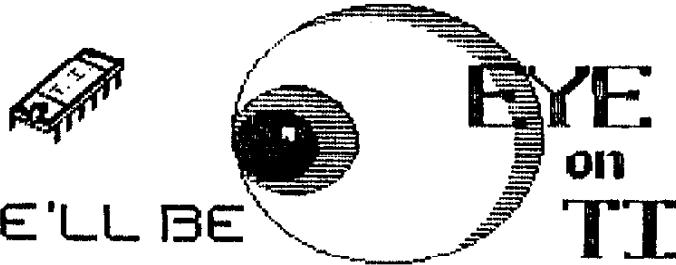




THE BALL 'N CHAIN

A Publication of the
TI SLAVES

SALT LAKE AND VALLEY 99ER USER GROUP



WE'LL BE
WATCHING
FOR YOU AT
USER GROUP MEETING!



JUNE 1988

Contents

- Tips From Tigercub.....2
- Ram Disks Part 4.....5
- High Res Graphics (II)....6
- Sec/Treasurer's Report....7
- Impact 99 (Part 2).....8

Editor's Blunder:
 Oops! I goofed. Last month I stated that this issue would contain an X BASIC tutorial by Jim Peterson. Because of space limitations, (Not only the news-letter but between the editor's ears) we don't have enough room. Hopefully, we will next month.
 Renn

TIPS FROM THE TIGERCUB Copyright 1988
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SLaVe Newsletter version edited by Dwight Klettke.

