 124:27,84

This key F/A or the broken verticle line, shuts off both super and subscript when typed in AFTER the numbers.

.TL 1:27,66,3

This turns on the condensed, or compressed mode of printing or 17 cpis - not desirable except for newsletters and footnotes at end of chapter or book. The access is by pressing C/U S/A and press C/U to restart writing text.

.TL 17:18

This shuts off compressed by pressing C/U S/Q and C/U again.

.TL 2:27,87,1

This turns text into ENLARGED mode at the command C/U S/B and C/U

.TL 18:27,87,0

This turns the ENLARGED command OFF by pressing C/U S/R C/U

.TL 3:27,66,2

This turns on ELITE mode or 12 cpis by hitting C/U S/C C/U (this should be done on the line after the .IF command (above)

.TL 19:27,80

This turns off ELITE by pressing C/U S/C and C/U. Usually don't bother since this is a good paper saving font getting more words in a line of text. If you mix this type style with others your document will look awkward.

.TL 21:27,72

C/U S/E C/U will Doublestrike a word, phrase, paragraph, etc., or you can doublestrike your whole document for NLQ effect. Some printers will NOT recognize some of these download commands if in NLQ mode. If so, stay in standard mode and DOUBLESTRIKE everything with this command, entering it on a line after the ELITE command above, or without the ELITE command. The default is PICA! or 10 cpi.

.TL 5:27,71

C/U S/U C/U will kill the DOUBLESTRIKE mode

.TL 6:27,69

C/U S/F C/U will start the EMPHASIZED mode

.TL 22:27,70

C/U S/V C/U will stop the EMPHASIZED mode.

NOTE: C/U characters appear on the screen with your following input. No need to fear them. They are hidden control characters with a lower or higher value than the standard type keys on your keyboard. They don't even look like the 256 characters you can get from telling the computer to print ALL characters on screen or printer. Try this little program and see what it does.

```
10 FOR I=0 TO 255
20 PRINT CHR$(I);
30 NEXT I
```

Then RUN it!

Print them out? Change line 20 to PRINT #1 PIO (CHR$(I));

NOTA BENE: When using the C/U commands you are ENABLING a special print command. That's why it appears twice. The second time it appears it ENABLES you to type in the text you want to print in YOUR special way. Then after you wish to change and return to YOUR special print command to go back to YOUR default you MUST use the C/U F/ or S/ (whatever) and C/U again.

There, now save your .TL file on any disk you want for future use by giving it a name like TLS, TLS1, or anything you want, so you can go back to it, redo or make up your own, and use it with an .IF command in your next text, chapter, term paper, etc.

This listing is part of one of Jack Sughroe's FUNLPLUS! transliterating files, using infrequently used keys for download print commands. You can make up your own to access math symbols, foreign letters, and other characters your printer is capable of. Check your printer manual for the ASCII decimal codes. There are a few keyboard symbol keys left to transliterate such as the ', #, ~, +, etc., to use transliterates with, that is, if you don't plan to use them in your text.

Most of the information here I learned from Jack Sughrue who writes for the NUTMEG 99ers.

Many of these utility files I got from him I saved on my FUNLWEB disk (I have 3 ds drives), making room by excluding the docs. Other print utilities are saved there too, along with club membership file and UG file. Why not?! I use them very frequently.

Now I ask you, what other word processor, computer system, can you do this with?

Now let's give a formatting command for a term paper. Usually the student with few words would like to spread things out as much as possible by using the default type (PICA) of one's printer. If margins are 1 1/2 inch left and 1 inch right the format line should read .LM 9;RM 75;FI;AD

The FI and AD refer to filling as many words per line and adjusting for a continuous right margin. Using special character commands will leave some lines ragged, no matter what unless you format your text to disk and reEDIT. If editing a formatted file printed to disk to align the right margin ALWAYS use the WORD WRAP mode accessed by C/0 (zero) and use the F/2 (insert) and F/1 (delete) keys. This I suggest AFTER you printed out a DRAFT copy to check on right margin alignment on lines that include special characters. It will be difficult, but not impossible, to edit if you choose ELITE and COMPRESSED, that is more than 80 column line printed to disk.

If using ELITE type in writing a file use .LM 11;RM 91;FI;AD BEFORE writing any text. You may want to indent .IN 2 or three characters more.

