

HOOSIER USERS GROUP HOOSIE GROUP HOOSIER USERS People Helping People GROUP HOOSIER USERS HOOSIER USERS GROUP USERS GROUP HOOSIER USERS

APRIL, 1985

THE HUGgers NEWSLETTER

VOLUME 3, NUMBER 1

THE OFFICER'S CORNER__

There is both good and bad news to report about the Users Group appearance at the Indiana HamFest. The good news is that we handed out 50 complimentary newsletters to TI'ers who members. The bad news is that most of these 50 did not even know there was a Users Group for the TI'er in Indianapolis!

I have just heard some bad news from Davis Publishing Company. Effective May. 1985. they discontinued publication of Computers & Electronics. For almost 21 years as Popular Electronics, the magazines' format was of an all around source of information for the electronic hobbyist. November, 1982 marked the end of Popular Electronics and the beginning of Computers & Electronics. I'm surprised by Ziff Davis' decision to discontinue publication. With an ever increasing emphasis on computers and equipment, the "& Electronics" was lost and/or forgotten and there are too many other computer magazines to compete against.

Enough bad news for one month. Now on to some great news! Next month we'll have a special guest speaker at the monthly meeting. Craig Barritt, Area Representative of Memorex, will be at our May 12th meeting to give presentation on diskettes with question and answer session to follow.

Don't forget the elections are this month. Your support is vital to keep the the Users Group strong. See you at the April 14th Meeting! J.Steven Sims

THE NEXT MONTHLY MEETING WILL BE APRIL 14, 1985 STARTING AT 2:00 PM AT CREATIVE LOGIC

WORKSHOPS: KEYBOARD KLINIC* SPEAKING BASIC, PART 2 ASSEMBLY, PART 2 NEWCOMERS ORIENTATION

REGIONAL MEETINGS*

South April 20th starting at 2:00pm (Library Hour 1:00 to 2:00pm)

> Terre Haute (Western Indiana)

April 20th starting at 1:30pm

* See Page 2 for details

In honor of the beginning of the third year of the HUGger Newsletter, Back issues will be available for sale to members at reduced rates!

> Issues 1-3 will be 50 d each Issues 4-24 will be 75 ¢ each

HAPPY BIRTHDAY!

A Happy Birthday to these members who joined the Hoosier Users Group in April, 1984! Vic Kelson, George Launey, Donna Griffin, Bryant Pedigo, Chuck Mason, Jack Witt, Roger Frank, John & Janet Jacobs, Gloria Jones and Thomas Weakley.

WELCOME!

The Hoosier Users Group welcomes these new members who joined the group in the past month! Lionel Sipes, Ed Lewis, and Carl & Mary Rose Clark.

WELCOME BACK!

We would also like to welcome back these renewing HUGgers: Carl & Brian Richwine, Dennis Graves, and David Artman.

REGIONAL NEWS

SOUTH REGIONAL NEWS

by Dennis Sherfy

The South Side meeting will be Sat. Apr. 20., Library hour 1:00 to 2:00. Meeting starting at 2:00 P.M. I'm thinking of changing our meetings to a week-day evening in May or June. If we do that, we may stay on a week-day evening permanently.

TERRE HAUTE CHAPTER NEWS

by Vic Kelson

The organizational meeting of the Terre Haute HUGgers was held on Saturday, March 23. There were three enthusiastic members in attendance. It was agreed that a chapter in western Indiana can be a success. We have decided to take out free advertising on cable TV and radio to make ourselves and the HUG known, and we hope to build up a strong membership.

During the meeting, a demonstration of the Compuserve system was given. Both Compuserve and The Source offer a great deal of support for the 99/4A user.

The next Terre Haute meeting will be held on Saturday, April 20 at 1:30 PM at Vic Kelson's house, 2401 College Ave, Terre Haute. We invite all HUGgers to come, or to invite a friend from this region. Please help support the users group.

KEYBOARD KLINIC

by Bill Jones (of Indy)

A few nights ago I was programming away and discovered I had lost the '=' key.

Step one was to pull the key cap and clean the contact. No luck. I pulled off the bottom of the computer and found the problem.

Most of the keyboards I've seen on TI's are made on a paper phenolic PC board that absorbs humidity from the air. That makes it swell and shrink, eventually, the solder joints crack and the key stop working. I checked my other computer and found it also had some cracks starting. Both of them are over two years old. One I use daily, and the other I keep as a spare. This problem is caused by time not by use.

