



# HUG

HOUSTON USERS GROUP

MAY  
1985

A

**MEETING SCHEDULE**  
FIRST SUNDAY OF EVERY MONTH  
(2nd Sunday if 1st Sunday  
is on a holiday weekend)

HUG TIBBS - (713) 699-2073  
24-hour BULLETIN BOARD

PROP. of HUG  
SET "A"  
c/o R. Lumpkin  
Houston Texas  
713-469-5089

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## AT THE NEXT MEETING

SUNDAY, MAY 5, 1985 2:00 P.M. SHARP

St. John's School - 2401 Clairemont

The HUG meeting program this month will feature President Bill Knecht teaching one of his specialities, MUSIC. If you like music and do or do not program or even read music but would like to learn to program or just pick up some pointers to improve what you do know this is the program for you. See you at the meeting. (see page 3)

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TI-WRITER  
& MORE

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## 1985 HUG OFFICERS

President --- BILL KNECHT ... 473-5713	Secretary - CHIA GREER ... 668-4500
VP/Membership DON LEWIS ..... 353-5295	Treasurer - DAVID MATHER . 941-1497
VP/Program -- SANDOR KARPATY 955-1138	Librarian - LARRY PIPKIN . 499-9991
VP/S.I.G. --- ..... -.....	TIBBS/SysOp STEPHEN FOSTER unlisted
Exec. Asst. - TOM JAY ..... 850-0222	Editor ---- CECIL CROWDER 487-5530

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TI-HUG MINUTES  
APRIL 14, 1985

The regular monthly meeting was called to order by President Bill Knecht at 2:06 p.m., and visitors were asked to introduce themselves. SIG VP Larry Pipkin reported activity was continuing with the various groups and invited those who were interested to sign up. Program VP Sandor Karpathy said that the May and June meetings would include Music, a closer look at Printers, and how to log on to a Bulletin Board. Treasurer David Mather reported that the net income over expenditures for this year was \$1843.83 with a carry-over from 1984 bringing the total surplus to \$2803.23, and expressed the opinion that he felt operations were right on budget. Newsletter Editor Cecil Crowder, announced an early deadline occasioned by the short month created by the meeting being held on the second Sunday this month. The Secretary asked that if there were no corrections the Minutes of the March meeting be accepted as published in the Newsletter. Motion passed. Pres. Knecht announced the resignation of Librarian Bill Rister who, because of a heavy business workload and the expansion of his own bulletin board, his time is limited, so he felt he could no longer continue adequately as Librarian. A motion was entered by Chia Greer, seconded by Cecil Crowder that Bill Rister's resignation be accepted with regrets and that the Minutes reflect with appreciation the very fine job Bill has done. Motion passed. Larry Pipkin accepted the position of Librarian (of Diskettes and Cassettes) leaving a vacancy in the position of VP SIG. There being no immediate candidates for that office, the item was tabled until the next meeting. A volunteer was sought to serve as Librarian of Publications: Mary Boyd volunteered and was confirmed for this new position.

Under New Business Pres. Knecht announced a Contest for the graphic design of the Astrodoom which can be executed in any language. The contest rules were posted. There will be a panel of judges and a system of handicaps so a beginner can be fairly judged. Depending upon the number of submissions there will be three prizes in each category.

A discussion was held on various items concerning the Bulletin Board, i.e. active participation by our members is limited, and, insufficient contributions to the file areas. The situation will continue to be studied as well as means to widen the participation. There was discussion about limiting the Board to only TI users, since much of the user time may be monopolized by non-HUG users who are not underwriting the costs.

The meeting continued with three members demonstrating various programs -- Larry Pipkin showed the versatility of FORTH, the perfection of high resolution graphics, and various ways to utilize FORTH. Tony Johnson showed his re-styled keyboard which includes separate cursor direction keys, a numerical key pad among some of the visible changes. He showed a couple of prototypes of modified cartridge selectors handling up to eight cartridges with and without separate power sources re-located away from the sometimes-too-hot cartridge port. David Sholmire announced the availability of Tandon 65-L half-size double sided, double density disk drives which fit into the PEB in place of the single disk drive. He planned to demonstrate Navarone's Data Base Management program, but was unable to do so due to interference from the experimental equipment. He did demonstrate the program "Advanced Diagnostics" from Miller Graphics available at a modest price for a large amount of capability in testing. The program is written by two engineers who were founders of Cor-Comp and now owners of their own software firm.

