

# NEW HAMPSHIRE 99ERS

## OCTOBER 1985

New Hampshire U. R.  
Oct 85



NH99UG NEWSLETTER - PO BOX 5991 - MANCHESTER, NH 03108-5991 VOL.3 NO.10

### <<Random Ramblings>>

Want to win an Infocom game? Write down the name of the sequel to Zork I and send it to: Questbuster, 202 Elgin Ct., Wayne, PA 10987. Even if you don't win, they'll send you a free copy of their monthly newsletter for adventure game fans.

Fugi film is now making disks, and they'll send you a free booklet, "The Floppy Disk Story", if you write to: Fugi Film Promotion, POB 9870, Wethersfield, CT 06109.

According to Ron Rutledge of the Central Iowa User Group, the author of DISK MANAGER 1000 is no longer a TI owner and has donated the rights to the program to his user group. For more information contact: Ottawa TI 99/4A User Group, 25 Ottawa Street, Arnprior, Ontario, CANADA K7S 1W7.

Remember OSCAR?... In 1983 the DataBar Corporation developed a TI Software library which they planned to distribute in bar code form in a monthly magazine which the subscribers could then load into their computer with the OSCAR, a compact bar code reader. Due to changes in the market, DataBar discontinued its home computer division and Tex-Comp bought out their entire stock. Software + bar code reader cost \$23. Our group has purchased a package and hope to have it for review soon.

The NH99UG extends its get well wishes to Dr. Guy-Stefan Romano of the Annon Helpline who was recently side-lined with a mild stroke and heart attack. Dr. Romano is a good friend of the TI community and we wish him a speedy recovery!

Want to upgrade your Gemini 10X? ESP Corporation - 7900 N. Tamiami Trail - Sarasota, FL 34243 (813/355-6797) is offering a hardware mod which will add Near Letter Quality printing (similar to this sample from my new SG-15!) to your repertoire. Unfortunately, you lose Italics and Blockgraphics. Write to them for further info.

If any NH99UG member is interested in purchasing any NAVARONE products in the near future please contact me (603/472-3369) for special pricing.

...Helene

### REMOOO

#### CORRECTIONS!

If I said or inferred that the GRAM-Kracker by Millers Graphics would allow you to change the ROM in your console, I am sorry - that is not true. What it can do is act in place of the ROM in your console. More on the GRAM-Kracker as soon as it becomes available.

#### PAINT 'N' PRINT

As seen at the last meeting, a truly remarkable cartridge. Even our resident GRAPHX expert found it interesting. The cartridge commands are quite extensive, and the Extended Graphics Package options offer the features most often requested: animation, circles, etc. with a few unique options like kaliedescope, texture, etc. The best part of all is that now, there is a cartridge version that **should match your printer!** If you have a console, joysticks, and some type of printer, you're in business! Anyone interested in this cartridge and/or the Extended Graphics Package, please contact me. As a User Group, we can purchase Navarone products at dealer cost and pass the savings on to you.

#### NEXT MEETING

Next month's meeting, which is Monday, the 4th of November, I will demonstrate a program called EXPLORER. If you have ever wondered what goes on inside your TI, this program is a must. The price is about \$26 (if you include shipping) and is worth much more! The manual alone is worth the price. Miller's Graphics is the company that also produces the Advanced Diagnostics demonstrated in August. A great company; one we should support. Of course, we will try to have other hardware and software goodies for you. If nothing else, we should have a quiet, peaceful meeting.

By the way, I will still put in an interrupt switch on your speech synthesizer (\$5) or right on the back of your TI (\$10). Guaranteed to work or I'll loan you my set until I get it right!

OOOCURTIS

P.S. Here are the three o's which dropped out of Curtis' column!

FREQUENCIES AVAILABLE  
WITH CALL SOUND

Richard J. Bailey  
68A Church Street  
Gonic, N. H. 03867



CALENDAR by Richard Bailey

REVIEW by Ellen Rule  
MH 99'ers Users' Group

If you use CALL SOUND in any of your programs to produce music, tones, etc., then you've probably assumed that you can use any frequency between 110 hz and 44733 hz in the CALL SOUND statement, at least this is what is stated in the Extended Basic manual. Unfortunately this is not correct because the method used to produce sounds uses a crystal oscillator with a frequency of 3579545 hz and divides this by 32 to get 111861 hz. This frequency is then divided by whole numbers in the range of 3 to 1023 to give you the frequencies you can use. 111861/3 is 37287 so this is the highest frequency you can produce. 111861/4=27965.25, 111861/5=22372.2, etc...