DO NOT use .CE commands on a line that uses the .TL commands. Most printers will ignore .TLs in the .CE mode. Try to center your line by using the RULER found under your text entry of the latest FUNLWEB to do your centering with the help of the caret (required space) key. Oh, you're in 40 column mode? Well, try to allow for 1/2 the spaces available in the ruler across the whole page (48 for ELITE and and 40 for PICA). If a title is too long for one line, use two or more lines. No harm in that.

Using EXPANDED PRINT in centering may take some trial and error; the same for COMPRESSED.

.CE your byline, of course!, but without special characters.

Now you're on your own!

If you have long quotes from source materials it would be wise to change margins in, perhaps five spaces more on each side, perhaps changing to ELITE if in default mode, and back again to original when you are back in the body of text. You can still use the special character commands in each mode, even in combinations such as EXPANDED ITALIC, Condensed Italic (in footnoting), or other combos. Great stuff, hey?

Now for some more good stuff. You can number pages, and subtitle subsequent pages with a HEADER on each page.

How? AFTER your .IF line, and AFTER your ELITE print line option if you used it, type .HE and required space key as often as you wish type the word(s) you want for subsequent page headers.

For your FOOTER (page number) type .FO and the required space key to wherever you want the word "page #". Then type the word page and hit the percent key. If you don't want the word 'page' leave it out and just hit the percent % key.

Save your document when finished and print it out either to disk with a different name to reedit or directly to the printer.

If you are editing in 40-column mode do not overrun the line when setting up your HEADERS and FOOTERS.

As mentioned above, if you print to disk reediting will be difficult because of the windowing. No doubt you

formatted the letter or manuscript file for 70 or more columns. If so, see above for reEDITing.

There are few, if any, WPs that can give you any better results than what you get from TIW. Squared off right margins are may be desirable but NOT required by anyone, including book publishers. They have their own typesetters. If you do edit the version printed to disk, remember to edit it in C/O mode, that's Control ZERO. Otherwise, if you accidentally reformat a line you can mess things up for good after a lot of editing. Never use insert or reformat a file printed to disk unless you disable wordwrap by hitting Control zero ONCE *before* editing. DO NOT hit it again while in EDIT mode. Now square off your right margins by inserting blank spaces. The insert key is alive in this mode, too, with the command F/2. If a LINEFEED (LF) beyond margin you set, move it back by deleting excessive blank spaces caused by the .FI¡AD commands OR, if it's less, insert a blank space(s) to line it up. A control character takes up a space on the screen. You must compensate. There may be more than one control character on a line and they too must be compensated for the printout. Once finished reEDITing reSAVE it.

If your text runs out of memory just save what you have by getting rid of the last line, hit ENTER and type on the next line .IF DSKn.(whatever drive you use, and the filename of your continued text). Save what you've got. Ain't that easy?

Your TLs, HE, and FO commands are still in the FORMATTER's memory when printing, and you needn't call for them in your continued file.

You have wondered and expressed concern over how I was able to get 81 lines of text in three columns in the July 88 *TI-dings*. I can't say it's simple, but I had a lot of help. It all started when Ralph Kopperman of our UG wrote a MOST BASIC column in January or February 84. It eventually got to California and redone almost completely by a gentleman from the LA 99ers., Tom Freeman. I recognized the essence of the original program right away because I had to do some tinkering with it to print my texts on a daisy wheel printer. I did get it to work with some clues from Ralph.

At the TICOFF 86 I met Tom, Terrie Masters, and George Steffen (who incidently gravely ill now living in NY with relatives). They contributed some of their software to raise money for the TICOFF, the Boston Computer Society booth, to be sold for a very small fee. Among the tidbits was Tom's thorough update of Ralph's program DOUBLECOL which enabled me to do the printing you saw. It was one of a magnificent set of print utility programs that Tom put on it named QUADCOLUMN.

This program really shrinks spaces between lines, helps me to cram as much as I can so I need not waste so much paper in getting my articles or so few pages of print. Yep, I bought it, and worth every penny. Thanks much, Tom! Great contribution, along with SIDEWAYS, CHECKSUM, and the others on the disk. It's tricky though, but I think I mastered its use. Since I know *something* about programming, it is written in XB and it can be adjusted to to suit my needs, especially by changing the print codes to the printer.

