
CHICAGO TIMES

THE NEWSLETTER OF THE CHICAGO-AREA TI-99/4(A) USER'S GROUP, VOLUME 4 #4

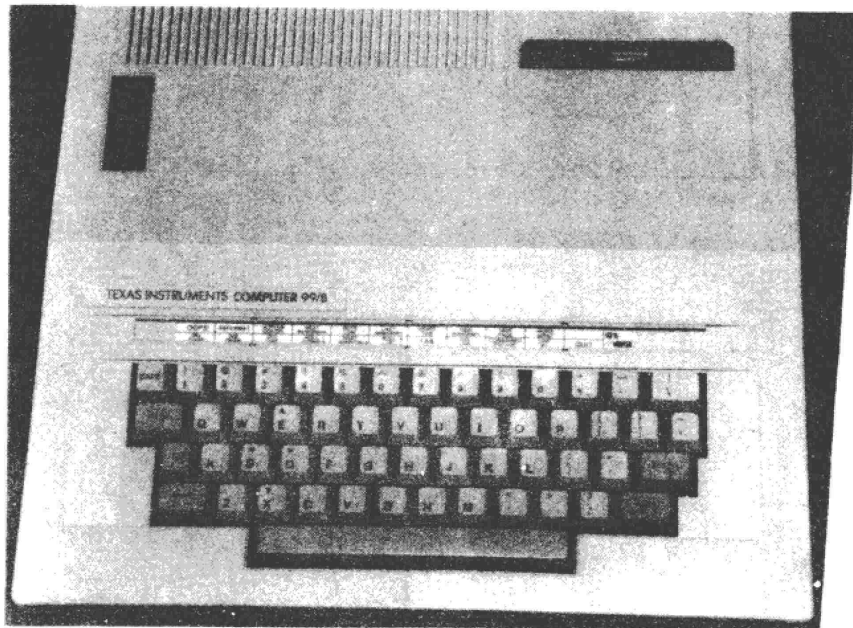
GROUP BBS IS NOW 966-2342!

EDITOR: Carole Goldstein

30 NOV. 1984

The Chicago Times is published 10 Times a year, monthly, except during June and July. Chicago Times is not affiliated with Texas Instruments in any way and is supported only by its subscribers and advertisers. Subscriptions are free with membership in the Chicago TI99/4A User's Group. The Chicago Times is also distributed free to any other User's Group that wishes to reciprocate. Articles contained herein may be re-printed by another User's Group Publication provided credit is given to the Chicago Times as the original source of the article. Comments and letters are welcome, as is the submission of original articles and programs.

WHAT SHOULD HAVE BEEN



MORE PICTURES INSIDE

THE DEC MEETING

will be held on Saturday, Dec. 1, 1984, from 1:00 to 3:00 PM in the Fireside Lounge at Triton College. At this meeting we hope to have a question and answer period, followed by a swap meet. Bring all your extra original software, hardware, books etc.

IN THIS ISSUE...

| | | |
|---------------------------------|------------------|---------|
| THE DISASSEMBLY | Dave Wakely | Page 3 |
| BASICALLY YOURS | Rich Klein | Page 5 |
| PRACTICAL PROGRAMMING PRACTICES | | Page 9 |
| PICTURES FROM THE FAIRE | | Page 14 |
| FORTH CHAPTER | Seaborn Smith | Page 16 |
| TRADING Times | | Page 18 |
| AND THE WINNER IS | Sam Pincus | Page 19 |
| COMPUTER FRAUD | Bruce Barnes | Page 23 |
| REMArks | Carole Goldstein | Page 28 |

HUNTER ELECTRONICS**WOULD LIKE TO THANK EVERYONE****FOR THEIR PATRONAGE****AT THE FAIRE**

HUNTER ELECTRONICS 604 S. FAIRVIEW AVE. ELMHURST. IL. 60126
312-832-6558

THE DISASSEMBLY: Dave Wakely

This group may not always be or have everything you are looking for in a user group dedicated to the TI Home Computer. I am, however, now convinced that we know how to put on a 99/4A Computer Faire! Our second such Faire a few weeks ago was about as successful as you can get at this sort of thing, given that all of us who work for the group are volunteers who have jobs and other activities we engage in, just like normal people.

The success of the Faire can be directly traced to the coordinating efforts of Sam Pincus, our former President, programmer of our bulletin board (and yes, it really WAS the first fully-functional, all-TI board), and general technical maven. But then, most of you know Sam by now. Did you know that Grant Schmalgemeier, our Acquisitions Chairman, coordinated all the vendor mail, did the measurements for the Faire table layout, brought the long-distance power cords, the tickets, the shopping bags, etc., etc? And how about our professional media (photography, videotape) people, Carole and Irwin Goldstein? As usual, Chuck Hoff brought the equipment we used at the Faire, and of course we would all be out in the street without Ken Czerwinski as our liason with Triton College. Perhaps the hardest working group members at the Faire were Ken Brooks, manning the library and taking new memberships, Bryan McMahon, running two successful arcade game contests, and George Cekis, who coordinated the monitor raffle and answered lots of questions.

It was not just the Chicago group and its members who made the Faire a success, but all of those who attended, some from quite far away. I was not surprised when we determined that about 82% of the group membership came to the Faire, and we expected TI users from nearby Indiana and Wisconsin. But how about Fairegoers from places like Kentucky, Ohio, Pennsylvania, Maryland, and even Arizona! Of course our vendors came from all over as well, including our guest speaker, Don Bynum, from Texas. Perhaps just a few of those others came to hear Don let us all know the Texas Instruments inside story, or to catch a peek at the TI-99/8, the TI computer that never was. I'm not going to go into detail about the /8, as I become somewhat depressed when I do.

Some of the vendors surprised us by holding drawings or raffles of their own, resulting in what seemed like an announcement every twenty minutes that someone had won something. By the afternoon the crowd was responding like Pavlov's dogs: Someone would step up to the microphone and everyone would reach for whatever tickets they happened to be holding. I suppose the biggest ticket of the day was held by group member Art Zemke, who had been attending one of the tutorial presentations and got back to the exhibit room just in time to ask who won the Zenith color monitor, only to find out it was him. Congratulations, Art, and you thought you were only going to pick up some software at the Faire!

For those who keep track of such things, we estimate that a little under 1,500 people attended the Faire. The crowd was in many ways different from the one which came to last year's event. This group was obviously more discriminating in its purchases, and more knowledgeable about the /4A in general. The events of the past year have perhaps dissuaded many users of their erroneous beliefs. For example:

This year's user didn't necessarily rush to get to the Faire at 10AM, as people were coming in all day. This year's user "made the rounds" of the vendor tables, taking stock of the stock, so to speak, rather than grabbing and buying everything in sight out of the mistaken belief that soon nothing would be left for their TIs. This year's user actually took notes at some of the professional-level tutorial presentations, rather than asking panicky questions about what to do next. This year's user revealed that the TI owner knows a good value in a microcomputer, while last year's user wondered if he or she had been taken. This year's user demonstrated that even "one year after", a more versatile, user-friendly, yet powerful home computer could not be found. Perhaps most convincingly, the Chicago TI-99/4A User's Group is now larger and stronger than it ever was when they were still peddling the technological future down in Lubbock.

So what about next year? Given that the Faire drew the numbers it did one year after TI ceased production of the computer, thus demonstrating some of the points mentioned above, by next year I can foresee even more vendors, attendees, and activities. I am confident there will be new 99/4A-compatible products to debut, and that our computers will still be giving us all we ask. We may have to work harder to get those who have put their TI in the closet (a segment we really didn't go after this year), but I also foresee enough interest for us to consider going to a two-day "3rd annual Chicago 99/4A and Compatibles Computer Faire!"

In other news, you may have noticed that the name of this column has changed. I never liked the old name, and it occurred to me that a disassembly is a "taking apart", or a getting down to the source (code) of things and examining what makes them tick, and those are some of the aims of this column. You will still get the news, you will certainly get my views, and from time to time a product review may just sneak in.

SUBFILE99, the TI magazine on The Source which I touted a few issues back, is now on line once again. Mike Amundsen, the TI user from Ohio who produces it, finally received a "User Publisher" number from STC, and he is now paid when anyone accesses SF99. As mentioned at the Faire, the new TEXNET will also be up on The Source by the time you read this, and it is VASTLY improved over the graveyard TEXNET had become since TI copped out. Don Bynum is the TI sysop there, and he promises new programs and services. If you dropped The Source when you felt it had nothing for the TI user, like I almost did, I understand you can be reinstated by them, without paying the sign-up fee again, by contacting them.