There being no more business, the meeting adjourned at 4:00 p.m.

Respectfully submitted,  
Lucia C. Greer

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Music on the TI-99/4A

To me, one of the most gratifying things about any hobby is to be able to produce something that you can show off and be proud of the quality that your workmanship, all by yourself has produced. Music on our "Orphan" is one of these and is one of the easiest to learn that I have been introduced to. You can be creative and create a style of your own and still use the basic program that many others use. Once you have learned to program you should be able to program in some music (not all) in not much more time that it would take to type in the program and debug it if it were printed in a magazine or newsletter.

Our President, Bill Knecht, is recognized among TIers as one of the best music programmers around and will be teaching some of his music programming techniques at the May H.U.G. meeting. Don't miss this opportunity to learn from an expert!  
... Cecil

The following was downloaded from Comuserve and should be of interest to most TI users.

APRIL 24, 1985

THE IUG HAS FILED FOR PROTECTION UNDER CHAPTER 7 OF THE FED. BANKRUPTCY ACT. ALL SOFTWARE LIBRARY ORDERS RECEIVED ON OR BEFORE APRIL 30, 1985 WILL BE SHIPPED PRIOR TO MAY 30, 1985. WE HIGHLY REGRET THIS ACTION BUT HAVE NO OTHER ALTERNATIVE AT THIS POINT. THE CURRENT LIBRARY AS WELL AS SOME 400 NEW PROGRAMS HAVE BEEN KEPT IN TACT AND WILL BE MARKETED BY A NEWLY FORMED COMPANY WHICH WILL BE ANNOUNCED ON 6/1.

THIS NEW COMPANY WILL USE THE CURRENT IUG CATALOGS AND PROGRAM NUMBERS SO THERE WILL BE NO CONFUSION TO NEW MEMBERS. I PERSONALLY FEEL DEEPLY SADDENED THAT THE QUALITY OF SERVICE THAT WE STRIVED FOR OVER THE PAST 5 YEARS HAS SUFFERED SO IN OUR LAST 6 MONTHS OF OPERATION AND HOPE THAT OUR THOUSANDS OF MEMBERS AND FRIENDS CAN UNDERSTAND THAT WE DID EVERYTHING IN OUR POWER TO CONTINUE TO SUPPORT OUR MEMBERS TO THE BITTER END. FOR THOSE HOSTILE MEMBERS WHO SEEM TO THINK THAT I HAVE AMASSED A PERSONAL FORTUNE FROM THE IUG PLEASE REST ASSURED THAT THIS IS NOT THE CASE.

THE FACT IS THAT WE CURRENTLY STAND TO LOOSE "EVERYTHING" THAT VIRGINIA AND I HAVE WORKED FOR OVER THE PAST 20 YEARS TO ASSURE THAT OUR MEMBERS AND CREDITORS ARE SATISFIED.

CHARLES LA FAMA

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#### PRESIDENT'S REPORT

If you missed the last HUG meeting, you missed a good business session and a fine demonstration on Using FORTH by Larry Pipkin. Tony Johnson demonstrated a new portable keyboard he built which features a number keypad and several additional keys. He also had some cartridge expanders in the 4 and 8 slot versions. And David Sholaire showed the new Miller's Graphics Advanced Diagnostics program.

Along the line of business we accepted the resignation of Librarian Bill Rister and voted his replacement, Larry Pipkin. I would like to tell Bill how much we appreciate all he has done for the Library the past year and that we regret his resigning, but understand. Larry's position of SIG Vice-President is now vacant, but several individuals have volunteered to serve. We are presently setting up a Newsletter Library so members may get copies of other groups' publication for their education and enjoyment. Mary Boyd has volunteered to head up this project.

We also voted to hold a programming contest in Graphics, writing a program featuring the Astrodone. Entries are due in at the May meeting and awards will be presented in June. If this contest is successful, we will

be holding several more... be watching for details. We also decided to start selling chances on a door prize each month. This will probably be software worth around \$40. Tickets will be \$1.00 each.

So if you missed the last meeting, you can see that we accomplished much. One word on the upcoming meeting... part of the program will feature music programming. This will be aimed at the beginner and at someone who may not even be able to read music. Music programs are some of the easiest to write, so try to be there to see how it is done.

