TIPS FROM THE TIGERCUB

No. 63

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#########

My stock of Tigercub Software catalogs is depleted and it would not pay me to reprint it. Therefore I have released all copyrighted Tigercub programs, except the Nuts & Bolts Disks, for free distribution providing that no price or copying fee is charged. All of my Tigercub programs have been added to my TI-PD library and are cataloged, by category, in TI-PD catalog #4.

My three Nuts & Bolts disks, each containing 100 or more subprograms, have been reduced to $5.00. I am out of printed documentation so it will be supplied on on disk.

My TI-PD library now consists of 492 disks of fairware (by author's permission only) and public domain, all arranged by category and as full as possible, provided with loaders by full program name rather than filename, Basic programs converted to XBasic, etc. The price is just $1.50 per disk(!), post paid if at least eight are ordered. TI-PD catalog #4 with Supplement #1, listing all titles and authors, is available for $1 which is deductible from the first purchase.

Several articles have been published on the subject of using Funlweb as a simple fixed-field data base. Sometimes you might want to rearrange the sequence of fields in such a file. This mini-program will quickly change the position of any field in a D/V80 file.

```
100 DISPLAY AT(3,8)ERASE ALL
:"FIELDSWITCHER":"":"    by
Jim Peterson":"":" To chang
e sequence of     fields in
a DV80 fixed fieldfile creat
ed by Funlweb or  other mean
s"
110 DISPLAY AT(23,6):"PRESS
ANY KEY" :: DISPLAY AT(23,6)
:"press any key" :: CALL KEY
(0,K,S):: IF S=0 THEN 110 EL
SE CALL CLEAR
120 DISPLAY AT(8,1):"FILENAM
E? DSK" :: ACCEPT AT(8,14):F
$
130 OPEN #1:"DSK"&F$,INPUT
140 DISPLAY AT(12,1):"MOVE F
IELD STARTING AT WHAT POSITI
ON?" :: ACCEPT AT(13,11)VALI
DATE(DIGIT):N
150 DISPLAY AT(15,1):"LENGTH
 OF FIELD?" :: ACCEPT AT(15,
18)VALIDATE(DIGIT)BEEP:L
160 DISPLAY AT(17,1):"TO WHA
T POSITION?" :: ACCEPT AT(17
,19)VALIDATE(DIGIT)BEEP:T
170 IF T>N+L-1 OR T<N THEN 1
90
180 CALL SOUND(400,110,0,-4,
0):: DISPLAY AT(23,1)BEEP:"C
ANNOT MOVE FIELD WITHIN ITSO
WN PARAMETERS!" :: GOTO 140
190 DISPLAY AT(19,1):"OUTPUT
 FILENAME? DSK" :: ACCEPT AT
(19,21)BEEP:OF$
200 OPEN #2:"DSK"&OF$,OUTPUT
210 LINPUT #1:M$ :: M$=M$&RP
T$(" ",80-LEN(M$)):: IF T<N
THEN M$=SEG$(M$,1,T-1)&SEG$(
M$,N,L)&SEG$(M$,T+1,N-T)&SEG
$(M$,N+L+1,255)
220 IF T>N THEN M$=SEG$(M$,1
,N-1)&SEG$(M$,N+L,T-N-L)&SEG
$(M$,N,L)&SEG$(M$,T+1,255)
230 PRINT #2:M$ :: IF EOF(1)
<>1 THEN 210 ELSE CLOSE #1 :
: CLOSE #2
240 DISPLAY AT(12,1)ERASE AL
L:"ANOTHER? Y/N" :: ACCEPT A
T(12,14)VALIDATE("YN")SIZE(1
)BEEP:Q$ :: IF Q$="Y" THEN 1
20 ELSE CALL CLEAR :: STOP
```

And this one will make it easy to completely rearrange the sequence of any number of fields.

```
100 DISPLAY AT(3,9)ERASE ALL
:"REARRANGER":"":"     by Ji
m Peterson"
110 DISPLAY AT(7,1):" To re
arrange the sequence of fiel
ds in a DV80 file of fixed f
ields created by     Funlweb
 or otherwise."
120 DISPLAY AT(24,7):"PRESS
ANY KEY" :: DISPLAY AT(24,7)
:"press any key" :: CALL KEY
(0,K,@):: IF @=0 THEN 120
130 DIM L(20),S(20),F$(20)::
 CALL CLEAR
140 DISPLAY AT(8,1):"INPUT F
ILENAME?":"":"DSK" :: ACCEPT
 AT(10,4)BEEP:I$ :: OPEN #1:
"DSK"&I$,INPUT
150 DISPLAY AT(12,1):"OUTPUT
 FILENAME?":"":"DSK" :: ACCE
PT AT(14,4)BEEP:O$:OPEN #1:"
DSK"&O$,OUTPUT
160 DISPLAY AT(16,1):"HOW MA
NY FIELDS?" :: ACCEPT AT(16,
18)VALIDATE(DIGIT)SIZE(2):F
:: CALL CLEAR
170 FOR J=1 TO F :: DISPLAY
AT(12,1):"FIELD #";J;"LENGTH
?" :: ACCEPT AT(12,20)VALIDA
TE(DIGIT)BEEP:L(J):: NEXT J
:: FOR J=1 TO F
180 DISPLAY AT(12,1):"IN FIE
LD #";J:"":"PLACE FIELD #" :
: ACCEPT AT(14,15)VALIDATE(D
IGIT)BEEP:S(J)
190 IF S(J)<1 OR S(J)>F THEN
 CALL SOUND(300,110,0,-4,0):
: GOTO 180
200 IF POS(E$,CHR$(S(J)),1)=
0 THEN E$=E$&CHR$(S(J)):: GO
TO 220
210 CALL SOUND(300,110,0,-4,
0):: DISPLAY AT(16,1):"FIELD
 #";S(J);"HAS ALREADY  BEEN
PLACED!" :: GOTO 180
220 NEXT J
230 LINPUT #1:M$ :: M$=M$&RP
T$(" ",80-LEN(M$)):: P=1 ::
FOR J=1 TO F
240 F$(J)=SEG$(M$,P,L(J)):
P=P+L(J):: NEXT J
250 FOR J=1 TO F :: N$=N$&F$
(S(J)):: NEXT J :: PRINT #2:
N$ :: N$=""
260 IF EOF(1)<>1 THEN 230 EL
SE CLOSE #1 :: CLOSE #2 :: S
TOP
```

