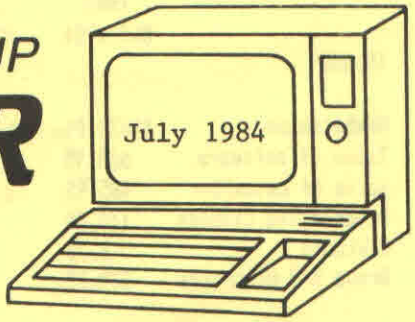
CEDAR VALLEY 99'ER USER GROUP
NEWSLETTER



***** MINUTES FROM JULY MEETING *****

The July meeting was called to order by Vice President Bryan Hawkins at 7:04 p. m. There were 37 members present for the meeting. Minutes from the June meeting were read by Ed Hayek and approved as read. The Treasurer's report was summerized by Ed Hayek and approved as read.

There was no old business brought up for discussion.

Jim Trainor reported that the second club sponsered basic class was going well with twelve students attending.

There was a general discussion of RS 232 availability and what software might be available. The upcoming tent sale at Drug Town, which is supposed to have left over TI software, was discussed.

It was pointed out that the Texscribe program, when used with a cassette recorder, will not load back into the printer.

The subject of computer overheating/lockup was discussed. Members feel that the computer's normally run hot and that computer lockup, especially when in Extended Basic, is probably due to some other cause.

Twenty members expressed an interest in purchasing the Home Computer magazine through the club. It was pointed out that distributors have stopped carrying it because publication was unreliable. Emerald Valley Publishing will be contacted to see what possible arrangements can be made.

Brian Hawkins presented the evenings program. The topic was the use of the new CorComp 9900 Mini-Expansion System with stand alone RS 232. The new system was interfaced with a Star Micronics Gemini 10X printer. The demonstration verified that it was capable of operating the printer with the parallel connection. Jim Green had previously used the serial capability with the telephone modem. It was an interesting demonstration that raised many questions concerning RS 232 use with printers. Apparently, many club members are seriously considering acquiring printers. The word processing program demonstrated was also impressive.

The door prize winner was Rich Emery. Rich will receive four programs of his choice from the club library on cassette or disk.

After a general discussion session the meeting was adjourned at 8:45 p. m.

For the Secretary
Ed Hayek

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NEWSLETTER TOPICS

1. Next Meeting Reminder
2. Welcome Newcomers
3. Micro 99 On Line
4. Music For The TI 99/4A
5. Helpline
6. TI Troubleshooting
7. New Products, Mailings, Etc.
8. Will TI 99/4A's Live Forever?
9. Speech Synthesizer
10. A Helpful Program
11. Using Data Files
12. Buy and Sell

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***** THE TREASURY *****

	THRU MAY 1984	JUNE 84	TOTAL
INCOME			
Memberships	$1622.00	$ 10.00	$1672.00
Sales of software	658.95	8.00	666.95
Sales of cassettes	485.95	57.00	542.95
Programming classes	130.00	0	130.00
Dividend	8.70	1.37	10.07
Group S/W purchases	879.75	73.50	953.25
TOTAL	$3825.35	$149.87	$3975.22
DISPERSALS			
Receipt book	$ 6.00	$ 0	$ 6.00
Meeting rent	109.00	28.00	137.00
Postage	251.68	25.00	276.68
Bank/Check charges	7.92	1.00	8.92
Cassettes purchase	661.94	0	661.94
Software purchase	64.00	0	64.00
Subscriptions	34.50	0	34.50
Class teacher salary	250.00	0	250.00
Class tuition refund	5.00	0	5.00
Address labels	24.18	0	24.18
Recorder purchase	109.19	0	109.19
System purchase	953.16	0	953.16
Advertising	71.80	0	71.80
Group s/w buy	952.75	0	952.75
TOTAL	$3501.12	$ 54.00	$3555.12
ASSETS			
Savings account	$ 152.00	$ 1.37	$ 153.37
Cash on hand	24.10	(0.10)	24.00
Checking account	148.13	94.60	242.73
TOTAL	$ 324.23	$ 95.87	$ 420.10
PROOF	$ 324.23	$ 95.87	$ 420.10
	$ 324.23		$ 420.10

Ed Hayek
Treasurer

***** NEXT MEETING REMINDER *****

The August meeting will be held on the second Monday, August 13th, at the JA building located at 330 Collins Road, N.E., Cedar Rapids. The meeting will begin at 7:00 p.m.