Just before the Faire I spoke with both the national sales and PC interface reps of Keycom, Inc. You may have seen their ads on TV and in the Chicago papers, as they are the people producing KEYFAX, a Chicago-area interactive information service which features full-screen graphics (compared to the ASCII transmission of CompuServe, The Source, and most bulletin boards). I called them to check on the availability of this service for 99/4A owners, and was told that while they had considered producing an interface for our machine, they had changed their minds for reasons they could not quite explain (guesses, anyone?). The sales rep stated that she thought it was a technical problem having to do with the TI and the NAPLPS (North American Presentation Level Protocol Syntax) graphics protocol they use. Reversing my stride in the best Walter Peyton tradition, I got to the Interface rep, only to be told that they had looked into, and could

definitely do a TI version of NAPLPS, but that "marketing considerations" had led them to drop the 99/4A. I am thinking of bringing a petition to the meeting for all in attendance to sign, stating that the 450 members of our group demand that Keycom produce the TI interface. The KEYFAX service will have available an enormous assortment of services, from electronic banking to data base information, which starts at \$14.95 per month, and which is always accessed with a local exchange phone call, no matter where you live in the Chicago area. Other home computers are being supported by Keycom.

If it isn't noted elsewhere in this issue, the December meeting will feature an "open swap meet". Bring all those old modules you no longer want and trade or sell them. If you bring tapes or disks, make them originals only, no copies, please, and don't forget the documentation. Tables will be set up to help you display your wares. The swap will be preceded by whatever announcements we have and an open question and answer session which Sam has volunteered to conduct. I will also provide all the shopping bags anyone could want (guess who got to lug them home from the Faire?). I also want to remind all that the December meeting is the last chance for 1984 members to renew for only \$12. After Jan. 1 it goes up to \$15. You can also mail in your checks to the group PO Box.

Two last bits of business. First, the December meeting will be the time for us all to say so long to Lary McMahon, who as many of you know has sold his TI and moved over to the Apple. Lary has maintained our bulletin board since its inception, and was instrumental in helping design and test it. He has helped out in the group library and generally been available to answer members questions. He gave his time and energy so others could learn. Lary, good luck, we'll miss you. Also, did everyone see the "Warped Disk Awards" in the December Popular Computing? The last item was a "Special Mention": "A disgruntled Texas Instruments aficionado nominated TI for a special Warped Disk for effortlessly changing over 2 million of their popular TI 99/4A computers into white elephants at the first sniff of a Peanut." Oh well, happy holidays, and do come back, as we have some interesting plans for the new year!

BASICALLY YOURS: Rich Klein

Letters, letters, I get letters. The response to September's column was very good. I wasn't sure of what to expect since there was a rather poor response to the previous column. This month, I received a variety of inquiries that I'm sure will be of some help to many of you.

It has come to my attention that other User's groups have reprinted this column in their newsletters. After discussing this with our group president, Dave Wakely, we decided to welcome letters and inquiries from other groups that may read this column in their newsletter. One thing to note, however, is that since you may be reading a reprinted article, there may be a delay in getting a response to your letter.

I'd like to, at this time, layout how responses to your inquiries will be printed. First, only the first initials of a person will be used, followed by their town(and state) and, if included, their User's group. Then any comments will follow. The reason for the initials is that

some of you might think it embarrassing to write if people knew who you were. Some of you might like to see your name in print. This method of crediting the submitter seems to be the best way for people to know that this is a reply to their letter without unnecessary embarrassment. One more thing to note is that any letter may be edited before being printed. For those of you that may be from another group or don't know where to correspond, the Chicago user's group address will be printed at the end of this column.

On to business. In the last column, an error eluded the person who checks for such things(me). The error was in a program listing written to produce LOTTO numbers. As the listing was, there was no error, but when the column was subjected to the close scrutiny of the formidable "TI Formatter" in TI Writer, it was changed. The reason for this is because when the formatter "sees" an asterisk followed by a number(*n) it thinks that there is a file of names; one of which will be inserted into the spot where the asterisk was encountered. the asterisk and number are then deleted from the text. When there is no name to be inserted, the asterisk and number are still deleted, and the text is adjusted to fill the gap. The correction to the LOTTO program listing is as follows:

```
110 DEF R=INT(44*RND)+1
```

Most of you who attended the September meeting were advised of the necessary corrections.

Let's see what's in the mailbox for this month.

Q:My TI99/4A acts funny at least once every time I use it. The 4-R-F-V and 7-U-J-M keys will all become inoperative at the same time, while the remaining keys will work. The only way to get the keys to work is to press FCTN 4 (CLEAR) and then CON when I am in a program. What causes this and is there anything I can do to correct it? Also, can you give us some hints on how to clean the console...J.E. Lincolnshire

A:If you're not technically inclined, I would suggest that you take your console to the TI exchange center and trade it in on another unit. It sounds like either a problem in the way the keyboard is scanned by the computers operating system (not reading certain keys) or a loose connection in the keyboard harness where it attaches to the console's motherboard. If it is a bad connection and you are handy you can carefully remove the bottom cover of the console, locate the wire harness that comes from the keyboard, trace it to the main PC board and make sure it is seated in its mating connector. NOTE: This procedure is NOT recommended to amateurs. If you have about \$30.00 to spare it would be far easier to exchange it. As to cleaning the keyboard, if you carefully pry up the keytops, you may be able to clean the contacts with a high quality electrical contact cleaner, used sparingly, or to slide a new dollar bill between each set of contacts. A slim strip of the bill or paper of similar texture will suffice. Note, however that paper is abrasive and wears out the contacts after a period of time. One thing to keep in mind is that this is not a technical column. It is devoted to answering questions about programming practices.

Q:How do the basic languages differ on C64, VIC20, Atari, IBM and Apple from TI Basic and Extended Basic? Is it possible to make a simple table to use for program conversions? Basically (no pun intended) when I see programs in COMPUTE! or Home Computer Magazine for other machines, can I easily convert to TI99/4A? What is a sprite? How do they work? Do you have to have Extended Basic for it? When listing a program, how can you control the lines to be listed? How can you stop the rest of the program from being listed?...G.W., No Address Given

A:It's nice to see someone so inquisitive about their hobby. If a person isn't curious about something, that person will never learn. No progress will be made. Nothing gets done. Etc. etc. To answer the first part of this letter, it is not always a simple task to convert a program written for one machine to run on another. While all Basic languages are quite similar, that similarity ends when you sit down to convert it. Commodore and VIC languages are almost identical (same manufacturer). Commodore has some enhancements over VIC. Neither allows spaces in Basic statements except in text strings. Graphics is done with the use of special coded keystrokes within a text string. This makes for a difficult time translating because you must refer to a guide to decipher these characters. Other languages differ also because, in each machine, graphics, text, and sound are handled differently in each machine. Some even require POKEing values into certain memory locations to produce results. This is partly due to the different microprocessors used in each machine and to the operating systems used by each manufacturer, and also in some cases, to the fact that some, in their rush to market a product, neglected to develop a complete language or operating system. (An item of possible interest: TI's Basic adheres perhaps more closely to ANSI standards than most of the popular micros on the market.) For explanations of each Basic word, there are many Basic dictionaries on the market. Carole Goldstein, our fearless newsletter editor, would be able to help select one for your needs.

As to your next question about Sprites; a Sprite is a graphics character that, once created and set in motion, moves smoothly across the screen without further program control unless desired. The Video Display Processor inside the console is specially equipped to handle Sprites. If anyone really knew how Sprites worked, then Coleco, IBM and some third party Apple hardware designers wouldn't have to buy the very same TMS9918A VDP chip to have Sprites in their equipment. And yes, you need at least Extended Basic to access them.

To answer your last question, you may specify the lines to list. If you want to list up to line 1000, you would type: LIST -1000. If you wanted to list from 1000 to 2000, type: LIST 1000-2000. To list from 2000 on, type: LIST 2000-. To output listing to printer, type: LIST "PIO":1000-2000 or whatever. This is if your printer has a parallel interface. If your printer accepts serial data then type: LIST "RS232/n.BA=nnnn.etc":1000-2000. The values setup in the RS232 statement would have to correspond to your printer's specs. WHEW!