Since it is a problem that we will see more and more of, I'm going to do a clinic at the next meeting for anyone who wants to have their Keyboard checked. This is not a problem that is likely to effect blond computers because they are too new, and many of them use a different kind of Keyboard.

If you have a black console, bring it next month and we'll check it out!

MARK THIS CONTROLLER SOLD!

Editors Note: Since October, 1984, Bill Lucid advertised his TI Disk Controller Card for sale in the Newsletter. I received word from him recently that he finally sold his card. He requested that I let the rest of the members know this and gives a few words of wisdom as follows:

"Pam - thanks for running my ad so long in the Newsletter. A co-oridinator for User Group in Flordia is purchasing the controller at the asking price Cof \$751. What do you think of marking the ad sold in the next issue, this would let other people trying to sell there TI controllers not to give their's away!"

FROM THE HUGbbs

"A COMMODORE COMEDY" (or) The Perils of Perry Stevens!

Editor's Note: If you don't call up the HUGbbs frequently (or don't have the equipment), you've missed the uprising! About two weeks ago, a Commodore Computer owner, namely Perry Stevens, logged onto the HUGbbs and left a message giving his opinion of the TI 99/4A computer. He requested a reply from TI owners to comment on his message (his mistake). Lets just say that Perry got what was coming to him. His message is no longer on the system, but I have re-printed it here for this article. (Most of the replys to Perry's message are still on-line.)

FROM: PERRY STEVENS TO : ALL SUBJ: COMMODORE VS TI ENTERED: 03/23/85 04:36:44PM I adore my commodore! Since my little computer wiped your TI 99/4a out of business I just sorta wondered what it is like at the bottom of the computer world? Well, how is it?I like what is on the way from commodore the massive 128K that will make your little computer be history! Give me a reply in this message module. By the way my system is made up of a 1541 disk drive,1702 monitor,c2n datassette, mps 803 printer, and a vicmodem + 7 cartridges. Yes, I know the vicmodem sad but that's all i have for know.

> see ya, perry1541

FROM: BILL CAGLE TO : PERRY STEVENS SUBJ: COMMODORE/TI ENTERED: 03/24/85 01:30:36PM The first assumption that your machine is supperior to the TI, is in the wildest strech of the immagination, is poor. What you don't know about the TI has made you make an infantile statement. 1. a TI system compairable to yours has six processors at work 208 kilobytes of Ram and Rom 12 kilobits disk transfer rate it will support 32 or 40 char screens it will support 64 char screens in Forth as for the 128k unit that is comeing, the early units will probably be like your unit was and have a failure rate of 3 out of ten. If this isn't enough, leave me a message and I can supply more about warrenty, repair and disk techniques that

The....CAG v.p. Hooser User Group

downgrade a TI on a TI BBS.

should remind you that it isn't polite to

FROM: CHRIS WEIS TO : PERRY STEVENS SUBJ: COMMODORE/TI

ENTERED: 03/25/85 03:46:59PM

PERRY,

Yeah, ok, so the c-64 is still on the market. But if you would like, I can compare my 512K MACINTOSH to your little c-64. Just compare the graphics is enough to put your machine in the ground. Though I have a MAC, I still like the way my TI runs, and the ease to work with it. But I do think that if you are going to put our (mine, and we members) machines down, how about doing it on one of those boring commodore boards?

()()Chris Weis()()

FROM: DAVID ESPLING
TO: BILL CAGLE
SUBJ: WAY TO GO!
ENTERED: 03/25/85 04:20:20PM
That's the way to tell those Commodore
users where they can put their
computers! Before I bought an Apple, I
thought that the TI kicked some butt,
and it still does. I like my Apple,
but I find that my TI was much easier
to use. Most people still freak out
when I tell them that the TI is a 16
bit machine.

P.D.

Hey HUGgers! Nice to see you all again! Give the Asylum II a ring sometime and I'll chat if I'm there.

FROM: DENNIS SHERFY
TO : BILL CAGLE
SUBJ: COMMODORECOMEDY

ENTERED: 03/28/85 07:09:45PM

Way to go Cag! Obviously the fellow with the Commodore criticized the TI out of ignorance.

(Continued on the next page.)

"A COMMODORE COMEDY, cont'd"

I am in charge of training at the Post Office, and I have 12 Apple computers. They run faster in Basic than the TI, but they are a pain to program. They do not provide for automatic line numbering. Try programming without automatic line numbering after using it on the TI and you will see what a apable machine the TI 99/4A is.