(D.R.K. note: With the preliminaries out of the way, here's the first song. Note in line 465 how the author makes use of the value stored in the LOAD program. Save this program under the name ANYTIME.)

```
100 DIM N(24)
110 GOTO 150
120 SET,D,F,J,N(),L,T,A,B,Q
130 CALL CLEAR :: CALL SCREEN :: CALL COLOR :: CALL VCHAR :: CALL LOWERCASE ::
CALL PICKING :: CALL PEEK
140 !@P-
150 CALL CLEAR :: CALL SCREEN(5):: FOR SET=1 TO 12 :: CALL COLOR(SET,5,16):: NEXT
SET :: CALL VCHAR(1,31,1,96)
160 DISPLAY AT(2,7):"*** ANY TIME ***" :: CALL LOWERCASE :: DISPLAY AT(4,2):"Word
s & music by Arranged": " Herbert Lawson by" :: DISPLAY AT(6,20):"Tigercub"
170 DISPLAY AT(8,1):" Any time you're feeling lonely," : " Any time you're fee
ling blue,"
180 DISPLAY AT(12,1):" Any time you feel down- hearted": " That will prove yo
ur love for me is true."
190 DISPLAY AT(16,1):" Any time you're thinking 'bout me," : " That's the time
I'll be thinking of you,"
200 DISPLAY AT(20,1):" So any time you say": " You want me back again": " That's t
he time I'll come": " back home to you."
210 D=15 :: F=220 :: FOR J=1 TO 24 :: N(J)=F*1.059463094^(J-1):: NEXT J :: N(0)=
30000 :: FOR J=1 TO 2
220 D=15 :: L=4 :: GOSUB 230 :: GOTO 270
230 T=L/4 :: A=N(18):: B=N(11):: CALL PICKING(T,A,B,D):: A=N(19):: B=N(15):: C
ALL PICKING(T,A,B,D):: T=L :: A=N(20):: B=N(20):: CALL PICKING(T,A,B,D)
240 T=L/4 :: CALL PICKING(T,A,B,D):: A=N(15):: B=N(8):: CALL PICKING(T,A,B,D)::
A=N(16):: CALL PICKING(T,A,B,D):: A=N(15):: CALL PICKING(T,A,B,D)
250 T=L/2 :: B=N(13):: CALL PICKING(T,A,B,D):: A=N(13):: CALL PICKING(T,A,B,D)::
B=N(1):: CALL PICKING(T,A,B,D)
260 T=L/4 :: A=N(12):: CALL PICKING(T,A,B,D):: A=N(13):: CALL PICKING(T,A,B,D)::
T=L :: A=N(18):: B=N(6):: CALL PICKING(T,A,B,D):: RETURN
270 T=L/4 :: B=N(18)
280 CALL PICKING(T,A,B,D):: B=N(6):: CALL PICKING(T,A,B,D):: B=N(18):: CALL PICK
ING(T,A,B,D):: A=N(16):: B=N(6):: CALL PICKING(T,A,B,D)
290 T=L :: A=N(15):: B=N(11):: CALL PICKING(T,A,B,D):: T=L/2 :: CALL PICKING(T,A
,B,D):: T=L/4 :: A=N(7):: CALL PICKING(T,A,B,D):: A=N(8)
300 CALL PICKING(T,A,B,D):: T=L :: A=N(11):: B=N(4):: CALL PICKING(T,A,B,D):: T=
L/4 :: CALL PICKING(T,A,B,D):: A=N(13):: CALL PICKING(T,A,B,D)
310 A=N(11):: CALL PICKING(T,A,B,D):: A=N(15):: B=N(11):: CALL PICKING(T,A,B,D)::
: T=L/4*3 :: A=N(18):: CALL PICKING(T,A,B,D):: T=L/2 :: B=N(8)
320 CALL PICKING(T,A,B,D):: T=L/4 :: A=N(15):: CALL PICKING(T,A,B,D):: A=N(16)::
CALL PICKING(T,A,B,D):: T=L/4*3 :: A=N(17):: B=N(13)
330 CALL PICKING(T,A,B,D):: T=L/4 :: A=N(15):: CALL PICKING(T,A,B,D):: A=N(13)::
CALL PICKING(T,A,B,D):: A=N(11):: CALL PICKING(T,A,B,D)
340 A=N(10):: CALL PICKING(T,A,B,D):: A=N(8):: CALL PICKING(T,A,B,D):: T=L :: A=
N(13):: B=N(6):: CALL PICKING(T,A,B,D)
350 T=L/2 :: CALL PICKING(T,A,B,D):: GOSUB 230 :: T=L/4 :: A=N(18):: CALL PICKIN
G(T,A,B,D):: A=N(15):: CALL PICKING(T,A,B,D):: A=N(17)
360 B=N(5):: CALL PICKING(T,A,B,D):: A=N(16):: B=N(4):: CALL PICKING(T,A,B,D)::
T=L/4*5 :: A=N(15):: B=N(3):: CALL PICKING(T,A,B,D)
370 T=L/4 :: CALL PICKING(T,A,B,D):: A=N(14):: CALL PICKING(T,A,B,D):: A=N(15)::
```

```

CALL PICKING(T,A,B,D):: T=L/4*3 :: A=N(20):: B=N(8)
380 CALL PICKING(T,A,B,D):: T=L/4 :: A=N(22):: CALL PICKING(T,A,B,D):: T=L/4*3 ::
A=N(20):: CALL PICKING(T,A,B,D):: T=L/4 :: A=N(15)
390 CALL PICKING(T,A,B,D):: B=N(15):: CALL PICKING(T,A,B,D):: B=N(1):: CALL PICKI
NG(T,A,B,D)
400 A=N(13):: CALL PICKING(T,A,B,D):: A=N(11):: CALL PICKING(T,A,B,D)
410 T=L/2 :: A=N(8):: B=N(1):: CALL PICKING(T,A,B,D):: T=L/4 :: A=N(20):: B=N(17
):: CALL PICKING(T,A,B,D):: A=N(19):: CALL PICKING(T,A,B,D)
420 T=L/4*3 :: A=N(18):: B=N(6):: CALL PICKING(T,A,B,D):: T=L/4 :: A,B=N(6):: CA
LL PICKING(T,A,B,D):: T=L/2 :: A=N(16):: CALL PICKING(T,A,B,D)
430 T=L/4 :: A=N(15):: CALL PICKING(T,A,B,D):: A=N(13):: CALL PICKING(T,A,B,D)::
T=L/2 :: A,B=N(11):: CALL PICKING(T,A,B,D)
440 T=L/2 :: A=N(0-(J=2)*11):: B=N(12):: CALL PICKING(T,A,B,D):: B=N(6):: CALL PI
CKING(T,A,B,D):: NEXT J
450 T=L/2 :: A,B=N(11):: CALL PICKING(T,A,B,D):: B=N(4):: CALL PICKING(T,A,B,D)::
B=N(11):: CALL PICKING(T,A,B,D):: FOR D=25 TO 100 STEP 25
460 CALL PICKING(T,A,B,D):: NEXT D
464 FOR J=7 TO 30 STEP .5 :: CALL SOUND(-99,392,J):: NEXT J
465 CALL PEEK(12288,Q):: IF Q=1 THEN RUN "DSK1.CANDY" ELSE IF Q=2 THEN RUN "DSK1
.QUICKLOAD" ELSE IF Q=3 THEN 220 ELSE STOP
470 !@P+
480 SUB PICKING(T,A,B,D):: FOR J=1 TO T :: CALL SOUND(-999,A,5,A*1.005,5,B/1.58
5,9):: GOSUB 500 :: CALL SOUND(-999,A,5,A*1.005,5,B/1.334,9)
490 GOSUB 500 :: CALL SOUND(-999,A,5,A*1.005,5,B/2,9):: GOSUB 500 :: NEXT J :: SUBEXIT
500 FOR X=1 TO D :: NEXT X :: RETURN
510 SUBEND
520 SUB LOWERCASE
530 GOTO 580
540 CH,CH$,C,C$
550 CALL CHARPAT :: CALL CHAR
560 !@P-
570 !@P+
580 DATA 00003C44443C,40407B44447B,00003C40403C,04043C44443C,00102850443B,182470
202020,00003C443C043B,404058644444,100010101010
590 !@P-
600 DATA 08000808484830,404850704844,101010101010,00006C545454,000058644444,0000
3844443B,00007844784040,00003C443C0404
610 DATA 000058644040,00003C30187B,10107C101010,00004444443B,000044442810,000044
545428,000044383844,00004428102040,00007C18307C
620 FOR CH=33 TO 90 :: CALL CHARPAT(CH,CH$):: CALL CHAR(CH,SEG$(CH$,3,14)):: NEXT CH
630 RESTORE 580
640 FOR C=97 TO 122 :: READ C$ :: CALL CHAR(C,"00"&C$):: NEXT C
650 !@P+
660 SUBEND

