*Puget Sound*
*Aug 86*

## AUGUST 1986            Vol. 5 No. 8

### OFFICERS

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| NEWSLETTER: | GENE CHRISTIANSEN | 641-1032 | LIBRARIAN : | JOHN UELAND | 672-7593 |

### NEXT MEETING

DATE : THURSDAY, August 21, 1986      TIME: 7:00 PM
PLACE: Kirkland Public Library, 406 Kirkland Ave, Kirkland

AGENDA:    * Officer reports                  * Convention updates
               * Fas-Tran demonstration        * Myarc Extended BASIC level IV demo
               * Question and Answer Session    * General discussion session

### SEPTEMBER MEETING

DATE : Thursday, September 25, 1986
TIME : 7:00 PM
PLACE: Kirkland Public Library
       406 Kirkland Ave, Kirkland

### OCTOBER MEETING

DATE : Thursday, october 23, 1986
TIME : 7:00 PM
PLACE: Kirkland Public Library
       406 Kirkland Ave, Kirkland

## IN THIS NEWSLETTER

### SOME LOCAL BULLETIN BOARD NUMBERS

| TITLE | PHONE NUMBER |
| --- | --- |
| PUGET SOUND 99ERS BBS-SEATTLE | 784-4142 |
| TIBBS NW-ED DURFFEE-BELLEVUE | 641-5884 |
| QUEEN ANNE COMPUTER SHOPPE | 361-0895 |
| BMA-CMS (NORTH END CALLERS) | 775-3660 |
| BMA-CMS (SOUTH AND EAST CALLERS) | 789-2752 |
| NEW WORLD BBS | 365-6938 |
| BAINBRIDGE ISLAND | 1-598-3228 |
| ABERDEEN | 533-0951 |
| TELETRAVEL | 742-9034 |
| SHUTTLE | 885-INFO |
| TROTHGUARD-BURIEN | 824-6757 |
| RADIO 1 | 878-0158 |
| GEnie | 1-800-638-8369 |

this month's thought:   A man with a clean computer room
                         does not use his computer!

## THE PRESIDENT SAYS
By Chuck Wynne

Our family just got back from Expo-86 in Canada. We went by a private boat. Our first stop was Point Roberts. This is a little outpost of the United States surrounded by Canada. What do you know but on a grocery store wall was a bulletin announcing a TI99/4A club meeting up there. Very interesting.

It looks as if we will be honored by the presence of two biggies in the TI community for our September meeting. Chris Bobbitt and Jim Horne from Asguard Software have agreed to be guest speakers. They will show the Geneve, the new Myarc computer which is TI99/4A compatible and very fast. Be sure and attend this Kirkland meeting on September 25th at 7:00 PM.

Bruce Ryan has sent us a Gram card disk from Ryte Data of Canada. It has routines for allowing the Gram Karte to work as a RAMDISK, convert TI basic to MS basic, and become a EPROM programmer (with burner) for making your own modules. The readme files are still in German, so must be converted. We're trying to get Queen Anne Computer Shoppe to let us try this a while longer. This card can be used with another to create 1 Megabyte of ram, and be used to add memory to basic programs also. All it takes is bank switching software.

Ryte Data has more goodies comming out. It is too numerous to mention, however you may want to write them for literature. 210 Mountain Street. Haliburton, Ontario K0M 1S0 Canada. Phone (705) 457-2774. I will have the brochures at the meetings.

Get your money in for the Presidents dinner ASAP. These are the heavy's of our computer world who will speak at this dinner on the night of the 25th. The price is $25.00 which includes the dinner. Well worth it!

Baby bell telephone companies are bargaining throughout the nation with CWA. In our area, Paul Lucien has a BBS for shop stewards run with a TI. He also said that some contract items the company proposed were rewritten using the TI and handed to the company before the companies mainframe computers could accomplish the job. Their response was "What kind of computer beat us to it did you say?". They were impressed. Now from what I understand, the whole contract will be typed into the TI, or transferred from another computer. He asked about character recognition which would read the text and put it into the computer by itself. There is no reason that wouldn't work on the TI as well as any computer with the exception of cost. Long live the TI.