Also, the programming debugging capability of the T1 is terrific. There are several higher-priced machines without this TI capability. Incidentally we use the Apples for computer assisted Keyboard training. I suspect that we are in the forefront of computer assisted instruction in the Indianapolis area. Dennis

FRUM: DAN EICHER

TO : ALL

SUBJ: COMMODORE

ENTERED: 09/31/85 12:39:36AM

I OWN BOTH A COMMODORE AND A TI. I PREFER THE TI , IT WINS HANDS DOWN. THE REASON I BOUGHT A C-64 WAS BECAUSE OF THE ABUNDANCE OF THIRD PARTY SUPPORT PLUS CHEAP CP/M. (THIS WILL PROBALY CHANGE NOW THAT C-128 HAS COME OUT. I THINK NOW WOULD BE A GOOD TIME FOR COMPANIES TO THINK AABOUT NOT PRODUCING SOFTWARE DISCONTINUED MACHINES. THERE ARE PRUBABLY MORE TI, TIMES/SINCLAIRS, ATARI 400, VIC 20'S AND YES EVEN PC JR'S OUT THERE THAN THEIR ARE MAC'S PLEASE LEAVE ME YOUR FELLINGS ON THIS SUBJECT

FORTH PAGE

by Greg Larson

Here's a quick and dirty Sector Dump I have been using for awhile. It will sector in two parts so you won't scroll past anything. To use, simply type the number of the sector you want to see, type "SD" and hit ENTER. The addresses shown in the listing are those of the disk buffers. The first address is used as an offset for the rest of the sector. The routine leaves the next sector number on the stack so that I could easily look at several sectors in succession. I imagine that this could be expanded to do the other functions of Disk Fixer, but I'm not sure that I'm up to doing it myself.

SCR #WHATEVER

LIBRARY BITS by Dennis Sherfy

I was impressed with a couple of new programs library, recently added to our BANNER Both are Basic programs, even though LOANCALC. BANNER is located on Disk Extended-9.

BANNER requires a printer, and produces large signs or banners. The program accepts any phrase, including alphabetical or numerical characters. The letters can be printed in any character--I prefer the asterisk. For an 80 column printer, BANNER will allow you to print 11 different sized characters ranging from about 5/8 inch high to 6-1/2 inches high. A message could easily require several sheets of paper when you are using the larger sized letters.

If you modify the print statement (there is only one) with the TAB function, and manually roll back the paper in your printer, you can print two or more lines of text on your banner. You can even change the size of the letters on each line of text.

Some modifications to the program can improve your banners. By using Elite type instead of Pica, your printer will print more characters per inch (12 vs. 10), making your letters appear more solid. If you print more lines per inch, your letters will be further improved, such as changing from 6 lines per inch (standard) to 8 lines per inch. Even better, use custom line spacing (such as on the Prowriter) of 10 lines per inch and the banners will appear very solid.

The program is written for parallel printers, but can easily be converted for use with seriel printers.

LOANCALC is located on Basic-13. This program provides a main menu with five options:

1-PAYMENT AMOUNT 2-NUMBER OF PAYMENTS 3-LOAN AMOUNT

4-AMORTIZATION SCHEDULE

5-EXIT PROGRAM

option prompts you to provide the necessary information; per cent of interest, number of months/years, number of payments, or amount of loan. program then provides you with the missing element—the payment amount, number of monthly/annual payments, the amount of the loan, or the amortization schedule. It also clearly shows you how much interest you will be paying each month, or over the life of your loan. This is useful information when you are making financial decisions, such as how much money you can afford to borrow at a given interest rate, or computing your taxes.

The amortization schedule calculates monthly interest and loan balance after each payment.

> changes, or am could print this information on 'a printer as a permanent record.

Some minor pro-0 : SD (Sector Dump , GBL 10/84) (Sector # >>> Sector + 1 > 1 DUP DUP CLS CR ." SECTOR NO. " . CR 4 /MOD BLOCK SWAP 256 * + 128 OVER OVER DUMP + CR 2 3 " Print rest of Sector (Y/<N>)? " KEY CR 89 = 4 IF 128 DUMP ELSE DROP ENDIF CR EMPTY-BUFFERS 1+ 5;

THE ASSEMBLY LANGUAGE TUTORIAL - FLAGS AND REGISTERS

by Vic Kelson

Last month, we discussed the various number representations that we use in AL programming. This month, we'll go one step further, by examining the flags and registers of the TNS9988.

