N.O.V.A.

(P.O. Box 508 - Vancouver, Wa. 98666)

NINETY-NINERS OF THE VANCOUVER AREA

VANEWS#48 JULY 1987

Next Meeting:

Wednesday, JUL 29th (last Wed. of month) 7:00PM for a 7:30 start. District 5 Fire Station... 213 N.E. 120th Ave. Just off Mill Plain. East from 205.

Next Workshop:

Sunday, AUG 30th 1987
City of Vancouver Waste Water Treatment Plant
Map will be in next months newsletter

>>>>>>>>> Order your library programs for delivery to the meetings! <<<<<<<<<

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The Officers of NOVA:		Area Code 206-
Dan Lisson	President	693 7575
Louise Harbert	Vice President	256 7923
Maria Adler	Treasurer	695 9932
Doug Campbell	Secretary	694 2670
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Ivar Godtlibsen	Librarian	254 3324
Doug Campbell	Library	694 2670
Jack Givens	Library	573 2404
Maria Adler	Editor	695 9932
Bob Chase	Editor Advisor	695 7002
Dee Williams & Lila Simmons	Publicity	

The officers and committee members welcome your questions and will do their best to answer them or get someone who can help. Please feel free to call. Early evenings is probably the best time as most of these people work during the day.

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Membership Dues Policies and your Address Label...

Look at the address label on your newsletter. There is a letter M or P, and three or four digits. These digits are the month and year that your dues were paid. (988 means September 1988). The M means paid Member. The P is for prospects, and their date is the first month they received a complimentary newsletter. The prospects are sent two newsletters and if there is no response they are dropped.

Members are carried for two months past their anniversary date before they are removed from the mailing list. When members pay their dues they are renewed to their original month. If a member re-signs after being off the roster for over eight months a new date will be established.

It is important for us to stay current as our dues are quite low and are figured to just cover newsletter postage and printing, plus a little for our minor office supplies. Every copy sent to a nonpay takes the treasury down a notch. Note: no one in the club receives any money from NOVA. The officers and some committee members have free dues for their term of office.

If your anniversary date is a year old, your dues are due. Dues are $10.00 and you may write a check or pay cash at the meetings or workshops. Or send your check to NOVA P.O Box 508 Vancouver, Wa. 98666. Do not make your check out to a person, but to NOVA.

FROM THE PRESIDENT...

I want to thank everyone who attended last month's meeting; we had a pretty good turn-out (for a summer meeting), as I had hoped we would, and I hope that everyone who participated in our auction feels that they did about as well as the group as a whole did. The result was, to say the least, fantastic! As you may recall, this was part of our effort to put together a "group system" for a maximum of $200. The bottom line is that after the group kept what it needed from the original purchase, and auctioned the rest at the last meeting, we will have (we still need a P.E. box and at least 1 disk drive) put together an entire system for *easily under* $200.! Again, I want to thank all who participated in making this effort a success; it was a great example of group effort and what it can accomplish.

Reprinted elsewhere in these pages is a letter from Texas Instruments which we received recently. They want us to know that they no longer sell home computer products. For any who are interested, concerned, or otherwise confused, we can cover this at the next meeting.

The Group received advertising and a disk recently, from Innovative Programming in Rohnert Park, CA. They are marketing products from DataBioTics, Corcomp, and Myarc. One might want to check their prices for competitiveness. They also have a 24-hour, 7-day B.B.S. called COMP-U-PHONE at (707) 585-3321 (300-1200 baud). They say that this new service will let us communicate with the above-mentioned three companies.

The disk from Innovative Programming contains several files including one of very brief documentation, partially reprinted below:

CHARACTERS: This utility is handy to use in Extended BASIC as it will create a complete upper/lower case with the lower case characters having true descenders. This is the same character set in CorComp's Memory Plus Ramdisk.

DISKDOCTOR: When you have fractured files on a diskette, more time is used to load or save information. This handy utility patches those fractures together thereby increasing load/save times and wear and tear on your disk drives. Also the disk doctor program repairs a bad bit map on a diskette.

EASYDESIGN: This will be appreciated if you have ever wanted to design a special character but found the Extended BASIC programs too slow.

NETWORTH is an eXtended BASIC program to calculate one's networth. Data can be saved and loaded, printed, and changed.

The programs are written by Galen A. Read, who wrote WriterEASE for CorComp (reviewed in the June MICROpendium), the above-mentioned COMP-U-PHONE B.B.S., amongst others. These programs are being distributed as "fairware". Order your copy from one of our librarians.

A reminder to our entire membership that at this month's meeting we will be taking nominations for the election at next month's (September). *Please* take the time to think about nominations between your reading this newsletter and the meeting. NOTE: Maria informs me that she will not be our treasurer next year (however, she will remain as our newsletter editor).

I hope to see you at the meeting.

FROM THE EDITOR

I was going to write an article on TI-Logo, but came across one in the newsletters we receive. So I am including the article from the QB Monitor in our newsletter. I just purchased TI-Logo at our auction and I am really having fun with it. If you have put 32K memory into your console but do not have a disk system this is one of the programs that uses cassette system as well as disk and memory expansion.