Wait if you intend to buy a modem. The word has it that the price is about to fall to under $100 for 1200 baud. This is because of new technology which reduces the amount of chips. I believe 3 chips will replace 8. Our BBS needs a 1200 baud modem bad!

I was absent at the last meeting because of vacation. The TI Artist program was demoed there. I have a copy which is impressive. This is the new one. It has move functions and copy functions as well as a convert which will able you to change Graphx, Paint & Print and others to its format or vice versa. This also allows you to convert RLE (graphics from other makes of computers) to its format to be edited and added to. Very powerful for approximately $20. It can be used with a RAM disk for very fast operation.

Chris George has done a great job on our BBS. Lets give him the credit he deserves. Thank you Chris! The board is all his now, no borrowed routines. This is what we wanted. Perhaps for a small fee he would show those interested how it is done. And the improvements aren't going to stop there according to him.

## R-A-M!
## By GENE CHRISTIANSEN

Well, I have finally come up with a name for my column that has something to do with computers! I had been trying to think of something that would show that the snippets of information were "hodge-podge" in nature, that is, RANDOM. There it was. THE NAME!!! So much for patting myself on the back.

As was announced in last month's column we had a winner in the "Name the Newsletter" contest. His name is William Harms, the same Bill Harms who authored FAST-TRANS. It is his "TIPS/99" that graces our pages. The box of diskettes is on the way. Stay tuned to other contests that will come. If you have an idea, send it to me or catch me at a meeting.

The next bit will probably polarize the readership but here goes. Due to a technical problem, I managed to be late with the newsletter again. I took them to the meeting and handed them out to those members that had attended. Everybody there thought that it was a good money saver and no one had a negative comment. I WANT TO HEAR FROM THOSE OF YOU WHO COULD NOT ATTEND!!! Will a change of delivery dates be a inconvenience? (As for knowing when the "next meeting" is to be, Chuck Wynne is working on having the Kirkland Public Library as our "permanent" location with the third Thursday of each month being the date.) Please advise me of how the delivery of the newsletter accommodates you. The side with the most votes wins!!!

I have picked up the new TI-Artist (demo-ed at the last meeting by Bob Seaman) and it is really neat!!! If you have a need for graphics of the printed kind, this is for you!

A new promotion is in the works. For a limited time, if a member is responsible for bringing in two new members, he or she will receive a box of our high-quality diskettes!

Can't beat a deal like that!!! Once someone joins then THAT person can "sponsor" new members and receive a box of disks! Remember, this is for a limited time only so hurry!!!

It has just been passed on to me that it is necessary to use X-MODEM to upload and download files on the Radio 1 BBS. TE II will not work with this protocol and just messes up the files.

The Queen Anne Computer Shoppe BBS has been up and down at various times as Barbara has move her residence. With all the hassels of moving, she has not always had time to set her board up.

Rachel Brittingham is still "babysitting" the Trothgard BBS. She is developing an interesting concept. The first part of this two-fold idea is a software contest – to be judged by the callers! The contest entries are to be original programs. The second half of Rachel's plan is to provide a "workshop", as it were, for those who are writing programs. The way this works is that a person could upload a program that is unfinished (maybe it has a really pesky bug in it). The author then can receive assistance from the other callers. They would just, when on line, go to message base 4 and look over the program...offering what help they can!!! With the proper safeguards, this could be a great help to those who struggle to create.

We would like to find some one who is familiar with or wishes to become familiar with C-99. We have received many letters (and returned survey sheets) indicating that there is a growing interest in this language. Please contact me, Chuck, or Rick Lewis if you want to help.

Here is a little trick for coding pastel colors. The idea is to make every other dot in your CHAR a one or a zero and then call the background color to be white (16). The program below will change the cyan color to a pastel shade.

```
90 CALL SCREEN(16)
100 CALL COLOR(1,8,16)
110 CALL CHAR(32,"55AA55AA55AA55AA")
120 CALL CLEAR
130 GOTO 130
```

Try also 14, 12, 10, and 2 as the second number in line 100 for other colors. Thanks to John Johnson of the Cedar Valley 99'ers User Group.

Well, that is about all for  now.   Don't  hesitate  to
write! And see you at the meeting.