CPU REGISTERS

The TMS9900 registers can be represented like this:

(the d's are binary digits)

All of the 9900's registers are 16 bits wide. They all contain information which is important to the AL programmer:

PC - The "program counter". PC contains the "address", that is, the position in memory, of the next instruction to be executed.

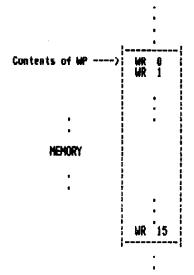
WP - The "workspace pointer". WP contains the address of a 16-word (remember, a word is 16 bits) block of memory, called the "workspace". These 16 words of memory are called "workspace registers" - we'll discuss them in a minute.

ST - The "status register". ST contains "flags" (single bits which we can use to control the execution of our program.

These three registers are the only registers which are actually on the TMS9900 chip - a rather unusual way for a microcomputer to be set up.

WORKSPACE REGISTERS

Here is a picture which describes what the WP register actually does:



WP contains a value which is the address in memory of the block of 16 "workspace registers". The AL programmer can use these workspace registers in a lot of very special ways. This is the largest difference between the THS9980 and other micros, such as the 6582, 6800, and 2-80. Confused? We'll discuss this further in next month's article.

THE STATUS REGISTER AND FLABS

I mentioned the ST register and its contents briefly above. Here is a more detailed discussion.

The 16-bit statuus register (ST) is broken up into the following pieces:

NAME	BIT #	<u>Meaning</u>	
L)	0	Logical greater than	
EQ	2	Equal	
C	3	Carry	
OV.	4	Overflow	
0P	5	Odd Parity	
Х	ó	Extended Operation	
-	7-11	Reserved	
INT.	12-15	Interrupt Mask	
MASK		•	

These are the meanings and uses of the flags:

L) - LOGICAL SREATER THAN

This flag is used to make logical (or unsigned) comparisons of two 16-bit numbers. For example, if you compared the following two binary numbers:

```
0100 1101 1011 0010 = 4D82 hex
0011 1110 1111 0000 = 3EF0
```

The first number is larger than the second, and the 9900 will set (make into a 1) the L) flag.

Comparing these numbers:

```
1100 0000 0111 1111 = C87F
0010 0000 0111 1111 = 207F
```

will also set the L) flag, because the 16-bit number CO7F is larger than 207F.

A) - ARITHMETIC GREATER THAN

This flag returns the result of comparing 16-bit signed numbers. If you remember from last month, twos-complement negative numbers have the MSB set to 1. In the first example (above) the A> bit would have been set to 1, because the 15-bit value 4DB2 is greater than the 15-bit value 3EFO (the sign bit is 0, so they're positive numbers).

In the second example (above), the first number, CO7F, is negative (the sign bit is 1). In two's complement notation, CO7F is LESS THAN 207F!! This is the difference between the L) and A) flags, and our first glimpse of the difference that the programmer sees in unsigned and signed numbers.

THE ASSEMBLY LANGUAGE TUTORIAL, cost'd

It won't be the last time we see this...

ER - EQUAL FLAS

This one is easy. The TMS9900 sets this flag to one if the result of a comparison is that the numbers are equal, and 0 if they're not.

The L), A), and EQ flags are also set after arithmetic operations, by comparing the result to zero. This is a useful feature.

C - CARRY FLAG

Remember the "bit bucket" last month?? Well here it is, Whenever an addition or subtraction is performed, this flag is set to 1 or zero, according to the value in that "bit bucket". Look over last month's examples, and set the C flags fo them.

OV - OVERFLOW FLAG

This flag is used when doing twos-complement arithmetic. The flag is set to one if the sign bit (the MSB) of the result of an addition is different from the sign bit of the two operands (note that this is only done if the sign bits of the two operands are the same). Example:

0111 0000 0000 0000 = 7000 hex + 9111 0000 0000 0000 = 7000 1110 0000 0000 0000 = E000

If the numbers are twos-complement, this means that we added two positive numbers and got a negative!! This sets th OV flag.

The OV flag is also affected by subtraction, multiplication, and division operations. I recommend that you try to figure out what happens for these cases, and look it up to see if you're right. We'll talk about it at the meeting.

X - EXTENDED OPERATION

The X flag is set if the processor is executing an extended operation. Extended operations are beyond the scope of the tutorial, and will not be used here.

INTERRUPT HASK

The interrupt mask is used to tell the processor how to react if it is interrupted. Again, this is beyond the scope of the tutorial.

IN CONCLUSION

I hope that this article gets you started on the way to understanding the flags and registers of the TMS9900. I strongly recommend that you read sections 3.1 through 3.1.3.8 (pages 39-44) of the TI Editor/Assembler manual.