I will close by saying thanks to Larry, Tony, Dave, Mary and everyone who attended the last meeting. You have shown that dedication to HUG and the TI-99/4A is still strong.

Bill W. Knecht

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#### MAY HUG MEETING:

This month the subject is MUSIC, MUSIC, and more MUSIC. This "Orphan" machine of ours has one of the best music generators of all the computers around and to show off what it can do, our own BILL KNECHT has been asked to conduct.

Just to bring those of you who have not tried to program music up to date, very little equipment is needed. Basically, only the console and a television are required. The music is generated by the computer's three music generators that are activated by the use of CALL SOUND commands. In addition, a fourth sound can be utilized from the machines "noise" generating capacity. When put all together fantastic things can be heard. Various methods of coding music will be discussed in addition to the lively demonstration. A handout will be provided.

Bill has written numerous programs for his entertainment; and with every new piece his talent seems to improve. A number of his creations have been submitted to the library and can be easily obtained. This meeting is a must for those of you who do not have a full blown system and are limited to the console itself.

Next month we will try something different. At most of the HUG meetings we hear considerable conversation concerning our bulletin board. Words like "Baud Rate, Modem, Download, Upload, and Terminal Emulators" are constantly discussed. Most of us who do not have a full system that can utilize a modem, don't know what all the fuss is about. To better understand what "Online communication" is all about, our program topic will be about Bulletin Boards and Tele-communications. If all goes well, we will try to tie into the club's own BBS system and provide a live demonstration. In addition, helpful hints will be given on the utilization of the national systems like Comuserve and the Source.

If you have additional interests let us know.

Sandor Karpathy, V.P. Programs

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 \* TI-WRITER HELP FILE pt(2) \* Downloaded from Gary Blaydenburd's  
 \*\*\*\*\* TIBBS Reading Mass. (617) 664-5988

Now I want to cover the Text Formatter, which prints out the document. Most importantly, the special symbols, called Format Commands, that the formatter uses to alter the print-out of the document, which are installed in the Text Editor.

In other words, you put these commands into the text when you write it and as the formatter comes across them it changes the text accordingly but doesn't actually print the symbols.

There are six groups of formatter commands that are all applied in a similar manner. All commands must be in caps and must be on a line that starts with a period.

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 Text Dimension commands, as the name implies, move or shape the words in the document (margins, linespacing, right justify, etc.)

.FI : FILL : PUTS AS MANY WORDS ON A LINE AS WILL FIT.  
 .NF : NO FILL : CANCELS FILL.  
 .AD : ADJUST : ALIGNS THE TEXT TO THE LEFT AND RIGHT MARGINS. (RT. JUSTIFY)  
 .NA : NO ADJUST: CANCELS ADJUST.  
 .LM n : LF MARGIN: SETS LEFT MARGIN TO "n".  
 .RM n : RT MARGIN: SETS RIGHT MARGIN TO "n".  
 .IN n : INDENT : CREATES AN AUTO-INDENT FROM LEFT MARGIN.  
 .LS n : LINE SP : SETS LINE SPACING TO "n" LINES.  
 .PL n : PG LENGTH: DEFINES NUMBER OF LINES TO A PAGE.  
 .BP : BEGIN PG : DEFINES FIRST LINE OF NEW PAGE.

Internal Format commands control the spacing of characters on a line.

.SP n : SPACE : SIMILAR TO THE TAB FUNCTION.  
 .CE n : CENTER : CENTERS NEXT "n" LINES BETWEEN MARGINS.

Highlighting commands control functions such as underline or bold and allow you to redefine characters to use them to send CTRL codes to the printer.

^ : REQUIRED : JOINS WORDS TOGETHER WHEN REQUIRED TO PREVENT SPLITTING IN  
 : SPACE : REFORMATING, UNDERLINE, ETC.  
 & : UNDERLINE: (UNDERScore) UNDERLINES ALL TEXT FOLLOWING UNTIL NEXT PAGE.  
 @ : BOLD : (OVERSTRIKE) RETYPES FOLLOWING TEXT FOUR TIMES.  
 .TL xx: TRANS- : ALLOWS REASSIGNMENT OF ONE CHARACTER TO REPRESENT A NUMBER  
 : LITERATE : OF CHARACTER VALUES TO SEND CODES TO THE PRINTER.  
 .CO t : COMMENT : SIMILAR TO REM IN BASIC--ALLOWS NOTES THAT DONT PRINT.

