KENTUCKIANA 99/4 COMPUTER SOCIETY

NEWSLETTER

JUNE 1983

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LAST MEETING:

Our last meeting was held on May 22,1983 at U of L. Shelby Campus. We had a good meeting and lots of lively discussion which resulted in our shanghaing Bill Evans as our new editor. We had to promise him lots of help so get your articles in to him each month.

John Hester talked about programming and demonstrated several things he had done as examples to illustrate his points. Thanks for a job well done, John. I would also like to thank Gary Morrison of the University of Louisville for arranging for the use of our meeting room. The facilities are excellent and we appreciate them very much.

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HEXT MEETING: JUHE

Our next meeting will be held:

Sunday-JUNE 26, 1983 Time-2:00 PM Place: University of Louisville, Shelby Campus Founders Union Hall, Room 218A 9001 Shelbyville Rd. Louisville, KY

NEXT NEXT MEETING: JULY

Sunday-July 24, 1983 Same time & place except that we will be in room 218C.

DIRECTIONS:

Leave I-264 (Watterson Expressway) at Exit 20A and follow US60 East Shelbyville Rd.) About 3 miles. Look for Shelby Campus on the left (if you reach Hourstbourne Lane you are approx. 1/4 mile too far). When you turn in the entrance you will be headed toward a building with a large open area in the middle of it. Founders Union Hall is the Building to the right.

MHAT'S HEW

Computer Susp Americalis a high tech flex market which is held in San Jose, California. I understand they have everything known to man. The event is scheduled for September and is expected to attract some 7000 people from all around the country.

Book by Peter A. McWilliams. The Personal Computer Book. Paperback retails for \$9.95.

JUNE PROCRAM PLANS

For the June program we are putting together material on educational games. We plan to talk some about available software. Writing your own software can also be exciting. We will demonstrate some programs of this tupe.

We will also do some more work with Sprites. Try playing around with what you know about Sprites before the meeting and come prepared with inputs and questions.

This will be a meeting you will not want to miss. See you there.

- Bob White

EDUCATIONAL SOFTWARE

One of the best uses you can make of your computer is to use it for educational purposes. This can be of benefit to you for personal development. Very importantly, it can be extremely beneficial to your children.

Once you decide to use your computer for educational purposes, the next step is to buy educational software programs. There is already a considerable amount of educational software available and more coming out daily.

It is very important that you select carefully before buying. Be sure the software will satisfy your needs. I would suggest that first you try to write down your needs.

Next shop around! Check all the sources. Talk to other people about what you are interested in. They may have what you are looking for. They may put you on the right track to find it.

Once you find some software that interests you, think carefully before you write your check. Does it meet your needs? Have you seen it demonstrated? If at all possible get a demonstration before you buy any software! If it is for your children, have them take the software through its paces. They will get much better benefit if it appeals to them.

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"有种"的"加克"的"是什么你,一个点一点,要,要,那是她有知识是外面靠这种人要说说是这个正常的。 化二二二二

EDUCATIONAL GAMES

The design of educational software is extremely important. One of the most effective learning techniques is to use educational games. Learning through having fun. Everybody loves to have fun. Everybody loves to play. Cards, chess, adventure, word games, play anything.

Keep your eyes open for software that combines play with learning. This is a powerful combination. When you find some program you like, tell your friends about it.

Some of our members have tried writing some of this type software. I want to encourage more of you to do this. Do not be discouraged if your first attempt is not professional. Hang in there! Get someone to make suggestions on how to improve and polish it up. Think it through. Carefully design your game before you start to program. Make a flow chart. Go through it manually a few times with someone else.

In a future meeting we plan to devote more time to this area of educational software and if you have interests or have software of this type in your library, let us know.

PROGRAMMING TIPS

- If you are a beginning programmer, here are some things to remember:
- 1. Number your lines in increments of 10, 20, 30 etc.
- 2. Make use of subroutines. They decomplicate your program. More importantly, they make it run faster.
- 3. The 99/4A automatically sets up 8 slots for any array. If you are going to need more you must specify in your program.
- 4. Start out with the backbone of your program. Debug the simplest version and save it; then start adding features.
- 5. Graphics and sound make a program attractive. Once you have the basic program written, work on dressing it up. It is like icing on a cake. Change it if you come up with something better. Use subroutines for this.
- 6. Leave the randomize statement out initially. This allows you to debugusing the same variables each time. Once you are satisified then add in the randomize.
- 7. Test your program as you go. Add a segment, then test it before going to the next segment. Always be sure the basic program works first. Test under all conditions.
- 8. Keep a tape of subroutines. You can use them on new programs. Link together and load before starting your new program. Special graphics, sound effects, and other subroutines you may use over and over in new programs.
- 9. Build your computer software vocabulary. Try every command and capability of the computer. Experiment to see what you can make your 99/4A do. You may be surprised. Even the experts are still learning!