***** WELCOME NEWCOMERS *****

We would like to welcome the following two new members to our club:

Christoper Matt Stookey
Marion, Ia

Charles Rohm
Coralville, Ia

***** MICRO 99 ON LINE *****

The June issue of the Atlanta 99/4A Computer Users Group Call Newsletter points out that a new TI based bulletin board is available for TI (and non-TI) computers. This bulletin board is operated by a gentleman named Robert Orr of Micro Plus. It is up twenty-four hours a day, seven days a week. The system provides information on computers, replacements for TI hardware, new software, events, and much more.

The system is run on a TI with three one-third height disk drives mounted in the new Micro Plus P box. The drives are not on the market yet and are being evaluated by Mr. Orr for possible use with the new systems from Micro Plus.

For those of you lucky enough to have a modem, give this new system a call at (404) 768-0990 and explore the world of telecomputing.

***** MUSIC FOR THE TI 99/4A *****

Jim Hubbard of the Atlanta 99/4A Computer Users Group provided a very interesting article pertaining to the use of music on the TI as follows:

"Why do we see so many programs for music on the TI? While most TI owners don't know a megabyte from Boolean algebra, and wouldn't know a Munchman Hono if they stepped on one, everyone can enjoy a musical program. Music can be very effective for learning programming techiques because you can hear your results immediately, beginning with the first note. And while it is possible to program a song using only CALL SOUND statements, the bulkyness of the program encourages you to use arrays, subroutines, and data statements to simplify and condense the programs.

In addition to simple CALL SOUND statements, several program techniques can be used to enhance the musical sounds. These can be substituted into the program below to illustrate the different sounds. All of these techniques are found in music programs in our music library.

During the presentation of these techniques the question was raised concerning the pause before the last note of each melody. It was suggested that a very high note (22222) be programmed as the last note so we wouldn't hear the pause. This was done in line 210, and then discovered that it isn't necessary to play that last note as long as it is in the data statement. Note that line 110 has only 13 steps while line 210 has 14 data values. Now the melody plays without a pause.

Now run this short program in basic or Extended basic:

```
100 REM MARY HAD A LITTLE LAMB
110 FOR I=1 TO 13
120 READ N
130 REM SIMPLE MELODY
150 CALL SOUND(400,N,1)
200 NEXT I
210 DATA 659,587,523,587,659,659,659,659,
    587,587,659,587,523,22222
```

Now use the edit features to try the following sounds. For low-low notes, change:

```
130 REM LOW-LOW
150 CALL SOUND(400,440,30,440,30,N*2,30,-4,1)
```

For a simple organ sound, change:

```
130 REM ORGAN
150 CALL SOUND(400,N,1,N*2,4)
```

For a better organ sound, change:

```
130 REM BETTER ORGAN
140 FOR V=5 TO 25 STEP 5
150 CALL SOUND(-400,N,V,N*2,V,N*7.5,30,-4,V)
170 NEXT V
```

For a harpsicord sound, change:

```
130 REM HARPSICORD
140 FOR V=0 TO 30 STEP 7
150 CALL SOUND(-400,N,V,N*2,V)
170 NEXT V
```

For a tremola sound, change:

```
130 REM TREMOLA SOUND
140 FOR J=1 TO 8
150 CALL SOUND(-50,N,1)
160 CALL SOUND(-50,N*1.03,1)
170 NEXT J
```

You may want to SAVE each of these programs. Then, by changing the data in line 210 (see appendex on page III-7 of the Reference Guide) and adding more data in lines 220 etc., and by changing the 13 in line 110 to the number of notes you want to play, you can write your own songs. Remember to put one more note in your data that you have in line 110 so the computer won't pause. Have fun!!!"