Next month, we'll discuss the TMS9900's addressing modes, and talk about how to move numbers around. We'll even write a small AL program!

AMNION HELPLINE CLARIFIED

Editor's Note: The following article comes from the Daytona 99'ers Newsletter via the PUNN Users Group Newsletter - Wordplay

To all TI-99/4A Owners - A clarification about The Helaline

Library Services, a subsidiary of Amnion Stoneware and a completely independent company, for a short period had as one of its service clients, the International 99/4A Users Group of Oklahoma City. We accepted them as clients because we believed that they were what the represented themselves as, a bona fide Users' Group. When we learned that they were and always have been only a mail order business that goes by this patently misleading name, we cancelled all services to them in January of 1984, not desiring to be partner to any misrepresentation or deception. That business is not now nor has it ever been a bona fide Users' Group working as a non-profit organization, but a regular company doing business in a manner that many view as a deliberate attempt to deceive and exploit the innocent and trusting public for their own personal gain. We apologize to all those to whom we recommend this firm in good faith.

Library Services is known as The Helpline since January 1984. Servic is offered to all TI 99/4A owners, retailers, third party software suppliers, etc. at no charge and with "no strings", whether yououn Amnion software or not. No "sales pitches" will be made. The service will attempt to give help on anything having to do with the TI 99/4A. Information on hardware or software quality, sources, availability, reputability and service is available in a totaly unbiased manner. We maintain constantly updated lists of genuine Users' Groups in your area. Help with programming problems or referrals is offered. We also maintain files of reports from callers on service, quality, reputability and support from third party suppliers. We maintain the national Free Access Library, a non-profit entity, of public domain programs for the 99/4A and all TI program updates.

You may call at the hours listed (below) or <u>send a SASE</u> with your letter with questions. We promise that you will receive the straight dope with no obligations. Our resident PH.D., Guy-Stefan Romano, whom you may already know, is there to give valid and <u>COMPETENT</u> technical help as he always has. Dr. Romano is doing this strictly on a volunteer basis and, at his insistence, receives no fee or reimbursement for his services so that he can be free to give all information without being obligted to anyone — even Amnion! He is there to help in any way he can.

Remember that this service is free to all whether or not you own Amnion products. Use it as often as you need it. We await your call at THE HELPLINE.

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TIPS FROM THE TIGERCUB

#18

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Distributed by Tigercub Software to . Tl-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non-profit Users' broups, with credit to Tigercub Software.

Hy new catalog #5 is now available for \$1.00, which is deductable from your first order. It contains over 130 programs in Pasic and Extended Basic at only \$3.00 each (plus \$1.50 per order for casette; packing and postage, or \$3.00 for diskette, FPEM).

The entire contents of Tips from the Tigercub Nos. I through 14, with more added, are now available as a full disk of 50 programs, routines and files for only \$15.00 postpaid.

Nuts & Bolts is a diskfull of 100 (that's right, 100!) XBasic utility subprograms in MERGE format, ready for you to merge into your own programs. Contents include 13 type fonts, 14 text display routines, 12 sorts and shuffles, 9 data saving and reading routines, 9 wipes, 8 pauses, 6 Busic, 2 protection, etc., etc., all for just \$19.95 postpaid:

Hew programs this month -

TCX-1058 SCRUM, now available in Extended Basic. I'm told that this challenging puzzie-game has been programmed for other computers under the name Heriin. I haven't seen it, but I don't think you can beat my version - it's 511 puzzies in one!

TCX-1137 SOUMDMAKER, a very versatile utility program to develop sound effects, then save them in the form of actual program lines. Requires Extended Basic; disk only.

I must first thank all those newsletter editors and other users' group officers who are trying so hard to help se keep av kitchen

table enterprise alive. One users group reprinted my entire catalog in their newsletter, another is putting it on their 885, another made me an honorary life member, many others have mentioned and recommended my software in their newsletters.

Unfortunately, all that support hasn't helped very much. From reading the editorials in many newsletters, I can easily see that most users groups consist of a few dedicated hard-working individuals and a lot of....mell, frankly, freelcaders. And freelcaders don't buy software!

To borrow a few quotable quotes from the newsletters, "too many getters and not enough givers", and "users are users!". That is why users groups are fading away, software producers are going out of business, and the T1-99/4A will die before its time.