As I mentioned in the previous newsletter, Jim Peterson sent us several articles that can be used in our newsletter. He also sent us some programs that will be in our library, they are;

PRINTALL - this is the program which is listed in Tips #45. It is the utility that is used to print Tips, etc. in 4 columns. Will accept printer controls, print in 1 to 5 columns, allows choice of column separation, margin widths, alternate margins or 2-side printing, will print a diskfull of files one after another.

HYPHENATOR - this is the program used to Fill and Adjust, rather than using the TI-Writer formatter, for text in narrow columns and hyphenated words.

28-COLUMN FORMATTER - this program is used to convert program listings to the exact format in which they will appear on the screen. It will allow for printing through TIW formatter, and will underline the invisible characters typed in with CTRL.

NOVA NEWS

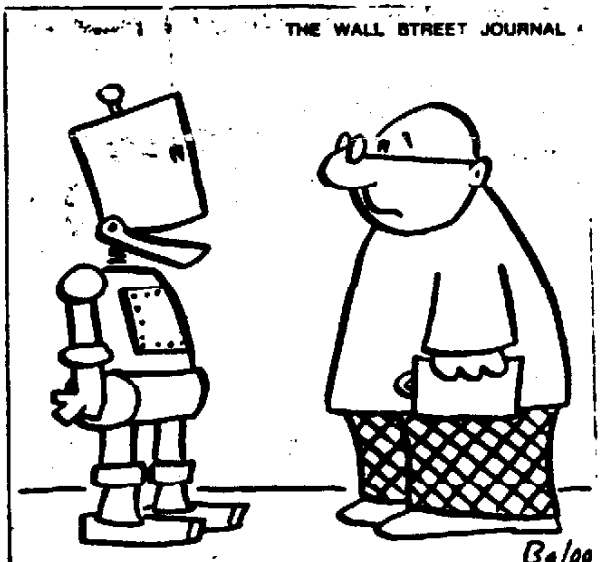
June Micropendiums finally arrived and hopefully this time we will have the July issue also.

The next workshop will be on August 30th at the City of Vancouver waste water treatment plant. A map will be in next months newsletter. If you have any suggestions as to what you would like to see at the workshop or meeting let one of the officers know.

FROM THE LIBRARY

AS THE LIBRARIAN I AM ALWAYS BEING ASKED IF I HAVE ANY DISKS TO SELL. RECENTLY I WAS ABLE TO OBTAIN A LARGE SUPPLY OF DISKS AND AM SELLING THEM FOR 50 CENTS EACH. I'LL NEED YOUR HELP GETTING THESE OFF MY SHELVES. SO GIVE ME A CALL WITH YOUR ORDER AND I'LL BRING THEM TO THE NEXT MEETING. THIS MONTH I ADDED SEVERAL FAIRWARE PROGRAMS. ONE OF THEM IS A LABEL MAKER THAT WILL USE THE GRAPHICS FROM CHARACTER SETS GRAPHICS DESIGN SERIES. ARCHIVER VR. 2.2 IS A GREAT UTILITY FOR THOSE OF US THAT ARE ALWAYS SENDING DISKS FULL OF PROGRAMS OVER THE PHONE LINES. BE SURE TO ADD THIS TO YOUR LIBRARY FOR NO OTHER REASON THAN THE FACT THAT I WILL BE USING THIS PROGRAM TO STORE SOME OF THE MULTIPLE FILE PROGRAMS THAT ARE NOW COMING INTO THE LIBRARY. FOR THOSE OF YOU THAT HAVE THE CATALOG PROGRAM OT1071 THERE IS AN UPDATE NOW IN THE LIBRARY. ONE OF THE CHANGES IS THAT IT IS NOW IN PROGRAM FORMAT WHICH MEANS IT WILL LOAD AND RUN FASTER.

IVAR GODTLIBSEN



"It was very funny in the original FORTRAN."

FROM THE NEWSLETTER EXCHANGE
compiled by Merle Baker

CPUG Newletter May 1987
By John Clulow, step by step instruction of how to add 64K of Ram memory on the 16 bit bus. This project will increase speed by 50% on some programs. (Ed Note; copies of this article at the meeting.)