## TI99/4A News

## SEATTLE TI99/4A CONVENTION

The  Seattle  TI99/4A Convention is comming up rapidly.
It is scheduled for September 26, 27, 28 and will be held at
the  Sea-Tac  Holiday  Inn.   The main convention will be on
Saturday, September 27th from 10:00 AM to 5:00 PM.   It  will
be  held in a 3300 square foot convention room.  On one side
will be featuring at least 12  user's  groups  ranging  from
Washington,  Oregon,  Idaho,  and  British Columbia, Canada.
Hopefully more will sign up.   They only need to  send  their
$10.00  to Barbara Wiederhold 6 1/2 Boston st. #4, Seattle,
WA 98109 or call: 283-0953 to reserve your table.   The  rest
of  the  room  will  feature vendors from across the country
introducing new products, hardware and software.   You  will
meet  the  people  in  person who invented and marketed your
favorite product for your TI99/4A.   The fee is $3.00  unless
you  have a coupon (There is one on page 16) or you can show
you are a member in a user's group.   Members of  the  Puget
Sound  99ers will receive a membership card in the September
newsletter.   (It will be out early..)
On Friday, September 26, there will be a dinner held at
7:00  in  the  Sea-Tac  Holiday  Inn.   Guest  speakers will
include: Lou Phillips of Myarc Inc. to  introduce  the  new
Geneve  computer,  Craig  Miller  of  Miller's  Graphics, C.
Regena of Compute Magazine, Franz Wagenback of T.A.P.E.  LTD
which has come out with products such as the Gram Karte, and
Mechatronic XBII plus, Jim  Horn  of  Compuserve  TI  Forum,
Scott  Darling  of  GENIE Telenet, Randy Ainsworth of the
Source, and Al Lawrence of  A&L  Distributing  demonstrating
new  CorComp  products.   (these  will not necessarily be in
this order.) If you want to attend  this  dinner,  you  must
send  $25.00  to  Barbara  Wiederhold  6 1/2 Boston St. #4,
Seattle, WA 98109 to reserve your seat.   This is to pay  for
your  dinner  and  tips.   Presidents  of any TI99/4A user's
group can get in free  because  they  represent  30  to  300
people.   The  deadline  for reservations to the dinner have
been set for September 15 so reserve your seat now!!

## GRAM Karte software

We have just received a diskette from  Ryte  Data  with
some utilities for use with the GRAM Card from Germany.  The
first  utility  is  CONVERT/O  which  converts  a  BASIC  or
Extended BASIC listing from  disk  into  program  format.

Programs you listed to disk via LIST"DSKn.PROGRAM" can be converted into program files to be loaded and run in either BASIC or Extended BASIC. The second is called GRAMDISK/O which converts the GRAM Card into a RAMdisk. The documentation we received had not been translated yet so it was all written in German. From what we have done, the RAMdisk looks like it can only hold one file in BASIC. You can save a program by typing SAVE DSKG/1 and retrieve it by OLD DSKG/1.

## New keyboards

An item that should interest everyone is the offering of two (2) NEW keyboards from RAVE 99. The first has 84 keys and is similar to the famous IBM-PC/XT. It has 10 function keys along the left side, a 10-key pad, and other goodies. It is named the TI 99/84. The second keyboard, the TI 99/101 has 101 keys. It also includes the 10-key pad but has its function keys aligned along the top. Both of the models boast of a solderless hook-up to the console. A mere $124.95 will get you the 84-key version and $149.95 will buy the 101-key model. Availabiltiy is planned for October 1, 1986.

It is apparent that the Miller's Graphics keyboard interface card has been placed on the back burner for now because of high chip prices. The keyboard was to plug into a peripheral card and was to sell below $200.00 including the price of the keyboard.