What it does is that it takes a formatted 40, or 57, or 28 column disk file to be printed out in 3, 2, or 4 columns, respectively. It is tricky in the sense of the size file you have, how many lines you have, etc., to determine how many lines you can put on a page, 6, 7, 8, 9, or even 10 lines/inch. It gives you the options to choose and trial and error can determine whether the document is readable. Well, at least for this article, too. The key at mastering this program's use is literally *divide and conquer!*

I can say sometimes I have to go through several printouts before I get the NL out. But it's worth it. We all make mistakes and I do a lot of them. Now you know! Maybe now some of the others in the club won't be so timid anymore about sending me articles.

When did you say you'd write a book? It's about time! I'd like to write one some day m'self.

Write once with TI-Writer!
Write often with *TI-Writer!*
Write RIGHT with *TI-Writer!*
FUNLWEB v. 4.1!
Henry

TIGERCUB TIPS (we haven't had these in too long!)

TIPS FROM THE TIGERCUB

#52

TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

Distributed by Tigercub Software to TI-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non-profit users groups, with credit to Tigercub Software.

Over 120 original programs in Basic and Extended Basic, available on cassette or disk, NOW REDUCED TO JUST $1.99 EACH!, plus $1.50 per order for cassette or disk and PP&M. Minimum order of $10.00. Cassette programs will not be available after my present stock of blanks is exhausted. The Handy Dandy series, and Color Programming Tutor, are no longer available on cassette.
Descriptive catalogs, while they last, $1.00 which is deductable from your first order.

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TIGERCUB'S BEST, PROGRAMMING TUTOR, PROGRAMMER'S UTILITIES, BRAIN GAMES, BRAIN TEASERS, BRAIN BUSTERS!, MANEUVERING GAMES, ACTION GAMES, REFLEX AND CONCENTRATION, TWO-PLAYER GAMES, KID GAMES, MORE GAMES, WORD GAMES, ELEMENTARY MATH, MIDDLE/HIGH SCHOOL MATH, VOCABULARY AND READING, MUSICAL EDUCATION, KALEIDOSCOPES AND DISPLAYS

NUTS & BOLTS DISKS
These are full disks of 100 or more utility subprograms in MERGE format, which you can merge into your own programs and use, almost like having another hundred CALLs available in Extended Basic. Each is accompanied by printed documentation giving an example of the use of each. NUTS & BOLTS (No. 1) has 100 subprograms, a tutorial on using them, and 5 pp. documentation. NUTS & BOLTS No. 2 has 100 subprograms, 10 pp of documentation. NUTS & BOLTS #3 has 140 subprograms and 11 pp. of documentation. NOW JUST $15 EACH, POSTPAID.

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These are full disks which contain the programs and routines from the Tips from the Tigercub newsletters, in ready-to-run program format, plus text files of tips and instructions.
TIPS (Vol. 1) contains 50 original programs and files from Tips newsletters No. 1 through No. 14. TIPS VOL. 2 contains over 60 programs and files from Nos. 15 thru 24. TIPS VOL. 3 has another 62 from Nos. 25 through 32. TIPS VOL. 4 has 48 more from issues No. 33 through 41.
NOW JUST $10 EACH, POSTPAID.

```
**************************
*        NOW READY       *
* TIPS FROM TIGERCUB VOL.5 *
* Another 49 programs and *
* files from issues No. 42 *
* through 50. Also $10 ppd *
**************************
```

TIGERCUB CARE DISKS #1,#2,#3 and #4. Full disks of text files (printer required). No. 1 contains the Tips newsletters #42 thru #45, etc. Nos. 2 and 3 have articles mostly on Extended Basic programming. No. 4 contains Tips newsletters Nos. 46-52. These were prepared for user group newsletter editors but are available to anyone else for $5 each postpaid.