Obviously you can only produce certain discreet frequencies in the range of 110 to 37287 and it would be nice to know what these frequencies are without figuring them out each time. What follows is a short program that will print a two page table of frequencies that are available. This is important if you are trying to get a certain critical frequency for touch-tone dialing, etc.. (If your requirements aren't critical, you can just enter your desired frequency and the computer will pick the available one closest to the one you entered). Your printer will have to be able to print 132 columns and you will have to change the printer name to agree with your printer.

I got this information from an article by Jim Hindley of the NORTHWEST OHIO 99ER NEWS that was reprinted in the Nov, 1983 Washington, D.C. Area 99ER newsletter (I wrote the program). If you're not reading these newsletters you're missing a lot. Check with Helene on getting newsletters from the other clubs.

```
100 DISPLAY AT(12,1)ERASE AL $(47)
L:"PROGRAM BY RICHARD J. BAI 120 IF I/K<110 THEN 130 ELSE
LEY" :: I=111861 :: K=3 :: D PRINT #1,USING "#####.#
PEN #1:"RS232.BA=2400.DA=0", ":I/K;:: K=K+1 :: IF K=507 T
VARIABLE 132 HEN PRINT #1:CHR$(12):""""
110 PRINT #1: "" "" "" :CHR$(2) :: GOTO 120 ELSE GOTO 120
71:"G";TAB(35);"TI TONE TABL 130 PRINT #1: "" :CHR$(27);"Q"
E":CHR$(15);CHR$(27);"3";CHR
```

Did you know that a leap year occurs every four years unless the year is a century year not divisible by 400? Are you aware of the leap day that occurs every 327 years, causing September to have 31 days? These tidbits are only a small part of the information included on the Document file of the Calendar freeware by the MHUG's own Richard Bailey.

As informative as the documentation is, reading the file isn't a necessary prerequisite to using the Calendar disk. The programs are self-prompting and virtually foolproof. However, if you need to modify the program(s) or just want to know how the algorithms were developed, the four pages of documentation will provide the information you seek.

This disk contains two types of programs. The first, APPOINTCAL, prints an engagement calendar for the month (and year) you specify, giving the day of the week, the day of the year, and a space to jot down appointments or reminders. (The documentation explains that this program was written in response to a C-64 owner's query "You don't have anything like this for the old T.I., do you?" Who could resist such a challenge?) The second type of program will print out a standard calendar format for any year you specify from 1776 to 2099. You may select a size from 2.5 by 3.25 inch (TINYCAL) to three 8x10 inch sheets (BIGCAL).

The programs make full use of the Epson printer's capability for expanded, condensed and subscripted print. If your printer is Epson-compatible, like my Star 56-10, then you need to make minor changes to the line increment codes and the reset line; fortunately, the author has made the code readable by using variable names such as WDN% for "double-width on" and SOFF% for "subscript off." In the documentation, you will find a section on modifications should you desire, for example, to change the first day of the week to Monday instead of Sunday. (Make sure your modifications are on a back-up copy of the disk, not the original!)

This freeware item is straightforward and does exactly what it promises. (I have all the calendars I'll need for the next three years!) The versatile sizes are a bonus -- you can put TINYCAL in your checkbook, tack BIGCAL to the wall, or include SMALLERCAL in your Christmas cards! The disk is available from the club library, or send an initialized disk and prepaid mailer to the author,

Richard Bailey,  
68A Church St.,  
Gonic, NH 03867.



HAC LABS LTD.

HELENE M. LABONVILLE  
121 CAMELOT DR., R.F.D. 5  
BEDFORD, NH 03102

DIVISION OF LABVILLE DATA SOFTWARE 603-472-3369 HARDWARE

- 'Y' POWER SPLITTER CABLES.... \$6
- PARALLEL PRINTER CABLES..... \$19 (CBL-1156)

\*\*\*NOVEMBER SPECIAL\*\*\*  
13 'BAGGED' SSDD DISKETTES... \$10

ALL ARE CASH & CARRY PRICES  
ADD \$2 TO YOUR ORDER FOR S & H

Remember that freeware authors receive their reward from the comments and monetary contributions you make, so send yours in!