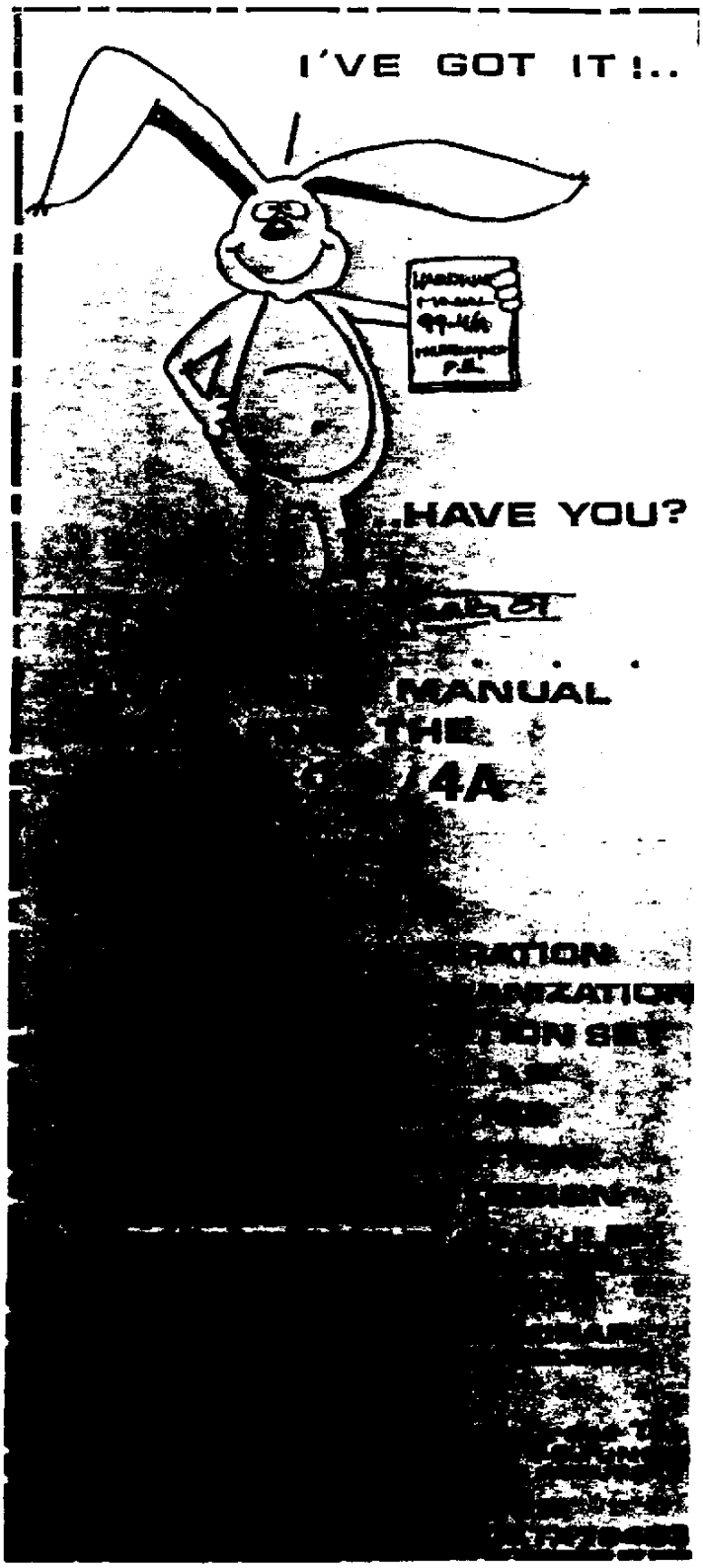
Ear 99 July 1987
More on CTRL U commands, line feed lengths, reset commands and buzzer complaints and more.
Also for you Adventure players Hints for the Suspend Adventure.

QB Monitor May 1987
Basic programming tips by Andy Becker. It is now possible to use TI-Writer to write and edit Basic programs. TI-Writer is usefull for easier reading of listings, changing variable names, moving lines around and more. A program called XLATE and UNLIST take a text file and convert to a MERGE file, which then can be loaded into Extended Basic. Andy Becker is the author of UNLIST and you can send for it for $8.00. His address:
Andrew Becker
172-35 Henley Rd.
Jamaica NY 11432
(Ed note; copies of this article at the meeting.)

Tacoma 99ers July 1987
By Walt Todd, Multiplan tip, to merge all or part of one worksheet with all or part of another. Instructions in 5 steps.

Spirit of 99 July 1987
Word hunting programs by Jack Sughrue and his modified program. Also hidden commands in Personel Record Keeping Module by Newt Armstrong.

West Penn 99ers July 1987
Instructions for installing Extended Basic inside your console by John Willforth. (Ed. Note; copies available at meeting.)



FOR SALE!!

FOR SALE TI99/4A modules $2.50 each-Blasto,Home Financial Decisions, Munchman, Hangman,Physical Fitness,Multiplication 1. Postage $1.50 per item. Elaine Chan,3632 Densmore Ave. N.,Seattle, WA 98103

COLUMN TEXT

PRINTS IN 3 OR 4
COLUMN FORMAT
BY R.D.PREWITT

There are two new programs I've made available for the club library you should enjoy. The first one is named COLUMNTEXT, a FAIRWARE PROGRAM written by R.D.PREWITT of Tacoma, Washington. It enables you to write your document using TI-Writer then automatically print it in four column condensed version(this article is an example) or in three colum elite type---if your printer is set up correctly.

The COLUMNTEXT formatter automatically right and left justifies your document. If you wish to only right or left justify, then a simple "+" at the beginning or the end of a line is all that is needed. Before you do begin typing your document,however,you must set your Tab setting for a 28 character width.