```

I have always been annoyed by the difficulty of hyphenating with TI-Writer, when I want to avoid the gaping holes that wraparound and Fill and Adjust can cause. Manually filling and adjusting with carets is slow, and leaving a space after the hyphen is unreliable, so I wrote this program.

```

100 DISPLAY AT(2,10)ERASE ALL:"TIGERCUB": " HYPHENATED FILL AND ADJUST"
110 DISPLAY AT(6,1): " Prepare text with TI-Writer": "Editor. Leave left TAB at
0,": "set right TAB at the actual": "value of the line length de-"
120 DISPLAY AT(10,1): "sired (i.e., for a 28-char": "line, set it at 28)."
130 DISPLAY AT(12,1): " Indent as desired. Center": "headings as desired but b
e": "sure to follow them with a": "line feed (Enter). Hyphenate"
140 DISPLAY AT(16,1): "as desired and follow the": "hyphen immediately with
a": "line feed (Enter)."
150 ON ERROR 160 :: GOTO 170

```

```

160 ON ERROR 160 :: RETURN 170
170 DISPLAY AT(20,1):"INPUT FILE? DSK" :: ACCEPT AT(20,16)BEEP:F$ :: OPEN #1:"DS
K"&F$,INPUT
180 DISPLAY AT(22,1):"OUTPUT FILE? DSK" :: ACCEPT AT(22,17)BEEP:N$ :: OPEN #2:"
DSK"&N$,OUTPUT
190 DISPLAY AT(24,1):"LINE LENGTH?" :: ACCEPT AT(24,14)VALIDATE(DIGIT):L
200 LF$=CHR$(13):: H$="-"&CHR$(13)
210 ON ERROR 210 :: GOTD 220
220 ON ERROR 210 :: RETURN 310
230 LINPUT #1:M$ :: IF M$=" " OR M$=LF$ OR M$="" OR ASC(M$)>127 OR(LEN(M$)=L AND
POS(M$,LF$,1)=0)OR POS(M$," ",1)=0 THEN 310
240 IF POS(M$,LF$,1)<>0 AND POS(M$,H$,1)=0 THEN 310
250 IF POS(M$,H$,1)<>0 THEN M$=SEG$(M$,1,LEN(M$)-1)
260 IF LEN(M$)=L THEN 310
270 P=1
280 X=POS(M$," ",P):: IF X=P THEN P=P+1 :: GOTD 280 ELSE Y,P=X :: IF POS(M$," ",P
)=0 OR P=L THEN 310
290 M$=SEG$(M$,1,X)&" "&SEG$(M$,X+1,255):: IF LEN(M$)>=L THEN 310 ELSE P=X+2
300 X=POS(M$," ",P):: IF X=0 THEN P=Y :: GOTD 300 ELSE GOTD 290
310 PRINT #2:M$ :: IF EOF(1)<>1 THEN 230 ELSE CLOSE #1 :: CLOSE #2

```

Wes Johnston published an unusual sprite 2-liner in the Charleston Area 99ers newsletter. It is based on a CALL LOAD which freezes all sprite motion until they are turned loose by another CALL LOAD -

```

100 R=PI*2/28 :: CALL CLEAR :: CALL SCREEN(2):: CALL INIT :: CALL LOAD(-31806,
96):: FOR I=1 TO 28 :: CALL SPRITE(#I,46,16,96,128,COS(I*R)*10,SIN(I*R)*10):: NEXT I
110 CALL LOAD(-31806,0):: GOTD 110

```

You might like to try adding my "jewels" to that -

```

100 FOR CH=33 TO 60 :: FOR A=1 TO 4 :: X=INT(8*RND+1):: T$=SEG$("18243C425A667EB
1",X*2-1,2):: A$=A$&T$ :: B$=T$&B$ :: NEXT A :: CALL CHAR(CH,A$&B$):: A$,B$=""
:: NEXT CH

```

```

110 R=PI*2/28 :: CALL CLEAR :: CALL SCREEN(2):: CALL INIT :: CALL LOAD(-31806,96
):: FOR I=1 TO 28 :: CALL SPRITE(#I,32+I,INT(14*RND+3),96,128,COS(I*R)*10,SIN(
I*R)*10):: NEXT I

```

```

120 CALL LOAD(-31806,0):: GOTD 120

```

Also try CALL MAGNIFY(2)

Here is another Tigercub challenge (with the answer immediately following--so don't peek first if you actually want to try it on your own). What is the longest possible one-liner? And what is the longest possible one-liner that actually does something?

Answer to the challenge - for the longest possible one-liner, run the following "program to write a program" -

```

100 OPEN #1:"DSK1.LONG",VARIABLE 163,OUTPUT
110 FOR J=1 TO 79 :: M$=M$&CHR$(149)&CHR$(130):: NEXT J :: M$=CHR$(254)&CHR$(2
54)&M$&CHR$(149)&CHR$(0):: PRINT #1:M$ :: PRINT #1:CHR$(255)&CHR$(255):: CLOSE #1

```

Then enter NEW, then MERGE DSK1.LONG, the LIST - over 34 lines long! But that one doesn't do anything, so try this -

```

100 OPEN #1:"DSK1.LONG",VARIABLE 163,OUTPUT
110 FOR J=1 TO 52 :: M$=M$&CHR$(162)&"X"&CHR$(130):: NEXT J :: M$=CHR$(254)&CHR$
(254)&M$&CHR$(162)&"X"&CHR$(0):: PRINT #1:M$ :: PRINT #1:CHR$(255)&CHR$(255):: C
LOSE #1

```

Again enter NEW, and MERGE DSK1.LONG, then RUN. You'll get a message BREAKPOINT IN 32510 (don't ask me why! Can anyone tell me?) but just enter RUN again. Then LIST it - over 24 lines long!