If you need to use either of those programs on files with a record length other than 80, just add VARIABLE (or FIXED) and the record length to all the file opening statements, and change that 80 in line 210 or 230.

This subprogram, in which X=28 for a 28-column screen or whatever width you want, will reformat a string of almost any length to print on screen without breaking words, and will return in L the number of lines required to print it, which can be used to space DISPLAY AT statements.

```
31993 SUB FORMAT(X,M$,L):: Y
=X
31994 IF LEN(M$)<Y+1 THEN 31
996 ELSE IF LEN(M$)<Y+X+1 AN
D SEG$(M$,Y,1)=" " THEN 3199
6 ELSE IF LEN(M$)<Y+X+1 AND
SEG$(M$,Y+1,1)=" " THEN 3199
6 ELSE P=Y-1
31995 IF P<1 THEN 31996 ELSE
 IF SEG$(M$,P,1)=" " THEN M$
=SEG$(M$,1,P)&RPT$(" ",Y-P)&
SEG$(M$,P+1,255):: Y=Y+X ::
GOTO 31994 ELSE P=P-1 :: GOT
O 31995
31996 L=INT(LEN(M$)/X)-(LEN(
M$)/X<>INT(LEN(M$)/X)):: SUB
END
```

The following little program, plus the magic of Funlweb, should be all the mailing list program that most people would need for home use. Just use Funlweb to create a file with name on the first line, address on the second line, city and state on the third - or use 4 or even 5 lines for the address if you need to, but the 6th line must either be blank or contain selection codes. These codes can be anything you want, such as C for everyone you want to send a Christmas card to, or B11 to send a birthday card in November, or whatever.

You can put as many codes as you want to on that line, separated or strung together

but be sure not to use a code that is part of another code - for instance, if you use B11 for those November birthdays, don't use B or 1 or B1 or 11 for something else.

Then continue with the next address in another block of six lines. Just be sure that the line number of the line just above the first address line is always a multiple of six.

```
100 DISPLAY AT(12,1)ERASE AL
L:"Filename? DSK" :: ACCEPT
AT(12,14)BEEP:F$ :: OPEN #1:
"DSK"&F$,INPUT :: OPEN #2:"P
IO"
110 DISPLAY AT(14,1):"Print
addresses with code -":"":"(
to print all addresses,  j
ust press Enter)"
120 ACCEPT AT(15,1)BEEP:X$
130 LINPUT #1:A$ :: LINPUT #
1:B$ :: LINPUT #1:C$ :: LINP
UT #1:D$ :: LINPUT #1:E$ ::
LINPUT #1:F$
140 IF POS(F$,X$,1)<>0 OR X$
="" THEN PRINT #2:A$:B$:C$:D
$:"":""
150 IF EOF(1)<>1 THEN 130 EL
SE CLOSE #1
```

In Tips #62 I reported on the weird behavior of the CALL LOAD(-31961,149), when used to clear all defaults and search for a LOAD file on DSK1. I have since found that if you put this CALL at the beginning of a program, it will not execute until an END or STOP is reached - but if you break the program with FCTN 4, it will not be in memory!

I stated that after this CALL LOAD was executed, any number taken to the power of 0 (which should be a value of 1) acquired a value of 220.5727273. I was led astray by the INT in the the formula in which I first found this puzzle. Actually it is 220.57000101, which prints to the screen in the peculiar format F0.57000101.

If a number between 1 and 9 is added to that, it is printed as 1< followed by the number being added, followed by the decimal part. For a number between 10 and 19, the < is changed to = and between 20 and 29 it becomes > (note the ASCII sequence); from 30 to 35 it becomes ? but from 36 to 99 99 the decimal portion is preceded by 0 to 63 respectively. 100 is 2<0.570001 and the pattern continues.

Although these are not valid representations of numbers, they are treated as such. Run a program to give N the power of 2^0, then break the program and experiment in immediate mode.

PRINT N gives that strange F0.57000101. PRINT N+1, or whatever, gives values represented in the format described above. PRINT N#1 will give the true numeric value 220.57000101 but multiplying by some other values gave me results in the odd format, as did dividing.

Peter Walker pointed out to me that trying to subtract from N within a program resulted in printing a value followed by a crash reporting a SYNTAX ERROR (in the line which had just been executed!) followed by a jump to a non-existent line zero!