The second program is also a FAIRWARE program. It is named ENVELOPE LABLER. It is a great program that utilizes all those CSGD graphics. This gem is written by those great people from "down-under",AUSTRALIA.
With this program you can customise mailing labels with a graphic;make special parcel post labels;or some first rate disk labels(I've attached some samples to this article).
If you don't have just the right graphic you wish depicted, convert one from TI-ARTIST! The disk containing the program contains five pages of CSGD graphics ready to be used, so you don't even have to own DAVID ROSE'S CSGD.

Be sure to see IVAR for copies of these two great programs.
HAPPY TI-ING!!!!

JIM LUQUE

ENVELOPE LABELE

USES CSGD GRAPHICS
WITH TEXT TO MAKE
FIRST RATE LABELS!!!

PLEASE NO X-RAY

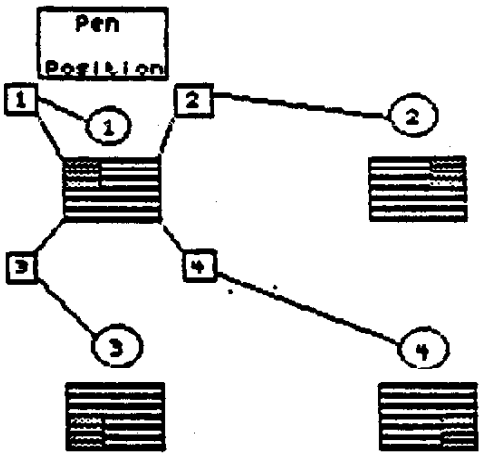
COMPUTER DISK INSIDE
PLEASE DO NOT BEND OR
EXPOSE TO MAGNETISM

JIM LUQUE

P.O.BOX 454
TOLEDO,WA 98591
HAPPY TI-ING!!

Flip and Mirror With TI-ARTIST
By Beverly Cook

Here's a little tip on a very obscure feature of TI-ARTIST. This feature is mentioned briefly and without much explanation. To flip or mirror a picture or instance, select either the MOVE WITHOUT COLOR or COPY WITHOUT COLOR feature from the enhancement. Position the pen at one of the corners (as shown below) and completely surround the picture with a box. Press the fire button and the picture will be picked up. If you're happy with the position of it, press the fire button again and the picture will be dropped, but it will be in the direction you wanted the change made. It's a bit confusing, but try it a time or two and you'll see how it works.



Thanks
BREVARD U.G.

Introduction to LOGO

By Leon Sablauskas May 1987
Montreal Users Group

Most computer languages force programers to manipulate data in terms of sequences of operations on individual no. and char. strings. Logo lists on the other hand are functional units that can be transfered in a single operation and makes Logo a convenient language for application involving symbol manipulation. Another important feature of Logo is the area of turtle geometry. A turtle is a cybernetic animal that lives on the display screen and Logo tells it what to do on the screen. Turtle graphics are highly successful both as an introduction to programming for people of all ages and as a foundation of a computer based math curriculum. We will use turtle graphics as an introduction to the basic ideas of Logo. But first we will explore some basic commands. Press "ENTER" after every command.

First go into graphic mode by typing TELL TURTLE after you get to the WELCOME screen.

Let's first make a square by typing the following.

```
FORWARD 40 (turtle moves 40 steps)
RIGHT 90 (turns turtle 90 degrees)
FORWARD 40
RIGHT 90
FORWARD 40
RIGHT 90
FORWARD 40
```

To erase the screen type CLEAR SCREEN.
To make a triangle:

```
FORWARD 40
RIGHT 120
FORWARD 40
RIGHT 120
FORWARD 40
```

How could a child that connot read or write make those commands? This was solved by using two letter commands. FORWARD=FD, RIGHT=RT, BACKWARD=BK, LEFT=LT, CLEAR SCREEN=CS ETC. To make a square or triangle this is a slow process. You can do this very easily by making a procedure, this will be now a new Logo command. Type TO SQUARE this puts Logo into edit mode. Now type in the commands.

```
FD 40
RT 90
FD 40
RT 90
FD 40
RT 90
FD 40
```

Now press BACK (FCTN 9) and you are back into Logo. Clear the screen and now type SQUARE and after you press ENTER the turtle will draw a square. "SQUARE" now is part of the Logo language and can be used anytime you want a square. Now to define a triangle type "TO TRIANGLE" ENTER and type the following:

```
FD 40
RT 120
FD 40
RT 120
FD 40
```

Now press BACK and test the procedure. Clear the screen and type "TRIANGLE".
A triangle will be drawn by the turtle. Let's try to use both procedures to make a house. Make the procedure "HOUSE", type in: "TO HOUSE" press ENTER.

```
SQUARE
TRIANGLE
```

Test it out by running "HOUSE". You will see the turtle draw a square and then a triangle to the left. You have to put the triangle on top of the square. That means that you have to start the triangle on the right top corner.