# CHARACTER SETS AND GRAPHIC DESIGN



REVIEW BY ELLEN RALE

Are you envious of the "print shop" and font-design programs available for "other" computers? Do you wish that you could make birthday cards, framed announcements or even illustrated posters? Me too -- that is I was until I stumbled across CS6D, David Rose's "Character Sets and Graphic Design" programs.

The first wonderful thing about this package is that it only took one week to arrive after I sent my personal check. The program arrived on three disks: Instructions, Programs, and Data. Included in the package are numerous "hand-outs" with mini instruction sets, graphs and examples of the various techniques. With this help, I was able to boot up and print "designer" messages without reading the directions!

The basic CS6D I allows many options, all of which are selected from a menu. You may print out to your printer with any one of ten character sets included on the data disk, or any set that you have designed. The basic building unit of the program is an 8x8 block; alphanumeric characters can be up to three blocks wide and four high. The design is entered onto a grid by using the joystick fire button or by entering the hex code for the block from the keyboard. Design aids are included for coding the hex-code, a procedure which I actually found more efficient than the joystick method. You may limit your character set to only upper case, or include punctuation, numbers, and/or lower case letters.

These alphabets are used to print messages; you may flank your messages with one or two of the graphic designs on the disk or with graphic characters you have designed. Graphic characters are built of 5 rows by 5 columns of the 8x8 blocks. (I have found many cross-stitch motifs which fit this size exactly.)

In order to design birthday cards or to further enhance announcements and posters, you may create pictures or save existing X-BASIC pictures to disk (much like a printer screen dump) and print them out with borders (frames) of any size and design. Sample pictures are again included on the disk, one very obviously from an X-B program and several from the cross-stitch design method. Pictures may be up to 30 blocks by 40, and may be dumped to printer in double size, reversed (rt. to left), or inverted.

On any menu you have the See-Files option, which shows you the names of the data files on a particular disk that are compatible with the option you are running (ie: pics, chars, graphic chars.)

CS6D II, a second collection of programs, adds 8 new

characters styles and 65 graphic characters to your library. Along with an instruction file, the program disk includes a graphic character editor and the ability to print messages from the pre-designed alphabets. The core of the package is, however, the banner program which uses any of the graphic and character designs from either CS6D I or II.

Error codes are self-explanatory and the program is somewhat forgiving. Occasionally, one gets into a spot from which there is no turning back until the section is completed; this is particularly true of the message printer option. The graphics and character designs are easy to use but I urge you to read the instructions carefully, as exiting from either mode at the improper point can cause loss of hard-keyed data.

The highlights of this program are that despite its elaborate composition, it's fairly easy to run, you don't need to be an artist to create pictures, and the author is obviously interested in having a good business relationship with you, the TI 99/4A user. Dave Rose has offered to exchange a disk of user-created characters and graphics for any design or alphabet that you have created using the program! One such disk has already been created and also has been made available at a low cost to any other owners of CS6D I and II. Registered users are notified of upgrades, available at nominal cost. The most notable of these is an assembly upgrade for the banner and double-size picture by Ed York.

System requirements are X-BASIC, 32K expansion, disk drive and either Epson or Prowriter compatible printer. (Specify printer type when you order.) The cost for CS6D I is \$17.95, CS6D II is \$12.95. The programs are available from creator Dave Rose, 2781 Resor Rd., Fairfield, Ohio 45014-5053.

## CLASSIFIEDS

FOR SALE: 4A Console, ExBox /w 128K RAM (Foundation /w Disk Emulator), CorComp Disk Controller, & 2 SSDD TEAC Drives...\$600. *Sold at price me!!*

SMART-TEAM MODEM 300/1200 BAUD (Hayes compatible)...\$150

Call John Proulx @ 617-452-3194

FOR SALE: Serial cable... \$20. Call Tom Sutcliffe @ 603/893-5551

FOR SALE: Used TI consoles. Contact Don Clark @ 603/434-0554.

WANTED: RS232 cards, Disk Controller Cards, P-Cards, etc. Contact NH99UG via Helene @ 603/472-3369.

4th FREQUENCY SYNTHESIZER by Jim Jagielski

If -SYNONYMS and -TEXT are not loaded, then load them before attempting to load FREQUENCY-SYNTHESIZER. Please type in the following screens very carefully. If there are any loading errors, then go back and look for typographical errors. Try using the editor word WHERE to help pinpoint the area of trouble if you receive a loading error.