N-1 should be 219.57.. of course, but in immediate mode PRINT N-1 results in 63.57000101. In the format in which added values are printed, this would be 319.57000101 but the 63.. is actually a decimal value, as can be proved by PRINT CHR$(INT(N-1))! When I tried to get a zero value by PRINT N-64.57000101, the computer blew its mind.

Does anyone know what is going on here?

An IBM program called DOC-SMASH, which sells for about $35, will read a D/V80 file and output it to a printer in full carriage-width lines of elite condensed subscript thereby getting up to 216 lines per page. Bud Wright wrote a TI version, with assembly links, to let us do the same thing for free. His version wouldn't work on my trusty old Gemini 10X, which does not support condensed elite, so I wrote this mini-program which is not as fast as Bud's, but does the job.

```
100 DISPLAY AT(3,9)ERASE ALL
:"TEXTSMASHER":"":"For the G
emini 10X printer, to print
D/V80 text in linesof 136 ch
aracters closely  spaced, i
n subscript."
110 DISPLAY AT(20,1):"Press
Enter to end input" :: DIM F
$(20)
120 F=F+1 :: DISPLAY AT(12,1
):"FILE #";F:"DSK" :: ACCEPT
 AT(13,4)BEEP:F$(F):: IF F$(
F)<>"" THEN 120
130 OPEN #2:"PIO",VARIABLE 2
55 :: PRINT #2:CHR$(27)&CHR$
(83)&CHR$(1);
140 PRINT #2:CHR$(15)&CHR$(2
7)&CHR$(51)&CHR$(12);:: LN=1
36
150 FOR J=1 TO F-1 :: OPEN #
1:"DSK"&F$(J),INPUT
160 LINPUT #1:M$
170 IF LEN(T$)>0 THEN M$=T$&
" "&M$ :: T$=""
180 IF LEN(M$)<LN+1 AND POS(
M$,CHR$(13),1)<>0 THEN PRINT
 #2:M$ :: GOSUB 260 :: M$=""
 :: GOTO 230
190 IF LEN(M$)=LN THEN PRINT
 #2:M$ :: GOSUB 260 :: M$=""
 :: GOTO 230
200 IF LEN(M$)<LN AND EOF(1)
<>1 THEN LINPUT #1:X$ :: M$=
M$&" "&X$ :: GOTO 170 ELSE I
F LEN(M$)<136 THEN PRINT #2:
M$ :: GOSUB 260 :: GOTO 240
210 P=LN
220 IF SEG$(M$,P,1)=" " THEN
 T$=SEG$(M$,P+1,255):: M$=SE
G$(M$,1,P):: PRINT #2:M$ ::
GOSUB 260 :: M$="" :: GOTO 2
30 ELSE P=P-1 :: GOTO 220
230 IF LEN(T$)<LN+1 AND POS(
T$,CHR$(13),1)<>0 THEN PRINT
 #2:T$ :: GOSUB 260 :: T$=""
240 IF EOF(1)<>1 THEN 160
250 CLOSE #1 :: NEXT J :: ST
OP
260 X=X+1 :: IF X<121 THEN R
ETURN
270 X=0 :: FOR K=1 TO 8 :: P
RINT #2 :: NEXT K :: RETURN
```

For that to work properly, your paragraphs must end in carriage returns, and so must the title line, etc. If such is not the case, try Bill Wood's method - load the file into Funlweb, enter RS for Replace String, then /. /.X/ but instead of X type CTRL U SHIFT M. At the first prompt, enter A for All. If your text has any paragraphs ending in ? or !, get your cursor back to the beginning, change that first period to ? or !, and do it again. You might also need to manually add carriage returns to titles, etc. Just type CTRL U, then SHIFT M wherever a CR is needed.

Without having printers to test it on, I think the program can be modified for the SG-10 by changing line 140 to

```
140 PRINT #2:CHR$(27)&"B"&CH
R$(4)&CHR$(27)&CHR$(51)&CHR$
(12);:: LN=160
```

And for old Epson-type printers which don't support elite condensed by

```
140 PRINT #2:CHR$(27)&CHR$(7
7)&CHR$(27)&CHR$(51)&CHR$(18
);:: LN=132
```

And new Epson compatibles by

```
140 PRINT #2:CHR$(27)&CHR$(7
7)&CHR$(15)&CHR$(27)&CHR$(51
)&CHR$(18);:: LN=160
```

You might also have to change that 8 to 12 in line 270 - my old Gemini seems to think that 11#12=128.

COMPLETELY out of memory,
Jim Peterson

To the Editor,

Ref:*FEBRUARY ARTICLE "You don't have it all"*

I read Jim Peterson's article and I must say the opinions set forth were valid and echoes many of the sentiments I have about the TI world that exist today.

The "user", being the home-type can feel frustration when the computer jargon flies in a meeting or conversation. The user's needs are quite straight-forward and simple. The user needs support from a group of fellow TI enthusiast and software to perform the task he or she sets out to accomplish. The hardware situation can give a user "sticker" shock. I can't see spending $200 to $300 for a Hard-drive controller (my opinion) and then try to find a 10 Megabyte Hard-drive to go along with the controller. The Hard drivers are anywhere from $69 (used) to $170 (new). The used price I found here locally included an IBM controller card! The only thing that I would want for my upgrade is a Corcomp disk controller card. Even then, according to my TI associates here in Michigan, I might not get a card that can do quad-density.

