THE GUILFORD 99'ER NEWSLETTER

VOL.1 NO.7 AUGUST

OUR NEXT MEETING

DATE: August 7,1984
TIME: 7:00 P.M.
PLACE: Zayre's Department Store
1421 E. Cone Blvd
Electronics Dept.

PROGRAM: Margie Craig from DATA SUPPLIES, INC. and a representative from 3M CORPORATION will present a program on new equipment and supplies for personal computers. A discussion of our on-going programs will also be on the agenda.

****

Please check your address label on your newsletter for this month. It has your membership expiration date. To continue receiving the newsletter, you must have your dues paid up to date. Mail your check to our post office box or see Carl Foster at this meeting.

****

We still need submissions to the newsletter. Any product or software reviews, questions about the TI or peripherals or programing tips are welcome. The publication deadline is the 15th of the month.

Anyone who has a short, original program and would like to share it with the other members of the USERS' GROUP is encouraged to send them in for publication in our newsletter. Send all submissions to P.O. Box 21691, Greensboro, NC 27420.

We need your help to make the newsletter as informative as possible!

COMPUTER CLASSES

DATE: August 4,1984

SUBJECTS: Review of variables,FOR-NEXT, IF/THEN, introduction to CALL SOUND, character codes and sets, CALL KEY, and READ/DATA statements.

DATE: August 11,1984

SUBJECTS: Review, Part 1 of Graphics(CALL COLOR, CALL SCREEN, CALL HCHAR, CALL VCHAR)

DATE: August 18,1984

SUBJECTS: Review, Part 2 of GRAPHICS(character definition, animation, CALL JOYST)

DATE: August 25, 1984

SUBJECTS: Review, the use of CALL SOUND to produce music.

Our computer classes meet at 2:00 P.M. at ZAYRE'S DEPARTMENT STORE at 1421 E. CONE BLVD. They are held in the same room as our regular meeting.

The curriculum offerings are tentative and may vary slightly from the schedule depending on the progress made in class from week to week. The classes will be approximately 1 1/2 hours in length and all students should bring pencil and paper to class.

For further information, contact Sandy Carmany at 855-1538.

This month we are going to look at two of the many offerings in the area of screen dump programs. These programs allow the user to reproduce graphics or other screen displays on a printer. Of course, your printer must have the capability to print dot-addressable graphics.

UTILITIES I
REPUBLIC SOFTWARE

This package comes with several subroutines that can be used in conjunction with your own programs. However, we are only going to take up the ones involved with screen dumps.

The screen dump routines are direct dumps---that is, when you enter the subroutine, the graphics are immediately reproduced by the printer. There are 3 versions of the screen dump routine in the package: Basic, Extended Basic, and Assembly Language. They are all combined with a plotting routine that works quite well.

The routines are written for an Epson or TI printer and must be altered to be used with any other printer. I have not been able to get the screen dump portion of the subroutine to work entirely satisfactorly with my Star Micronics STX-80. But I am sure that, sooner or later, I will. That, incidently, is something that you should consider when you buy a screen dump---most of them are written for a specific printer and have to be modified if used with another brand.

The software package is available in either cassette or diskette for $19.95 and comes with a 28 page manual that is not as "user friendly"" as it could be. The package is well worth the money because it does have several other useful subroutines.

SCREEN DUMP
EXTENDED SOFTWARE CO.

EXTENDED SOFTWARE has a screen dump prrogram that operates on a slightly different basis. This screen dump is an indirect dump. It takes the screen display and converts it to a data file, stores it on either tape or disk and then the user must re-enter the data into the actual screen dump program. The screen dump then sends it to the printer.

Confused? I will try to explain step by step. Let's say that you have a program with an impressive graphics display. You enter the first little program that opens the file at the end of the program. When the desired display appears, type in "FCTN 4" and you will get a message "Breakpoint at xxx". Insert an extra GOSUB and the line number of the previous subroutine. Run the program again and it will dump the screen as a data file to either tape or disk. Then, you leave the program and load the actual screen dump program into your computer and reload the previously saved data file. It is then dumped to the printer.