After the program is successfully loaded, type RUN to begin program or type HELP for a description of the keys used.

I hope you enjoy the program!

```
( FREQUENCY-SYNTHESIZER - by JIM JAGIELSKI - 9/2/85 )
( Enter: RUN to begin program or HELP for key rep. )
( The following options must be loaded: -SYNONYMS -TEXT )
( To remove the following words from the dictionary )
( after they are loaded type: FORGET IT )
( Variable Declaration: ) : IT ;
```

```
110 VARIABLE FREQ1 110 VARIABLE FREQ2 110 VARIABLE FREQ3
1 VARIABLE V1 1 VARIABLE V2 1 VARIABLE V3
1 VARIABLE STP 128 VARIABLE OPR 12289 VARIABLE TAB
0 VARIABLE TIME 0 VARIABLE NY 2 ALLOT
1103 VARIABLE OFF 4 ALLOT
49119 OFF 2+ ! 65280 OFF 4 + ! HEX
: TEST BEGIN 83CE 0 = UNTIL ;
: +TAB 1 TAB +! ;
--)
```

```
( Freq. Synthesizer - PG 2 )
: +OPR 10 OPR +! ;
: T1 0 3000 VSBW 184F5. ROT U/ DUP F AND OPR + TAB VSBW
+OPR +TAB 4 SRA 3F AND TAB VSBW +TAB DROP OPR +
TAB VSBW +TAB +OPR ;
: T2 TIME TAB VSBW TAB 3001 - 3000 VSBW +TAB OFF TAB
6 VMBW 3000 83CC ! 83FD DUP 01 OR SWAP ! 0100
83CE ! ;
: T3 NY 0 > IF 3 0 DO NY 1 + TAB VSBW +TAB 2 +LOOP
ENDIF ;
: M1 ABS 1 - 7 AND E0 + NY ! F0 + NY 2 + ! ;
: TST DUP FFF7 UK IF T1 ELSE M1 ENDIF ;
: SND DUP 0 > IF TEST ENDIF ABS 4 8RL DUP 1 < IF DROP 1 ENDIF
TIME ! BEGIN TST DUP 0 = UNTIL T3 DROP T2 00 OPR !
3001 TAB ! 0 NY ! ;
--)
```

```
( Freq. Synthesizer - PG 3 ) DECIMAL
: STATUS TEXT CLS 6 3 GOTOXY ( Display Status Table )
CR 10 SPACES ." *****" CR
10 SPACES ." Freq. Step = " STP . CR
10 SPACES ." Frequency 1 = " FREQ1 . CR
10 SPACES ." Frequency 2 = " FREQ2 . CR
10 SPACES ." Frequency 3 = " FREQ3 . CR
10 SPACES ." Volume... 1 = " V1 . CR
10 SPACES ." Volume... 2 = " V2 . CR
```

```
10 SPACES ." Volume... 3 = " V3 . CR
10 SPACES ." *****" CR ;
: UP1 FREQ1 15000 < IF STP FREQ1 +! ENDIF ;
: UP2 FREQ2 15000 < IF STP FREQ2 +! ENDIF ;
: UP3 FREQ3 15000 < IF STP FREQ3 +! ENDIF ;
--)
```

```
( Freq. Synthesizer - PG 4 )
: DN1 FREQ1 STP - 109 > IF STP -1 + FREQ1 +! ENDIF ;
: DN2 FREQ2 STP - 109 > IF STP -1 + FREQ2 +! ENDIF ;
: DN3 FREQ3 STP - 109 > IF STP -1 + FREQ3 +! ENDIF ;
: VOL1 V1 16 = IF 1 V1 ! ELSE 1 V1 +! ENDIF ;
: VOL2 V2 16 = IF 1 V2 ! ELSE 1 V2 +! ENDIF ;
: VOL3 V3 16 = IF 1 V3 ! ELSE 1 V3 +! ENDIF ;
: DF1 24 9 GOTOXY FREQ1 . ;
: DF2 24 10 GOTOXY FREQ2 . ;
: DF3 24 11 GOTOXY FREQ3 . ;
: DV1 24 12 GOTOXY V1 . ;
: DV2 24 13 GOTOXY V2 . ;
: DV3 24 14 GOTOXY V3 . ;
: DST 24 8 GOTOXY STP . ;
: STEPUP 2 STP +! ; : DLY 250 0 DO LOOP ;
: STEPDN STP 1 > IF -2 STP +! ENDIF ; --)
```

```
( Freq. Synthesizer - PG 5 )
: RUN STATUS BEGIN ?KEY 48 - ( Main program )
CASE 1 OF UP1 DF1 ENDOF
2 OF UP2 DF2 ENDOF
3 OF UP3 DF3 ENDOF
4 OF DN1 DF1 ENDOF
5 OF DN2 DF2 ENDOF
6 OF DN3 DF3 ENDOF
7 OF VOL1 DV1 ENDOF
8 OF VOL2 DV2 ENDOF
9 OF VOL3 DV3 ENDOF
0 OF STEPUP DST ENDOF
13 OF STEPDN DST ENDOF
ENDCASE
0 V1 FREQ1 V2 FREQ2 V3 FREQ3 -500 SND DLY
?KEY 32 = UNTIL 0 20 GOTOXY ; --)
```

```
( Freq. Synthesizer - HELP SCREEN - PG 6 - Final Screen )
( Enter: HELP for key Representation )
: HELP CLS 0 0 GOTOXY
CR ." KEYS USED:"
CR ." -----" CR
CR ." 1 -> step-up freq. 1"
CR ." 2 -> step-up freq. 2"
CR ." 3 -> step-up freq. 3"
CR ." 4 -> step-down freq. 1"
CR ." 5 -> step-down freq. 2"
CR ." 6 -> step-down freq. 3"
CR ." 7 -> change volume of freq. 1"
CR ." 8 -> change volume of freq. 2"
CR ." 9 -> change volume of freq. 3"
CR ." 0 -> increase freq. step" CR ." = -> decrease freq.
step" CR CR ."space bar to QUIT" CR ." Enter: RUN to begin!
```