***** HELPLINE *****

The Atlanta 99/4A Computer User's Group Call Newsletter also provides us with information pertaining to a new service offered to TI owners called HELPLINE.

This service provides technical support and information pertaining to the TI 99/4A. It is manned by Mr. Guy-Stefan Romano (he use to write articles for the 'Enthusiast 99') on a volunteer basis Monday through Saturday, 9 a.m. to 3 p.m. Pacific time. The service is free, except for the price of the phone call. Mr. Romano's service is in no way connected with the TI-CARES organization. All serious computer users should keep the following phone number handy: (415) 753-5581.

***** TI TROUBLESHOOTING *****

How many times have you sat down with your TI joysticks to play a game and the darn things refuse to work properly? Don't dispare! If you can use a screwdriver, and are patient, repairs can be made.

Determine the joystick that is giving you all the problems. Then, carefully remove the bottom cover from the base of the joystick assembly by removing two phillips head screws. Once the bottom cover is removed you can remove the joystick handle assembly from the bottom of the base assembly. There should be a piece of black foam pressed in the bottom of the base assembly. Carefully remove the foam. The only thing remaining is a plastic sheet with copper runs (lines) on the sheet. Would you believe this is the heart of the joystick? Now, carefully insert the joystick handle through the bottom of the base assembly. Ensure the round-base portion of the joystick handle is against the plastic sheet. Hold the joystick in this position while you turn the computer back on. Load a program that requires the use of the joysticks (use the same one you were using when you noticed the problem). With the program in motion, slowly move the joystick handle to various positions to determine the area in which the joystick refuses to operate properly. Once this is determined, look at the position of the joystick base on the plastic sheet. Keep this position in mind while you remove the joystick from the base. Carefully observe the area on the plastic sheet and check for a crack or other damage on the copper run (line). Once this is determined, press the area with the eraser end of a pencil or carefully with the tip of a butter knife. Some results should be noticed.

Now that the broken area is determined, we must fix it with a conductive material such as gold leaf (rub-on photo album letters) or tape. If you use tape remember that it must be of a conductive material (I hear there is a automotive rear defogger repair tape that could work). Carefully rub on the gold leaf or place a small piece of conductive tape over the copper line area that was damaged. It is very important that you do not use more than necessary. Insert the joystick handle back into the base and again try moving it around. This will ensure that the area was fixed, and more important, that another area is also not damaged. Now, sit back and smile----you fixed it! WRONG!!! You forgot to put it back together again. Once you do that, then you can smile!

Chuck Moats

***** NEW PRODUCTS, MAILINGS, ETC. *****

Every month we receive several mailings announcing new software, new hardware, special sales, group newsletters, etc. These are available at our monthly meetings for everyone to read. Be sure to look on the tables at the back of the room.

This month's mailings include:

SUNWARE, LTD.	Games, on their cartridges
TUTTLE PRODUCTS	Board game based on LOGO
FREDERICK HAWKINS	Extended basic disassembler program
EEE ELECTRONICS	Ac voltage protection devices
JOHN DOW	Flight simulator, editor-assembler, Intro. to assembly language book
SAS INDUSTRIES	Printer ribbon re-inkers
DAVE HEBERT	Computer classified publication
Schmidt Enterprises	Super Sketch video graphics and Sketch Master software with controller pad, and Axiom GP-100 printer that plugs directly into the TI computer
Software Specialties, Inc.	New cartridge game called the Midnite Mason
Bytemaster Computer Services	New monthly magazine called Super 99 Monthly--subscriptions available

Be sure to check out these resources at the August meeting!!

Jim Green

***** WILL THE TI 99/4A LIVE FOREVER? *****

Jim Green recently took a trip to the Museum of Science and Industry in Chicago and was very surprised to see an exhibit using the TI 99/4A's. The exhibit was called Tech-Choice or Chance? According to Jim, the exibit used ten TI 99/4A units with mini memory. They were used to ask questions, record opinions, and then total-average the answers to different questions. Jim stated to me that he was very surprised to see the TI being used. Kind of nice to know that someone else really cares, out side of us, doesn't it?