In the last Tips, I mentioned the one remaining bug in my 28-Column Converter. I have found a fix for it. The version published in lips#15 was a horrible example of sloppy programming, so I have rewritten it entirely — 100 DISPLAY AT(1.4) ERAGE ALL

:"28-COLUMN CONVEKTER" :: Di SPLAY AT(3,12):"by Jim Peter son"

110 DISPLAY AT(5,1): To convert a program, saved": "with L151 "DSk1.FllEMAME", "1"1 nto 28-column format which": "can be merged into the text

120 DISPLAY AI(9,1): buffer of II-Writer." 130 DISPLAY AI(11,1): Optio

nally with transliter-":"ate d & & & , ^ and . for":"printing from formatter":"mode.

140 DISPLAY AT(16,1): Progr an should be RES in": steps of 10 starting at 100": before LISTING to disk," 150 DISPLAY AT(20,1): Do you want to orint the": file from the ': (E) ditor? (F) o

reatter?*

160 ACCEPT A1 (24.1) VALIDATE (170 LN=100 :: CALL CLEAR :: IMPUT "What is the FILENAME? DSK1. *: FNS :: FNS=*DS KI. * &FNS :: PRINT : : 180 INPUT "what is the new F ILENAME? OSKI.":PHS :: PHS ="DSK1."&PNS :: OPEN #1:FNS. DISPLAY . VARIABLE BO. INPUT : : BPEN #2:PNS.DISPLAY , VARIA BLE 80, OUTPUT 190 IF BU="E" THEN 200 11 PR INT #2: ".TL 126:94: " :: PRIN T #2:".TL 123:64:" :: PRINT #2: ".TL 125:38: " :: PRINT #2 #".TL 124:42:" :: PRINT #2:" .TL 92:46;" :: PRINT 42:",NF

200 IF EOF(1)=1 THEN 300 12 LINPUT #1:AS 210 IF LEN(AB) (80 THEN LN=LN +10 :: 6070 260 220 LINPUT #1:85 :: 15 PASCE \$.STR\$(LN),1)=1 THEN FLAG=1 1: LN=LN+10 :: 60T0 260 230 AS=ASEBS :: IF LEN(AS)(1 60 THEN LN=LN+10 :: 6010 260 240 LIMPUT #1:88 :: 1F POS(8 S.STRS(LN).1)=1 THEN FLAG=1 ## LM=LM+10 :: 6010 260 250 AS=AS&BS :: LN=LN+10 260 S=1 270 L\$=\$666(A\$.\$.28);; IF Q\$ **E" THEN 280 :: 60SUB 320 280 IF LS()** THEN 290 :: 1F FLAG=1 THEN FLAG=0 :: AS=RS ## 60TO 210 :: ELSE 60TO 20 290 PRINT #2:L# :: S=S+28 :: **6010 270** 300 IF Bs="E" THEN 310 :: PR INT #2: ".FI:AD: " 310 CLOSE #1 :: CLOSE #2 :: END 320 DATA (see instructions below!) 330 RESTORE 320 :: FOR W=1 T D 5 11 READ CHS.RS 340 I=POS(L\$,CH\$,1):: IF X=0 350 L\$=5E6\$(L\$,1,1-1)&R\$&\$E6 # (L#, 1+1, LEN(L#)):: 60TO 340 360 NELT W :: KETURN

The DATA elements to be typed in line 320, separated by commas, are the 'at' sign above the 2, the left brace on the front of the Fikey, the ampersand above the 7, the right brace on the front of the 6, the carat sign above the 6, the tilde on the front of the M. the acterisk above the 8, the whatsit? on the front of the A, the period, and the backslash on the front of the Z. If you don't want to revert to FILL and ADJUST, delete the second statement in line 300.

Beware the A6 bug! The asterisk in the above program is transliterated because of an odd quirk of II-Mriter which causes it to change A4256 into A6! It happened to me, and I've seen it in two published programs,

If my Autoloader gives you a couple of asterisks instead of the number of sectors, it's because you have files over 99 sectors long. You can change the image in line 170 to ### if you want to.

Here is probably the last word on the challenge to write a 1-line IBasic program which would scramble the numbers 1 to 255 into a random sequence without duplication. This one runs in 17 seconds!

100 ! FROM TISOFT (BELGIUM)
NEMSLETTER V.6 #4 JULY-SEPT
84 - ANONYMOUS
110 DIM K(255):: FOR 1-0 TO
255 :: K(I)=1 :: MEXT I :: F
OR I=0 TO 255 :: RANDOMIZE :
1 CALL PEEK(-31808, J):: K=R(
J):: R(J)=R(I):: R(I)=K :: N
EXT I
120 FOR J=0 TO 255 :: PRINT
R(J):: NEXT J

I believe that Craig Hiller is due the credit for publishing the PEEK used in that routine. He also found a PEEK to get two random numbers, which I fooled around with until I discovered I had a mosquito trapped behind by IV screen.