Page identification commands print notes in the upper or lower corner of each page, either headers or footers.

.HE t : HEADER : PRINTS TEXT (t) AND PAGE NUMBER AT TOP OF EACH PAGE.  
 .FO t : FOOTER : PRINTS TEXT (t) AND PAGE NUMBER AT BOTTOM OF EACH PAGE.  
 .PA : PAGE # : RESETS PAGE NUMBER IN .HE AND .FO

File management commands

.IF f : INCLUDE : MERGES A FILE TO PRINT A DOCUMENT TOO LARGE FOR ONE FILE.  
 : FILE :

Mail Merge option commands are used to supply values to the variables in a letter that has been set up for the mail merge option

.ML f :MAIL LIST: IDENTIFIES VALUE FILE (f) FOR MAIL LIST.  
 \*n\* :VARIABLE : INSERTED IN TEXT AS VARIABLE FOR ASSIGNMENT FROM VALUE FILE.  
 .DP n:t:DISPLAY : PROMPTS YOU USING TEXT "t" TO ASSIGN TO VARIABLE (\*n\*).  
 : PROMPT :

\*\*\*\*\*

The use of these commands in your text is what separates the word processor from a typewriter. They allow you to get the most out of your printer.

So, now you've written your document, and inserted all the format commands, now how do you print it out? First, save the document and exit the Text Editor. At the title menu, select Text formatter, (make sure the program disk is in the drive) and the screen will blank with the prompt "ENTER INPUT FILENAME". Enter the name of the file you just saved, (ex. DSK1.MYFILE) and hit enter.

Next, the prompt "ENTER PRINT DEVICENAME" appears after the file is loaded. If you use a serial printer, the device name would be RS232.BA=xxx with xxx being the baud rate. If you're using a parallel printer, the device name is PIO. Also, you must add either .CR or .LF to the end of the device name. This tells TI-Writer whether your printer will handle the carriage return or the line feed. Check your printer manual and the TI-Writer manual in detail to find out which you use.

The next prompt is "USE MAILING LIST". If you aren't printing "form letters" just hit enter to accept the default of N (NO).

Next is "WHAT PAGE(S)? <ALL>". If you want to print the whole document, accept the default for all pages. Otherwise, you can print any of the pages or groups of pages.

The prompt "NUMBER OF COPIES: 1" tells how many copies of each page are to be printed.

The last prompt is "PAUSE AT END OF PAGE? N". The main purpose of this function is if you are using separate sheets of paper it will stop and wait for you to align the next sheet. Another use is to save a little paper. TI-Writer has an annoying habit of scrolling one whole blank page up before starting to print, which is not that big of a deal since what's one piece of paper worth considering how much you go through normally. But if you're just running test samples of type styles, or the like, you end up with a lot of white paper at your feet. To prevent this, type "Y" and turn off your printer. Now hit enter and turn the printer on, you should see "PRESS ENTER TO CONTINUE" (the software thinks one page has been printed). If not, turn the printer on and off again. Now you align the paper to the top of the page and hit enter and the printing begins. But if it's a long letter, you'll have to sit there and hit enter after each page so usually it's better to select the default when using continuous feed paper.

Now, about the Mailing List Option. Let's say you've written a form letter to send out to various individuals, maybe a resume'. You write the letter like normal, but when you come to a name or address or something that will change with each letter, you put in its place a variable in the form of \*n\*, where n is a number to identify the order. So instead of starting off with: "Dear Mr. Smith" you would have "Dear Mr. ^1\*" and so on. when you're all through with your letter, save it and purge the memory. Now you must create what is called a Value File, which is your mailing list where TI-Writer will draw the variables from. A value file consists of a list values to be inserted into the letter, listed one to a line, preceded by the number of the variable and ending with a carriage return symbol. Groups of values must be separated by a line with just an asterisk and a carriage return. For example:

```
1 John Smith
2 123 STREET
3 Seattle, WA
*
1 Jane Doe
2 456 STREET
3 Seattle, WA
```

At the top of your letter you insert the .ML f command where f equals the filename of your value file. After selecting the mailing list option the computer will use this command to fill in the variables. If there is no .ML

command in the letter then when you are prompted for "MAILING LIST NAME:" you supply the filename. This allows you to call on a number of files for different groups.