The proceedure is a bit cumbersome but you will find the instructions in the booklet and sample data self explanatory. Again, the program is written for a serial, Epson-type printer but there are instructions in the manual for modifying the program. It took me several tries but I got it to work with my STX-80. EXTENDED SOFTWARE also invites you to write to them with your system description and they will help you modify the program to work with your printer.

I found the program and manual to be quite "user friendly" and it is able to reproduce on paper any pattern that appears on your computer screen.

The program is available on either cassette or disk for $12.00.

The August issue of HOME COMPUTER MAGAZINE has the instructions for a do-it-yourself cassette cable for the TI 99/4A. SOFTWARE CITY carries the magazine on the shelf---you can buy it there if you don't already subscribe.

PRESIDENT'S CORNER

Well, another month is upon us and so is another meeting. As summer continues, so do we. We are falling short of things to come up with for the meetings. We are open for suggestions. Make your ideas known at the meetings or send them to our P.O. Box--- the address is on the front of your newsletter. Soon to come are many "goodies".

1. The library will soon be transferred to tape and hopfully will be available to members at our September meeting.

2. For those of you who would like to join a FORTH interest group you must enroll at this coming meeting. The formation of this group will depend on the number of those enrolling.

SUBJECT: NEWSLETTER

WE ARE IN DESPERATE NEED OF ARTICLES AND/OR PROGRAMS TO PUT IN THE NEWSLETTER. YOUR COOPERATION WOULD BE APPRECIATED.

SUBJECT: SOFTWARE SUPPPORT

THERE IS A STORE IN TOWN THAT IS WILLING TO SUPPORT THE TI 99/4A. THE OWNER HAS AGREED TO GET ANY PROGRAMS THAT WE WISH TO BUY. ALSO, HE WILL GIVE THE MEMBERS OF THE CLUB DISCOUNTS ON THINGS SUCH AS DISKS AND TAPES. WE'LL DISCUSS THIS TOPIC AT THE MEETING.

WELL, FOR THE LACK OF ANYTHING ELSE TO PUT IN THE NEWSLETTER THIS MONTH, I'LL CLOSE FOR NOW. HOPE TO SEE YOU AT THE MEETING!!

* PROGRAMMING TIP

Here is another tip that you can use if you have Extended Basic and Memory Expansion. After you power up your system and before you start programing, type in the following line in the immediate mode:

CALL INIT :: CALL LOAD(-31888,63,255)

This is the same as if you were to type in CALL FILES(0) which is not a proper command. It will shut down your disk drives and free the 2K of memory allocated for the house-keeping routines used by the disk drives. The drives can be turned back on by typing in BYE.

However, if you try to access the disk drives while they are shut down, your computer will "lock up" and you will have to turn it off and back on to re-gain control.

If you are going to do much programming in Extended Basic with the use of CALL PEEK, CALL LOAD, CALL LINK, etc. you will need a good Hexidecimal/ binary conversion program. There are several good ones around or you can write your own.

Incidently, CALL LOAD in TI Exteneded Basic is the same as CALL POKE in other dialects of Basic. It functions by LOADing a value into a specific memory location.

With the use of Memory Expansion and CALL LINK, you can use the 8K of Low Memory Expansion to define your own subroutine (ie. PEEKV, POKEV, POKER, etc.). Remember, we used those last month in the demonstration of the Tachyon System 32K Memory EXpansion.

DON'T FORGET to do a little preventative maintainance on your computer and cartridges. Clean the contacts with a "pearl pink" eraser every so often and clean the key contacts when you get multiple strikes when you press a key.

FREQUENTLY check your cable connections and make sure that they are secure.

A little time spent in maintaining your system on a weekly basis will help prevent some of the memory loss and erratic computer behavior that destroys programs.