Jim Green

***** SPEECH SYNTHESIZER *****

From the Central Iowa 99/4A Users Group newsletter The 4A Forum is a very interesting artcle on the workings of the TI speech synthesizer.

"Did you ever wonder how the speech synthesizer was able to say so many things with different voices and inflections? Texas Instrumentss has put a lot of effort into designing speech synthesizers, including their speak-and-spell toys. Their engineers analyzed heman speech patterns, and developed a set of codes that can be used to describe speech sound waves. The words and phrases that are in the TI Extended Basic vocabulary are stored on a chip located in the speech synthesizer. The codes were calculated by analyzing speech wave forms in 'frames' of one fortieth of a second. For each frame, a pitch value between 0 and 63 is assigned, as well as an energy level between 0 and 15. There are also ten additional values needed to create the desired wave form during the frame. In total, fifty bits of data are needed for each frame. One second of speech would require 40 times 50, or 2000 bits of data (250 bytes). However, TI reduces the amount of data actually needed by using shorter codes for 'repeat' frames and unvoiced sounds. Therefore, the resulting string of bits actually stored in memory for any word is considerably reduced.

You can see the pattern of bits that is stored in the synthesizer memory for any word in the vocabulary. You can do this by using the SPGET subroutine in Extended Basic. The SPGET routine returns a character string which is made up of the bits in the synthesizer memory. For example, the following line can be entered in Extended Basic to view the character string which represents the word 'HELLO':

```
CALL SPGET("HELLO",A$) :: PRINT A$
```

Unfortunately, not all of the characters print out. Therefore, to see what the data really looks like in the memory, we need to run this on line program:

```
FOR I=1 TO LEN(A$) :: PRINT ACS(SEG$(A$,I,1)); :: NEXT I
```

In order to convert these codes into the codes for ENERGY, PITCH, and the other codes (reflection coefficients), it is necessary to write a program which breaks the character string returned by SPGET into a string of bits, and then recombine the bits into the irregularly sized codes used by the speech synthesizer."

***** A HELPFUL PROGRAM *****

The following program, which allows you to place a 5-line sentence anywhere on the screen, was provided to us by one of our loyal members, Dave Dalton:

```
100  CALL CLEAR :: INPUT "ENTER YOUR SENTENCE ":A$
110  INPUT "ENTER A NUMBER BETWEEN 1 AND 19 ":LC
120  R=INT(LC)
130  QQ=0
140  C=100*(LC-R)
150  FOR Q=1 TO LEN(A$)
160  QQ=QQ+1
170  IF C+QQ < 31 THEN 200
180  R=R+1
190  QQ=1
200  CALL HCHAR(R,C+QQ,ASC(SEG$(A$,Q,1)))
210  NEXT Q
```

It seems as though this program is written for Extended Basic. I'm not sure it will work as written. Someone please try it and let me know.

Editor

***** USING DATA FILES *****

Dave Dalton would like to share with you the procedures that should be used when either sending data to, or extracting data from, the cassette recorder. First, ensure your volume and tone settings are set to their regular positions. Second, follow the computer's instructions. Third, during the transfer of data files, after you press ENTER, the tape will start 6 to 7 seconds before data files are transfered. (This 6 to 7 seconds actually puts a leader on the tape. Note the position where this leader begins!) After data is transfered to the tape, again follow the computer's instructions.

To load data back into the computer using data files from tape, ensure you set up the tape to the position where the leader begins. The data should start transfering back to the computer 6 to 7 seconds after the tape begins to run. When the computer scrolls up one line it is informing you that it is ready to receive the data. This should correlate with the 6 to 7 seconds of leader on the tape.

Dave Dalton

The CEDAR VALLEY 99'er USER GROUP NEWSLETTER is published by the Cedar Valley 99'er User's Group in the Cedar Rapids/Marion area. Members are encouraged to contribute articles. Opinions expressed are those of the writer and are not necessarily those of the Cedar Valley 99'er User's Group, its Officers, editor, or members.

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