Q:Edited I have a program that will allow 50 names to be

entered, sorted and displayed. Unfortunately, when they are displayed, they run off the screen too fast to be read. Is there a way to change the program to output to my printer so I can read the list produced? My printer is a Compumate. The printing method in the instruction book says serial impact dot matrix....L.K., Glencoe, IL.

A: To answer your question, I will display your listing as you sent it, explain the changes necessary, and display the corrected listing:

```
10 CALL CLEAR
20 DIM M$(49)
30 FOR L=1 TO 49
40 INPUT "NAME: ":M$(L)
50 IF M$(L)="" THEN 70
60 NEXT L
70 CALL CLEAR
80 PRINT "SORTING NOW"
90 T=0
100 FOR L=1 TO 48
110 IF M$(L)<=M$(L+1) THEN 160
120 E$=M$(L)
130 M$(L)=M$(L+1)
140 M$(L+1)=E$
150 T=1
160 NEXT L
170 IF T=1 THEN 90
180 CALL CLEAR
190 CALL SOUND(2,1000,1)
200 FOR L=1 TO 49
210 IF M$(L)<>"" THEN 230
220 GOTO 240
230 PRINT M$(L)
240 NEXT L
```

To produce output to the printer, you must open a file to the printer. This is done by typing: OPEN #1:"RS232/1.BA=9600.DA=8",OUTPUT,SEQUENTIAL,VARIABLE 80. Actually, all you would probably need is the first part (up to the closing quote) because the rest is a default setting (set unless changed) and is probably OK for your printer. The next thing to do, is direct output to the printer at the appropriate time. This is done by typing PRINT #1: M\$(L):. This can replace the print statement in the program, or follow it. If it follows, then you will display on the screen and print on the printer. Last, when you are through, then you must close the file you opened. Type: CLOSE #1. and that's it! Here's the updated listing:

```
5 OPEN #1:"RS232/1.BA=9600.DA=8"
10 CALL CLEAR
20 DIM M$(49)
30 FOR L=1 TO 49
40 INPUT "NAME: ":M$(L)
50 IF M$(L)="" THEN 70
60 NEXT L
70 CALL CLEAR
80 PRINT "SORTING NOW"
90 T=0
100 FOR L=1 TO 48
```

```
110 IF M$(L)<=M$(L+1) THEN 160
120 E$=M$(L)
130 M$(L)=M$(L+1)
140 M$(L+1)=E$
150 T=1
160 NEXT L
170 IF T=1 THEN 90
180 CALL CLEAR
190 CALL SOUND(2,1000,1)
200 FOR L=1 TO 49
210 IF M$(L)<>" " THEN 230
220 GOTO 240
230 PRINT M$(L)
235 PRINT #1: M$(L):
240 NEXT L
250 CLOSE #1
```

Remember: the settings in the OPEN statement on line 5 can be changed to accommodate your printer. Those figures were chosen arbitrarily. Good Luck!

Well! That about wraps things up for this month. From time to time, when things possible, you may see tutorials on different aspects of Basic Programming here. This will be when time and space permit. It also may help to provide an occasional change to the pace of this column. If you like what you see, GREAT! If not, let me know. There's always room for improvement. For those of you from out of town who may want to correspond or any of you who may not have the mailbox address, here it is. So long till next time!

BASICALLY YOURS
c/o CHICAGO TIMES
P.O. BOX 578341
CHICAGO, IL. 69657

PRACTICAL PROGRAMMING PRACTICES:

The following program was borrowed from the LA 99ers newsletter.

```
100 REM TANK FIGHT FOR THE 99/4A FROM THE LA 99'ERS
110 CALL CLEAR
120 CALL CHAR(139,"FFFFFFFFFFFFFFFF")
130 CALL HCHAR(1,2,139,30)
140 CALL HCHAR(24,2,139,30)
150 CALL VCHAR(1,1,139,24)
160 CALL VCHAR(2,31,139,23)
170 CALL VCHAR(2,6,139,6)
180 CALL VCHAR(18,6,139,6)
190 CALL VCHAR(7,11,139,12)
200 CALL VCHAR(2,16,139,6)
210 CALL VCHAR(18,16,139,6)
220 CALL VCHAR(7,21,139,12)
230 CALL VCHAR(2,26,139,6)
```

```
240 CALL VCHAR(18,26,139,6)
250 CALL CHAR(96,"0000002200000000")
260 CALL CHAR(97,"0010000000100000")
270 CALL CHAR(98,"0000100000001000")
280 CALL CHAR(99,"0002000000200000")
290 CALL CHAR(100,"0000200000000200")
300 CALL CHAR(106,"00D8707E70DB0000")
310 CALL CHAR(102,"447C387C54101000")
320 CALL CHAR(108,"001010547C387C44")
330 CALL CHAR(109,"0018C274787018C0")
340 CALL CHAR(103,"C018707874C21800")
350 CALL CHAR(104,"001B0E7E0E1B0000")
360 CALL CHAR(107,"0018432E1E0E1803")
370 CALL CHAR(101,"031B0E1E2E431800")
380 X=3
390 Y=12
400 O=12
410 F=29
420 M=104
430 Z=106
440 CALL HCHAR(O,P,M)
450 CALL HCHAR(Y,X,Z)
460 CALL KEY(1,K,S)
470 IF K=18 THEN 480 ELSE 490
480 ON Z-100 GOSUB 1930,860,1100,2100,1120,790,1830,930,1000
490 CALL JOYST(1,DX,DY)
500 IF DX=0 THEN 510 ELSE 520
510 IF DY=0 THEN 620 ELSE 520
520 Z=105+(DX/4+DY/4*3)
530 CALL HCHAR(Y,X,32)
540 X=X+DX/4
550 Y=Y-DY/4
560 CALL GCHAR(Y,X,H)
570 IF H=32 THEN 610
580 CALL SOUND(100,440,3)
590 X=X-DX/4
600 Y=Y+DY/4
610 CALL HCHAR(Y,X,Z)
620 CALL KEY(2,D,S)
630 IF D=18 THEN 640 ELSE 650
640 ON M-100 GOSUB 1390,1560,1730,1220,1180,2030,1290,1490,1630
650 CALL JOYST(2,DP,DO)
660 IF DP=0 THEN 670 ELSE 680
670 IF DO=0 THEN 460 ELSE 680
680 M=105+(DP/4+DO/4*3)
690 CALL HCHAR(O,P,32)
700 P=P+DP/4
710 O=O-DO/4
720 CALL GCHAR(O,P,J)
730 IF J=32 THEN 770
740 CALL SOUND(100,440,3)
750 P=P-DP/4
760 O=O+DO/4
770 CALL HCHAR(O,P,M)
780 GOTO 460
790 FOR F=X+1 TO 30
800 CALL GCHAR(Y,F,E)
810 IF E=32 THEN 820 ELSE 1200
```



```
820 CALL HCHAR(Y,F,96)
830 CALL HCHAR(Y,F,32)
840 NEXT F
850 RETURN
860 FOR F=Y+1 TO 23
870 CALL GCHAR(F,X,L)
880 IF L=32 THEN 890 ELSE 1200
890 CALL HCHAR(F,X,97)
900 CALL HCHAR(F,X,32)
910 NEXT F
920 RETURN
930 FOR F=Y-1 TO 2 STEP -1
940 CALL GCHAR(F,X,E)
950 IF E=32 THEN 960 ELSE 1200
960 CALL HCHAR(F,X,98)
970 CALL HCHAR(F,X,32)
980 NEXT F
990 RETURN
1000 G=Y
1010 FOR F=X+1 TO 30
1020 G=G-1
1030 CALL GCHAR(G,F,E)
1040 IF E=32 THEN 1050 ELSE 1200
1050 CALL HCHAR(G,F,99)
1060 CALL HCHAR(G,F,32)
1070 IF G=2 THEN 450
1080 NEXT F
1090 RETURN
1100 G=Y
1110 FOR F=X+1 TO 30
1120 G=G+1
1130 CALL GCHAR(G,F,E)
1140 IF E=32 THEN 1150 ELSE 1200
1150 CALL HCHAR(G,F,100)
1160 CALL HCHAR(G,F,32)
1170 IF G=23 THEN 450
1180 NEXT F
1190 RETURN
1200 IF E=139 THEN 620 ELSE 2170
1210 IF E=139 THEN 460 ELSE 2170
1220 FOR F=P-1 TO 4 STEP -1
1230 CALL GCHAR(O,F,E)
1240 IF E=32 THEN 1250 ELSE 1210
1250 CALL HCHAR(O,F,96)
1260 CALL HCHAR(O,F,32)
1270 NEXT F
1280 RETURN
1290 H=O
1300 FOR F=P-1 TO 4 STEP -1
1310 H=H-1
1320 CALL GCHAR(H,F,E)
1330 IF E=32 THEN 1340 ELSE 1210
1340 CALL HCHAR(H,F,100)
1350 CALL HCHAR(H,F,32)
1360 IF H=3 THEN 1380
1370 NEXT F
1380 RETURN
1390 H=O
```

```
1400 FOR F=P-1 TO 4 STEP -1
1410 H=H+1
1420 CALL GCHAR(H,F,E)
1430 IF E=32 THEN 1440 ELSE 1210
1440 CALL HCHAR(H,F,99)
1450 CALL HCHAR(H,F,32)
1460 IF H=23 THEN 1380
1470 NEXT F
1480 RETURN
1490 FOR F=0-1 TO 2 STEP -1
1500 CALL GCHAR(F,P,E)
1510 IF E=32 THEN 1520 ELSE 1210
1520 CALL HCHAR(F,P,97)
1530 CALL HCHAR(F,P,32)
1540 NEXT F
1550 RETURN
1560 FOR F=0+1 TO 23
1570 CALL GCHAR(F,P,E)
1580 IF E=32 THEN 1590 ELSE 1210
1590 CALL HCHAR(F,P,97)
1600 CALL HCHAR(F,P,32)
1610 NEXT F
1620 RETURN
1630 G=0
1640 FOR F=P+1 TO 30
1650 G=G-1
1660 CALL GCHAR(G,F,E)
1670 IF E=32 THEN 1680 ELSE 1210
1680 CALL HCHAR(G,F,99)
1690 CALL HCHAR(G,F,32)
1700 IF G=2 THEN 1720
1710 NEXT F
1720 RETURN
1730 G=0
1740 FOR F=P+1 TO 30
1750 G=G+1
1760 CALL GCHAR(G,F,E)
1770 IF E=32 THEN 1780 ELSE 1210
1780 CALL HCHAR(G,F,100)
1790 CALL HCHAR(G,F,32)
1800 IF G=23 THEN 1820
1810 NEXT F
1820 RETURN
1830 H=Y
1840 FOR F=X-1 TO 4 STEP -1
1850 H=H-1
1860 CALL GCHAR(H,F,E)
1870 IF E=32 THEN 1880 ELSE 1200
1880 CALL HCHAR(H,F,100)
1890 CALL HCHAR(H,F,32)
1900 IF H=3 THEN 1920
1910 NEXT F
1920 RETURN
1930 H=Y
1940 FOR F=X-1 TO 4 STEP -1
1950 H=H+1
1960 CALL GCHAR(H,F,E)
1970 IF E=32 THEN 1980 ELSE 1200
```

```

1980 CALL HCHAR(H,F,99)
1990 CALL HCHAR(H,F,32)
2000 IF H=23 THEN 2020
2010 NEXT F
2020 RETURN
2030 FOR F=P+1 TO 30
2040 CALL GCHAR(O,F,E)
2050 IF E=32 THEN 2060 ELSE 1210
2060 CALL HCHAR(O,F,96)
2070 CALL HCHAR(O,F,32)
2080 NEXT F
2090 RETURN
2100 FOR F=X-1 TO 4 STEP -1
2110 CALL GCHAR(Y,F,E)
2120 IF E=32 THEN 2130 ELSE 1200
2130 CALL HCHAR(Y,F,96)
2140 CALL HCHAR(Y,F,32)
2150 NEXT F
2160 RETURN
2170 FOR A=1 TO 20
2180 CALL SCREEN(7)
2190 NEXT A
2200 CALL SCREEN(4)
2210 GOTO 110