This one should come in handy for bowling league captains and Little League coaches.

```
100 DIM M(24,29),T$(30)
110 GOTO 130
120 N;Q$;J;I;X;P$;S$;K
130 !@P-
140 DISPLAY AT(3,7)ERASE ALL
:"LEAGUE SCHEDULER";:;"by th
e Burwells          adapt
ed by Tigercub"
150 DISPLAY AT(8,1):" This p
rogram sets up a":"schedule
 for up to 30 teams":"so that
 each plays each":"other onc
e and only once."
160 DISPLAY AT(12,1):" If an
 odd number of teams":"are s
cheduled, each gets one":"by
e."
170 DISPLAY AT(16,1):"Number
 of teams?" :: ACCEPT AT(16,
18)VALIDATE(DIGIT):N :: IF N
>30 THEN DISPLAY AT(18,1):"L
IMIT OF 30!" :: GOTO 170
180 DISPLAY AT(18,1)ERASE AL
L:"Schedule teams by name? Y
" :: ACCEPT AT(18,25)SIZE(-1
)VALIDATE("YN"):Q$ :: IF Q$=
"N" THEN 200
190 FOR J=1 TO N :: DISPLAY
AT(20,1):"Team no.";J;"name?
" :: ACCEPT AT(22,1):T$(J)::
 NEXT J :: GOTO 210
200 FOR J=1 TO N :: T$(J)="T
eam No. "&STR$(J):: NEXT J
210 IF N/2<>INT(N/2)THEN N=N
+1 :: T$(N)="bye"
220 DISPLAY AT(23,1):"Schedu
le by day, week, month":"or
what?" :: ACCEPT AT(24,18):S
$ :: FOR J=1 TO N-1 :: M(1,J
)=J+1
230 NEXT J :: FOR J=1 TO N-1
 STEP 2 :: GOSUB 260
240 NEXT J :: FOR J=2 TO N-2
 STEP 2 :: GOSUB 330
250 NEXT J :: GOSUB 390 :: S
TOP
260 FOR I=1 TO N-2 :: IF M(I
,J)=N THEN 280
270 M(I+1,J)=M(I,J)+1 :: GOT
O 290
280 M(I+1,J)=M(I,J):: GOTO 3
00
290 NEXT I
300 X=I+1 :: FOR I=X TO N-2
:: M(I+1,J)=M(I,J)-1
310 NEXT I
320 RETURN
330 FOR I=1 TO N-2 :: IF M(I
,J)=2 THEN 350
340 M(I+1,J)=M(I,J)-1 :: GOT
O 360
350 M(I+1,J)=M(I,J):: GOTO 3
70
360 NEXT I
370 X=I+1 :: FOR I=X TO N-2
:: M(I+1,J)=M(I,J)+1
380 NEXT I :: RETURN
390 DISPLAY AT(12,1)ERASE AL
L:"Output to - 2":;:" (1) Sc
reen":" (2) Printer" :: ACCE
PT AT(12,13)SIZE(-1)VALIDATE
("12"):K :: IF K=1 THEN 440
400 DISPLAY AT(18,1):"Printe
r? PIO" :: ACCEPT AT(18,10)S
IZE(-18):P$ :: OPEN #1:P$ ::
 PRINT #1:"LEAGUE SCHEDULE":
: :: FOR I=1 TO N-1 :: PRIN
T #1:S$;" #";I :: PRINT #1:T
$(1);" vs ";T$(M(I,1))
410 FOR J=2 TO N-2 STEP 2 ::
 PRINT #1:T$(M(I,J));" vs ";
T$(M(I,J+1))
420 NEXT J :: PRINT #1:"": :
430 NEXT I :: RETURN
440 FOR I=1 TO N-1 :: PRINT
TAB(7);"LEAGUE SCHEDULE": :
:: PRINT "WEEK #";I: : :: PR
INT T$(1);" vs ";T$(M(I,1)):
: FOR J=2 TO N-2 STEP 2 :: P
RINT T$(M(I,J));" vs ";T$(M(
I,J+1))
450 NEXT J :: PRINT "": : ::
 PRINT "PRESS ANY KEY FOR NE
XT WEEK"
460 CALL KEY(0,K,S):: IF S=0
 THEN 460
470 CALL CLEAR
480 NEXT I :: RETURN :: END
```

Some folks seem to think

that the subprograms on my Nuts & Bolts disks are just flashy screen displays. Not so! This one will be on the next diskfull. If I ever get it full, which is most unlikely.

ACCEPT AT with a negative size is useful to accept a default string from the screen, but the length of the string is limited to 28 characters; and if you want something other than the default, you must be sure to delete any extra characters.