Another way to insert values is to use the Define Prompt command. With this command you do not insert a .ML comand calling a value file and instead you insert lines containing the format: .DP n:t - where n is the number of the variable and t is the prompt text. Now, when you come to the prompt "USE MAILING LIST?" you select "N" for NO and as the document is printed when a variable is encountered the printing stops and the text you chose appears on the screen asking you for the appropriate value. If you don't include a ".DP n:t" command in your text, the computer responds with "ENTER DATA FOR VARIABLE \*n\*" and it can get confusing trying to remember which item you're on. This method is handy for letters which you only want to print one copy at different times to different people.

Let me tell you, this is why I bought a computer. I'm sure we all went through that period of time before buying a computer when we would ask: "what am I going to use a computer for, anyway?". Well I decided there were two things I wanted to do: 1) Store files of data (recipes, albums, Etc.) and 2) Use my computer as a typewriter. I didn't know about TI-WRITER when I bought the 99/4A, but now I know that I made the best choice possible. I hope you will all find TI-WRITER as easy to use and as powerful as I have.

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#### USING LESS MEMORY WITH CALL CHAR STATEMENTS

If you are writing a program in Extended BASIC and using several CALL CHAR statements, there is a way to do it and use less memory.

Let's say you were redefining characters 40-43 to use in graphics. One way is to type in 4 CALL CHAR statements:

```
CALL CHAR(40,'FFFFFFFFFFFF')
CALL CHAR(41,'FOFO3030000FFFF')
CALL CHAR(42,'0000000000FOFO')
CALL CHAR(43,'FFFF01030700FFFF')
```

This method uses 140 Bytes of memory.

Another method is to use the statement FOR I=40 TO 43 :: READ I\$ :: CALL CHAR(I,I\$):: NEXT I then list the pattern-identifier characters in a DATA statement. This method uses less memory than the one above, only 121 Bytes.

But in Extended BASIC there is another way I have come across that uses only 86 Bytes. Your statement would be:

```
CALL CHAR(40,'FFFFFFFFFFFFFOFO3030000FFFF00000000000FOFOFFFF01030700FFFF')
```

This final illustration will redefine all four of the characters (40-43) by using the 64 pattern-identifier characters, i.e. the 16 pattern-identifier characters for the 4 character codes.

This method will also work on redefining 2, 3 or 4 characters, but the character codes you are redefining must be in numeric order (41,42,43,44 etc.). You will notice quite a bit of memory savings if you are redefining a lot of characters in your program. Give it a try.

-Bill Knecht

#### TI-WRITER STAR 56 10 PRINTERS

TI-Writer has been popular for a long time as a word processor but with the advent of extended basic loaders and especially TK-Writer (Tom Knight's freeware XB loader) it is even more popular than before. This is one of the reasons that I inserted the two part tutorial in the last two HUG newsletters.

As with all products there are those which complain about everything and the same is here ... but I personally haven't heard anyone come up with a better solution than TI-Writer and usually the one that is making the complaint is no where near proficient with that product.

When I was elected newsletter editor I had the module ect. but had no experience in the operation of it. Now I am very comfortable with it and can do just about anything that I desire to with it including graphics. (see front page HUG and console)

In the first part of the TI-W tutorial one of the things the writer considered to be of most importance is the choice of a printer because that is what determines the final result. I would like to recommend the Star 56 10 printer because of all the features that it has. Basically it will do anything that the Star 10X will plus NEAR LETTER QUALITY and IBM COMPATABLE just in case you are thinking of upgrading your complete system. All the dip switches are readily available on the outside of the printer but you can go from near letter quality to any other print with just a software command. There is much more that I could say about the printer including the BARGAIN PRICE but will just say that all this newsletter except page 10 was printed with my 56 10. COMPARE LOOKS & CHECK PRICES.

## TIPS FROM THE TIGERCUB

021

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TIGERCUB SOFTWARE  
156 Collingwood Ave.  
Columbus, OH 43213

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The entire contents of Tips from the Tigercub Nos. 1 through 14, with more added, are now available as a full disk of 50 programs, routines and files for just \$15.00 postpaid!

Nuts & Bolts is a diskfull of 100 (that's right, 100!) Basic utility subprograms in MERGE format, ready for you to merge into your own programs. Contents include 13 type fonts, 14 text display routines, 12 sorts and shuffles, 9 data saving and reading routines, 9 wipes, 8 pauses, 6 music, 2 protection, etc., and now also a tutorial on using subprograms, all for just \$19.95 postpaid!