## Double-Double-density

Myarc is now offering an 80 track option for its disk controller card. This would enable you to format disks up to 2880 sectors or 720K bytes of storage on one floppy disk. It does, however, require that you get an 80 track disk drive, and you also should turn to higher quality diskettes. Generics may not cut-it. The upgrade option sells for $49.95. For more information, call Barbara Wiederhold (283-0953) or contact Myarc, Inc. P.O. Box 140, Basking Ridge, NJ 07920

## RAMdisk, RAMdisk, RAMdisk

Currently their are about 5 RAMdisk cards available that you can buy. What is a RAMdisk? A 'TRUE' RAMdisk is RAM (Random Access Memory) set aside for the purpose of saving and retrieving files to emulate a disk drive. This storage is temporary storage only!! When you turn off your computer, you will lose the contents of your RAMdisk unless

you have a power supply for it like a battery or a
transformer that plugs into the wall outlet. A 'true'
RAMdisk will completely emulate a disk drive. The computer
should not know the difference between a disk drive and the
RAMdisk. If you have to do 'funny' things in order to get
things on and off the RAMdisk, then it is not a 'true'
RAMdisk. With a 'true' RAMdisk you should be able to: copy
files to and from it with an ordinary disk manager, do a
sector copy to and from it, and possibly format it in the
number of sectors you wish. You should be able to do to the
RAMdisk anything that you do to a disk drive.
     In buying a RAMdisk, the 'true' ones may cost more
because they have more circuitry to do the disk emulation
and they may have more memory.

## TI-LOGO 3
By TIM BABCOCK

## WORKING WITH GRAPHICS

     This lesson in graphics will be two parts. In the
first part I will explain how to create the graphics and how
they are defined in the Logo language.
     In Logo, graphic characters and sprites are available.
There are 32 sprites, numbered from 0 to 31, that you can
use and 256 graphic characters (or, as Logo calls them,
Tiles) numbered 0 through 255.
     In this language you don't need to define a graphic
character by giving the character a number followed by a
series of 16 hexadecimal numbers, like in BASIC. In TI Logo
you can define a character by a number or a name followed by
the number. For instance, if we wanted to put a line
through the number zero, it can be done by doing this:

                MAKECHAR 48

     The screen will turn green and display a grid which has
64 squares in it. Since we called up the character zero the
grid will have the number in it. To make the line, you can
use the arrow key to move the cursor. When you move the
cursor by pressing the function key and the appropriate
arrow key you will notice that the squares that were white
are now black and the squares that were black are now green.
So in other words, you are drawing the color in, rather than
writing out a command to make the character. The black
squares indicate that the square is on and the green squares
indicate that it is off.

```
********
**++++**      * = off
*+****+*      + = on
*+****+*
*+****+*
*+****+*
*+****+*
**++++**
```

Above is the character Ø. Try to make the character look like this:

```
********
**++++**
*+**++*
*+**+*+*
*+*+**+*
*+*+**+*
*++***+*
**++++**
```

When you are finished, press Fuction 9 and you are back at the blue command screen. Now, by pressing zero, you will see how the change looks. If you now want to save this new shape, type in the command "SAVE" and you can use Option 2 — "SHAPES AND TILES" to save the character zero.

If you have a disk that you have saved Logo programs on and were to do a disk directory on it, you would see the file names you used followed by an underline and a letter. The _F means a file with just procedures, an _S means just shapes and tiles, and _A mean both procedures, shapes, and tiles. This way you can remember what the files you use are to be loaded.

In the next lesson, I will explain how to use sprites in Logo. In the meantime, try experimenting with changing letters, numbers, and special characters by changing the shape of them and saving them on a disk. Have fun!!!

## P-NEATLIST
By David Powell

P-NEATLIST is one of the utility that is designed for the frustrated programmers that are having trouble getting the program to work. The hardest thing in programming is keeping everything strait in one's mind, NEATLIST shows exactly where everything is going, especially variables, strings, call keys and options. This is a 360K disk and can be found in the club library. Needless to say, this is a gem of a utility for us to help in our programming. I can

personally say that the author, Danny Michael, should get a couple of dollars from the people who get this program from the library besides the cost from the club!! He has some of the best documentation I have seen in a long time. He is very clear and explains how to run the program. He also has asked anybody who has this in their club that the source code, object code, loader, and several other files (I will get to them later) are given with the main program which are in the club library.