```

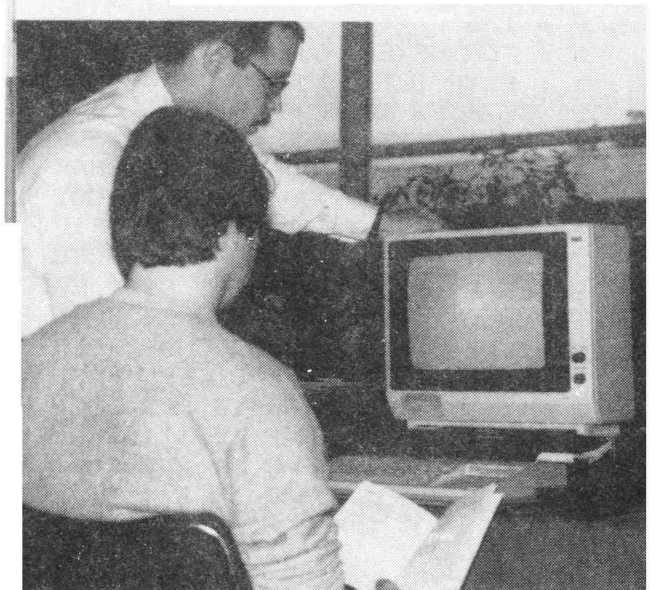
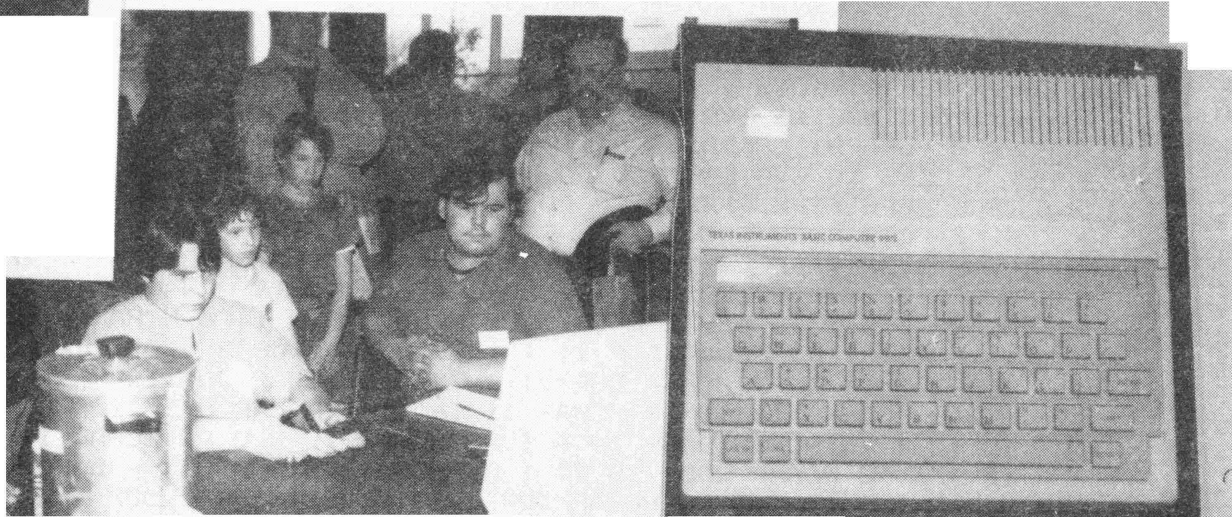
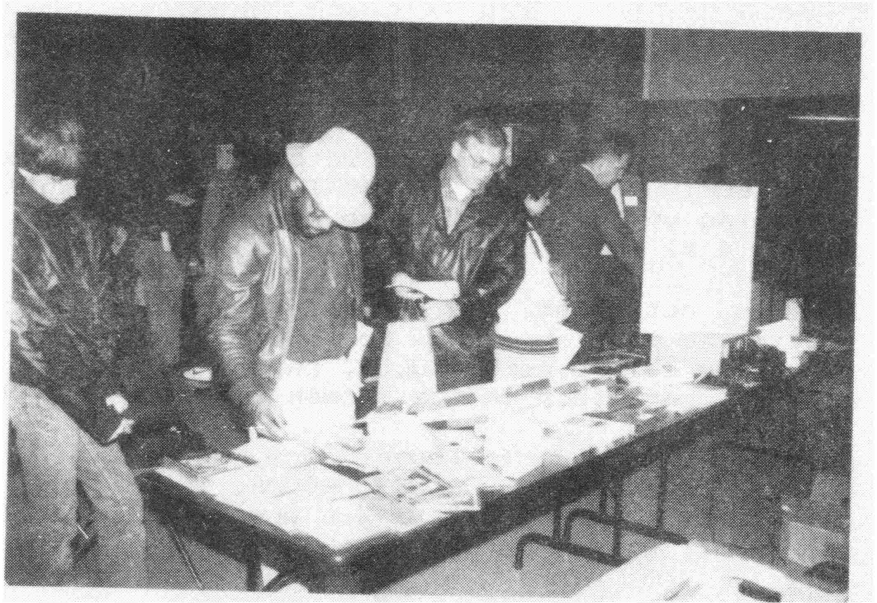
The following was added on to Rich Klein's program which appeared in the CHICAGO Times, Volume 4 #2, Sept. 1984 issue.

```

1 REM *****
2 REM * PICK LOTTO NUMBERS *
3 REM * BY RICH KLEIN *
4 REM * REVISED *
5 REM * BY RICH BLANDIN *
6 REM *****
7 REM *** NUMBERED FILES ARE OPTIONAL ***
8 REM OPTIONS: RS-232/PIO,PRINTER,DISK DRIVE,
9 CALL CLEAR
10 PRINT "DO YOU WANT LOTTO NUMBERS":
11 " (1) ON SCREEN": " (2) ON DISK":
12 " (3) ON PRINTER": "PRESS KEY...": ":::::
11 CALL KEY(O,K,S)
12 IF S=0 THEN 11
13 IF (K<49)+(K>51) THEN 11
14 IF K=49 THEN 21
15 IF K=51 THEN 19
16 OPEN #5:"DSK1.LOTTO#'S",OUTPUT,VARIABLE 80
17 F=5
18 GOTO 21
19 OPEN #1:"PIO"
20 F=1
21 DEF R=INT(RND*44)+1
22 INPUT "HOW MANY LOTTO CARDS? ":A
23 INPUT "NUMBER OF WEEKS TO PLAY? ":N
24 RANDOMIZE
25 DIM D(6)
26 CALL CLEAR
27 PRINT #F:"WEEK:LOTTO NUMBERS TO PLAY":
28 FOR W=1 TO N
29 W$="00"&STR$(W)
30 PRINT #F:" ";SEG$(W$,LEN(W$)-1,2); " :";
31 FOR L=1 TO A
32 IF L=1 THEN 34
33 PRINT #F:" "; " :";
34 FOR M=1 TO 6
35 D(M)=R
36 FOR Z=1 TO M-1
37 IF D(Z)=D(M) THEN 35
38 NEXT Z
39 NEXT M
40 GOSUB 48
41 NEXT L
42 PRINT #F
43 NEXT W
44 PRINT #F::
45 IF K=49 THEN 47
46 CLOSE #F
47 END
48 FOR I=1 TO 6
49 FOR J=1 TO I-1
50 IF D(I)>D(J) THEN 54
51 TEMP=D(I)
52 D(I)=D(J)
53 D(J)=TEMP
54 NEXT J
55 NEXT I
56 FOR X=1 TO 6
57 PRINT #F:D(X);
58 NEXT X
59 PRINT #F
60 RETURN