100 ! NOSMULIO by Jim Peter son from a PEEK by Craig Mil ler 110 CALL CLEAR !! CALL SYRIT E(41,42,2,100,100) 120 RANODMIZE :: CALL FEEK(-31808, A, B):: CALL MOTION(41, A-128, B-128):: 60TO 120

If you're worried about the apsquito getting out, you can put a screen on the window by adding a statement to line 110 - CALL CHAR(32,"FF888888FF888888")

Here's one for the kiddles -

```
100 REM - DANCING STICKMAN D
rogrammed by Jim Peterson
110 CALL ULEAR
120 DIM $(26),T(60),NN(60)
130 FOR CH=48 TO HO SIEP 8
140 CALL CHAR(EH, "000028107C
1028")
150 NEXT CH
160 GUSUB 590
170 FOR SET=3 TO 7
180 CALL CULOR(SET, 1, 1)
190 NEXT SET
200 DATA " H 000 P"," H
 000 F"," H O P"," 00
0000000"," B 000 E"," B
 000 E*
210 DATA " BB 000 EE", " H
нноооррр"," н в е р"," н
  8 E F", "HHH 8 E FPP", "
    a é•,•
               8 6," 888
220 PRINT *
                dancing stic
kman": : : :
230 RESTORE 200
240 FUR J=1 10 14
250 READ AS
260 PRINT TAB(B) LAG
270 NEXT J
200 CALL COLDR (3, 16,5)
290 CALL COLOR(4.16.7)
300 CALL COLUR(5,5,16)
310 6010 690
320 UN INT (3#RND+1) 6050B 340
.400.460
330 KETUKN
340 CALL CULOR(4,1,1)
350 CALL COLUR (0, 16, 5)
360 60SUB 560
370 CALL CULUR(6.1.1)
380 CALL COLOR(4.16.7)
390 KETURN
400 CALL COLDR(5,1,1)
410 CALL CULOR (7,16,7)
420 GUSUB 560
```

430 CALL CULOR(4,1,1) .~

```
440 CALL CULOR(5,7,16)
450 KETURN
460 CALL COLOR(4,1,1)
470 CALL CULOR(5,1,1)
480 CALL COLOR(6.16.5)
490 CALL CULUR(7,16,7)
500 50SUB 560
510 CALL CULUR(6,1,1)
520 CALL CULUR (7.1.1)
530 CALL CULUR(4.16.7)
540 CALL COLUR(5,5,16)
550 KETURN
560 FOR D=1 TO 30
570 NEXT B
580 RETURN
590 F=262
400 FOR N=1 TO 25
610 S(N)=INT(F#1.059463094^N
620 NEXT N
630 S(26)=40000
640 RESTURE 740
650 FOR J=1 TO 60
660 KEAD T(J), NM(J)
670 NEXT J.
680 RETURN
490 FOR J=1 TO 60
700 CALL SOUND(T(J) #100.5(NN
(J)).0.5(NA(J))+5.5)
710 GOSUB 320
720 NEXT J
730 6010 690
740 DATA 4,8,4,13,4,13,4,15,
4, 17, 4, 13, 4, 17, 4, 15, 4, 12, 4, 1
3,4,13,4,15,4,17,8,13,4,12
750 DATA 4,8,4,13,4,13,4,15,
4,17,4,18,4,17,4,15,4,13,4,1
2,4,8,4,10,4,12,8,13,4,13,4,
740 DATA 4.10,4.12,4.10,4.9.
4.10,4,12,8,13,4,8,4,10,4,8,
4.6.4.5.4.6.8.8
770 DATA 4.10.4.12.4.10.4.9.
4,10,4,12,4,13,4,10,4,8,4,13
4,12,4,15,8,13,4,13,4,26
```

I used to sign off with 'happy hackin'', but the vandals and thieves have made hacking a disreputable word, so

Meeowww The ligercub Jim Peterson

HOOSIER USERS GROUP DIRECTORY

HOOSIER USERS GROUP OFFICERS

HUGbbs INFORMATION

President.....Steve Sims 631-7255 Vice-President....Bill Cagle Secretary.....Barb Uhrig 357-8268