I would like to relate a tale that comes to us from our friends in THE TI-99/4(A) HOME COMPUTER USERS GROUP OF PERTH, WESTERN AUSTRALIA. If you think we have problems consider how the following must compound them.

TRANSFORMERS

A short story about two 12 volt centre-tapped 110 volt transformers from disk drives. I have replaced the above transformers with 240 volt versions in my two disk drives. I had occasion to require 26 volts A/C and decided to use the old TI transformers. By feeding 240 volts into the primary windings one would expect 26 volts output. In practice it give one a flash and a puff of black smoke per transformer (I wasn't watching the first transformer so, I organised an action replay).

Being a backyard transformer winder/repairer since the age of 15, I removed the first layer of paper insulation in the hope that the problem was minor or near the surface. II in their wisdom have constructed the transformers with a custom, very low amperage fuse (a very fine piece of copper wire soldered in series with one of the input wires).

I promptly soldered a bridge across the blown "fuse" and powered up the transformer again with 240 volts. Yery loud transformer hum was heard and then some unhealthy crackling sounds started coming from the primary windings. I turned off the power before the pyrotechnics really started (I'm really a coward at heart).

Now is there anything to learn from the above story?? YES!!

- -110 volt TI drive transformers don't like 240 volts.
- -If your drive 110 volt plug manages to get itself into a 240 volt socket, the transformer "fuse" may save the drive.
- -A replacement fuse can be constructed by stripping two inches of insulation off any thin multistrand wire. Cut the exposed wire and you have "multi" fuses.

EPILOGUE

The transformers were taken apart and the secondary windings given to a friend. They are living happily ever after as fabric flowers.

FYL.

PROGRAMMING CHALLENGE #1

by Robert Shull

For those of you who could not make the Informal Workshop on June 5, at the Medical Arts Bldg., here is a simple, little fun program that can help you beginners develop a few new tricks.

100 CALL CLEAR 110 FOR I=1 TO 24 120 CALL HCHAR(10,I,62,1) 130 NEXT I 140 GOTO 110

If there is any part of the program you don't understand, get out your reference manual (the green-covered, loose-leaf book that came with the computer). Read about FOR-NEXT loops starting on page II-53. Read about the HCHAR subprogram starting on page II-80.

After you get the program running, tru to modify it so the arrows print from top to bottom instead of left to right. Line 120 is the only line that has to be changed. Got it? Now try to get the arrows running from top left to bottom right.

If you finish stage one modifications, take a bold step forward and try these stage two modifications. Get the arrows going from left to right again. Now get the arrows to vanish one-by-one from right to left instead of blanking out all at once. You will have to add a new FOR-NEXT loop that counts backward; and you'll have to put a HCHAR instruction in the loop; and you'll have to use a different char-code in the HCHAR instruction to erase the arrows. Look on page III-1 to find the code for a (space) character.

If you want help and can't find it elsewhere, call me between 8 and 10 PM at 937-1516.

EXTENDED BASIC OWNERS

There is an undocumented command that can be used with EXTENDED BASIC. The next time you load a tape instead of using the command OLD CS1, try RUN "CS1". This command eliminates the need of using the RUN command after the tape has finished loading. It will automatically run the program when you stop the cassette recorder and press ENTER.

J. Tucker

PROGRAMMING CHALLENGE #2

by Robert Shull

100 RANDOMIZE

110 CALL CLEAR

120 SECRET=INT(RND*5)+1

130 PRINT "GUESS";

140 INPUT GUESS

150 IF GUESS=SECRET THEN 160 ELSE 130

160 PRINT "YOU GOT IT!"

Here's a simple game program. The computer picks a secret number between 1 and 5. You try to guess the number. Key in the program, play it a few times, then try to modify it as follows.

Modification 1: Add an instruction that restarts the game without your having to type "RUN" & "ENTER". If you need help, look on page II-49 of the reference manual.

If you used a GOTO statement for modification 1, the "YOU GOT IT!" message blinks on and off almost too fast to read. Hdd a delay loop that gives you time to read the message. If you need help, study the FOR-NEXT instructions starting on page II-53. Look closely at lines 220 and 230 of the second sample program on page II-56.

Modification 3: Add a musical reward for getting the number right. The sample program on page II-85 will do nicely.

Modification 4: Add a raspberry for wrong answers. See page II-85. You will probably have to change the THEN-ELSE part of line 150 too.

Modification 5: See if you can get the program to tell you how many guesses it took to get it right. No hints.

TRIP TO IRELAND ANYONE?