QUESTIONS AND ANSWERS

IS THERE ANY WAY TO PUT THE PROGRAMS THAT I WRITE ON A CARTRIDGE?

Yes, there is. NAVARONE has come out with a system for programming your own cartridges. The system costs about $299.00 for the EPROM (Erasable ROM) programmer and the blank cartridges are $19.95 each.

WHEN I PLUG IN SOME OF MY CARTRIDGES, THE SCREEN GOES WILD AND THEY WON'T RUN. ARE THEY WORN OUT?

Probably not, the problem is very likely an oxidation deposit in the cartridge contacts. If you will clean them off with the "old pearl pink" the cartridge should be as good as new. Just depress the shield and lightly rub the eraser across the contacts on both sides, and it should correct the problem. You will notice a black deposit on the eraser after you finish cleaning the cartridge contacts.

Send your questions about the TI or peripherals to the Newsletter at P.O. Box 21691 and we will try to answer them for you!

PRODUCT INFORMATION

As you can see, the eight months since TI dropped out of the Home Compute r market have been anything but quiet. Third-party producers have continued to crank out software packages and produce hardware.

There is a full spectrum of software, cartidges, and published programs. Recent introductions are the series of titles from Ataris 0 oft and Infocom which include some of the most popular games these companies produce. CENTIPEDE, SHAMUS, FATHOM, etc are just a few of the cartridge titles available.

HOME COMPUTER MAGAZINE has been publishing some powerful utility/enrichment programs of late. An Electronic Home Secretary with a built-in auto-dial and timer and a mini SNAP-CALC spreadsheet are two of the more interesting programs they have published lately.

The pages of HCM are also full of advertisements for a wide variety of cassette and diskette-based software.

On the hardware side, there are PEB functional equivalents and stand-alones of all sizes and shapes. There are 32K and 128K PEB cards, RS 232s, and Disk Controllers. There are Speech cards, Music cards, CP/M cards and many more for the PEB. Virtually everything that is available in a card for the PEB is available as a stand-alone.

So, make your choice and EXPAND your system.

If you have been having trouble loading your cassette-based programs, the most likely culprit is the tape itself. When dealing with magnetic data storage media, you get exactly what you pay for. A cheap priced tape is usually not a bargain. The cheaper tapes are usually poor in quality and do not have the high frequency response to reproduce computer programs accurately. You will find that the higher the quality of the tape, the lower you may set the volume on your recorder.

The same is generally true for diskettes. The cheap, economy variety usually will be more likely to fail after a few passes or have dead sectors to begin with.

Your storage medium is a relatively minor expense when you consider the amount of data and number of programs that you store per unit. It pays to spend your money wisely and not sacrifice quality by using a medium not really suited for computer data storage.

RETAIL NEWS

A lot has been happening locally in the last 3-6 weeks. Some of the following may be of interest to our readers:

** Look for good prices on all TI software at SOFTWARE CITY on W. Market St. They will order software not in stock with no obligation for you to buy it.

** K-Mart reduced prices on all TI software and may have some left. Look for CENTIPEDE (ATARISOFT) at the W. Market store for $11.00.

** Montgomery Ward has programs in the $10.00-$15.00 range.

** Sears has reduced prices on software. The employee store on Lawndale Drive had several consoles for $150.

** Brendle's may still have TI-WRITER, TI LOGO II, or MULTIPLAN for under $40.00, but you have to ask for them, they are not on display.

** We will soon give a membership list to DSI (Data Supplies, Inc.). After they have our membership list, all memmbers will receive a discoount on diskettes, printer paper, or any other computer supplies. DSI is located on Creekridge Rd. between S. Elm-Eugene and Randleman Rd.

TI TRIVIA

1. What was the date TI announced its withdrawal from the home computer market? What day of the week was it?

2. What company did TI turn its remaining software over to?

3. What is unusual about the MINER 2049er cartridge for the TI by TIGERVISION?

4. When you plug in the TERMINAL EMULATOR II cartridge and pass over the main title screen, how many menu options do you have?