And I have about 140 other absolutely original programs in Basic and IBasic at only \$3.00 each! (plus \$1.50 per order for cassette, packing and postage, or \$3.00 for diskette, PPM) Some users groups charge their members that much for public domain programs! I will send you my descriptive catalog for a dollar, which you can then deduct from your first order.

I thought that my 28-Column Converter, as published in Tip #18, was

finally foolproof, but someone found a way to print a program incorrectly with it!

I'm sure you know that characters 127-143, and on up to 159 in Basic, can be redefined and used in graphics. You probably also know that these redefined characters can be put into PRINT or DISPLAY AT statements, by holding down the CTRL key as you type them. If you load a program containing such redefined characters and LIST it, they will appear as blanks. If you RUN the program, so that they are redefined by the CTRL CHAR statements, and then LIST it again, they will show up in their redefined form - but if you print out the program on your printer, they will still appear as blanks. So, before you publish a program, it's a good idea to RUN it and LIST it, and look for any of those gremlins.

If you do want to publish such a program, this fix will take care of it by underlining all characters that must be typed with CTRL down (except that lower case v is typed with FCTN down). It's slow, so only use it when you need to.

```
170 IF @="E" THEN 195 :: PR
INT @2:TL 126:94: :: PRIN
T @2:TL 123:64: :: PRINT
@2:TL 125:38: :: PRINT @2:
:TL 124:42: :: PRINT @2:
.TL 92:46: :: PRINT @2:MF
"
```

```
195 PRINT "Does the program
contain redefined characte
rs above? ASCII 126? (Y/N)"
196 ACCEPT AT(24,1)VALIDATE(
"YN"):RQS
```

```
202 IF @="N" THEN 290
203 FOR J=1 TO LEN(L$)
204 A=ASC(BEGB(L$,J,1)): IF
A<127 THEN L2=L2&CHR(A):
:GOTO 208
```

```
205 IF A=127 THEN A=118 ELSE
IF A=128 THEN A=44 ELSE IF
```

```
A=135 THEN A=46 ELSE IF A=15
& THEN A=59 ELSE IF A=157 TH
EN A=61 ELSE IF A=158 THEN A
=56 ELSE IF A=159 THEN A=57
ELSE A=64
206 L2=L2&CHR(27)&CHR(45
)&CHR(11)&CHR(A)&CHR(27)&C
HR(45)&CHR(0)
208 NEXT J :: L=L2 :: L2=
"
```

That should do it, unless the number of added control characters stretches the line beyond 80 characters. Such is the case with the following, which I had to type in manually (it also contains low ASCII characters which the printer misinterprets as controls).

## TIGERCUB CHALLENGE

```
100!The Unprintable Unkeyabl
e Program!
```

```
110!To shuffle the numbers 1
to 255 into a random sequen
ce without duplication
```

```
120!The strings contain the
ASCII characters 1 to 127 an
d 128 to 255
```

```
130!Most of the ASCII charac
ters below 32 or above 159 c
annot be input from the keyb
oard
```

```
140!So how was this program
programmed?
```

```
150 R$="
: ""@ZL'()@+,-./0
123456789:;<=>?@ABCDEF@HIJKL
MNOPQRSTUVWXYZ[\]^_`abcde@fgh
ijklmnopqrstuvwxyz{|}~"
160 R2@="
```

```
170 R@=R&R2$
180 L=LEN(R$):: RANDOMIZE ::
I=INT(L/RND+1):: N=ASC(SEGB
(R$,I,1)): R@=SEGB(R$,I,I-1
)&SEGB(R$,I+1,LEN(R$))
```

```
190 PRINT N:: IF LEN(R@)=0
THEN STOP ELSE 130
```

## GROCERY SHOPPING LIST

Are you desperate for some way to convince your wife that your computer and PEB and printer and all are not just a too-expensive plaything? Maybe this will do the job.

The first thing to do is to prepare a file of the grocery items she might want to buy. It will be especially useful if you can list the items in the sequence in which she will come to them in the aisles of her favorite store. This little program will set up the file. Type END when you are finished.

```
100 OPEN @1:"DSK1.BUYLIST",O
UTPUT
```

```
110 INPUT A$
120 IF A@="END" THEN 150
130 PRINT @1:A$
140 GOTO 110
150 CLOSE @1
```

If you have TI-Writer, you can also use that to create the file, edit it and add to it - but BE SURE to delete all the carriage return symbols and any blank lines at the end. Save it under the filename BUYLIST.