```





FORTH CHAPTER: Seaborn Smith

FORTHEYES CONTINUED FROM LAST MONTH: Seaborn J. Smith

Well, here it is the end of October and I am rushing to complete the HOUSEKEEPING section of FORTHEYES. For those of you who missed the beginning of FORTHEYES please request a copy of the Chicago Times volume 4 #2 from the EDITOR Carole Goldstein.

All is not lost, I did manage to complete enough of the HOUSEKEEPING section to talk about how to develop characters using CHAR, change character colors using COLOR, change the screen color using SCREEN, and display characters on the screen using the HCHAR.

As all of my FORTH followers know, we left off at LINE 4 of SCR #135. Load up your -EDITOR, -COPY, -DUMP, -FILE, and -PRINT options and lets get started. For those of you who tried to second guess me, bless you, your routines may be better than mine but, since I am writing this article you might want to change yours just until we get through this series.

SCR # 135

```

0 ( FORTHEYES - Vocabulary and Housekeeping )
1 FORTH DEFINITIONS VOCABULARY FORTHEYES FORTHEYES DEFINITIONS
2 -TEXT DECIMAL 16 SYSTEM 11 11 GOTOXY ." GRAPHICS BOOTING ..."
3 -GRAPH -GRAPH1 GRAPHICS 6 11 GOTOXY ." FORTHEYES BOOTING ..."
4 HEX : CLRS 10 SYSTEM 1F 0 DD F F I COLOR LOOP 1 SCREEN ;
5 : TBLE FFFF FFFF FFFF FFFF F0 CHAR 0103 070F 1F3F 7FFF F1 CHAR
6   FFFE FCF8 FOE0 COB0 F2 CHAR FFFF FFFF FFFF FFFF F8 CHAR 0103
7   070F 1F3F 7FFF F9 CHAR FFFE FCF8 FOE0 COB0 FA CHAR 1 F 1F
8   COLOR C F 1E COLOR D 8 1 F9 HCHAR E 8 11 F8 HCHAR 1F 8 1 FA
9   HCHAR C 9 1 F9 HCHAR D 9 11 F8 HCHAR 1E 9 1 FA HCHAR C 16 A DO
10  1- DUP I 1 F9 HCHAR DUP 1+ I 1 F8 HCHAR DUP 2 + I 1 FA HCHAR
11  DUP 10 + I 1 F9 HCHAR DUP 11 + I 1 F8 HCHAR DUP 12 + I 1 FA
12  HCHAR LOOP 0 16 11 F8 HCHAR 11 16 1 FA HCHAR 0 17 10 F8 HCHAR
13  10 17 1 FA HCHAR DROP 1D A 1 F8 HCHAR 1C B 2 F8 HCHAR 11 C DO
14  1B I 3 F8 HCHAR LOOP 1D 10 1 FA HCHAR F 16 A DO 1- DUP I 1 F1
15  HCHAR DUP 1+ I B F0 HCHAR DUP C + I 1 F2 HCHAR LOOP DROP ; -->

```

SCR # 136

```

0 ( FORTHEYES - Housekeeping - Player Character Definition )
1 : PLYR B F 1D COLOR 9 B 1C COLOR 1 B 1B COLOR 0001 0307 0F1F
2 3F7F FB CHAR FFFF FFFF E000 0000 DB CHAR FFFF FFFF 0000 0000 D9
3 CHAR FFFF FFFF 0700 0000 DA CHAR 00B0 COE0 F0F8 FCFE FC CHAR
4 F8C0 98A0 90D0 D0C8 DB CHAR 3F40 8C1E 0C00 0000 DC CHAR 0000
5 0000 0000 0000 DD CHAR FC02 3178 3000 0000 DE CHAR 1F03 1905
6 090B 0B13 DF CHAR 3F3F 3F1F 1F1F 0F0F EB CHAR 0101 0307 0F1F
7 0F07 E0 CHAR 80B0 COE0 F0F8 FOE0 E1 CHAR FCFC FCF8 F8F8 F0F0 E9
8 CHAR 0707 0301 0101 0101 EA CHAR 0000 0000 6030 1F0F E2 CHAR
9 0000 0000 060C F8F0 E3 CHAR E0E0 COB0 B0B0 B0B0 EB CHAR FF3F
10 3F0F 0300 0000 EC CHAR FFFF FFFF FFFF 3F0F ED CHAR FFFF FFFF
11 FFFF FCF0 EE CHAR FFFC FCF0 C000 0000 EF CHAR 14 0 1 FB HCHAR
12 15 0 1 DB HCHAR 16 0 2 D9 HCHAR 18 0 1 DA HCHAR 19 0 1 FC HCHAR
13 14 1 1 DB HCHAR 15 1 1 DC HCHAR 16 1 2 DD HCHAR 18 1 1 DE HCHAR
14 19 1 1 DF HCHAR 14 2 1 EB HCHAR 15 2 1 DD HCHAR 16 2 1 E0 HCHAR
15 17 2 1 E1 HCHAR 18 2 1 DD HCHAR 19 2 1 E9 HCHAR -->

```

SCR #137


```

0 ( FORTHEYES - Housekeeping - Player Character Definition Cont. )
1 14 3 1 EA HCHAR 15 3 1 DD HCHAR 16 3 1 E2 HCHAR 17 3 1 E3 HCHAR
2 18 3 1 DD HCHAR 19 3 1 EB HCHAR 15 4 1 EC HCHAR 16 4 1 ED HCHAR
3 17 4 1 EE HCHAR 18 4 1 EF HCHAR 16 5 2 F8 HCHAR 14 6 6 F8 HCHAR
4 13 6 1 FB HCHAR 1A 6 1 FC HCHAR 13 7 8 F8 HCHAR ;
5
6
7
8
9
10
11
12
13
14
15 CLRS TBLE PLYR 0 0 GOTOXY KEY DROP TEXT FORGET FORTHEYES DECIMAL

```

You may say to yourself that the above is not good documentation for FORTH programs but, I condensed FORTHEYES to save space for the program description.