## HOW TO LOAD NEATLIST

        The best thing is as always, READ THE DOCUMENTATION!!! You will find out that if you do not, it can turn into a nightmare real fast. There is a default file that changes your configuration. If you have a standard PIO and a disk drive you will not have to change a thing. Of course, if your printer is a RS232 you will have to change it. Or if you like, you can send it to a disk from the main screen.
        The first thing to do is to plug in your Extened BASIC cartridge and select the Extened BASIC on the main screen. The loader program will take over for about 1.5 minutes and you will get the cursor (do not fear the program is ok.) After it is loaded, type in .OLD DSK#.FILENAME (this the program that you want to check) then you will get a cursor again. Then you type in CALL LINK("LIST") and then you will get the main Neatlist screen. This is where reading the documentation comes in handy. Move the cursor down the screen and pick the items that you want, including where you want the file to go. Then, when you are done, just push the FCTN-PROC'D and the program starts giving you a printout or a D/V 80 file depending on what you selected. Then you can see for yourself what the program really does and see all the options and all the other things the program does. If you have any other questions I will be more than happy to spend the time with you to help and get you started in F-NEATLIST.

## Great Graphics...With TI-RLE
By Dave Talan, Northcoast 99ers
Cleveland Area Users Group Newsletter -August/September 1986

        There is a new program which allows the TI to display excellent graphics resolution. No, the program isn't like TI Artist, or any other drawing program. As a matter of fact..it's not for drawing, just for displaying. the program is "TI-RLE". RLE stands for "Run Length Encoded" graphics. RLE's are files located in various locations throughout Compu-Serve's "VIDTEX" terminal emulator. ·

However, thanks to Travis Watford, this is available for the
TI!

His program, "TI-RLE" is used in conjunction with these
RLE files which can be downloaded from Compu-Serve. If  you
are a member of Compu-Serve, these files can be found in the
TIFORUM Data Liraries, the PICSI G, ARTFORUM,  and  the  CB
simulator area.

TI-RLE was developed with Paul Charlton's Fast-Term
terminal emulator as the emulator in capturing files and  is
currently suggested for use in downloding RLE files. For
specific download instructions consult  the  Fast-Term
documentation of find more info on Compu-Serve by typing: GO
TINEWS at the main  function  prompt.   The  RLE  files  are
simply  incredible! Anything  from Khadafy to WC Fields and
Mae West.  These can be printed out or they can be viewed on
the   screen.   The  program  requires  one  disk  drive, the
Editor/Assembler module, and a printer (optional).

The Feature that impressed me was the fact  that  these
files  could  be saved to be incorporated into Graphx, which
in turn could be converted to TI-ARTIST...  and so on!
Appended:

The library has one disk full of pictures ranging  from
the  Space  Shuttle,  to  Bloom  County comics, to Catherine
Denuve. We will be downloading more pictures  and  then  we
will  have  an  extravaganza  of  graphics that we never had
before! Wow! People are going crazy with  their  digitizers!
These  people  take  anything  they  get their hands on, and
convert the image onto the computer screen.  A digitizer  is
a  device  that  takes a picture of any item and converts it
into digits-zeros and ones.  The zeros  and  ones  are  then
sent  to  the computer where it displays it onto the screen.
The ones are converted into black dots  and  the  zeros  are
white or off dots which in turn you get the image displayed.
After that, you can then modify the  picture  with  ordinary
graphics programs.

## Decomposing Screen
A program written by Tom Wynne
Requires Extended BASIC

The  following  program  will make the letters literally
fall off the screen! It will first display the  text  (lines
100-220)  and then the letters will randomly fall down.  You
can use the subroutine (DECOMPOSE)  in  any  Extended  BASIC
program.   To do this, remove lines 100-230, type RES 32000,
and  then  save  it  in  merge  format  by  typing  'SAVE
DSK1.DECOMPOSE,MERGE'.   Now  load  a  program that you want
this routine to be in and then type 'MERGE  DSK1.DECOMPOSE'.
Now  you  will have the routine entered from lines 32000 on.