It seems that Corcomp made cards with whatever chips that they had available. I am, for justification reasons, like Mr. Peterson weighing the cost of the hardware to use I may receive. Also, in reality, why would I spend money on items that I may seldom use and better spend (sometimes cheaper) on my 386 IBM compatible? It comes down to practicality and add-on costs.

I would tend to "ask" these hardware enthusiasts to come up with inexpensive modification "kits" to solve some hardware upgrades. There may be a way to build your own like, Bud Mills bare board kit for the Ramdisk. I acquired three DSDD drives that I have hooked up to my system. I found a Digital disk box at a swap meet to house my peripheral drives. The cost was minimal. Many swap meets and computer meets have IBM drives (full and half height) that are ancient in the IBM world, but very useable in the TI world. There are alternatives and using the support of the user groups a good buy can be passed on to other users; even ideas for inexpensive upgrades can be communicated to the groups.

I guess the Ohio groups have a communication advantage in group support that the Michigan users are without (speaking from my situation). I depend on newsletters, answers from user groups, and my TI friend, Mike Martinko, to get help and TI answers to my questions.

My opinion, is that hardware minds are needed in our TI realm, but software upgrades and new introductions are desperately needed to carry on the TI through the 90's. So I guess I agree with Mr. Peterson and also applaud him for his undying dedication to the preservation of TI 99/4A. I hope I didn't sound pompous in my letter and I have only the best intentions when speaking and writing about the TI. I work with IBM and Digital equipment every day (programing and developing software), but I still go back to my TI because it truly is a "home computer". Once again, I extend my deep gratitude to all the TI people in Ohio and around the world.

Per Halvorsen

OUTLINE OF STANDARDS FOR TYPES OF DEVICES

by RICH GILBERTSON
PORTLAND USERS NINETY NINES

Here is what I look for when I consider buying hardware devices for the TI 99/4A. These are my general rules of thumb:

DEVICES

If a device requires you to load software in order to make it work or to control it, then I consider it to be a badly designed device. Control software should be on the same board and controllable from any cartridge or language. The only exceptions would be the RS232 card or an 8K non-banked DSR memory card. Most of the cards for the 99/4A - like the Disk controller and some RAMDISKs - have this built in. Those that don't are using the IBM type of approach to making and controlling devices. (Another exception, of course, is the 32K card.) Finally, all devices should be CRU (Control Registar Unit) selectable by hardware switches.

GRAM DEVICES

These should have absolute control over all GROM and GRAM memory. They should also emulate the Cartridge RAM with at least two 8K banks, if not more. They should only plug into the GROM (Cartidge port) bus so as to avoid bus contentions with internal GROMs. They should have more than one bank of GRAM memory. They should be battery backed with an on board EPROM controller/loader. Lastly, they should have hardware switches that can be over-ridden by software, because software-only switches can too easily crash. Also hardware switches give the user 100% more control over the entire system. Cartidge port GRAM devices don't need any CRU address selections.

HARD DRIVE DEVICES

These should have at least two hard drives and several floppies that it can control. They should be accessable through on board EPROM, allowing access from any Cartridge or language. Disk Manager should reside on a secondary EPROM. Library management should be separate from the disk manager and loaded from disk giving more momory for viewing libraries. Software should be compatable with all RAMDISKs and other DEVICES. Must have CRU selections.

VDP 80 COLUMN DEVICES

These should utilize the 9938, 9958, or the new 9978 Yamaha video chips. Minimum memory should be 128K RAM, but expandable to 256K RAM or more. (Personnally I'd like to have 1MEG.) Must have all the VDP modes that the 9918 has, in order to maintain the downward compatibility. And all the VDP modes up to anything that the IBM world can dream up, so that the 99/4A can duplicate it. The best approach to attaching the device is to put it right on the mother board of the 99/4A. Because if it is not, then you lose quite a lot of control over the device. This also gives the designer many more features to add to the device.

MOUSE

It should plug directly into the 80 column card. An not require software to run it. Sorry, but I also belie that any Mouse running from the RS232 only creates problems. Because if you want to run the Mouse at the same time as you're dumping some docs to a printer or talking on the Modem, then some special software is goi to have to be loaded. Also the timing of the Mouse will run much quicker when attached directly to an 80 column device than to the RS232. Last but not least, when the Mouse is plugged into the 80 Column device, the interfacing for it can allow a standard Mouse from othe computer systems to be used - instead of a specially built one.

RAMDISK DEVICES

These should be CRU selectable and have the ability be drive-selectable (name the drive number it will be.) Disk Manager should be on board an EPROM and called fro any Cartridge or Language. Ramdisks should be battery backed, and as crash proof as a Disk Drive Controller. They should not require any software to be loaded to control it.

PRINTERS

Should be EPSON compatiable.

MODEMS

Should be HAYES compatiable.

UPGRADE CPU

Use new TSM 10001 CPU with new mother board. Should be downward compatible and have at least 256K of memory upgradable to 1MEG. New mother board should use new Yamaha 9978 VDP chip. Should have GROM/GRAM also available with at least 1MEG for use. Must have at leas 256K of VDP memory and able to work with a PE Box. I would prefer non-simulated GROM/GRAM because otherwise will limit the real potential of the mother board. Besides, with 256 banks of GROM/GRAM, every cartridge ever made could be on board the mother board and still leave room for new software. Because of the speed of t new CPU, GROM/GRAM would run 5 times faster. An example would be Extended Basic which would run almost 3 times faster than it does presently.