Explanation? Programs are saved in token code similar to MERGE format code. The maximum length of a record is 163 bytes - which is why MERGE files are D/V 163. The token for RANDOMIZE is ASCII 149, for the double colon is 130. Repeating that 79 times takes only 158 bytes, plus one more RANDOMIZE, the two-byte tokenized line number and the mandatory ASCII 0 to end the record, totals 162.

LET'S TALK RAM DISKS PART IV

By JOHN F. WILLFORTH

THE MYARC RAM DISK IS ONE OF THE MOST POPULAR AND VERSATILE UNITS ON THE MARKET. MY THANKS TO SCOTT COLEMAN FOR HIS INPUT TO THE PREPARATION OF THIS ARTICLE. SCOTT HAS THE 512K VERSION, AND THIS IS THE MODEL THAT MOST OF YOU WOULD PROBABLY MIGRATE TO IN TIME.

THE MEMORY EXPANSION CARD (AS MYARC CALLS IT), COMES IN THREE SIZES, THE BASIC 32K UNIT, THE 128K MODEL, AND THE 512K RAM DISK. THE CARD IS ARCHITECTURALLY SIMILAR TO THE 128K CARD FROM FOUNDATION, IN THAT IT USES 32K RAM SPACE. IT HAS UP TO 16 BANKS OF 32K, WITH THE ENTIRE 32K BLOCK BEING SWITCHED AT ONCE, VERSUS THE 2K BANK SWITCHING OCCURRING IN THE HRD.

THE MYARC UNIT IS SUPPORTED BETWEEN POWER FAILURES (INTENTIONAL AND NORMAL SHUT DOWNS) BY A 9 VDC SUPPLY WHICH IS PLUGGED INTO YOUR AC OUTLET. THIS IS WHY THE UNIT IS RELIABLE UNTIL THE AC POWER TO THE HOUSE DROPS.

SINCE THE MYARC UNIT HAS THE BASIC 32K EXPANSION MEMORY ALREADY A PART OF ITSELF, THE 32K CARD IN THE PEB, OR A SIMILAR 32K IN THE CONSOLE, IN A SIDE CAR TYPE UNIT, STANDALONE, OR IN THE SPEECH UNIT, WILL HAVE TO GO.

THE MYARC UNIT WILL FUNCTION WITH MYARC'S XBII TO ALLOW BASIC PROGRAMS UP TO 128K IN LENGTH. THIS COULD BE A MAJOR ADVANTAGE TO SOMEONE WHO WANTS TO WRITE A VERY LARGE PROGRAM IN BASIC AND UP TILL NOW BEEN FRUSTRATED IN THE ATTEMPT. REMEMBER ALSO THAT YOU WILL HAVE TREMENDOUS ENHANCEMENTS AT YOUR FINGER TIPS WITH THAT XBII, WHICH DOES REQUIRE THE 128K MEMORY, AND WITH THIS ADVANTAGE ALSO COMES THE WARNING THAT THERE ARE STILL SOME BUGS IN THAT XBII PROGRAM, AND THAT IF YOU DO DECIDE TO USE THIS PACKAGE, THE EFFORT SHOULD BE FOR YOURSELF, SINCE THERE IS NOT AN ABUNDANCE OF USERS WITH THIS SAME SET UP.

THE SPOOLING FEATURE IS REALLY A BIG PLUS FOR THIS RAM DISK. THE UNIT WILL ALWAYS HAVE AT LEAST 80K OF THE 512K SET ASIDE FOR THE SPOOLER. SCOTT TELLS ME THAT THIS LEAVES 400K FOR A RAMDISK (512K - 32K - 80K = 400K). IT WILL DECREASE IN AVAILABILITY, AS THE SIZE OF THE SPOOLER INCREASES.

THE PRINT SPOOLER IS USED BY REPLACING THE USUAL DEVICE NAMES "PIO" OR "RS232" WITH "SPPIO" AND "SPRS232". NO CONNECTION EXISTS BETWEEN THE TWO CARDS INVOLVED IN THE PRINTING PROCESS, THE RAM DISK AND THE RS232 CARD. THE MYARC CARD SPOOLS THE DATA TO BE PRINTED WHEN INSTRUCTED TO DO SO BY EITHER COMMAND ABOVE, AND SENDS IT TO THE RS232/PIO CARD ON AN INTERRUPT DRIVEN BASIS. THIS MEANS THAT DISK ACCESSES WILL SLOW DOWN THIS SPOOLING PROCESS. NOTE THAT IF YOUR PRINTER IS EQUIPPED WITH A SMALL PRINTER BUFFER INTERNALLY, YOU WILL NEVER NOTICE A PAUSE. IN ANY CASE THE MACHINE WILL FUNCTION ESSENTIALLY AS IF IT WERE USED IN CONJUNCTION WITH A LARGE PRINT SPOOLER. THE CORCOMP RS232 UNIT IS NOT COMPATIBLE WITH THE MYARC RAMDISK.

THE RAMDISK CAN SUPERSEDE ANY OTHER DRIVE BY EXECUTING CALL EMDK(N) WHERE "N" IS THE DRIVE NUMBER. CALL EMDK(0) WILL DISABLE DISK EMULATION. THE RAM DISK CAN ALWAYS BE ACCESSED THROUGH DEVICE NAME "RD"

OTHER CALLS INCLUDE CALL RDDIR, TO LIST THE RAM DISK DIRECTORY, CALL PART (400,80) OR CALL PART (0,480) AS EX. TO PARTITION MEMORY BETWEEN THE RAM DISK AND THE PRINT SPOOLER, WHERE THE NUMBERS REPRESENT THOUSANDS (K) BYTES. CALL VOL ("NAME") TO RENAME THE VOLUME AS WELL AS OTHER USEFUL CALLS.