Copyright 1985

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.

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!) XBasic 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 XBasic at only \$3.00 each!(plus \$1.50 per order for cassette, packing and postage, or \$3.00 for diskette, PPM) I will send you my descriptive catalog for a dollar, which you can then deduct from your first order.

Many of the users groups are taking a summer break, so I thought I would do the same. I'm going to mail out the July and August issues of the Tips in June (magazine, a TI publication

AHEAD of schedule!!) and then go fishing. However, if anyone should by any chance decide to send me an order during the summer, they will still get my same-day service.

It seems that I had better clear up a few misunderstandings. The "freeware" offers I have mentioned in past Tips are NOT available from me - send your disk and returnable mailer AND RETURN POSTAGE to the author of the program.

And, my copyrighted Tigercub Software programs are NOT freeware. They can only be legally obtained by mail order from me - if you copy them from anyone else, you are stealing!

As for the programs which I write and publish or distribute without copyright, they are also not Freeware, they are FREE. I don't want to be paid for them, and I don't think anyone else should be paid for them.

Some users groups are putting my copyrighted programs, and those of other programmers, in their software library, "for use but not copying" or "for review and evaluation only". Who do you think you're kidding? I know I won't sell any software to members of pirate clubs, so why should I support them?

If you didn't solve the Long Division Puzzle in Tips #24, try dividing 230709 by 835. As for the solution to the Tigercub Challenge, it was right on the same page! Try creating those DATA statements with the LINewriter routine. I don't know why it works, but it does.

I've been asked to print more information on the "program that writes a

program". I don't have room for a detailed account, but here are the basics. If you tried my TOKENLIST routine in Tips #23 you already have a list of the token codes you will need.

I won't go into the way that the computer squishes a program line number into only two characters, but you can accomplish it with DEF L\$=CHR\$(INT(LN/256))&CHR\$(LN-256\*INT(LN/256)), where LN has been predefined as the value of the line number.

If you need to refer to a program line in a statement, as in GOTO 500, use DEF R\$=CHR\$(201)&CHR\$(INT(RN/256))&CHR\$(RN-256\*INT(RN/256)), RN being the line number.

To print a statement or command, simply print its token character. For instance, the token for DATA is 147, so you would print CHR\$(147). Note that all the punctuation marks used in programming, such as ( and +, are also represented by token codes which are NOT the same as their keyboard ASCII value.

To print a variable name, either numeric or string, just enclose it in quotes, "A" or "A\$".