To use the routine, just enter a CALL DECOMPOSE anywhere in your program where you want it to start decomposing the screen.  Happy programming!!

```
100 DISPLAY AT(1,6)ERASE ALL:"DECOMPOSING SCREEN"
110 DISPLAY AT(3,9):"BY TOM WYNNE"
120 DISPLAY AT(4,6):"PUGET SOUND 99ERS"
130 DISPLAY AT(6,2):"THIS PROGRAM WILL MAKE THE"
140 DISPLAY AT(8,2):"SCREEN LOOK LIKE IT IS DE-"
150 DISPLAY AT(10,2):"COMPOSING.  THE LETTERS WILL"
160 DISPLAY AT(12,2):"LOOK LIKE THEY ARE FALLING"
170 DISPLAY AT(14,2):"RIGHT OFF THE SCREEN.  YOU"
180 DISPLAY AT(16,2):"MAY WANT TO CHANGE THIS"
190 DISPLAY AT(18,2):"PROGRAM SO YOU CAN MERGE IT"
200 DISPLAY AT(20,2):"RIGHT INTO ANOTHER PROGRAM"
210 DISPLAY AT(22,2):"AND FOOL YOUR FRIENDS!"
220 DISPLAY AT(24,2):"PRESS ANY KEY TO START"
230 CALL DECOMPOSE :: END
240 SUB DECOMPOSE
250 CALL KEY(0,K,S):: IF S=0 THEN 250
260 RR=INT(RND)+1 :: CC=INT(RND)+1
270 CALL GCHAR(RR,CC,CH):: IF CH<33 THEN 260
280 CALL SPRITE(#1,CH,2,RR*8-7,CC*8-7,0,0)
290 CALL HCHAR(RR,CC,32):: FOR I=1 TO 6 :: CALL COLOR(#1,16)
300 FOR J=1 TO 10 :: NEXT J :: CALL COLOR(#1,2):: NEXT I
310 CALL MOTION(#1,80,0)
320 FOR I=1 TO (24-RR)*8 :: NEXT I :: CALL DELSPRITE(#1)
330 CALL SOUND(240,-8,0):: GOTO 260
340 SUBEND
```

## PROGRAMS, PROGRAMS, PROGRAMS
From the MUSIC CITY 99er's
(NASHVILLE, TN)

Here is a short program that can be saved in MERGE format to be used in your title screens.  When run, it will give the appearance of a theater marquee.
     In the listing, R1 is the left side of the box,  R2  is the right side, C1 is the top, and C2 is the bottom.  The "Z" FOR-NEXT loop is the number of orbits the spiral  makes. By  changing the values of R1, R2, C1, C2, and the "Z" loop, you can place the spiral anywhere on the screen, make it any size, and cause it to orbit as many times as you wish.

```
100 ! ********SPIRAL********
    * TI EXTENDED BASIC *
    * T.  E.  Cushing *
    ********************
110 CALL CLEAR :: CALL SCREEN(16)::CH=42
```

```
120 R1,C1=1 :: R2=24 :: C2=32 ::FOR Z=1 TO 12
130 FOR A=C1 TO C2 :: CALL HCHAR(R1,A,CH) :: NEXT A
    :: C2=C2-1
140 CALL KEY(0,K,S) :: IF S<>0 THEN 200
150 FOR A=C2 TO C1 STEP -1 :: CALL HCHAR(R2,A,CH)
    :: NEXT A :: R2=R2-1 :: FOR A=R2 TO R1 STEP -1
    :: CALL VCHAR(A,C1,CH) :: NEXT A :: C1=C1+1
160 CALL KEY(0,K,S) :: IF S<>0 THEN 200
170 NEXT Z :: IF CH=42 THEN 180 ELSE IF CH=32 THEN
    190
180 CH=32 :: GOTO 120
190 CH=42 :: GOTO 120
200 CALL CLEAR :: END
```

        To see what it looks like on a title screen, insert the
following line:
```
112 DISPLAY AT(11,12):"THEATER":TAB(12);"MARQUEE"
    :: DISPLAY AT(23,3):"HOLD ANY KEY TO CONTINUE"
```

    Now, change line 120 to read:
```
120 R1=8 :: R2=15 :: C1=11 :: C2=23 :: FOR Z=1 TO 2
```

        The two CALL KEY commands at lines 140 and 160 get you
out of the loop and on with the program.