To edit type "TO HOUSE" and use the arrow keys to place the cursor under and pass "SQUARE", now press ENTER. A new line will appear and type the following:

```
RT 90 (to turn the turtle north)
FD 40
RT 90
FD 40
```

Now press "BACK" AND RUN "HOUSE". Now you have the square with the triangle upside down to the right of the square. You have to turn the triangle 180 degrees around the top right corner. Type "TO HOUSE" and with the arrow keys move the cursor to the last FD 40 and with the right arrow key go to the right of it. Press ENTER and now type LT 180 and then press BACK

Now when you run "HOUSE" the turtle will draw one. If you run "HOUSE" 12 times without clearing the screen the turtle will make a nice flower design. Experiment with these commands to make more complex designs and have fun with Logo.

TIPS FROM THE TIGERCUB

#44

TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

Over 130 original programs in Basic and Extended Basic, available on cassette or disk, now reduced to just $2.00 each, plus $1.50 per order for cassette or disk and PP&H. Cassette programs will not be available after my present stock of blanks is exhausted.
Descriptive catalogs, while they last, $1.00 which is deductable from your first order.

Tigercub Full Disk Collections, reduced to $10 postpaid. Each of these contains either 5 or 6 of my regular $2 catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - they are a free bonus!
TIGERCUB'S BEST, PROGRAMMING TUTOR, PROGRAMMER'S UTILITIES, BRAIN GAMES, BRAIN TEASERS, BRAIN BUSTERS!, MANEUVERING GAMES, ACTION REFLEX AND CONCENTRATION, TWO-PLAYER GAMES, KID'S GAMES, MORE GAMES, WORD GAMES, ELEMENTARY MATH, MIDDLE/HIGH SCHOOL MATH, VOCABULARY AND READING, MUSICAL EDUCATION, KALEIDOSCOPES AND DISPLAYS

NUTS & BOLTS (No. 1), a full disk of 100 Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Menuloader, a tutorial on using subprograms, and 5 pages of documentation with an example of the use of each subprogram. Reduced to $15.00 postpaid.
NUTS & BOLTS NO. 2, another full disk of 108 utility subprograms in merge format, all new and fully compatible with the last, and with 10 pages of documentation and examples. Also $15 postpaid.

```
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$ NUTS & BOLTS #3 is now    $
$ ready, another full disk  $
$ of 140 new merge-format   $
$ utility subprograms, all  $
$ compatible with the pre-  $
$ vious. With 11 pages of   $
$ documentation, $15 ppd.   $
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
```

TIPS FROM THE TIGERCUB, a full disk containing the complete contents of this newsletter Nos. 1 through 14, 50 original programs and files, reduced to $10 ppd.
TIPS FROM THE TIGERCUB VOL. 2, another diskfull, complete contents of Nos. 15 through 24, over 60 files and programs, also just $10
TIPS FROM THE TIGERCUB VOL. 3, another 62 programs, tips and routines from Nos. 25 through 32, $10 postpaid.
TIPS FROM THE TIGERCUB VOL. 4, another 48 programs and files from issues 33 through 41, also $10 postpaid.

Thanks to Steve Chapman and Bill Wallbank of Stone & Webster Engineering Corp. TIUG for this one. If V=21 you are in Extended Basic, otherwise you are in Basic. I am not sure it will work with all consoles and modules. -

```
100 RANDOMIZE @@
110 V=INT(RND*100)
```

How can you input a blank (CHR$ 32) with ACCEPT AT? As far as I know, you can't. With LINPUT, just hit the space bar, and with INPUT, type " ". But with ACCEPT AT the space bar gives a null string and " " gives " " ! However, you can code around it -

```
X$=CHR$(34)&CHR$(32)&CHR$(32
):: ACCEPT AT(1,1):T$ :: IF
T$=X$ THEN T$=CHR$(32)
```