5. Why does the SPEECH SYNTHESIZER have a hinged door on it?

6. How many keys, including the space bar, are on the console?

7. How many colors is the 99/4A capable of producing?

8. TI WRITER requires a disk drive, but what actually comes with the package?
   A. disk only
   B. command module only
   C. Module and disk

9. Who developed the ADVENTURE series?

10. When playing TI's BLACKJACK AND POKER game, how many players can play poker at one time?

ANSWERS WILL BE IN NEXT MONTH'S NEWSLETTER

THE GUILFORD 99'ER USERS' GROUP NEWSLETTER IS FREE TO DUES PAYING MEMBERS OF THE USERS' GROUP (ONE COPY PER FAMILY, PLEASE). DUES ARE $6.00 PER FAMILY PER YEAR. SEND CHECK TO P.O. BOX 21691, GREENSBORO, N.C. 27420. THE CLUB'S SOFTWARE LIBRARY IS FOR DUES PAYING MEMBERS ONLY.

THE HARDWARE SHOPPER

OSCAR
DATABAR, CORP.

OSCAR is an Optical SCanner And Reader that is used for the entry of programs into your computer much more rapidly than you could enter them by typing.

OSCAR operates on the same idea as the price and code scanner that you see at the check-out counter at your local supermarket. It scans a group of coded bars and enters them into your computer's memory in the form of a program. The OSCAR system comes with the reader device itself, a magazine of several programs, and a template that you must use when entering the programs. The proceedure is relatively simple.

To enter a program, you place the template over the coded bars and then slide OSCAR across the bars in sequence from top to bottom. The program is then ready to run --- in just a fraction of the time that it takes to type in the program manually.

DATABAR Corporation publishes a magazine that goes along with OSCAR to provide additional programs. The system costs about $80.00 but the software programs are currently limited and there is no provision to write your own programs in an optical scanning format. So, the practicality of the OSCAR system is questionable at the present time.

The next two items are cards that fit into the PEB to enhance your system's capabilities. They are both fairly expensive and quite specialized. They might be of use to those of you that have an interest in the area that they cover.

THE BAND
TEXAS PERIPHERALS

THE BAND is a music synthesizer card that fits into the PEB and converts your computer into a 12 voice, 2 channel stereo music synthesizer. It has software control of attack, decay, etc. on each channel and comes with a disk-based composing system. It is only accessable with the disk based composing system. Although it is extremely specialized and the applications are very narrow in scope, it might be of value to those of you who are interested in high quality music composition. It caries a price tag of $299.95 so you would have to be very serious about music to buy one.

INTELLIGENT TERMINAL CARD
FOUNDATION COMPUTING

The INTELLIGENT TERMINAL card by FOUNDATION COMPUTING is advertised as providing a 24 X 80 display with a 25th line of status information. It will display any combination of reverse video, half height, double width, double height, and blinking characters as well as half-intensity characters. It has a full set of control codes and line drawing characters built in.

FOUNDATION COMPUTING anticipates that it will be used in word processing, telecommunications, and report layouts. It is supposed to replace some of the functions of the RS232 card.

It is interesting to note that the card contains its own micro computer built into the card itself. The suggested retail price for the card is $249.00.

Don't forget, hot summer weather is hard on computers too! The heat that is generated by prolonged use of the computer does not dissapate as rapidly in the warm summer months. So, give your computer a rest by turning it off before it overheats!

PRODUCT REVIEWS
BY EDWIN SIMPSON

BOOK REVIEWS

PROGRAMMER'S REFERENCE GUIDE TO THE TI-99/4A

C. REGENA

TI expert C. Regena teamed up with COMPUTE MAGAZINE's Book Division to give us this reference guide, an informantive analysis of the TI computer. The book deals mainly with the built-in Basic, although it does mention Extended Basic, Paschal, and others. It gives detailed information on graphics, sound, built-in functions, and programming tips. It backs them all up with programs.