One of our members is going on vacation, but not just any vacation. John Hester is going to Ireland to visit relatives and friends. I am appointing John, Ambassador at Large. His mission will be to seek out and make contact with any groups he can find using TI computers. He is authorized to try (if he has any time) to establish an ongoing exchange of information via newsletters or other means. I happen to know that he is taking his video equipement with him so maybe we'll get to view some video tapes when he returns.

John, enjoy your vacation.

John Tucker

BUSINESS PROGRAMMING

by Peter J. Zemelka

The ideal microcomputer for business applications should have disk drives for random access filing in contrast to the slower sequential tape operation. Printer output capability for hard report copy, word processing, labels, etc. is also a must.

However for those people, including myself, who still lack the Extended Basic module as well as additional peripheral equipement, a computer using a cassette can still be a tool in business application programming.

There are a variety of formulas in the business environment. Using the "INPUT" statement, a program saved on tape can be rerun. New figures can always be inserted. a program might be developed to calculate a break even point or some kind of an amortization or depreciation schedule, etc.

Charles D. Stermberg's, BASIC COMPUTER PROGRAMS FOR BUSINESS, Volume 1 & 2; Hayden Book Company, Inc., offers a variety of application programs designed ideally as a reference source for the business man or student in business programming.

From setting up a simple bookkeeping operation to providing programs for various forecasting tichniques, mortgage computation, return on investmentment, etc. to inventory and production related programs, Sternberg offers an alternative to purchasing expensive software packages.

********* RECORD 1 *******

******** RECORD 2 ********

A sample account file.

Volume 2 deals primarily with random access filing for programs related to Marketing, Personnel & General Administration. Miscellaneous programs involving statistical and utility programs allow for both sequential and random access filing. A simplified word processing and customer mailing label program is offered by Sternberg.

Although Sternberg's two volume work is available through the 99'er bookstore, (advertised in the 99'er Home Computer Magazine), Sternberg's programming was developed on an Altair 8800b microcomputer system.

Language features, a general description of the logic process, flowcharts and descriptions of variable symbols used, etc. are provided in the text and Appendix and should help overcome compatibility problems when using TI BASIC.

Since BASIC is a standardized language, many programs written on one computer model can be utilized, usually after some transposing, on other computer models. The program logic should be the same.

Here is a program I developed used initially on a TRS Model 3 RADIO SHACK. The BASIC has been modified slightly for use on the TEXAS INSTRUMENT 99/4A.

This program provides for an amortization table listing payment number, month, balance, monthly interest, total due, monthly payment, and new balance. Monthly installment payments are to be \$400. per month. The initial sum borrowed is \$5420. Interest rate is 9%.

P=Payment # R=Principle T=Total Due D=New Balance

M=Month I=Monthly Interest Y=Payment

20 REM AMORTIZATION SCHEDULE
30 READ P,M,R
40 DATA 1,1,5420
50 LET I=R*.0075
60 IF R<400 THEM 230
70 LET D=(I+R)-400
80 LET T=400
90 LET Y=400
100 PRINT P;M;R;I;T;Y;D
110 LET R=D
120 LET V=1
130 LET P=V+P
140 LET I=0
150 LET T=0
150 LET Y=9

170 LET X=1
180 LET M=X+M
190 IF M=13 THEN 210
200 GOTO 50
210 LET M=1
220 GOTO 50
230 LET T=R+I
240 LET K=D
250 LET Y=R+I
260 LET D=Y
270 LET R=D
280 LET D=0
290 PRINT P;M;K;I;T;Y;D
300 END

Our thanks to Ed Wiest, TI Users' Group Coordinator for sending us a disk containing six musical programs for our library. The programs were written by Sam Moore who is a TI'er from Lewisville, Texas. Thanks again to Ed and to Sam for this nice addition to our library.

ANSWERS, TO MAY DERBYBYTES

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01. SIMULATION			01.	SPRITES
08. PLATO			02.	ILL
09. HOME			03.	MFI
10. RL			04.	UTTER
11. ET	4		05.	THIRDPART
12. MEMOR			୭୫.	OMEH
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16. PLAY			14.	BY
18. SAKE			17.	LYRE
20. SAY		1	19.	EMS
21. ARRAY		•	20.	SAT
23 CASSETTES			22.	AS

MELCOME TO OUR NEW EDITOR!

Our former editor Harris Yussman had to give up his duties due to greater work demands placed on him. Although he cannot be as active as he was, he and his wife Andrea will still participate when possible. Good Luck with your career, Harris.

Hiter much discussion at our May meeting we were able to extract a volunteer to fill the vacant editor post. Our new editor is Bill Evans and will assume his duties immediately. You have all heard me talk about the difficulty of this job so please help Bill by getting articles in to him. Bill can be reached at 502-933-2137.

IF SOMEONE ELSE HAD TURNED IN AN ARTICLE WE COULD HAVE FILLED THIS PAGE!

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