Up to now you said this is simple but now it might look a little more difficult. Don't be discouraged, these routines are simple to understand once you look at them word by word.

LINE 4 puts the compiler in HEX (base 16) mode. It is easier to define characters in HEX than in DECIMAL. CLRS clears the screen, changes the foreground and background colors of the 1F (31) character sets to white on white, and changes the screen color to black. You might want to try these words in command mode for practice. Don't forget to load the graphics first.

LINES 5 through 15 TBLE defines the characters and displays on the screen the game table.

Characters F0 and F8 (240 and 248) are solid squares. F1 and F9 (241 and 249) are lower right halves of a square. F2 and FA (242 and 250) are upper left halves of a square. Once you key and test this FORTH program you will see that these characters are needed for the three dimensional effect of the table.

LINE 7 and 8 set these characters to black on white and green on white respectively.

LINE 8 through 13 display the table boarder and LINES 13 through 15 draw the green table top.

You are now probably wondering what are all those DO ... LOOP's? Those routines are mathematical expressions that draw the same series of HCHAR's line by line to form the three dimensional table. I am not going to elaborate on the routines because one could accomplish the same end by using a series of HCHAR's. The routines just save space.

Now FLUSH SCR #135 and key the following on line 0 of SCR #136 and FLUSH: CLRS TBLE 0 0 GOTOXY KEY DROP TEXT FORGET FORTHEYES DECIMAL

TYPE 135 LOAD

First the message GRAPHICS BOOTING ... should have appeared, then the message FORTHEYES BOOTING ..., and then the game table. By pressing any key you should get back to the editor. Now type ED@. You should

be back to editing SCR #136.

SCR #136 and SCR #137 LINES 0 through 4 PLYR defines the characters and displays on the screen the player graphics. I know you can draw much better than me but, this is my article.

I am going to describe the PLYR routine as detail as I can because the TBLE routine could have been written using the same style.

B F 1D COLOR sets the character set 29 to light yellow on white.
9 B 1C COLOR sets the character set 28 to light red on light yellow.
1 B 1B COLOR sets the character set 27 to black on light yellow.
Characters FB, DB, D9, DA, and FC form the players hair line with FB and FC forming the rounded shoulders.
Characters DB, DC, DD, DE, and DF form the ears and eyes.
Characters E8, E0, E1, and E9 form the upper jaw and the nose.
Characters EA, E2, E3, and EB form the middle jaw and the mouth.
Characters EC, ED, EE, and EF form the lower jaw.
SCR # 135 LINES 11 through 15 and SCR #137 LINES 1 through 4 displays the player on the screen using just HCHAR's position by position.

If you keyed the information as shown and keyed 135 LOAD you should see a game table with a player ready to shoot FORTHEYES.

Next time we will finish the HOUSEKEEPING section and begin the Player Places A Bet section.

See you all at the meeting on December 1st.

TRADING Times:

Lots of stuff on the trading block this month. Chris Fox has a console, extended basic, a cassette cable and various games available at 671-7370. Naz Uddin has a GORILLA BANANA dot matrix printer, a SHUGART disk drive (new in box), a HITACHI 12" and an ADMIRAL 19" bw TV for sale. You can reach him at 961-5963.

EDITOR'S NOTE: The Business Sig will meet at 11:30 and will begin a new tutorial on TI-Writer.

AND THE WINNER IS: Sam Fincus

As part of our monthly TI User's Group meetings, we sometime give away free software in the form of Command Modules or TI Basic program tapes as the door prize. What better way to do this than have our trusty TI 99/4(A) itself select the lucky winner?

Since I used to act as our User Group's technical expert, the job fell on me to provide a suitable "show" for our members. I decided that not only should the job be done using sound and color but also that it would be neat to have the computer announce the winner using the TI Speech Synthesizer and TE II module. The result is the program called "WINNER" listed below.

As soon as I began to design the program, I came to the conclusion that the best way to display the winning number was to have the computer

select each digit, and as it was drawn, I wanted to have the monitor (or TV screen) cycle through the digits from 0 to nine and then stop at the selected digit. The effect was to be somewhat like the spinning "Wheel of Fortune" that you see at amusement parks or on TV game shows to achieve this effect, I had to redefine the upper character sets (ASCII codes 80-159) into the 10 digits as different large block characters. I could then display all the digits on the screen at the same time but have each character defined with a color equal to transparent. In this way, I could set up the screen so that only one particular digit would appear on the screen at a time. By changing the COLOR value of a particular character set from transparent to red, the digit would then appear in red on the screen. Changing the set back to transparent would make it disappear!

The only problem with this approach was that I had to use character sets 7 and 8 which are reserved for the letters from P thru Z. Since I only needed to use the first 2 characters of each set, this meant that the letters "P", "Q", "X" and "Z" could not be used in any PRINT statements. I knew that this wouldn't do because I wanted the screen to have an initial display indicating what software would be given away. I therefore decided to change the character patterns for the "#", "\$", "%" and "&" to match the four missing letters. This means that to print the letters PQXY on the screen, they have to be entered as #\$\$% in the PRINT statement. After deciding all this, the rest of the program was easily written.

PROGRAM EXPLANATION Lines 300-2700 asks for the number of contestants and sets up the logic to see if two or three digits have to be drawn. In order to make the program more professional, I decided that it would say the words "first", "second", or "third" when drawing the appropriate digit. This is set up in the string called B\$. Lines 2800-4200 contain the loop that randomly selects a digit. It then calls the subroutine located at lines 5200-5700 either 1,2 or 3 times. This routine cycles through displaying each of the ten digits in turn on the screen. Line 3200 randomly selects the number of times that the program will cycle through the subroutine. Line 3100 sets the variable J equal to 10 so that the subroutine knows it must cycle through all ten digits before returning. The code in statements 3500 to 3800 set up the value of J so that the subroutine will end up stopping its display at the appropriate digit. The routines starting at lines 6300 initialize the program. First, (in lines 6400-6700) it sets up the character patterns for the four letters "P", "Q", "X", and "Z". Then it creates the 2 block characters; all off (=0) and all on (= "FFFFFFFFFFFFFFFF") which is needed for each character set. Next, it builds the actual patterns for each of the 10 digits. These characters are formed in a pattern 4 columns wide and 7 columns high. Their format is controlled by the array called A\$. This array is dimensioned to hold the 7 line patterns for each of the digits. That means that A\$(5,1) contains the pattern of the 4 columns of the top line of digit 5. These line patterns were themselves created by reading in the data statements located in lines 11800-12700. The code in lines 7500-8200 reads in the data statements and builds the line patterns by seeing if a particular block should be on (=1 in the data statement) or off (=0). After the characters are built, lines 8600 - 8800 make them transparent. As long as the COLOR value for each set remains as a 3 (i.e. CLEAR), it will stay invisible on the screen. The actual screen display is created in lines 8900-11200. The initialization routine then RETURNS to the beginning of the program so that the number can be