Reference Guides are generally used to look things up when you need help, and T.I.'s own reference guide that came with the computer fits into this category. Regena's reference guide is easier to read and learn from due to the format and the programs that are included. If you have mastered Basic and you have moved on to other languages, you may not need it. If you are still learning Basic, it may be a big help to you.

PROGRAMMING BASIC WITH THE TI HOME COMPUTER

HERBERT D. PECKHAM

This book is the follow-up to the BEGINNER'S BASIC manual that came with your computer. Like most books about the TI, it deals with Basic language and may be too elementary for some readers. The book has some good examples in it, but it also has some mistakes. It starts by telling you about the computer and how to plug it in, etc. Included are sections on arithmetic and program management, input and output, branching, functions and looping, arrays, string variables, do-it-yourself subroutines, and subprograms. Each chapter has discussion, sample programs, and problems for the readers to solve. It is an effective format that keeps readers interested while learning.

SOFTWARE REVIEW

MOONBEAM EXPRESS

MOONBEAM SOFTWARE
2 BRIDGE STREET
NORTHAMPTON, MASS. 01060

REQUIRED EQUIPMENT: CASSETTE RECORDER

MOONBEAM SOFTWARE has produced a number of programs for the T.I., such as ZERO ZONE and ROBOT RUNNER. A recent article in a national magazine was very complimentary and I was looking forward to trying out MOONBEAM EXPRESS. I was disappointed! The game moves slowly and the player has no indication of his score until the end of the game. The graphics are fair, but I have seen better. The game is hard to master, and becomes boring very quickly. It is not worth the wait to load it from cassette. With outstanding space and alien games like PARSEC available on cartridge, who needs this one?

****

PROGRAMMING TIP

Have you ever typed in 200 or so lines of an Extended Basic program and instead of pressing "SHIFT" and "+" accidently pressed the "FUNCTION" key and wiped out the entire program? Well, join the club! The following tip will eliminate the problem. To use it, you must have a memory expansion card or standalone and be using Extended Basic (Basic cannot access memory expansion).

If you type in:
CALL INIT :: CALL LOAD(-31806,16)
in the immediate mode (no line numbers) before you start entering your program, you will not have to worry about accidently losing your program.

This memory location is in the Scratch Pad RAM and is called the "interrupt flag". With it you can disable the QUIT key (FCTN=). I hope this will help remove some of the frustration (and "colorful" language) that results from having hours of work go down the drain with an inadvertant

WRITING MUSIC PROGRAMS FOR THE TI 99/4A

By

CARL O. FOSTER

I trust that you were successful in setting up the music program in last month's article. Also, I hope you gained some understanding of the basic music fundamentals presented.

This time we are going to learn how the dot (.) is used in music to add to a note 1/2 of its original value, how a beat can be divided into three equal parts to form triplet notes, and we will learn about the sixteenth note (♬) which in common time (4/4) receives 1/4 beat. The following are examples showing how the dot affects the duration, or value of different kinds of notes.

Examples: The dot adds to the eighth note 1/2 of its original value (1/2 * 1/2=1/4). 1/2 + 1/4=3/4 or .75 ♪.
The doted eighth note is coded(A * .75)

The dotted quarter note- 1 + 1/2 which is coded (A+A*.5) ♩.

The dotted half note- 2 +1=3. It would be coded (A * 1.5) 𝅗𝅥.

Let's focus our attention on the sixteenth note. It's somewhat like the eighth note but instead of one flag attached to its stem it has two- (♬). It gets 1/2 the value of an eighth note (1/2 of 1/2= 1/4 beat). It is coded (A * .25).