To print a value, or an unquoted string (as in a DATA statement), or the word which follows a CALL, you must print CHR\$(200) followed by a token giving the number of characters to follow, such as CHR\$(5) for a 5-character word such as CLEAR, then the value in quotes. For instance, the token for CALL is 157, so CALL CLEAR is CHR\$(157)&CHR\$(200)&CHR\$(5)&"CLEAR".

You can simplify that by predefineding DEF U\$(V\$)=CHR\$(200)&CHR\$(LEN(V\$))&V\$, and then simply print CHR\$(157)&U\$("CLEAR").

A quoted string is handled in the same way

except that it is preceded by token 199 instead of 200, so you can predefined it as DEF Q\$(V\$)=CHR\$(199)&CHR\$(LEN(V\$))&V\$ - the computer will take care of the quote marks.

Each program line must end with CHR\$(0), and the last record you print must be CHR\$(255)&CHR\$(255).

A MERGE format file is D/V 163, so open the file with OPEN #1:"DSK1.MERGEFILE", VARIABLE 163.

Don't print more than 163 characters in a record or the computer will blow its mind! You can print multiple-statement XBasic lines, but be sure to use the double-colon token CHR\$(130) as the separator, not two of the CHR\$(181) colon tokens.

Any errors you make will usually not show up until you try to MERGE or use the program you have created. I/O ERROR 25 means that you forgot the final 255 & 255; DATA ERROR or SYNTAX ERROR probably means that you left off a CHR\$(0) or gave the wrong count of characters after CHR\$(200).

Here's a bit of psychedelic blues - -

```
100 REM - FRANKIE & JOHNNIE
    by Jim Peterson
110 DIM S(12)
120 CALL SCREEN(2)
130 FOR R=1 TO 12
140 CALL COLOR(R+1,1,1)
150 FOR T=R TO 25-R
160 CALL HCHAR(T,R,32+R*8,34-2*R)
170 NEXT T
180 NEXT R
190 DATA 262,294,311,330,349
    ,392,440,494,523,587,40000
200 FOR N=1 TO 11
210 READ S(N)
220 NEXT N
230 FOR J=1 TO 110 STEP 2
240 CALL COLOR(A+1,1,1)
250 READ T,A
260 CALL COLOR(A+1,A+2,A+2)
```

```

270 FOR IT=1 TO T
280 CALL SOUND(-999,S(A),D)
290 NEXT TT
300 NEXT J
310 RESTORE J30
320 GOTO 230
330 DATA 2,1,2,2,2,4,2,7,1,1
1,1,7,2,6,4,4,2,1,1,11,13,1
340 DATA 2,1,2,2,2,4,2,7,1,1
1,1,7,2,6,4,4,12,1
350 DATA 1,11,3,1,2,5,2,6,2,
7,2,9,1,11,1,9,2,10,4,7,1,9,
1,11,7,9
360 DATA 4,7,2,8,2,9,1,11,3,
9,1,11,1,9,4,8,2,7,6,6
370 DATA 4,4,1,11,3,4,4,3,16
,2,1,11,4,7,2,6,4,7,4,6,20,1
,8,11

```

You can too have a blank space in your disk filenames! Just use FCTN V for the blank, instead of the space bar. You can even have a diskfull of 10 programs with invisible filenames consisting of 1 to 10 of those FCTN V's.

However, those invisible characters can do strange things when you list your disk catalog to a printer.

If you want to INPUT a string with leading and/or trailing blanks, just enclose the whole works in quotation marks. Try this -

```

100 INPUT A$ !type TEST
110 PRINT A$;LEN(A$)
120 INPUT A$ !type " TEST "
130 PRINT A$;LEN(A$)
140 GOTO 100 !you can even
input a blank string of 136
characters

```

I really shouldn't tell you this, but if you want to make it difficult for someone to LIST your program, just insert a garbage line, every 5th line or so until you run out of memory, consisting of REM followed by 4 or 5 lines of random characters typed with the CTRL key held down.