chosen and displayed on the screen. The only area in which I think the program could stand improvement is to add music at the appropriate place just before the number selection begins. Not being very musically inclined, I'll leave that exercise to those of you who are. In addition, you will probably want to code your own PRINT statements in lines 6800-6900 to match whatever your group is giving away. I hope you get as much fun out of using this program as I did writing it!

```
100 DIM A$(10,7),D(3)
200 GOSUB 6300
300 OPEN #1:"SPEECH",OUTPUT
400 RANDOMIZE
500 INPUT B$
600 PRINT #1:"ENTER NUMBER OF CONTESTANTS"
700 INPUT "ENTER NUMBER OF CONTESTANTS (10-999) ":I
800 IF I<>INT(I)THEN 5900
900 IF I<10 THEN 5900
1000 IF I>999 THEN 5900
1100 GOSUB 8400
1200 B$="FIRST SECOND LAST "
1300 NUMB=INT(RND**I)+1
1400 D(1)=INT(NUMB/100)
1500 K2=NUMB-100**D(1)
1600 D(2)=INT((K2)/10)
1700 D(3)=K2-10**D(2)
1800 SW=3
1900 IF D(1)<>0 THEN 2700
2000 PRINT #1:"ONLY TWO NUMBERS WILL BE DRAWN"
2100 FOR L=1 TO 100
2200 NEXT L
2300 SW=2
2400 D(1)=D(2)
2500 D(2)=D(3)
2600 B$="FIRST SECOND"
2700 REM
2800 FOR I=1 TO SW
2900 C$=SEG$(B$, (I-1)**6+1,6)
3000 PRINT #1:"THE ";C$;" NUMBER IS"
3100 J=10
3200 FOR K=1 TO INT(RND**2)+2
3300 GOSUB 5200
3400 NEXT K
3500 J=D(I)
3600 IF J<>0 THEN 3800
3700 J=10
3800 GOSUB 5200
3900 CALL COLOR(J+6,2,1)
4000 PRINT #1:D(I)
4100 CALL COLOR(J+6,3,1)
4200 NEXT I
4300 CALL CLEAR
4400 FOR L=7 TO 10
4500 CALL COLOR(L,2,1)
4600 NEXT L
4700 PRINT #1:"THE WINNING NUMBER IS"
4800 PRINT #1:NUMB
4900 PRINT "":"THE WINNING NUMBER IS: ":"":" ";NUMB
5000 PRINT "":"":""
```

```
5100 GOTO 5100
5200 FOR L=1 TO J
5300 CALL COLOR(L+6,2,1)
5400 CALL SOUND(200,-3,0)
5500 CALL COLOR(L+6,3,1)
5600 NEXT L
5700 RETURN
5800 REM
5900 PRINT #1:"TRY AGAIN TURKEY"
6000 FOR I=1 TO 100
6100 NEXT I
6200 GOTO 600
6300 CALL CLEAR
6400 CALL CHAR(35,"007B44447B404040")
6500 CALL CHAR(36,"003B444444544C3C")
6600 CALL CHAR(37,"0044442B10102B44")
6700 CALL CHAR(38,"0044442B10101010")
6800 PRINT "WELCOME TO":"":"THE T. I. USERS GROU#"
6900 PRINT :"":"MONTHL& DRAWING FOR":"":"A FREE COMMAND MODULE"
7000 PRINT "":"":""
7100 FOR I=1 TO 10
7200 X=I**8+72
7300 CALL CHAR(X,"0")
7400 CALL CHAR(X+1,"FFFFFFFFFFFFFFFF")
7500 FOR J=1 TO 7
7600 FOR K=1 TO 5
7700 READ X
7800 A$(I,J)=A$(I,J)&CHR$(X+I**8+72)
7900 NEXT K
8000 A$(I,J)=A$(I,J)&CHR$(I**8+72)
8100 NEXT J
8200 NEXT I
8300 RETURN
8400 CALL SCREEN(3)
8500 CALL CLEAR
8600 FOR L=1 TO 10
8700 CALL COLOR(L+6,3,1)
8800 NEXT L
8900 PRINT A$(1,1);A$(2,1);A$(3,1);A$(4,1)
9000 PRINT A$(1,2);A$(2,2);A$(3,2);A$(4,2)
9100 PRINT A$(1,3);A$(2,3);A$(3,3);A$(4,3)
9200 PRINT A$(1,4);A$(2,4);A$(3,4);A$(4,4)
9300 PRINT A$(1,5);A$(2,5);A$(3,5);A$(4,5)
9400 PRINT A$(1,6);A$(2,6);A$(3,6);A$(4,6)
9500 PRINT A$(1,7);A$(2,7);A$(3,7);A$(4,7)
9600 PRINT
9700 PRINT A$(5,1);A$(6,1);A$(7,1);A$(8,1)
9800 PRINT A$(5,2);A$(6,2);A$(7,2);A$(8,2)
9900 PRINT A$(5,3);A$(6,3);A$(7,3);A$(8,3)
10000 PRINT A$(5,4);A$(6,4);A$(7,4);A$(8,4)
10100 PRINT A$(5,5);A$(6,5);A$(7,5);A$(8,5)
10200 PRINT A$(5,6);A$(6,6);A$(7,6);A$(8,6)
10300 PRINT A$(5,7);A$(6,7);A$(7,7);A$(8,7)
10400 PRINT
10500 PRINT A$(9,1);A$(10,1)
10600 PRINT A$(9,2);A$(10,2)
10700 PRINT A$(9,3);A$(10,3)
10800 PRINT A$(9,4);A$(10,4)
```

```
10900 PRINT A$(9,5);A$(10,5)
11000 PRINT A$(9,6);A$(10,6)
11100 PRINT A$(9,7);A$(10,7)
11200 PRINT ;
11300 RETURN
11400 REM
11500 REM
11600 REM DATA STATEMENTS TO BUILD BLOCK CHARACTERS
11700 REM
11800 DATA 0,0,0,1,0,0,0,1,1,0,0,1,0,1,0,0,0,0,
1,0,0,0,0,1,0,0,0,0,1,0,1,1,1,1, 1
11900 DATA 0,0,1,1,0,0,1,0,0,1,1,0,0,0,1,0,0,0,
1,0,0,0,1,0,0,0,1,0,0,0,1,1,1,1, 1
12000 DATA 0,0,1,1,0,0,1,0,0,1,1,0,0,0,1,0,0,0,
1,0,0,0,0,0,1,1,0,0,0,1,0,1,1,1, 0
12100 DATA 0,0,0,1,1,0,0,1,0,1,0,1,0,0,1,1,1,1,
1,1,0,0,0,0,1,0,0,0,0,1,0,0,0,0, 1
12200 DATA 1,1,1,1,0,1,0,0,0,0,1,0,1,1,0,1,1,0,
0,1,0,0,0,0,1,1,0,0,1,0,0,1,1,0, 0
12300 DATA 0,1,1,1,0,1,0,0,0,1,1,0,0,0,0,1,0,1,
1,0,1,1,0,0,1,1,0,0,0,1,0,1,1,1, 0
12400 DATA 1,1,1,1,1,0,0,0,0,1,0,0,0,1,0,0,0,1,
0,0,0,1,0,0,0,1,0,0,0,0,1,0,0,0, 0
12500 DATA 0,1,1,1,0,1,0,0,0,1,1,0,0,0,1,0,1,1,
1,0,1,0,0,0,1,1,0,0,0,1,0,1,1,1, 0
12600 DATA 0,1,1,1,0,1,0,0,0,1,1,0,0,0,1,0,1,0,
1,0,0,0,1,0,0,0,1,0,0,0,1,0,0,0, 0
12700 DATA 0,1,1,1,0,1,0,0,0,1,1,0,0,0,1,1,0,0,
0,1,1,0,0,0,1,1,0,0,0,1,0,1,1,1, 0
12800 END
```

COMPUTER FRAUD: Bruce Barnes

With the advent of Computers and the necessity of the education of young people to the use of the machines, it was only a short time before they, as well as many adults would find uses considered by many to be less than constructive.

As many computer BBS operators will indicate, most of the problems associated with the operation of their systems stem from the attempted unauthorized use of those systems by individuals who have taken the challenge of the electronic age into their own hands. The problem does not stop with the BBS's, however, if they were the only segment of the computer industry affected, it would only be a very minor problem.

Consider the immense problem banks and the new Electronic Funds Transfer machines are faced with each time a person uses his MONEY NETWORK or CASH STATION card to access a checking or savings account. Consider the potential for fraud on the part of a few unscrupulous individuals and the susceptibility of all of us to their antics. What an unpleasant surprise it would be to find this weeks paycheck removed from our account by someone who had played games with our bank's computer system via their "magic money machine"!

Now consider the problems associated with the credit card companies and illicit purchases on the part of persons who have modified the magnetic stripe on the back of a lost or stolen credit card. Small wonder we find ourselves waiting more often than not for a verification of our credit account at even gasoline stations, not to mention the time it can take on a major purchase.