I WOULD LIKE TO BE ABLE TO TELL YOU ALL THE SOFTWARE THAT WILL RUN ON THIS CARD AS WELL AS ANY OTHER HARDWARE IT WILL NOT COOPERATE WITH, BUT IN TRYING TO KEEP THESE ARTICLES TO ONE PAGE AND COVER THE ESSENTIALS, I'VE DECIDED TO STOP HERE BEFORE I HAVE THE OPPORTUNITY TO GIVE YOU TOO MUCH INCORRECT INFO.

THE MYARC RAM DISK HAS BEEN VERY WELL RECEIVED BY THE T.I. COMMUNITY, AND YOU CAN'T GO WRONG IN GETTING ONE. THE INTENT IN THESE ARTICLES IS TO GIVE YOU AN OVERALL VIEW OF THE VARIOUS UNITS, SO YOU MAY BE A LITTLE BETTER INFORMED WHEN YOU DO BUY.

NEXT MONTH I'LL TRY TO COVER THE CORCOMP "MEMORY PLUS". THAT IS IF ONE OF THE PEOPLE USING ONE CAN GIVE ME SOME FEED-BACK ON THE UNIT.

UNTIL NEXT MONTH, KEEP THE TIME.

High Res Graphics - Part II

The first high resolution graphics programs to be put out by a 3rd party that I know of was introduced by Morton Software of Ontario, Canada. It was called Graphics Package. It was originally written in BASIC but that was soon dropped in favor of the faster, more easily used IBASIC. With it anything could be drawn anywhere on the screen in the 3 levels of resolution corresponding to the standard (or pattern) mode of 768 character blocks, the multicolor mode or the high resolution which has 49,152 accessible pixels. Circles, parabolas, boxes and lines could be drawn automatically. All the information making up the graphics could be saved on tape or disk to be incorporated in your program. However, it wasn't easy. This program was not intended as entertainment but as a serious tool for IBASIC programmers. For a long time, the Graphics Package was about the only way for the average programmer to access high resolution graphics. The package was disappointing to some, who would have liked to use it for drawing pleasure. The program was excruciatingly slow, even in IBASIC. But it did everything it promised and is still the best graphics tool for anyone with an unexpanded system.

In 1982 with the advent of the Editor/Assembler package, a new kind of program hit the market. Draw-A-Bit by Data Force of Illinois was an assembly language program which booted through IBASIC. It allowed the user 100% keyboard access to the bit-map graphics mode. Using either the keyboard arrow keys or a joystick the user could draw on the screen in any of the colors with a line that was only one pixel wide. Colorful circles, lines and rays could be drawn automatically. Shapes could be filled with color with the press of a function key. Pictures could be added to by means of "palettes" created by the user and stored on disk. Using the Draw-A-Bit environment, advanced users could create and display complex plots in IBASIC. Drawings too tedious to be drawn by hand could be coded in Draw-A-Bit format and displayed on the screen. Pictures could be saved on disk and reentered into the program, and they could also be transferred to IBASIC programs. It was not only an extremely powerful tool for the more advanced programmer, but can provide hours and hours of entertainment to anyone who likes to draw and is willing to learn how to use the program's more than 80 functions. One entertaining and unique characteristic of this program is the ability to redraw a picture right before your eyes. The demo on the disk is positively addictive, as you watch each picture being rapidly built, line by line, and color by color. I know of no other program that does this.

The original Draw-A-Bit was strictly for screen graphics but a companion disk, Print-A-Bit was introduced to provide printer support. Data Force also released a Draw-A-Bit II, but I never saw the second version. Print-A-Bit

works with both versions.

Draw-A-Bit filled a real need for a graphics application which users could enjoy and yet get some use out of too. It is now recognized as the granddaddy of a new generation of graphics programs. Unfortunately, this excellent program never got the popularity it deserved. Perhaps it was ahead of its time - when it came out the vast majority of users still didn't have disk systems. At first glance the manual looks technical and hard to read; actually the program is easy enough to begin using for pleasure immediately. Just don't try to learn all the 80 functions at once!

One of the first commercial screen dump programs was introduced in 1983 by Extended Software. It was available on either tape or disk. The screen dump routine could be added to your IBASIC programs at the point where you wanted the screen to be saved. You would get a modest-sized 4 1/4 inches wide by 2 3/8 inches high duplicate of the screen, except that it would not print sprites. This is still an excellent choice of software for those with unexpanded systems.

Late in 1983 TI made their now-famous announcement that the 99/4A was being discontinued. Nevertheless 1984 was a good year for 3rd party suppliers, and the graphics void began to fill. Some good, and some not-so-good programs were introduced that year. Many of them were improvements of older programs like Video Graphs, Draw-A-Bit and Screen Dump. Some were unique. Personal Peripherals came out with Super Sketch which can be likened to a vastly improved Video Graphs. Along with the cartridge came a tablet-like controller pad, complete with stylus. As the stylus is moved across the pad, an image is created on your computer video screen. Four push buttons at the top of the controller pad control the color selection and graphic functions of the stylus. Graphics may be drawn free-hand, or traced from drawings clipped to the pad. Drawing with Super Sketch can be so simple that with a little instruction a six year old can use it. On the other hand, using the advanced features provided, an adult can also have hours of creative fun. Graphics are saved on tape as Super Sketch was made to be used on an unexpanded system.