Next, this program will hopefully get your wife to actually sit down at the keyboard and try out your computer. It will go through the list and ask if she wants to buy. If she types in any quantity other than 0, it will output the item name and quantity to the printer. At the end, she will be given the opportunity to add any other items.

```
100 CALL CLEAR
110 OPEN @1:"DSK1.BUYLIST",I
NPUT
120 OPEN @2:"P10"
130 LINPUT @1:A$
140 IF EOF(1) THEN 210
```

```

150 DISPLAY AT(12,1):A0
160 DISPLAY AT(12,LEN(A0)+2)
170 ACCEPT AT(12,LEN(A0)+2)8
180 IF @=0 THEN 130
190 PRINT @2:AB@ "8STR@Q)8
"8CHR@175)
200 GOTO 130
210 DISPLAY AT(12,1):"ADDITI
ONAL? Y"
220 ACCEPT AT(12,13)VALIDATE
("YM")SIZE(-1):00
230 IF @="N" THEN 300
240 DISPLAY AT(12,1):"ITEM?"
250 ACCEPT AT(12,7):A0
260 DISPLAY AT(14,1):"QUANTI
TY?"
270 ACCEPT AT(14,11):Q
280 PRINT @2:AB@ "8TH@Q)8
"8CHR@175)
290 GOTO 210
300 CLOSE @1
310 CLOSE @2
320 END

```

The list will be in enlarged print, so that no one in the store will see her putting on her reading spectacles. And after each item and quantity is a blank square to be checked off when she picks up the item.

You might also point out that she could use the checkoff blocks to mark the items she has coupons for, and she could jot down prices on it to be sure she isn't cheated at the checkout counter, or to shop for better bargains elsewhere.

The program is set up for the Gemini printer. You may need to change the "PIO" to the name of your printer, and other printers may not have the open block character CHR@175) available.

Of course, you can also use this program for some important things, such as shopping for computer software....!

If you type the period key while holding down the

CTRL key, the printer interprets the resulting blank space as CHR@27), even though the computer knows it is really CHR@155). Since CHR@27) is the EBC or "escape code" which tells the printer to interpret the following characters as function command codes, you can for instance set up the printer for emphasized double-struck double-width underlined italics by OPEN @1:"PIO" :: PRINT @1:" E 6 @"CHR@118" -"CHR@118" 4 ", using CTRL . in the blanks. I have been overlooking another very useful feature, the skip-over perforation. PRINT @1:" N"CHR@6), again with CTRL . in the blank, causes the paper to advance to the top of the next page when there are only 6 lines left at the bottom of the page (providing that you started at the top, of course). This makes it possible to LIST "PIO" a program, or PF PIO from TI-writer Editor, without printing right across the perforations.

Ghosts! Did you ever read data from a file, and find that you were getting data from a file that was no longer on the disk? It can happen, at least if you are reading from a RELATIVE file in the UPDATE mode. When you delete a file, only its address is actually deleted - the data remains on the disk until it is overwritten by a new file. If the new file is shorter than the old one, and you try to read beyond the end of the file, you may awaken the ghost!

Are you making use of those special characters that are available on your Gemini printer? You didn't know about them? Try this.

```

100 OPEN @1:"PIO" :: 110
PRINT @1" (hold down the
CTRL key and type 12345677
and then hold down the FCTM
key and type <)/@;@AJKLHNGY
) ". RUN . Surprised? Some
of these can be very
useful, such as the true
division sign that you get
with FCTM H. There are many
more of these that you can
access by CHR@. For a
complete list of them and
their CHR@ codes, run this -
100 OPEN @1:"PIO" :: FOR
CH=160 TO 254 :: PRINT
@1:CH:CHR@CH):: NEXT CH ::
CLOSE @1. Unfortunately,
these can't be used out of
TI-writer.