CALL DEFAULT(R,C,M$,R$),

where R and C are the row and colusn to accept at, M$ is the default string which can be up to 254 characters long, and R$ is the string accepted. will display the default string, accept it if Enter is pressed, or accept any other string without having to blank out the extra characters. Just don't type too fast!

```
100 M$="TESTING" :: CALL CLE
AR
110 CALL DEFAULT(12,1,M$,R$)
:: DISPLAY AT(24,1):R$ :: GO
TO 110
10000 SUB DEFAULT(R,C,M$,R$)
:: R$="" :: X=ASC(M$)
10001 DISPLAY AT(R,C):M$
10002 CALL HCHAR(R,C+2,ASC(S
EG$(M$,1,1))):: CALL HCHAR(R
,C+2,30)
10003 CALL KEY(0,K,S):: IF S
=0 THEN 10002 ELSE IF K=13 T
HEN R$=M$ :: SUBEXIT ELSE DI
SPLAY AT(R,C):CHR$(K):: ACCE
PT AT(R,C+1):R$ :: R$=CHR$(K
)&R$
10004 SUBEND
```

CALL DEFAULT(R,C,N,RN), with N as the default value and RN as the value accepted. will do the same for numeric input. and will reject any non-numeric input. Errors due to fast typing can be prevented by omitting the DISPLAY AT(R,C):CHR$(K) in line 10002.

```
100 N=176453.897 :: CALL CLE
AR
110 CALL DEFAULTN(12,1,N,RN)
:: DISPLAY AT(24,1):RN :: GO
TO 9999
10000 SUB DEFAULTN(R,C,N,RN)
:: DISPLAY AT(R,C):N :: N$=S
EG$(STR$(N),1,1)
10001 CALL HCHAR(R,C+2,ASC(N
$)):: CALL HCHAR(R,C+2,30)
10002 CALL KEY(0,K,S):: IF S
=0 THEN 10001 ELSE IF K=13 T
HEN RN=N :: SUBEXIT ELSE DIS
PLAY AT(R,C):CHR$(K):: ACCEP
T AT(R,C+1):R$ :: R$=CHR$(K)
&R$
10003 ON ERROR 10004 :: RN=V
AL(R$):: GOTO 10005
10004 CALL SOUND(200,110,5,-
4,5):: DISPLAY AT(R,C):N ::
ON ERROR STOP :: RETURN 1000
2
10005 SUBEND
```

Ed Machonis discovered an easy way to count the words in a TI-Writer file, using TI-Writer itself. Just put in a line before line 0001, with .LM 0;RM 1;FI;PL nnn with nnn being the sector length of the file multiplied by 40. Save it, go into the Formatter and print it to disk under a different filename. Return to Editor, load the resulting file, page through it with FCTN 4 counting any blank lines, subtract the number of blanks from the last line number, and that's it! The Formatter takes about one minute to count 1000 words. If the resulting file is very large, you may have to load it in two sections.

```
100 M$="POS WILL FIND THE FI
RST OCCURRENCE OF A SUBSTRIN
G WITHIN A STRING BUT I OFTE
N NEED TO FIND THE LAST OCCU
RRENCE SO I WROTE THIS SUBPR
OGRAM"
105 INPUT "SUBSTRING?":L$
110 CALL LAST(M$,L$,P):: IF
P=0 THEN PRINT "NOT FOUND" :
: GOTO 105 ELSE PRINT SEG$(M
$,P,255):: GOTO 105
120 SUB LAST(M$,L$,P):: X=1
130 Y=POS(M$,L$,X):: IF Y=0
THEN P=0 :: SUBEXIT ELSE Z=Y
140 X=Y+1 :: Y=POS(M$,L$,X):
: IF Y=0 THEN P=Z :: SUBEXIT
 ELSE Z=Y :: GOTO 140
150 SUBEND
```

Here's a new way to make music. The algorithm in 110 sets up a 3-octave chromatic scale - note the N(1)=F, I have erroneously omitted it when I previously published that algorithm.

To change the key of the music you have programmed, just change the value of F. Lines 190-230 contain the part of the music that is repeated within the melody. A is the subscript of the melody note, B is the subscript number of the chord. These must be above 13, as the frequency is divided by 2 in the subroutine.