Well, those are my standards for devices when I bu them. Not all devices I have purchased have met these standards and not all have the features I have wanted. is not because it can't be done, but because that is wh the designer wanted. Or because of the cost of adding a these features.

There are some devices I have not mentioned only because I have little knowledge of them. But try to kee these standards in mind when purchasing a device and you'll have a lot more fun with your TI.

HELPFUL HINTS
by Bruce Rodenkirch
Northcoast Users Group

I recently purchased a copy of 99 TIPS by John Hamilton of the Central Iowa 99/A User Group. This is a list of tips he has printed over the years in their newsletter so I went through and picked out some of them to share with you. Some are direct quotes and others are edited, so here goes.

If you have the Terminal Emulator cartridge and a Speech Synthesizer give this a try. If you are working on a program enter LIST "SPEECH" and the computer will read your program to you. I know a blind student at Akron University who is majoring in computers and he is an expert at writing and debugging programs. He doesn't use a monitor and keeps track of things by having his computer read the "screen" to him. How's that for a humility pill?

"Jim Peterson, of Tigercub Software, passes on this gem. If you mistakenly type "OLD CS1" when you meant "SAVE CS1", your program won't be lost if you type "Shift E, Enter". You'll get an I/O error, but still have your program."

"To further document your program you can add comments after a GOTO or GOSUB. They won't interfere with the program. Here are two examples:

```
 100 GOTO 1234 - THIS SETS UP SCREEN
 200 GOSUB 2345 - EXECUTE THE PRINT ROUTINE"
```

A while ago Don Sedita wrote an article in the Greater Akron Area newsletter telling how to bring up a hidden "test mode screen" in the Munch Man module. Within 3 seconds after the Munch Man title screen, type "***" and you will see a screen asking for RND (enter round 0 to 2), SCN (enter screen 0 to 19), and MM (enter munchmen 1 to 9). John Hamilton says this can be done with the Alpiner module also. "Type *## after the title screen shows and input the number of players (1 - 2), number of lives (0 - 9), level of difficulty (0-18), and the players' names. Levels 13 to 18 are tough to get to the top. At level 6 you will see the Abominable Snowman on skis!"

"Miller Graphics announces an unpublished memory location that allows you to disable the Fctn QUIT key if you have either Editor Assembler, Mini Memory, or Extended Basic. XB must also have 32K memory and will also need a CALL INIT."

CALL LOAD(-31806,16) will disable Fctn QUIT
CALL LOAD(-31808,0) will enable QUIT."

"Need some sound effects? Try these with TEII and Speech Synthesizer using the program on page 37 of the TEII manual.

1. "KKKKKKKK" or "QQQQQQQQ" - steam locomotive
2. "UUUUUUUU" or "WWWWWWWW" - helicopter
3. "VVVVVVVV" or "YYYYYYYY" - small plane
4. "JJJJJJJJJJJJJJJJJJJJJ" - machine gun
5. "XXXXXXXXXXXXXXXXXXXXX" - sewing machine

Experiment with the number of letters and mix them up."

"If you have the Speech Synthesizer, you can write a program to read stories from children's books to your kids. Here is an example:

```
100 OPEN #1:"SPEECH",OUTPUT
110 FOR PAGE=1 TO 6
120 READ WORDS$
130 PRINT #1:WORDS$
140 CALL KEY(5,K,S)
150 IF S=0 THEN 140
160 NEXT PAGE
170 DATA ONCE UPON A TIME
180 DATA THERE WERE 3 BEARS
190 DATA WHO LIVED IN THE
200 DATA WOODS ATE HONEY
210 DATA AND LIVED HAPPILY EV
ER AFTER
220 DATA THE END
```

Just type a DATA statement for each page (but do not use any commas). After you read the page, hit any key to continue.

Here is a handy one. "To change the screen color while in command (immediate) mode in Extended Basic, type the following (n is the screen color you want, from 3 to 16):

```
CALL SCREEN(n) :: ACCEPT AT(1
,1):A  ENTER  Fctn 4"
```

"A slick way to end your programs if you have Extended Basic and 32K is to use the following routine that will take you back to the title screen:

```
CALL INIT :: CALL PEEK(2,A,B)
:: CALL LOAD(-31804,A,B)
```

"Or you may want to simply restart XB (including the auto LOAD). Try this routine out of XB:

```
CALL INIT :: CALL LOAD(-31962
,255)"
```

I REMEMBER, I REMEBER BURMA SHAVE SIGNS

By Ed Machonis
QB-99ers, Bayside, NY

If you don't remember, a bit of Ancient History. Before there were *Interstates, there were two lane high*ways. Before there were Remington Micro Screens, there were shaving brushes. Before there were television commercials, there were Burma Shave jingles and before there were Golden Arches there were Burma Shave signs!

Burma Shave was a brushless shaving cream introduced around the late 20's and advertised by means of jingles on small signs along the side of the road. The wooden red signs were about 3 feet wide and a foot high with a line of the jingle lettered in white on each sign. (Sometimes the letters were black on orange signs.) They usually came in sets of 6 signs, strung alongside a couple of hundred feet of highway, and the last sign always read Burma Shave.

Of course you had to get away from the cities to see them, but that's what Sunday Drives were all about - a leisurely drive through the countryside - perhaps a picnic by a lake - and the driver alerting the car's occupants to *"Burma Shave Ahead!" People actually* looked forward to reading them.