```

Here's a handy little routine to practice up on your typing.

```

100 CALL CLEAR
110 CALL CHAR(94,"3C4299A1A1
99423C")
120 CALL SCREEN(5)
130 CALL VCHAR(1,31,1,96)
140 CALL COLOR(1,8,16)
150 FOR SET=2 TO 12
160 CALL COLOR(SET,2,16)
170 NEXT SET
180 PRINT TAB(10);"1IGERCUB"
: TAB(8);"TOUCH-TYPING": : TAB(11);"TUTOR": : TAB(9);" T
igercub Software": :
190 REM by Jim Peterson
200 PRINT " Watch the screen,
not the keyboard!": :
Letters and numbers will"
210 PRINT " appear on the sc
reen grid": " in position cor
responding": " to their keybo
ard position.": " Type the
n and they will"
220 PRINT " disappear.": :
" Press any key"
230 CALL KEY(0,K,BT)
240 IF BT=0 THEN 230
250 CALL CLEAR
260 CALL CHAR(32,"FFB0B0B0B0
B0B0B")
270 CALL VCHAR(1,30,1,192)
280 CALL HCHAR(14,1,1,384)
290 CALL VCHAR(1,4,1,14):: C
ALL VCHAR(5,4,1,11):: CALL V
CHAR(8,7,1,6):: CALL VCHAR(1
1,8,1,3):: CALL VCHAR(8,29,1

```

```

,6)
300 CALL VCHAR(11,28,1,3)
310 CALL CHAR(48,"003A444C54
6444B8")
320 KEY@="1234567890-QWERTY"
10P/ABDFGHJKL;"CHR@113)8{
CVBN,."
330 RANDOMIZE
340 K=ASC(8EG@KEY@,INT(420R
ND+1),1)
350 GOSUB 370
360 GOTO 420
370 I=POS(KEY@,CHR@K),1)
380 Y=ABS(I)11)+ABS(I)22)+AB
8(I)33)+1
390 R=Y83
400 C=((X-ABS(Y)1)8(Y-1)811)
821+4+Y
410 RETURN
420 CALL HCHAR(R,C,K)
430 CALL KEY(3,K,BT)
440 IF BT=0 THEN 430
450 GOSUB 370
460 CALL GCHAR(R,C,6)
470 IF G<32 THEN 500
480 CALL SOUND(-100,110,0,-4
,6)
490 GOTO 340
500 CALL HCHAR(R,C,32)
510 CALL SOUND(-100,1000,0,1
005,0)
520 GOTO 340

```

Here's one for the kids to have fun with. I'm sorry I lost track of who published it.

```

100 CALL INIT :: FOR J=1 :
100 :: PRINT J :: FOR P=100
TO 1 STEP -J :: CALL LOAD(-
31456,P):: NEXT P :: NEXT J

```

MEMORY FULL,  
Jim Peterson



HUG LIBRARY CATALOG ADDENDUM  
May 1985

- 660 JESU, JOY OF MAN'S DESIRING0000, 32K & Disk Rqd. Great Bach music with title screen by John Clulow. 36 sectors
- 661 IT CAME UPON THE MIDNIGHT CLEAR0000 Graphics title screen with music. 19 sectors
- 662 HOLY, HOLY, HOLY0000 Music with graphic of cross on the title screen. 14 sectors
- 663 SEASON'S GREETINGS0000 After entering your last name, your family's season's greetings is displayed to the accomplishment of Christmas music. To quit the continuously running program, hold down any key when the music pauses. 29 sectors
- 1134 LET'S PLAY TRAINS0000 This early-learning program by Bill Knecht teaches your pre-school child to find keys. Pressing keys causes railroad cars to change shape, water tank and/or station to appear and disappear; train to speed up, slow down, stop, go forward and reverse; and the whistle to blow. Adults will like it too! 19 sectors

-----

As those of you who attended the April meeting know, I have resigned and Larry Pipkin is now the new HUG Librarian. During my tenure this past year, I have enjoyed working with each of you and have made many new friends. While the job of librarian is very interesting, it is also very demanding of one's time. Due to a combination of my job, physical condition, and varied activities I had reached a point of having "too many irons in the fire" and could not spend the time required to properly maintain the library. I intend to remain active in HUG activities and spend some time catching up on my great love, programming. Larry is looking forward to serving as Librarian with great enthusiasm and I know he will do an excellent job. The library is experiencing a tremendous growth which will keep Larry very busy and I know that you will all give him the same wonderful support you have given me.

-Bill Rister



It has been suggested to the editor that a question and answer article be added to the newsletter. If you would like to see this addition please make it known through your participation. Send comments or questions to address on front of newsletter.



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