A companion disk, called Sketcheate was introduced by Amerisoft International soon after Super Sketch came out. This software allowed the user to save graphics to disk as well as tape. It would also print out on an Epson compatible printer. A unique feature of the printout is that each color is represented by a different shading which gives the printout a very nice look. Navarone's Cartridge Expander (better known as a widget) is a requirement of this program. The Super Sketch cartridge is put into the cartridge expander with IBASIC right beside it. When Sketcheate is loaded you are then asked to switch to the Super Sketch cartridge. When you

do you are instantly ready to go, with never a sign of Sketcheate until you want to save or print a picture. Unfortunately if you don't already have this fine software your chances of getting it are slim. Neither it nor Super Sketch is readily available any more.

Besides Sketcheate, Amerisoft International introduced several other graphics packages during 1984 most of which are now hard to find. Graphics Grabber is much like the earlier Screen Dump Utility from Extended Software except that this newer program is in assembly language and much faster. It can dump a screen either horizontally or vertically onto the paper, and the printout is larger. Master Painter 99 is a very useable drawing and painting program, but like Draw-A-Bit requires the remembering of quite a number of function key strokes in order to use. Like Draw-A-Bit it also has a hard-to-read manual. A screen dump is on the disk.

3D World had a new twist. It allowed one to make complex, colorful, 3 dimensional designs that could be rotated, inverted or made partially invisible. Designs could be saved to disk or printed out. Programming experience is not necessary in order to use the program. Access to the image file for use in a BASIC program is explained in the manual. Be prepared for a learning experience when you use this program. It's complicated, but very interesting if you have the time to spend.

Expanded Graphics Basic lets you add 30 new commands to either BASIC or IBASIC. After Expanded Graphics Basic is loaded into the computer the new commands can be accessed by a series of CALL LINKS right along with the regular programming language. Although not a drawing program per say, it does allow the programmer fairly easy access to the bit map mode and to screen drawing. The commands include graphing and plotting routines and a screen dump. Like 3D World it is a fascinating educational experience to use this program. It is an ambitious program with nearly all available memory used. If you aren't careful you may run into errors due to memory full and lose your data.

Quality Software's Draw 'N Plot also lets you add a number of new graphics commands to your IBASIC programs by means of CALL LINKS. But besides the eleven callable subroutines, Draw 'N Plot includes a drawing editor which allows drawing and erasing a pixel width line. Circles, squares and lines between points may be drawn automatically. Shapes may be filled in solid on command. Use of color is limited to two at a time - foreground and background. Pictures may be saved to disk or printed. Although this package does not support some of the nicer frills such as magnification, rotation, etc., it is the best program yet for adding graphics to IB programs. However, like Expanded Graphics Basic, be warned that memory is (continued on page 7)

SLaVe USERS GROUP
 SECRETARY/TREASURER'S REPORT
 December 1987 - May 1988

New Memberships

Mel Bragg
 Mark Hodgson

Randy Taylor
 Michael Bosen

Daniel Petersen

Membership Renewals

Art Lefevre
 Dean Ricks
 Jon Barrie
 Scott Wall

Jack Workman
 Warren Young
 Jack Baxter
 Sid Romero

Steve Lisonbee
 Drew Worthington
 Richard Morrison
 Melba Oliverson



Contributions for the BBS

Scott Wall

Art Lefevre

Income:
 Memberships.....\$380.00
 BBS.....30.00
 Program Disks.....418.00
 Misc.....1.60

Total \$829.60

Balance 1Dec87 700.51

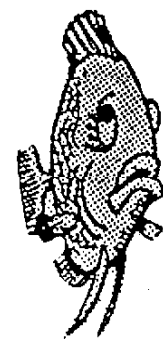
Grand Total \$1530.11
 less Expenses 722.91

Balance \$807.20
 =====

Expenses:
 Newsletter.....\$248.16
 BBS.....181.23
 Blank Disks.....134.69
 Pizza Party.....129.65
 Planter.....14.88
 Plug Strip.....5.30
 Newsletters.....9.00

Total \$722.91
 Checkbook Bal. \$797.20
 Petty Cash 10.00

Balance \$807.20
 =====

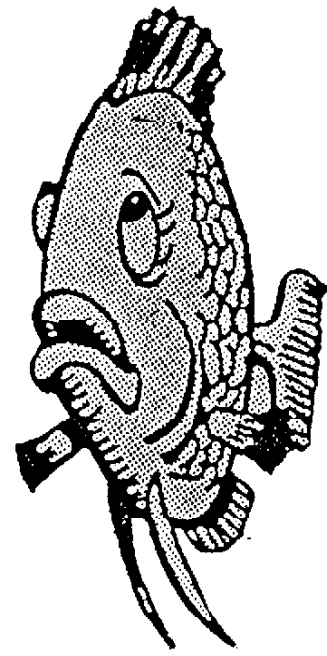


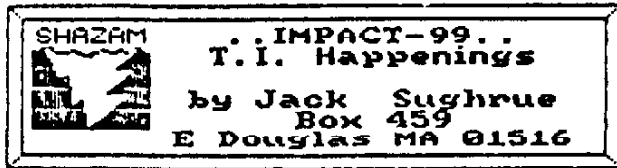
High Res Graphics - Part II

a problem. You can crash the system if your program is too large.