Treasurer.........Bill Jones

COMMITTEE CHAIRPERSONS

Regional Centers: South......Dennis Sherfy 881-5918 West Indiana..Vic Kelson 812-234-5533

Documents......Don Donlan 882-4544
Membership......Pam Sims 631-7255
Newsletter.....Pam Sims 631-7255

MONTHLY MEETING LOCATION

Creative Logic 8240 Indy Lane Indianapolis, IN 46224

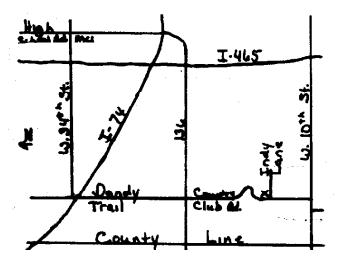
(About 1800 North Country Club Road)

NEWSLETTER EXCHANGE

The Hoosier Users is participating in a Newsletter Exchange program with other TI Users Groups. This offer is made with the understanding that, with proper credit, your Users Group can reprint articles from the Hoosier Users Group Newsletter, and with proper credit, we can reprint articles from other TI Users Groups Newsletters.

PRINTOUTS

Library listings can be ordered for \$.25 & a 6x9 self addressed envelope with \$.66 postage. The HUGbbs Reference Guide can be ordered for \$.50 and a 4x9 self addressed envelope with \$.22 postage. Please send orders to our P.O. Box. SORRY, PRINTOUTS WILL BE SENT TO ACTIVE MEMBERS ONLY!



317-631-994A

The HUGbbs operates on a 24 hour basis.

SPONSOR THE HUODDS: Any member or retail business can sponsor the HUODDS. For a \$5.00 donation, you get 5 (40 column) lines on the Log-On Title Screen for a week (or for a \$10.00 donation, you get 10 (40 column) lines) plus a 24 line by 40 character ad in the Sales option of the File Module. To sponsor the HUODDS, send a check or money order to our P.O. Box (or turn in at our Monthly Meeting) specifying how many weeks (and how many lines) you want to sponsor, your name (or company name), address, phone, what you want to say, and the week (and an alternate week) you want the ad to appear.*

BACK ISSUES

Back Issues purchased at the monthly meeting is \$1.00 each. Mail order price is \$1.50 per Newsletter (postage included). Orders will be filled within 3 weeks of receipt by the Documents Committee.

ADVERTISING POLICIES

There will be no charge for advertisements submitted to the HUGger Newsletter by members (for private sale only). Format for the advertisements is 45 characters wide by 10 lines long. The Ad should be typed or hand printed exactly how it is to appear in the Newsletter. Deadline for an ad to appear in next month's Newsletter is the 2nd Saturday of the month.*

For companies who wish to advertise in the HUGger Newsletter, our rates are as follows:

Pre-Printed Inserts (one page) \$20.00 One Full Page (one sided) Ad: \$25.00 One Half Page Ad: \$13.00 One Quarter Page Ad: \$7.00

All ads must be in a ready to print condition. Advertisements must be in our P.O. Box before the 2nd Saturday of the month to appear in the following month's Newsletter.*

**NOTE: The Officers of the Hoosier Users Group reserve final approval on all advertisements submitted for the HUGger Newsletter and the HUGbbs. The Officers and the Newsletter committee are not responsible for typographical errors due to illegible advertisements. All proceeds are accepted as donations to the Hoosier Users Group.

APR. 4 1985

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86/03 527E



Bulk Rate U. S. Postage PAID Indianapolis, IN Permit No. 6440



INDIMARPOLIS, IN 46206-2222 P. O. BOX 2222 HOOSIER USERS GROUP



APPLICATION FOR MEMBERSHIP

Below you will find an application for membership to the Hoosier Users Group. Active membership entitles you to the Newsletter, up and download on the HUGbbs, attendance and voting rights at regular club meetings, access to the HUGger Library of Programs, special club activities and special guest speakers for one year. Subscribing members will receive the NEWSLETTER only.

Make check or money order payable to HOOSIER USERS GROUP. Send completed application to:

HOOSIER USERS GROUP
P. O. Box 2222
Indianapolis, IN 46206-2222

Check One:	ртбуг	printcut on dotted :	Line
Active Memb		! NAME	TODAY'S DATE
New: Renewal:	\$20 \$15	!	
Subscribing Member		ADDRESS	APT #
New: Renewal:	\$10 \$7.5	CITY	STATEZIP
Amount Enclosed		PHONE ()	••• •
#	D	COMMENTS	