And, to clear up the puzzling behavior of the "quote marks" -

```
100 CALL CHARPAT(34,CH$):: C
ALL CHAR(35,CH$)!written by
Jim Peterson
110 DISPLAY AT(1,7)ERASE ALL
:"THE # PUZZLE":" You can't
enter PRINT # or PRINT @@@ -
 the computer  demands an
even number of @."
120 DISPLAY AT(5,1):"1 PRINT
 @@ !prints a null string (n
othing)":"2 PRINT @@@ !print
s @"
130 DISPLAY AT(8,1):"3 PRINT
 @@@@ !prints @":"4 PRINT @@
@@@ !crashes as  STRING-NUM
BER MISMATCH"
140 DISPLAY AT(11,1):"5 PRIN
T @@@@@@ !crashes as  SYNTAX
 ERROR"
150 DISPLAY AT(13,1):"6 PRIN
T @@@@@@ !prints @@":"7 PRIN
T @@@@@@@ !prints @@@":"8 PR
INT @@@@@@@ !print @@@@"
160 DISPLAY AT(16,1):"9 PRIN
T @@@@@@@@ !prints @@@":"10
PRINT @@@@@@@@ !crashes as
STRING-NUMBER MISMATCH"
170 DISPLAY AT(19,1):"11 PRI
NT @@@@@@@@@ !crashes as SY
NTAX ERROR":"12 PRINT @@@@@@
@@@@ !@@@@"
180 DISPLAY AT(22,1):"13 PRI
NT @@@@@@@@@@ !@@@@@":"14 P
RINT @@@@@@@@@@@!@@@@@@"
190 DISPLAY AT(24,1):"TRY IT
! LINE NO.(1-14)?" :: ACCEPT
 AT(24,25)VALIDATE(DIGIT)SIZ
E(2)BEEP:LN :: IF LN<1 OR LN
>14 THEN 190
200 CALL CLEAR :: ON LN GOSU
B 230,240,250,260,280,290,30
0,310,320,330,340,350,360,37
0
210 PRINT ::::"Press any ke
y"
220 CALL KEY(0,K,S):: IF S=0
 THEN 220 ELSE 110
230 PRINT "" :: RETURN
240 PRINT "@" :: RETURN
250 PRINT "@@" :: RETURN
260 PRINT ""@"" !crashes as
STRING-NUMBER MISMATCH - the
 @ is misinterpreted as a mu
ltiplier!Same with +,-,/
270 !with anything else, inc
luding numerals, crashes as
SYNTAX ERROR - but inserts a
 space before the character!
280 PRINT ""@@"" :: !crashes
290 PRINT "@@@@@@" :: RETURN
300 PRINT "@@@@@@@" :: RETURN
310 PRINT "@@@@@@@@" :: RETURN
320 PRINT "@@@@@@@@@" :: RETURN
330 PRINT "@@@@@@@@@@" :: RETURN
340 PRINT "@@@@@@@@@@@" !crash
350 PRINT "@@@@@@@@@@@@" !crash
360 PRINT "@@@@@@@@@@@@@" :: RETU
RN
370 PRINT "@@@@@@@@@@@@@@" :: RETURN
```

The method of closing an "ajar" file, described in Tips #28, doesn't always work, but this one seems to be reliable -

```
100 ON ERROR 500 :: OPEN #1:
"DSK1.TEST" :: INPUT #1:A$ :
: PRINT A$ :: STOP
500 ON ERROR 510 :: CLOSE #1
510 INPUT "CHECK DISK AND DR
IVE, PRESS ANY KEY":DUMMY$ :
: RETURN 100
```

This one is just for the fun of it - it uses the contents of computer memory to create designs -

```
100 DISPLAY AT(3,10)ERASE AL
L:"COLORPEEK": :TAB(7);"by J
im Peterson": : :" Watch the
 computer's memory": :"displ
ayed in color."
110 DISPLAY AT(12,1):"Choose
": :"(1) plain colors": :"(2
) bars & checks": :"(3) patt
erns" :: ACCEPT AT(12,8)VALI
```

```
DATE("123")SIZE(I):Q :: CALL
 CLEAR :: IF Q=1 THEN 170
120 DISPLAY AT(12,5):"wait,
please" :: IF Q=3 THEN 140
130 FOR CH=32 TO 143 :: CALL
 CHAR(CH,RPT$("FO",8)):: NEX
T CH :: GOTO 160
140 RANDOMIZE :: FOR CH=32 T
O 88 :: FOR J=1 TO 4 :: X$=S
EG$("0018243C425A667E8199A5B
DC3DBE7FF",INT(16*RND+1)*2-1
,2):: B$=B$&X$ :: C$=X$&C$ :
: NEXT J :: CALL CHAR(CH,B$&
C$)
150 CALL CHAR(CH+55,B$&C$):: 
 B$,C$="" :: NEXT CH
160 FOR SET=0 TO 14 :: CALL
COLOR(SET,SET+1,16-SET):: NE
XT SET :: CALL SCREEN(2):: G
OTO 180
170 FOR SET=0 TO 14 :: CALL
COLOR(SET,SET+2,SET+2):: NEX
T SET :: CALL SCREEN(16)
180 FOR J=-1 TO -2000 STEP -
1 :: CALL PEEK(J,A):: A=A-(A
<33)*(A+32):: A=A+(A>143)*(A
/2):: R=R+1+(R=24)*24 :: CAL
L HCHAR(R,1,A,32)
190 C=C+1+(C=32)*32 :: CALL
VCHAR(1,C,A,24):: NEXT J ::
GOTO 100
```