Earl Raguse, a member AND officer of SEVERAL California User Groups, has *combined many of the TIPS Animal images* with witticisms reminiscent of some of the old signs. Some of Earl's creations may be spotted elsewhere in this issue.

When I looked over the TIPS collection of images and saw nary a Burma Shave sign, I knew a bit of Americana had slipped away unnoticed. Here are some of my favorites, illustrated with TIPS images. (The originals were not illustrated.)

SHE KISSED THE HAIRBRUSH
BY MISTAKE,
SHE THOUGHT IT WAS
HER HUSBAND JAKE!
BURMA SHAVE

DON'T TAKE A CURVE
AT 60 PER,
WE HATE TO LOSE
A CUSTOMER!
BURMA SHAVE

AT RAILROAD CROSSINGS
BE PREPARED,
TRAINS DON'T WHISTLE
'CAUSE THEY'RE SCARED!
BURMA SHAVE

WHEN YOU DRIVE,
IF CAUTION CEASES,
YOU ARE APT
TO REST IN PIECES!
BURMA SHAVE

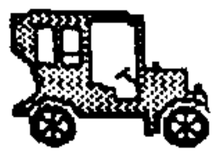
SOME CURVES AHEAD
REMEMBER, SONNY
THAT RABBIT'S FOOT
DIDN'T SAVE THE BUNNY
BURMA SHAVE

TWINKLE, TWINKLE
ONE-EYED CAR,
HOW I WONDER
WHERE YOU ARE!
BURMA SHAVE

ANGELS WHO GUARD YOU
WHEN YOU DRIVE
USUALLY RETIRE
AT 65.
BURMA SHAVE

OF ALL THE DRUNKS
WHO DRIVE ON SUNDAY,
FEW ARE STILL
AROUND ON MONDAY!
BURMA SHAVE

PAST SCHOOLHOUSES
TAKE IT SLOW
LET THE LITTLE
SHAVERS GROW!
BURMA SHAVE



IF YOU DON'T KNOW
WHOSE SIGNS THESE ARE,
YOU CAN'T HAVE DRIVEN
VERY FAR!
BURMA SHAVE

TOURNAMENT SOLITAIRE

Reviewed by Jim Peterson

Tournament Solitaire is a collection of seven different card solitaire games on disk. You can select any of the games from the load menu, or elect to play all seven in sequence as a "tournament", hence the name.

The games were programmed by William Reiss in Extended Basic with assembly links, and the disk is available from Asgard Software (P.O. Box 10306, Rockville MD 20849) for $14.95 plus $2.50 for shipping and handling (U.S. and Canada; $7.50 for airmail elsewhere; 7% additional for credit card orders). The disk is accompanied by a very neatly published 7-page manual of instructions.

As a programmer, I can appreciate the skill and the effort that went into writing these seven programs. The graphics are all that can be done on the TI in Extended Basic, colorful and legible. The programming logic appears to be flawless - in none of the games was I able to make an illegal move, nor was any legal move refused. The manual is well written, although a bit sketchy - I still don't quite understand how to play the "Corners" game.

The seven games are Golf, Pyramid, Klondike, Canfield, Calculation, File Up and Corners. As far as I know, only two of these have previously been programmed for the TI - Klondike by Schererville and under the British name Patience by Gadget Man, and Pyramid by Regena. Of the others, Canfield was the only one I had ever heard of.

To evaluate computerized card solitaire games, one must ask two questions - how do they compare with Walt Howe's Chainlink Solitaire, and are they easier and more enjoyable to play on the computer than with a deck of cards?

The first question is perhaps unfair, because I consider Chainlink Solitaire to be the best "brain game" ever programmed on the TI-99/4A.

As for the second, the shuffling and laying out of the cards is far quicker than could be done manually, thanks to the assembly link. Thereafter, action slows down. Moving cards from one stack to another is accomplished by using the arrow keys to move a cursor to the card to be moved, pressing the space bar to select it, using the arrow keys to move to the position it is to be moved to, and pressing the space bar again. Cards on the stack are turned over by pressing the Enter key, and some games also use other keys. The method of playing is the same for all the games, which makes it easier to play a tournament.

Many people would probably much rather use the joystick than the arrow keys. Personally I would very much prefer to simply select a numbered pile by pressing a number key, as Chainlink Solitaire is played.

In spite of the cumbersome method of play, I did find these games to be very entertaining and addictive, and I spent a good deal of time playing them when I should have been doing something more productive.

I liked Pyramid, although it is one of the slowest in play, because it allows some opportunity for strategy. Its rules differ in one respect from Regena's version, which enabled me to actually beat the game once. I also managed to win at File Up, a complicated game with 20 piles of cards, which allows two reshuffles and a draw during the game, as well as peeking into stacks.

Calculation is an unusual game which might permit considerable strategy, but would require a great deal of study. Klondike is the well-known solitaire game - it could have been improved by automatically turning exposed cards face up. Canfield is a variant of Klondike. Golf is the fastest playing, and very addictive.

Is it worth buying? Absolutely!

A REVIEW OF BITMAP DRAW
By Stan Corbin

Recently I became aware of a graphics program called "BITMAPDRAW", written by Steve Parrott. This program has apparently been around for some time. I wrote Steve to learn if there were any updates. The letter came back for lack of a forwarding address.

I found this to be a simple to learn program, having but a single page of instructions and commands. It has three cursors, black, blue, and white arrows. Each can be used independently, although when using the black arrow, the white arrow tracks the black arrow.