There is no doubt that computer fraud is now costing companies more and more money each year, and when it costs a company money, you can be sure it is costing consumers money, too. Now the State of Illinois has taken measures to slow down the fraud perpetrated through the use of the computer. Through the effective enforcement of House Bill 3204, passed in September and signed into law on the 18th of that same month, this bill, which is listed below and on the following pages gives law enforcement personal the necessary tool and in fact mandates that they cooperate with the victim when computer fraud takes place.

HB3204 Enrolled (Illinois, Effective 18 September, 1984)

AN ACT to protect the public from electronic trespass and computer fraud.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF ILLINOIS, represented in the GENERAL ASSEMBLY:

SECTION 1. Section 16-9 of the "Criminal Code of 1961", approved July 28, 1961, as amended, is amended to read as follows:

(Ch. 38, par. 16-9)

Sec. 16-9. UNLAWFUL USE OF A COMPUTER. (a) As used in this Section Part-8:

1. "COMPUTER" means an internally programmed, general purpose digital device capable of automatically accepting data, processing data and supplying the results of the operation.

2. "COMPUTER SYSTEM" means a set of related, connected or unconnected devices, including a computer and other devices, including but not limited to data input and output and storage devices, data communications circuits, and operating system computer programs and data, that make the system capable of performing the special purpose data processing tasks for which it is specified.

3. "COMPUTER PROGRAM" means a series of coded instructions or statements in a form acceptable to a computer to process data in order to achieve a certain result.

4. "TELECOMMUNICATION" means the transmission of information in intrastate commerce by means of a wire, cable, glass, microwave, satellite or electronic impulses, and any other transmission of signs, signals, writing, images, sounds, or other matter by electronic or other electromagnetic system.

5. "ELECTRONIC BULLETIN BOARD" means any created information stored in a data base or computer or computer system designed to hold and display passwords or enter keys made available for the use of gaining authorized entry to a computer or computer system or access to telephone lines of telecommunications facilities.

6. "IDENTIFICATION CODES/PASSWORD SYSTEMS" means confidential information

7. "ACCESS" means to approach, instruct, communicate with, store data in, retrieve or intercept data from, or otherwise make use of any resources or

8. "COMPUTER NETWORK" means a set of two or more computer systems that transmit data over communications circuits connection time.

9. "DATA" means a representation of information, knowledge, facts, concepts, or instructions which are being prepared or have been prepared in a formalized manner, and is intended to be stored or processed, or is being stored or processed, in a computer, computer system, or network, which shall be classified as property; and which may be in any form, including but not limited to, computer printouts, magnetic storage media, punch cards, or stored in memory, of the computer, computer system, or network.

10. "FINANCIAL INSTRUMENTS" means, but is not limited to, any check, cashiers check, draft, warrant, money order, certificate of deposit, negotiable instrument, letter of credit, bill of

exchange, credit card, debit card, or marketable security, or any computer system representation thereof.

11. "PROPERTY" means, but is not limited to, electronic impulses, electronically produced data, information, financial instruments, software or programs, in either machine or human readable form, any other tangible item relating to a computer, computer system, computer network, any copies thereof.

12. "SERVICES" means, but is not limited to, computer time, data manipulation, and storage functions.

(b) A person knowingly commits unlawful use of a computer when he:

1. Knowingly gains access to or obtains the use of a computer system, or any part thereof, without the consent of the owner (as defined in Section 15-2); or

2. Knowingly alters or destroys computer programs or data without the consent of the owner (as defined in Section 15-2); or

3. Knowingly obtains use of, alters, damages or destroys a computer system, or any part thereof, as a part of a deception for the purpose of obtaining money, property, or services from the owner of a computer system (as defined in Section 15-2); or

4. Knowingly accesses or causes to be accessed any computer, computer system, or computer network for the purpose of (1) devising or executing any scheme or artifice to defraud or (2) obtaining money, property, or services by means of fraudulent pretenses, representations, or promises.

(c) SENTENCE:

1. A person convicted of a violation of subsections (b) (1) or (2) of this Section where the value of the use, alteration, or destruction is \$1,000.00 or less shall be guilty of a petty offense.

2. A person convicted of a violation of subsections (b) (1) or (2) of this section where the value of the use, alteration, or destruction is more than 1,000.00 shall be guilty of a Class A misdemeanor.

3. A person convicted of a violation of subsections (b) (3) or (4) of this Section where the value of the money, property, or services obtained is \$1,000.00 or less shall be guilty of a Class A misdemeanor.

4. A person convicted of a violation of subsections (b) (3) or (4) of this Section where the value of the money, property, or services obtained is more than \$1,000.00 shall be guilty of a Class 4 felony.

(d) CIVIL REMEDIES. Any aggrieved person shall have a right of action in the Circuit Court against any person violating any of the provisions of this Section and may recover for each violation:

1. Liquidated damages of \$5,000.00 or actual damages, whichever is greater:

2. Reasonable attorney fees:

3. Such other relief, including an injunction, as the court may deem appropriate.

Section 2. Section 79 of "AN ACT Concerning Public Utilities", approved June 29, 1921, as amended, is amended to read as follows:

(Ch. 111 2/3, par 83)

Sec. 79. It is hereby made the duty of the Commission to see that the provisions of the Constitution and statutes of this State, affecting public utilities, the enforcement of which is not specifically vested in some other officer or tribunal, are enforced and obeyed, and that violations thereof are promptly prosecuted and penalties due the State therefor recovered and collected, and to this end it may sue in the name of the people of the State.

It shall be the duty of the Commission, at the direction and discretion of the Chairman, to assemble and maintain an Electronic Trespass Enforcement assistance Staff, consisting of experts in computer systems, electronics, and other professional disciplines to aid public utilities, businesses, individuals, and law enforcement agencies in detecting and preventing electronic trespass violations and enforcing the provisions of Section 16-9 of the "Criminal Code of 1961", approved July 28, 1961, as amended or any other relevant statute.

No cause of action shall exist and no liability may be imposed, either civil or criminal, against the State, the Chairman of the Commission, or any of its members, or any employee of the Commission, for any act or omission by them in performance of any power or duty authorized by this Section, unless such act of omission was performed in bad faith and with intent to injure a particular person.

Section 3. This act takes effect upon becoming a law.

(signed) Michael J. Madigan, Speaker, House of Representatives.

(signed) Philip J. Rock, President of the Senate

APPROVED: This 18th day of September, 1984 A.D.

(signed) James R. Thompson, Governor

CUMMINGS INSURANCE ASSOCIATES
6750 Barrett - Downers Grove, Il
Phone: 968-7447

**ARE YOU DRIVING YOUR COMPUTER
WITHOUT INSURANCE???**

You wouldn't drive your car or live in a house without proper insurance coverage. Yet, if you accidentally damage your home computer, an investment of several thousand dollars could go down the drain! Now, Aetna Life & Casualty Insurance Company offers low-cost insurance on your home computer with the following benefits:

- *All-Risk Coverage
- *No Deductible
- *Covered Worldwide
- *Blanket Coverage

HOME COMPUTER INSURANCE RATES

| <u>Amount of Coverage</u> | <u>Annual Premium</u> |
|---------------------------|-----------------------|
| \$1,000 | \$ 8 |
| 2,000 | 15 |
| 3,000 | 23 |
| 4,000 | 30 |
| 5,000 | 38 |

To find out more about this valuable coverage, simply fill out the attached card and mail today. Or, if you prefer, call me personally.

CHICAGO TI USER'S GROUP
PO BOX 578341
CHICAGO, IL 60657

FIRST CLASS MAIL
DATED MATERIAL
DO NOT DELAY



TIDINGS % Mr. Stephen Shaw

England

REMARKS: Carole Goldstein

Well the faire is behind us once again. And once again it was a complete success. All of the vendors seemed to very satisfied and so were the visitors, some of whom came from all over the country.

Very important is the fact that the bulletin board is moving to a new number. After the December meeting the number for the group bulletin board will be 966-2342.

Also, we are still looking for contributions to this newsletter. We want to continue to keep this newsletter filled with relevant information and to do so we need *your* input. Submissions and questions are welcome not only from our members, but from anyone anywhere reading this newsletter.

One more thing. Don't forget it is time to renew your membership now. Renewals will be accepted at the December meeting at the \$12 rate. After that you will have to fork over \$15 to continue your membership in this elite group!