Unlike most of the number games played against the computer, you can win this one -

```
100 CALL CLEAR :: CALL SCREE
N(16):: DISPLAY AT(3,8):"THE
 '37' GAME" !by Jim Peterson
110 DISPLAY AT(5,1):" We wil
l take turns picking":"a num
ber from 1 to 5, but":"not t
he number that was just":"pi
cked."
120 DISPLAY AT(10,1):" The n
umbers we pick will be":"add
ed to the total count."
130 DISPLAY AT(13,1):" Whoev
er reaches 37 is the":"winne
r, but if you go over":"37 y
ou lose."
140 CALL SHOW(20,1,"Press an
y key to start")
150 CALL KEY(0,K,S):: IF S=0
 THEN 150
160 DATA 4,11,17,24,30,37
170 DATA 262,330,392,523,523
180 DATA 1047,784,659,523,52
3
190 C,P=0 :: CALL CLEAR :: C
ALL MAGNIFY(2):: R=10 :: FOR
 J=1 TO 5 :: CALL SPRITE(#J,
48+J,5,R,10):: R=R+30 :: NEX
T J
200 CALL SHOW(24,1,"(Y)ou or
 (C)omputer first?"):: ACCEP
T AT(24,28)VALIDATE("YC")SIZ
E(1):Q$ :: DISPLAY AT(24,1):
""
210 IF Q$="C" THEN CALL SHOW
(22,8,"I pick 4"):: CALL COL
OR(#4,1):: P=4 :: C=4 :: CAL
L SHOW(3,10,"COUNT=4")
220 CALL SHOW(20,8,"Pick you
r number"):: ACCEPT AT(20,26
)VALIDATE("12345"):N :: IF N
=P THEN 220
230 IF P>0 THEN CALL COLOR(#
P,5)
240 CALL COLOR(#N,1):: P=N :
: C=C+N :: CALL SHOW(3,10,"C
OUNT= "&STR$(C)):: IF C=37 T
HEN 320 ELSE IF C>37 THEN 34
0
250 RESTORE 160
260 READ X :: IF C<X THEN B=
X-C ELSE IF X<37 THEN 260
270 CALL SHOW(22,8,"I'm thin
king..."):: FOR Y=1 TO 700 :
: NEXT Y
280 IF B>5 AND B/2=INT(B/2)T
HEN B=B/2
290 IF B>5 OR B=P THEN B=1-(
P=1)
300 CALL SHOW(22,8,"I pick "
&STR$(B)):: CALL COLOR(#P,5)
:: CALL COLOR(#B,1):: P=B ::
 C=C+B :: CALL SHOW(3,10,"CO
UNT= "&STR$(C))
310 IF C=37 THEN 340 ELSE IF
 C>37 THEN 320 ELSE 220
320 RESTORE 170 :: FOR J=1 T
O 5 :: READ F :: CALL SOUND(
100,F,5,F#1.03,5):: NEXT J :
: CALL SHOW(12,8,"YOU WIN!")
330 CALL SHOW(15,8,"Play aga
in? (Y/N)"):: ACCEPT AT(15,2
6)VALIDATE("YN"):Q$ :: IF Q$
="N" THEN STOP ELSE 190
340 RESTORE 180 :: FOR J=1 T
O 5 :: READ F :: CALL SOUND(
300,30000,30,30000,30,F,30,-
4,5):: NEXT J :: CALL SHOW(1
2,8,"YOU LOSE!"):: GOTO 330
350 SUB SHOW(R,C,T$):: FOR J
=1 TO 10 :: DISPLAY AT(R,C):
" " :: DISPLAY AT(R,C):T$ ::
 NEXT J :: SUBEND
```

A couple more peculiarities of the computer -

```
100 DISPLAY AT(3,8)ERASE ALL
:"POS PUZZLE #1": :"      f
rom Tigercub"
110 DISPLAY AT(9,1):"Why doe
s the computer say":"that X=
1 if you answer the":"prompt
 with the Enter key":"(null-
string) ?"
120 DISPLAY AT(14,1):"110 IN
PUT M$"
130 DISPLAY AT(15,1):"120 X=
POS(""TESTING"",M$,1)::":"PR
INT X :: GOTO 100"
140 !POS PUZZLE #1 - why doe
s the computer say that X=1
if you answer the prompt wit
h Enter (null-string) ?
 - Jim Peterson
150 INPUT M$
160 X=POS("TESTING",M$,1)::
PRINT X :: GOTO 140
```

And -

```
100 DISPLAY AT(3,8)ERASE ALL
:"POS PUZZLE #2": :"      f
rom Tigercub"
110 DISPLAY AT(7,1):"Why doe
s the computer say":"that th
e first position of":"null-s
tring is at whatever":"posit
ion it is told to start":"se
arch at?"
120 DISPLAY AT(13,1):"100 M$
=""""""
130 DISPLAY AT(14,1):"110 DI
SPLAY AT(20,1):""POS?"" :: A
CCEPT AT(20,6):P"
140 DISPLAY AT(16,1):"120 X=
POS(""TESTING"",M$,P):: DISP
LAY AT(22,1):""X="";X :: GOT
O 110"
150 M$=""
160 DISPLAY AT(21,1):"POS?"
:: ACCEPT AT(21,6):P
170 X=POS("TESTING",M$,P)::
DISPLAY AT(23,1):"X=";X :: G
OTO 160
```

Here is an improvement to the PRINTSPEAKER in Tips #40 - in lines 130 and 160, change the CHR$(1)&"1" to CHR$(3)&"255" . This will avoid problems if the program being converted opens FILE #1.

Irwin Hott informs me that assembly routines which have been imbedded into XBasic programs, using ALSAVE or SYSTEX, can be saved to cassette and reloaded. This could be very useful for those who have a stand-alone or "matchbox" 32k.