Pressing the "B" key will cause the white arrow to underlay the blue arrow. This allows you to set the distance from the black arrow to the blue arrow, and then to track that spacing with the white arrow as you move the black arrow around the screen. This is useful for drawing a series of parallel lines or gaging the distance from one line or mark to another.

By the proper positioning of the Black and Blue arrows one can produce a line, a rectangle, or a circle, dimensioned *according to the juxtaposition of the* arrows. (henceforth only 5 syllables max will be allowed in this newsletter. ED)

The cursor movements are controlled with the arrow keys (E,S,D,X) without using the function key. No provision is made for a joystick.

There is one font available, produceable in standard video or in inverse video, in single or double size. The picture can also be printed in a single or double size on your printer. Double size is about 8 inches wide and half a page in length, allowing you to make borders, letterheads, certificates and labels.

The program allows you to copy a part of the picture, or erase it and move it from one position on the screen to another.

A portion of a picture can be saved and another picture brought up from storage on the disk, and the saved portion implanted onto the new picture, allowing one to implant portions of one picture onto another.

It allows a picture or a portion of a picture to be reversed and/or rotated 90, 180, and 270 degrees. Up to ten pictures can be stored on the disk for future use. There is no provision for transporting images or instances, into or out of the program from other sources. You have to draw your own.

This program is written in assembly language and can be loaded from the Load and Run section of the Funnelweb loaders.

You should first print out the documentation and study it, while trying out the different commands to familiarize yourself with the commands and how to use them.

Try it, you'll like it, it's a fun program.

NEWSLETTERS
By Earl Raguse

I have been reading the old newsletters again. This is from the Pittsburg UG's PUG of Nov 85. I thought this article would be good for your education. The following is not exactly verbatim, but I did not edit out any good stuff. TI *Trivia #1 was apparently widely* reprinted, but I never saw it. I didn't want you the lose out on your second chance.

TI Trivia #2
By Darren Leonard

I have seen TI Trivia#1 reprinted in at least 9 other newsletters, and I don't mind not getting credit for it, but it has been miscredited to everything from Compuserve to to other TI User Groups. Any way it seems to be a success, so its time for the inevitable sequel. This one is somewhat more challenging.

1) Where is the acronym COBOL derived from?
2) The memory expansion unit is attached to the? 16 bit or 8 bit buss?
3) What does GROM stand for? Who invented it?
4) What is the Video Display Processor in the TI 99/4A console?
5) A casset recorder is a SERIAL data device. True or False.
6) In eight bit data, the left most bit designates what?
7) What is the term applied to the leftmost bit of data in binary form?
8) For whom was the language PASCAL named?
9) The TMS9901 is what kind of a chip in the TI 99/4A?
10) What do ALGOL, C, and PILOT have in common?
11) What is a SAM?
12) What is the maximum number of memory addresses of the TMS9900?
13) What does LCD mean?
14) Who wrote TI Trivia #1?
15) In the program below, what is the value of P that is printed?

```
1 P = 1 TO 5  2 NEXT P  3 PRINT P
```

16) What home computer sold the most units? The second most belongs to?
17) Who invented the analytic engine?
18) Name two conditional Line Transfers in BASIC.
19) What is so special about 3.58 Megahertz?
20) How many keys are on the 99/4A keyboard?

ANSWERS: Well, How did you do?

1) COmmon Business Oriented language.
2) 8 bit, Console RAM is 16 bit.
3) Graphgic Read Only Memory, Texas Instruments.
4) TMS9918A. The 99/4 has a less *sophisticated TMS9918.*
5) True, it is a serial device, TI disk drives are parallel. (serial record on parallel tracks)
6) Whether the number is positive or negative.
7) Most Significant Bit. (MSB)
8) Blaise Pascal, one of the great mathemeticians. He invented the Pascal Triangle.
9) Input and Output Processor.
10) They are all new programming languages. (I studied ALGOL in 1969, EGR)
11) Synchronous Address Multiplier.
12) 2 to the 16th power or 65,536 addresses.
13) Liquid Crystal Display.
14) Darren Leonard of the Pittsburg User's Group.
15) 6, run it and see for yourself.
16) Commodore 64, TI-99/4A.
17) Charles Babbage. It was a mechanical computer that didn't work well.
18) IF THEN ELSE and ON GOTO
19) It is the frequency that the modulator must output to the TV.
20) 55, the legal limit.

NEXT MEETING TUESDAY JUNE 11, 1991 SUMMER HAS ARRIVED!!!

MUNCH OFFICERS AND NUMBERS (all in 508 area unless noted)

President	W.C. Wyman	865-9683
Vice President	Bruce Willard	852/3250
Secretary	Jim Cox	
Treasurer	Jim Cox	869-2704
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Library	Al/Lisa Cecchini	
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NEW-AGE/99	Jack Sughrue	476/7630

MUNCH DUES

NEW MEMBERSHIP	$25.00
RENEWAL MEMBERSHIP	$15.00
NEWSLETTER ONLY SUBSCRIPTION	$12.50

MAY MEETING. I was very happy to attend the meeting and see a lot of old friends, there were 18 members present. Jack did a demo of the MUG loader/menu and the Redisket copy program. Both demos were very informative with everyone present having a good time. Tony Falco won the raffle.