Let's go back to our program from last month to make some changes to improve the program.

```
01 CALL CLEAR
02 PRINT " S UGGESTED TEMPO:500"  03
INPUT "TEMPO=":A
```

If you noticed, in our original program lines 20, 25, and 30, were the same as lines 35,40,45, respectively. In order to save time a "FOR" statement is used in the new version to repeat lines 20,25, and 30, once. This procedure is used again in the program to save writing time.

```
05 FOR I=1 TO 2
```

Our next step is to add the second and third harmony parts to the melody notes of last month' s program.

The first CALL SOUND statement has three notes: E- Freq. 330, C- Freq. 262, and G- Freq.196. These three notes are sounded at the same time and have the same duration (A). Thus, the first CALL SOUND IS:

```
20 CALL SOUND(A,330,4,262,4,196,4)
```

This process of adding the second and third parts to the melody notes is followed throughout the program, giving three frequences per call statement.
Let's take a look at duration statement in line eighty. The .75 represents the value od a dotted eighth note. In line 85 the .25 represents the duration of a sixteenth note, and when added to the .75= 1 beat .

Looking at lines 90,95, and 100, we see the triplets coded (A*.33) A*.33) and (A*.34)=1.0 beat. The either the 1st, 2nd, or third note of the triple

MUSIC PROGRAMS CONT'D

The total program should list as follows:

```
01  CALL CLEAR
02  PRINT " SUGGESTED TEMPO:500"
03  INPUT "TEMPO=":A
05  FOR I=1 TO 2
10  CALL CLEAR
20  CALL
SOUND(A,330,4,262,4,196,4)
25  CALL
SOUND(A,294,4,247,4,175,4)
30  CALL
SOUND(A*2,262,4,196,4,165,4)
35  NEXT I
40  CALL
SOUND(A,394,4,330,4,262,4)
45  CALL
SOUND(A,349,4,292,4,247,4)
50  CALL
SOUND(A*2,330,4,262,4,196,4)
55  CALL
SOUND(A,394,4,330,4,262,4)
60  CALL
SOUND(A,349,4,294,4,247,4)
65  CALL
SOUND(A*1.5,330,4,262,4,196,4)
70  CALL
SOUND(A/2,392,4,294,4,247,4)
75  FOR I=1 TO 2
80  CALL
SOUND(A*.75,523,4,392,4,330,4)
85  CALL
SOUND(A*.25,523,4,392,4,30,4)
90  CALL
SOUND(A*.33,494,4,347,4,294,4)
95  CALL
SOUND(A*.33,440,4,349,4,294,4)
100 CALL
SOUND(A*.34,494,4,349,4,294,4)
105 CALL
SOUND(A*.75,523,4,392,4,30,4)
110 CALL
SOUND(A*.25,392,4,349,4,294,4)
115 CALL
SOUND(A*.75,392,4,330,4,262,4)
120 CALL
SOUND(A*.25,392,4,349,4,294,4)
125 NEXT I
130 CALL
SOUND(A*.75,523,4,392,4,330,4)
135 CALL
SOUND(A*.25,523,4,392,4,330,4)
140 CALL
SOUND(A*.33,494,4,347,4,294,4)
145 CALL
SOUND(A*.33,440,4,349,4,294,4)
150 CALL
SOUND(A*.34,494,4,349,4,294,4)
155 CALL
SOUND(A*.75,523,4,392,4,330,4)
160 CALL
SOUND(A*.25,392,4,349,4,294,4)
165 CALL
SOUND(A*.75,392,4,330,4,262,4)
170 CALL
SOUND(A*.25,349,4,294,4,220,4)
175 CALL SOUND(A,330,4,262,4,196,4)
180 CALL SOUND(294,4,247,4,175,4)
185 CALL
SOUND(A*2,262,4,196,4,165,4)
190 END
```

```
**********************************
*                                *
*           A N A G R A M        *
*                                *
**********************************
```

A R T S

O D G O

U L G L Y

S A I N T

Y A R F I D

A N S W E R: _ _ _ _ _ _ _ _ _

The letters in the circles above, when correctly arranged spell out the name of a significant historic County in North Carolina.