And, a mini-game for you to have fun with or improve on -

```
1 !      2-LINE GAME
       by Jim Peterson
- use S&D keys to paint the
white line on the highway
2 !if it is too easy, change
the 6 in A$=RPT$(CHR$(143),6
) to 5 and the 5 in C>T+5 to
 4
100 CALL CLEAR :: A$=RPT$(CH
R$(143),6):: CALL COLOR(14,2
,2,2,16,16):: CALL SCREEN(4)
:: T=11 :: C=14 :: CALL HCHA
R(22,C+2,42):: RANDOMIZE
110 T=T+INT(3*RND-1)+(T=21)-
(T=1):: PRINT TAB(T);A$ :: C
ALL KEY(3,K,S):: C=C+(K=83)-
(K=68):: CALL HCHAR(22,C+2,4
2):: IF C<T OR C>T+5 THEN ST
OP ELSE 110
```

And finally, one of the best examples of compact programming I have ever seen -

```
1 !JOHN WITTE'S 3-LINE VERSI
ON OF JOHN WILLFORTH'S WAVE
POWER - PUBLISHED IN GREATER
 OMAHA UG NEWSLETTER
100 CALL CLEAR :: A$(1)="ABC
DEFGFEDCBA" :: FOR I=1 TO 7
:: CALL CHAR(72-I,RPT$("0",2
$1-2)&"FFFF",47,"30303EFF7F3
E1E04"):: A$(I+1)=SEG$(A$(I)
,2,12)&SEG$(A$(I),2,1):: NEX
T I
110 CALL SPRITE(#5,47,2,180,
180,-23,0,#6,47,2,80,100,-23
,0):: CALL MAGNIFY(2)
120 FOR I=1 TO 12 :: PRINT A
$(I+(I)>7)*2$(I-7))&A$(1+I+(I
)>6)*2$(I-6)):: NEXT I :: GOT
O 120
```

Memory full
Jim Peterson

TEXAS INSTRUMENTS

July 10, 1987

Ninety-Niners of the
Vancouver Area
(NOVA) c/o Dan Lisson
100 E. 19th St. Ste. 200
Vancouver, WA 98663-3375

Dear Sir:

We have received information indicating that some User Groups have notified their members that Texas Instruments sells home computer products.

Texas Instruments has not sold home computer products since April 1, 1984. Referrals for sales should be made to third-party suppliers such as Triton, (800/227-6900), and Tenex, (800/348-2778).

Please advise your members that Texas Instruments cannot sell home computer products, either new or used. We do still service TI-99/4A equipment at established service charges based on the model. Units can be sent prepaid and insured to the following address for service:

Texas Instruments Incorporated
2308 North University Avenue
Lubbock, TX 79408

TI-99/4A owners can contact us for flat-rate service charges by writing to the letterhead address or by calling a consumer representative at 806/747-1882.

Cordially,

Lois Brock
Consumer Relations

/bjc

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```
**************************************************
*        MYSTERY  PROGRAM                        *
*              by Chris Schraa                   *
**************************************************
```

```
100 REM SAVE DSK2.HELLO
110 REM
120 REM Mystery Program
130 REM by Chris Schraa
140 REM
150 REM Requires Memory Expansion
160 REM and Speech Synthesizer
170 REM
180 REM Runs in TI Extended BASIC
190 REM or Console BASIC
200 REM with Editor/Assembler
210 REM or Mini-Memory
220 REM
230 DATA 71,64,72,65
240 DATA 70,75,73,70
250 DATA 76,67,64,66
260 DATA 65,68,76,68
270 DATA 77,68,78,71
280 DATA 77,66,68,66
290 DATA 66,67,74,67
300 DATA 74,77,74,68
310 DATA 73,71,64,67
320 DATA 72,68,76,65
330 DATA 72,68,76,65
340 CALL INIT
350 CALL PEEK(-28672,A)
360 IF A<>96 THEN 460
370 FOR Z=1 TO 11
380 FOR X=1 TO 4
390 READ A
400 CALL LOAD(-27648,A)
410 NEXT X
420 CALL LOAD(-27648,64)
430 CALL LOAD(-27648,80)
440 NEXT Z
450 STOP
460 PRINT "You don't have a Speech"
470 PRINT "Synthesizer attached"
```

Bits & Bytes May 1987

The following appeared in the MAY87 ROM, the newsletter of the Users Group of Orange County.

MAILING LABELS

As the United States Postal Service (USPS) uses more and more Optical Character Readers (OCR's), a problem is developing with computer generated mailing labels.

According to an article in a recent issue of Infoworld, the USPS has purchased some 400 OCR'S since 1984 and it recently signed a contract for over 400 more. These units can process mail at speeds up to 35,000 pieces an hour (the hand rate is about 900).

What's the mailing label problem? Seems that the OCR's have trouble reading mailing labels in compress print or when the dots don't touch. The solution is to print your labels in Near Letter Quality or Emphasized Print and to use 10 to 12 characters per inch. If in doubt, check with your local post office.