JUNE MEETING. Bring your computers, Bruce will show us how to clean our consoles, the easiest way is to do it right along with him. You will need a phillips head screwdriver and a small pan head, Bruce will supply the cleaning paper. Jack will also show his quick and dirty way to turn floppies into flippies. This should be a great meeting.
I would also like you to put on your thinking caps. Our Treasury is down to about $250, we didn't do very well at the Fair and that usually amounts to 20% of our yearly budget. I have increased the newsletter subscription to $12.50 to partially cover the recent postage increase. I could use any other ideas you might have.

RAFFLE. Every month we have a raffle to help defer the rental cost of our meetin hall. A typical raffle will have game and utility programs, T-Shirts, books, bumper stickers, blank discs and all sorts of odds and ends for the T.I.

LIBRARY NOTICE. Please return any items borrowed from our library. If you can not come to a meeting or give these items to someone who will be at the meeting.

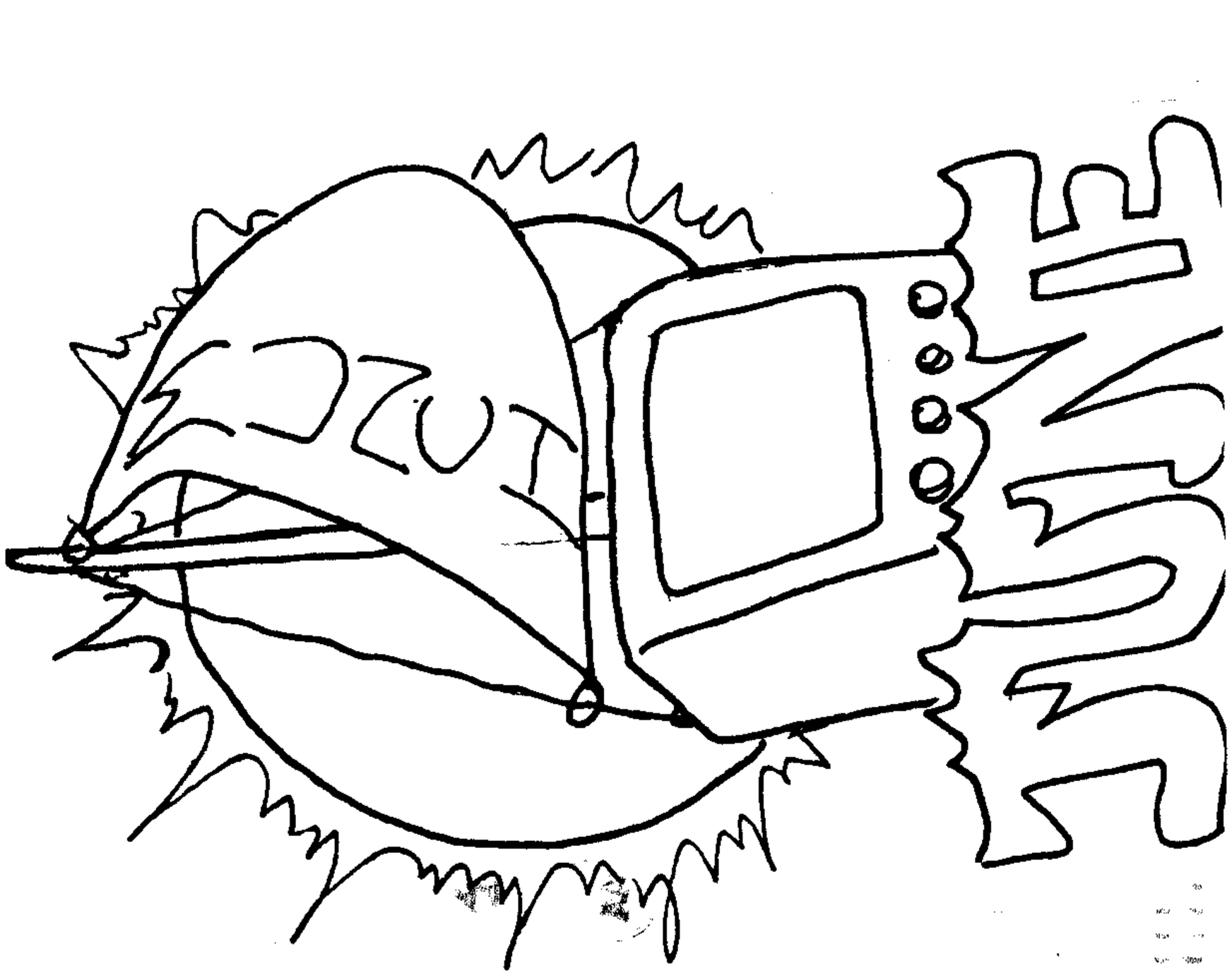
REPRINTS. Reprints are permitted as long as credit is given to M.U.N.C.H.

ARTICLES. I am always looking for articles for this newsletter, anything which interests you will probably interest other members of the TI community, so please share your ideas and opinions with all of us.

DISK LIBRARY. The disk library will be at the meetings from now on. We have copies of all disks in the library and they are available to members for just $1.50 each.

FOR SALE. The group has a TI Count Business Software package available for sale. If interested contact Jim Cox at the above numer or the club address.

DISK OF THE MONTH. This month's disk is the companion to last month's game disk. This month we have Jungle Hunt, Donkykong, Ms. Packman, Shamus and Picnic paranoia. This is DOM #96, GPL #11.



Mass Users of the Ninety-nine and Computer Hobbyists

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Next Meeting JUNE 11TH.

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