If you are interested in developing anagrams on you own, enter the Anagrammer Program on the next page and save on tape or disk.
Credit for the Program goes to Jim Peterson, Tiger Club, D.C. Area Newsletter.

```
100 CALL CLEAR :: PRINT TAB(5);"TIGERCLUB ANAGRAMMER" :: !BY JIM PETERSON
110 INPUT "TYPE A 3-,4-,5- OR 6-LETTER WORD ":A$ :: W=LEN(A$):: IF (W<3)+(W>6)T
EN 110
120 PRINT :: FOR J=1 TO W :: B$(J)=SEG$(A$,J,1):: NEXT J :: FOR J=2 TO W :: IF B
$(J)>=B$(J-1)THEN 160
130 T$=B$(J):: FOR L=J-1 TO 1 STEP -1 :: B$(L+1)=B$(L)
140 IF B$(L-1)>=T$ THEN 150 :: B$(L)=T$ :: GOTO 160
150 NEXT L
160 NEXT J
170 FOR A=1 TO W :: FOR B=1 TO W :: IF B=A THEN 340
180 FOR C=1 TO W :: IF (C=A)+(C=B)THEN 330
190 IF W=3 THEN 250
200 FOR D=1 TO W :: IF (D=A)+(D=B)+(D=C)THEN 320
210 IF W=4 THEN 260
220 FOR E=1 TO W :: IF (E=A)+(E=B)+(E=C)+(E=D)THEN 310
230 IF W=5 THEN 270
240 FOR F=1 TO W :: IF (F=A)+(F=B)+(F=C)+(F=D)+(F=E)THEN 300 ELSE 280
250 W$=B$(A)&B$(B)&B$(C):: IF W$<=V$ THEN 330 ELSE 290
260 W$=B$(A)&B$(B)&B$(C)&B$(D):: IF W$<=V$ THEN 320 ELSE 290
270 W$=B$(A)&B$(B)&B$(C)&B$(D)&B$(E):: IF W$<=V$ THEN 310 ELSE 290
280 W$=B$(A)&B$(B)&B$(C)&B$(D)&B$(E)&B$(F):: IF W$<=V$ THEN 310
290 PRINT W$;" ";:: G=G+1 :: V$=W$ :: ON W-2 GOTO 330,320,310,300
300 NEXT F
310 NEXT E
320 NEXT D
330 NEXT C
340 NEXT B
350 NEXT A
360 PRINT " ";G;"TOTAL COMBINATIONS." :: G=0 :: V$="" :: GOTO 110
```

MINUTES OF THE LAST MEETING
JULY 3, 1984
ZAYRE DEPT. STORE

Rob Carmany Presided in the absence of the President, Ken Bailey. Minutes of 5th June meeting were read and approved.

Ed Simpson informed the members about Data Suppliers, Inc.,(DSI), located on Creekridge Rd. This company sells such computer supplies as Printer Paper, blank diskettes, computer furniture, etc." Upon the submission of a membership roster from our club, members will receive a 5-10% discount on all Purchases plus notices of our meetings will be Posted in the store. The body voted unanimously to submit a membership roster to the company.

Ed Simpson reported that a room with a capacity of 50-60 People is immediately available to us at GTCC, Downtown Campus on Thursdays free of charge. In the event early fall, Sept. or Oct, the same accommodations are available on Tuesdays. The body voted to wait until september to make the move to keep the meetings on Tuesday nights.

Rob Carmany showed his computer setup which is an alternative to the Peripheral Expansion box along with his Printer. He also demonstrated several Programs of interest.

It was suggested that a social(Picnic, inner,etc.) be held for members and their families. Other suggestions were to improve the Newsletter were given. It was also reported that Sandy Carmany would begin the Education classes July 9th at Zayre's at 2.00 P.m.