A companion disk, Chart Maker originally worked with Draw 'N Plot to create all kinds of charts and graphs. The new version of Chart Maker only requires X BASIC. Quality Software has done an excellent job of keeping their programs revised and updated since they began putting them out in 1983. They graphics programs also include a Banner Maker and a very fast Screen Dump which will even print module screens if an interrupt switch is installed on the computer.

NEXT MONTH: Graphx, TI-Artist, etc.





GOOD OLD DAYS

PART II: MIDDLE AGES

Last time we IMPACTed I took you on a personal tour of my early experiences with the 4/A, which were more typical than not.

After I had amassed my 100-plus programs on tape (mostly typed in from "99er" Magazine and some early books), I, like so many others, wanted to expand my computer "mastery." My TI appetite was voracious.

I bought every TI book available, which, in 1983, was a considerable number. These included such masterpieces as Loreto's THE TI-99/4A IN BITS & BITES, Datamost's ELEMENTARY TI-99/4A, Addison-Wesley's TERRIFIC GAMES FOR THE TI99/4A, Que's TI-99/4A FAVORITE PROGRAMS EXPLAINED, Davis's PROGRAMS FOR THE TI HOME COMPUTER, and the books being published by SANS and COMPUTE! Of the latter, PROGRAMMER'S REFERENCE GUIDE TO THE TI-99/4A was always at my side. This was written by Regina (Cheryl Whitelaw) who wrote the best programs "99er" magazine published: HOMEWORK HELPER, NAME THAT BONE, TYPING FOR ACCURACY, CIVIL ENGINEERING FUNDAMENTALS, MARRIED HOUSEWIFE, DODGE 'EM, MAZE RACE, SAN FRANCISCO TOURIST and so many others. These were already classics. What astounded most of us Regena groupies was the depth of her knowledge. She seemed to know an incredible amount about computers, obviously (and a lot of different KINDS of computers), but she also knew so much about music and children and electrical engineering and geography and art and just about any topic a staff of college professors would know.

That was in 1983. Regena was already in her third year of TI publishing when she moved to COMPUTE! under some mysterious circumstances. So I began a COMPUTE! subscription to continue getting her monthly column. I got lots more out of that magazine, too. Tutorials of all kinds. Programs galore. It was TI's Cloud Nine. In that same year, Regena began writing for ENTHUSIAST 99, too.

Boy, what a year! Mark Leyton began his wonderful UNOFFICIAL 99/4(A) magazine. K-POWER and FAMILY COMPUTING (early supporters of the 4A) had also made their debut. I subscribed to them all: A TI magazine a month (7 if one includes the non-monthly SMART PROGRAMMER)! [SUPER 99 MONTHLY and MINIMAG 99 wouldn't be out for another year.]

I find it hard to believe in 1988 that the final 4A classic book - - THE LAST WHOLE TI99/4A BOOK by Paul Garrison - was published within a year of this creative time. Published by Wiley Press in 1984, this still stands as one of the best books ever written for 4A owners. (Do not confuse it with Linda and Allen

Schreiber's THE LAST WORD ON THE TI-99/4A, also published in 1984, which is one of the worst books in my TI library.)

It's even harder to believe that the magazines mentioned above no longer exist (or no longer carry any TI stuff).

As magazines like COMPUTE! and FAMILY COMPUTING dropped TI (which still had the largest home computer ownership of all; more than the Apple, Commodore, and IBM Jr. combined) many of us wrote letters of protest. After all, we were still buying disks and drives and monitors and printers and lots of other advertised things. No good. Even though the ADAM and the PEANUT (Do you remember?) were still carried. I dropped all magazines that dropped the 4A. The only ones left are MICROpendium, the last monthly devoted solely to the TI, which began its life in February of 1984. In that issue (originally called HOME COMPUTER COMPENDIUM) Editor/Publisher John Koloen said this of his new magazine, "It is a conduit, a source of information and a vehicle for the dissemination of information." It has certainly lived up to those criteria. I would find it difficult to be a 4A owner without MICROpendium and user groups. The only other magazine still supporting our community with a very informative monthly column is COMPUTER SHOPPER.

It's sad to look through that first COMPENDIUM. All the advertisers except one are gone: Gadget Software (Megaworld), TJ Software (Kandy Kong), THinc (Colors), C.A.Root (On Gaming), Maple Leaf (Sky Diver), Silicon Valley Software (S.A.T. Verbal Section), Machine Shoppe Software (Cassette Indexer), Larry Vision (Quackers), Programs Software (Personal Enrichment), Microworld (Snac Man), Soft Relations (Super Speller), DCH Software (Home Budget), CALLCAR (Emotional Health), Software Programs (Starship Concord), TI Books and Software.

The one advertiser in that issue who is still with us is TIGERCUB SOFTWARE, owned and operated as a completely one-man venture by Jim Peterson (Mr. T.I.).

And that brings me back to 1983 (before the orphaning) when we were still high on TI and user-group business was booming. For all the other things that were going on for us (and they were numerous: every big department store and book store and software store carried 4A items on their front shelves, for example) - for all those other things, the year will still be known to me as the year of the TIGERCUB.

User-group newsletters articles, for the most part, were not as sophisticated as they are today. The big exception was the "TIPS from the TIGERCUB" monthly columns by Jim.

Nobody did what he did. His articles (many old ones as well as new ones are still being published worldwide today) opened the door to understanding. One was either a techie or a duany. But Jim made us all feel intelligent. He pulled us up. His explanations and his "experiments" and his enthusiasms came out in every article. He always stayed far enough ahead of us to challenge us completely, yet he never talked down to us

slow learners.