Here's a program that

can actually read your mind!

```

100 CALL CLEAR
110 PRINT "TIGERCUB MIND REA
DER PROGRAM": :
120 PRINT "I'll bet you a do
llar I can guess what you ar
e thinking.": :
130 GOSUB 440
140 PRINT "And I'll bet ano
ther dollar I can tell if wh
at you are thinking is cor
rect.": :
150 GOSUB 440
160 PRINT "And I'll bet anot
her dollar I'm right BOTH ti
mes.": :
170 GOSUB 440
180 PRINT "And I'll bet one
more dollar I can guess what
you'll be thinking a minute
from now.": :
190 GOSUB 440
200 PRINT "OK...": :
210 GOSUB 480
220 PRINT "You're thinking t
hat a compu-ter can't possib
ly know what you are thin
king.....right?": :
230 GOSUB 480
240 PRINT "So I told you wha
t you were":"thinking.....
.right?": :
250 GOSUB 480
260 PRINT "You owe me a buck
.": :
270 GOSUB 480
280 PRINT "And you're absolu
tely right..I can't re
ad your mind.": :
290 GOSUB 480
300 PRINT "So I told you cor
rectly that":"what you were
thinking was":"correct.....
right?": :
310 GOSUB 480
320 PRINT "You owe me anothe
r buck.": :
330 GOSUB 480
340 PRINT "So I was right 80
TH times...right?": :
350 GOSUB 480
360 PRINT "That makes three
bucks you owe me.": :
370 GOSUB 480
380 PRINT "And now it's a mi
nute later":"and you're thin
king you've":"been played fo
r a sucker....":"...right?": :

```

```

390 GOSUB 480
400 PRINT "...so you owe me
four bucks.": :
410 GOSUB 480
420 PRINT "NEVER NEVER bet a
gainst a computer!! "
430 END
440 PRINT "Want to bet? Type
Y(YES)": :
450 CALL KEY(3,K,ST)
460 IF (ST=0)+(K(>89))THEN 45
0
470 RETURN
480 FOR D=1 TO 800
490 NEXT D
500 RETURN

```

Since the manual doesn't mention it, some folks don't know that you can use IMAGE and PRINT USING for output to the printer. Try this -

```

100 OPEN #1:"P10"
110 INPUT "NAME? ":N$
120 INPUT "AMOUNT? ":A
130 PRINT #1,USING "#####
#####"
.##":N$,A
GOTO 110

```

Of course, you could also add a line -

```

105 IMAGE "#####
####.##"

```

And change line 130 to

```

130 PRINT #1,USING 105:N$,A

```

John Taylor has written the most complete and versatile SPRITE BUILDER utility program that I have ever seen. It has 22 different options available with a single key press, including rotation and animation. And along with it comes a diskfull of preprogrammed sprites designed by a professional artist. This is being distributed as Freeware. Send two single-sided or one double-sided disks to John Taylor, 2170 Estaline Drive, Florence AL 35630, in a returnable mailer WITH RETURN POSTAGE, at least - and I hope you'll also include something more!

Attention, assembly programmers! Fred Hawkins of the Lehigh U6 is trying to coordinate a project of documenting the operating system by breaking the console ROM down to pages of 256 bytes so that each individual or group can work on just one page. Only those who participate will share in the results! All this is far beyond me, but if you want in, send an SASE and a SSSD disk with return postage and mailer to Fred Hawkins, 1020 N 6th St, Allentown PA 18102 - soon!

If you have a program on disk which is so long that you must type CALL FILES(1) before you can load it, add several program lines to it consisting of REM and any key you want to hold down for 5 lines. Then SAVE it back to the disk; it will now be in INT/VAR 254 format and will load without CALL FILES(1). If you then need sometime to make a cassette copy, just delete those lines and SAVE it back to disk again.

If a program loads, but gives you a MEMORY FULL IN LINE ... when you try to run it, it has used up all available memory while reading DATA into arrays or performing other internal calculations. If it runs for some time and then gives you the MEMORY FULL message, it is because you have repeatedly jumped out of a FOR...NEXT loop with an IF...THEN...GOTO before the loop is completed. This rarely happen but it can, especially when you repeatedly jump out of the innermost of several nested loops.

MEMORY FULL

Jim Peterson

## USING CARTBUSTER

Richard J. Bailey  
68A Church Street  
Gonic, N. H. 03867

CARTBUSTER allows you to copy any non-GROM type cartridge to disk with the program BUST. The saved disk version of the cartridge can then be loaded into a RAM cartridge (similar to the one described by John Clulow/Ron Gries of the New Horizons Users Group) with the program READ. The purpose of CARTBUSTER is to prevent needless wear on the cartridge connector.