Each beat of the music has a GOSUB, to 230 to play a bass accompaniment with the first note of each bar, to 260 for the other notes of the bar. The chord note is divided by different values to play the three notes of the chord in succession, and multiplied by 3.75 in the 3rd voice to produce a bass note two octaves lower in the -4 noise. The melody note is multiplied by 1.01 in the second voice to give a richer tone.

```
100 DISPLAY AT(12,3)ERASE AL
L:"THE MAORI FAREWELL SONG"
! programmed by
  Jim Peterson
110 F=110 :: DIM N(36):: FOR
 J=1 TO 36 :: N(J)=INT(F*1.0
59463094^(J-1)):: NEXT J ::
N(1)=F :: T=-999
120 GOSUB 190 :: A=30 :: B=2
3 :: GOSUB 230 :: GOSUB 260
:: GOSUB 260 :: A=32 :: B=28
 :: GOSUB 230 :: GOSUB 260 :
: GOSUB 260 :: A=28
130 GOSUB 230 :: GOSUB 260 :
: GOSUB 260 :: A=30 :: B=23
:: GOSUB 230 :: GOSUB 260 ::
 A=28 :: GOSUB 260 :: A=27 :
: GOSUB 230 :: GOSUB 260
140 A=28 :: GOSUB 260 :: A=3
0 :: GOSUB 230 :: GOSUB 260
:: GOSUB 260 :: GOSUB 230 ::
 GOSUB 260 :: GOSUB 260 :: G
OSUB 190
150 A=30 :: B=23 :: GOSUB 23
0 :: GOSUB 260 :: GOSUB 260
:: A=32 :: B=16 :: GOSUB 230
 :: GOSUB 260 :: A=28 :: GOS
UB 260
160 A=33 :: B=23 :: GOSUB 23
0 :: GOSUB 260 :: A=32 :: GO
SUB 260 :: A=25 :: B=13 :: G
OSUB 230 :: GOSUB 260 :: GOS
UB 260
170 A=27 :: B=23 :: GOSUB 23
0 :: GOSUB 260 :: GOSUB 260
:: A=28 :: B=16 :: GOSUB 230
 :: GOSUB 260 :: GOSUB 260
180 B=20 :: GOSUB 230 :: GOS
UB 260 :: GOSUB 260 :: B=16
:: GOSUB 230 :: GOSUB 260 ::
 GOSUB 260 :: GOTO 120
190 A=32 :: B=28 :: GOSUB 23
0 :: GOSUB 260 :: GOSUB 260
:: A=28 :: B=16 :: GOSUB 230
 :: GOSUB 260 :: A=30 :: GOS
UB 260
200 A=32 :: B=28 :: GOSUB 23
0 :: GOSUB 260 :: GOSUB 260
:: B=16 :: GOSUB 230 :: GOSU
B 260 :: GOSUB 260 :: B=28 :
: GOSUB 230 :: GOSUB 260
210 A=30 :: GOSUB 260 :: A=3
3 :: B=23 :: GOSUB 230 :: GO
SUB 260 :: A=27 :: GOSUB 260
 :: A=28 :: B=16 :: GOSUB 23
0 :: GOSUB 260 :: GOSUB 260
220 B=28 :: GOSUB 230 :: GOS
UB 260 :: GOSUB 260 :: B=16
:: GOSUB 230 :: GOSUB 260 ::
 GOSUB 260 :: RETURN
230 CALL SOUND(T,N(A),5,N(B)
/1.585,9,N(B)*3.75,30,-4,9):
: GOSUB 290
240 CALL SOUND(T,N(A),5,N(B)
/1.334,9,N(B)*3.75,30,-4,9):
: GOSUB 290
250 CALL SOUND(T,N(A),5,N(B)
/2,9,N(B)*3.75,30,-4,9):: GO
SUB 290 :: RETURN
260 CALL SOUND(T,N(A),5,N(A)
*1.01,5,N(B)/1.585,9):: GOSU
B 290
270 CALL SOUND(T,N(A),5,N(A)
*1.01,5,N(B)/1.334,9):: GOSU
B 290
280 CALL SOUND(T,N(A),5,N(A)
*1.01,5,N(B)/2,9)
290 FOR D=1 TO 20 :: NEXT D
:: RETURN
```

MEMORY FULL.....

Jim Peterson