From his very first articles: "Are you tired of that blankety blinking black cursor? This won't work in BASIC but if you're in XB try I CALL COLOR(0,11,1).

I did it. Then I tried it in BASIC (just in case sine worked, which it didn't). Then I fiddled with the numbers until I finally understood what happened.

This is the way Jim taught, for teaching is what he certainly did (and does). His classroom, though, included thousands and thousands of pupils.

He taught me to use Line @ and FCTN/X (or E) instead of EDIT and how to use REDO for expanding program lines and how to slash by zero and how to highlight operators. He let me in on lots of secrets: You can type FROM"DSK1.FILE" without any spaces and it'll work; that typing the double colons in XB lines without spaces before or after won't matter, either. Do these sound mundane? Not if you didn't know any of that stuff, and none of us did.

His teachings were so natural, so filled with personal experience, that you couldn't wait to try the thing Jim had just found out. Here's another from that first "Tips": "Have you ever been typing in a program, and the computer suddenly jumped back to the title screen, and you were sure that you didn't have a finger anywhere near that infernal QUIT key? But maybe you were drinking coffee with one hand and trying to press FCTN and I simultaneously with the other? So, if you don't have anything valuable in the computer right now, try pressing FCTN, Space Bar, M and M all at the same time. Oops! Another useless bit of info - try FCTN, 5, 6 and 7 all together. Break!"

My vision of him was a young kid (maybe as old as a college student) doing improvisational computing, the way Art Tatum played the piano; somebody with great knowledge and understanding exploring human/machine potential.

I didn't find out until a very long time after that Jim is a grandfather and that he bought the 4A because he liked the keyboard!

It didn't matter. Genius is genius no matter what age.

He used to close off those early columns with Happy Hackin' until hackers got a bad reputation by a few pirates and vandals, then he closed it with Memory Almost Full. Too bad, in a way. I think of Jim as the Ultimate Hacker, in the real, "discovery" sense of that word. I don't know anyone who knows more about BASIC (and XB) than Jim.

Way back in 1983 he did a lot more than give us little "useless" tips. Most of the tips are the most "useful" things I ever learned for any computer. (There is no Jim Peterson for Apple, Commodore, Tandy, or IBM.)

Each article contained at least one original type-in program.

While other programmers and writers were making bundles selling their stuff to commercial magazines and

software houses, Jim GAVE his monthly column away in exchange for the user-group newsletters. (He probably has the largest library of TI written material in existence.) Whenever any item in his column, large or small, came from any other source, Jim always credited the originator.

His generosity is known throughout the entire TI World.

His programs for which he charged \$3 apiece (along with a discount for future purchases) was during a time when programmers were charging \$20 and \$30 for programs nowhere nearly as professional. Jim never sold hoopla. He just sold quality. Now his programs are \$2 or much less in disked batches.

The first batch of four programs I ordered came back with seven programs in the package. Jim always puts "a little extra" in each order. He still does. He has over 3000 Public Domain (not Fairware) programs which he shares by putting them as bonuses on any disk orders. These programs, too, are well done and credited and worth owning.

I was surprised by the bonus, as no clue was given by him that I was going to get more than my money's worth. There was not a single program that I ever got from Tigercub (and that is many) that did not exceed my expectations. Many I ordered for my 5th-grade class and are still popular (like BAZOD and MECHANICAL APTITUDE TEST). It would be hard for me to pick a favorite because there are so many varieties of programs: educational, music, utilities, games, and so on.

About three hours ago I saved this textfile and loaded up some of Jim's disks. I played the fiendish SQUINCH and the diabolical SCRUM and went through his WANDY DANDYS and SPEEDER READER and - and I noticed it somehow got to be 2:10 AM. I have to go teach tomorrow and Jim Peterson, the fiend, did it to me again!

Next day!

When I reread the above, I got to thinking about all the other TIGERCUB programs I didn't mention. The most important, for me, are the three "NUTS & BOLTS" disks containing over 300 files. When these started coming out a few years ago, it was a "TIPS" maniac's delight. Here was a discovery collection that every TI learner dreams of. These files can be merged into any XB program (including a file that converts BASIC to XB) to produce remarkable results. Because of incremental line numeration, multiple subs can be called into single programs. They are efficient, neat, incredibly easy, and remarkably creative. And lots more. Send Jim \$1 for catalog (worth every penny; refundable with first order): TIGERCUB Software, 156 Collingwood Ave., Columbus, OH, 43213.

(This is 2 of 3 articles traveling down 4A's Memory Lane.)



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Salt Lake and Valley 99'er User Group
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Bulletin Board: (801) 250-8321
BBS Hours: 24 Hours Daily

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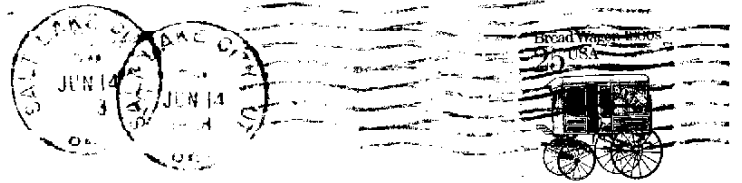
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JUNE 1988 NEWSLETTER

NEXT MEETING

The next meeting is JUNE 18, 1988 at 9:00 am sharp. We will be meeting in the Disabled American Veterans Meeting Hall at 277 E. 800 S.

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