If you do not have the article by the New Horizons Users Group, check the article in the New Hampshire Users Group August, 1985 newsletter for details on constructing this E/A-RAM SUPER CARTRIDGE.

The procedure is to:

- 1) Use E/A #3 (load and run) to load BUST
- 2) Follow directions on screen to select cartridge if you have a WIDGET or swap cartridges if you don't. This may require a switch to break pin 1 of the cartridge connector or taping pin 1 on the cartridge to prevent a reset.
- 3) When cartridge is selected or swapped, enter ID character. After the cartridge has finished saving, you can 'QUIT'.
- 4) When you want to run a saved cartridge, load READ as in step 1, above. use the SUPER CARTRIDGE, or WIDGET and E/A and follow directions on the screen. Just enter ID character where it says SELECT RAM CARTRIDGE, etc., if you have SUPER CARTRIDGE.

Note that when asked for a character to identify your cartridge, the program will immediately run when you press any key. Do not make a mistake as unprotected duplicate files will be overwritten. It would be a good idea to protect each file you enter as soon as you ascertain that it works.

CARTBUSTER will work with most ATARISOFT and other cartridges that do not have GROMS. Forget all T.I. cartridges.

## BULLETIN BOARD

Tex-Comp - POB 33084 - Granada Hills, CA 91344 (818/366-6631). Announced an introductory offer on four "all new" adventures by Scott Adams: HULK; CLAYMORGUE CASTLE; SPIDER-MAN; and BUCKAROO BANZAI. Each is \$20 + S&H... order any 3 and receive the 4th FREE along with the new adventure Hint Book and the TI Adventure Module.

They also advertised a "Back to School" set which includes STORY MACHINE, BURGER TIME, and FACEMAKER. All three for \$18 + S&H.

SERVICE MERCHANDISE (throughout the country) is having a sale on 11-pack BONUS brand diskettes. SSDD \$8 and DSDD \$13.

MILLER GRAPHICS... Any current NH99UG member may order ADVANCED DIAGNOSTICS from us for \$17.50 (if you pick it up at a meeting or \$19.00 (if you would like it mailed to you). Deadline for ordering (and sending us your monies) is November 15th.

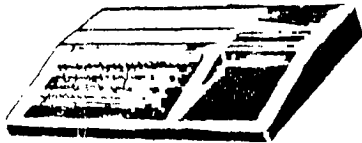
**FAMILY RESTAURANTS**  
*Steak · Chicken · Seafood · Salsas*  
 South River Road, Route 3  
 Bedford Square, Bedford  
 (Across from The Carousel)



**MONDAY**  
 NEXT MEETING  
 November 4th  
 7:30 pm

**NEW HAMPSHIRE 99'ERS USER GROUP, INC.**

PO BOX 5991  
 MANCHESTER, NH 03108-5991



EDMONTON USER'S GROUP  
 PO BOX 11983  
 EDMONTON, ALBERTA  
 CANADA T5J-3L1

**Redeem 3 Coupons  
 And Get A  
 FREE  
 Steak Dinner**

Collect 3 stamps by using these coupons with your Saver's Card at each of three separate visits and get a regular Rib Eye Steak Dinner (or a dinner of equal or less value) FREE on your 4th visit. Ask cashier for details



**Braised  
 Sirloin Tips**  
 With Free Freshastiks Food Bar  
**\$5.49**

Offer includes entree, choice of potato and all you can eat from our Freshastiks Food Bar featuring soups, salads, cheeses, fruits, hot breads, pasta and desserts. Coupon good for entire party and not valid with any other coupon/discount. Expires 11/17/85

**Baked  
 Haddock  
 Dinner**  
 With Free Freshastiks Food Bar  
**\$5.49**

Offer includes entree, choice of potato and all you can eat from our Freshastiks Food Bar featuring soups, salads, cheeses, fruits, hot breads, pasta and desserts. Coupon good for entire party and not valid with any other coupon/discount. Expires 11/17/85

**For Lunch  
 Or Dinner**  
 Freshastiks Food Bar  
 With Free Soft Serve Dessert  
**\$2.99**

Offer includes entree, choice of potato and all you can eat from our Freshastiks Food Bar featuring soups, salads, cheeses, fruits, hot breads, pasta and desserts. Coupon good for entire party and not valid with any other coupon/discount. Expires 11/17/85



**FIRST CLASS MAIL**