## Fat Bits
By Tom Wynne


        The following program will allow you to draw with fat
bits or squares. It emulates the multicolor mode of the TI
except it does not allow color. You draw in squares which
are 4x4 pixel square each which enables you to draw in a 64
column and 48 row array. Move the cursor (box) around the
screen with FCTN E,S,D, and X and press ENTER to place the
box onto the screen. You can press any other key and the
letter will be placed on the screen where the cursor is
located. This enables you to type text along with your
drawing. To erase just press the space bar and it will
erase 2x2 blocks. If you have a printer and the Danny
Michael screen dump, you can print the drawing to the
printer by removing the '!' in front of lines 130 and 550.
If you do not have that screen dump, it is available in our
club library. Happy computing!

```
100 REM FATBITS--BY TOM WYNNE
110 REM PUGET SOUND 99ERS
120 REM
130 !CALL LOAD("DSK1.DUMPXB")
140 CALL CLEAR
```

```
150 DISPLAY AT(4,7):"F A T B I T S"
160 DISPLAY AT(6,3):"BY TOM WYNNE - TIPS 99"
170 DISPLAY AT(12,1):"INITIALIZING...PLEASE WAIT"
180 DATA 00000000,0F0F0F0F,F0F0F0F0,FFFFFFFF
190 FOR I=0 TO 3 :: READ A$(I):: NEXT I
200 DATA 00,01,02,03,10,11,12,13,20,21,22,23,30,31,32,33
210 FOR I=128 TO 143 :: READ B$
220 FOR J=1 TO 2 :: F$=F$&A$(VAL(SEG$(B$,J,1))):: NEXT J
230 CALL CHAR(I,F$):: F$="" :: NEXT I
240 CALL CLEAR
250 CALL SPRITE(#1,136,2,1,1,0,0)
260 R=1 :: C=1
270 CALL LOCATE(#1,R*4-3,C*4-3)
280 CALL KEY(0,K,S):: IF S=0 THEN 280
290 IF K=13 THEN 450
300 IF K=12 THEN GOTO 530
310 IF K>11 THEN CALL HCHAR(R/2,C/2,K):: C=C+1 :: GOTO 360
320 ON K-7 GOTO 330,360,390,420
330 REM LEFT
340 C=C-1 :: IF C=0 THEN C=1
350 GOTO 270
360 REM RIGHT
370 C=C+1 :: IF C>64 THEN C=64
380 GOTO 270
390 REM DOWN
400 R=R+1 :: IF R=49 THEN R=48
410 GOTO 270
420 REM UP
430 R=R-1 :: IF R=0 THEN R=1
440 GOTO 270
450 REM PLOT DOT
460 RR=R/2 :: CC=C/2
470 RE=ABS(RR=INT(RR))
480 CE=ABS(CC=INT(CC))
490 D=128+2 (3-(RE*2+CE*1))
500 CALL GCHAR(RR,CC,CH)
510 CALL HCHAR(RR,CC,D OR CH*ABS((CH>127)))
520 GOTO 270
530 !PLACE YOUR SCREEN DUMP
540 !ROUTINE HERE!
550 !CALL LINK("DUMP")!DANNY MICHAEL SCREEN DUMP
560 GOTO 270
```

        Hit FCTN 6 (PROC'D) to print the screen to printer.

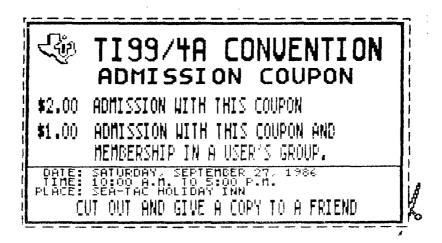## XMODEM DOWNLOAD FROM COMPUSERVE
From the Atlanta Newsletter May/June
By Barry Boland

        I will cover (8 bit) XModem files and fast term, Log on
to Compuserve and go to the TI-Forum (60 TEX200), then at
the function prompt, go to the DL you want to search. (Type
DL1 for this example). You'll find yourself at a new
prompt, " DL 1:"...at this point you have two choices.
        A. type S (for scan)... this will list out the
names of all the files in that DL section (Warning... can
be a long list!)
        B. type BRO (for brouse) this will step through the
list of files one at a time, giving you the CIS ID number of
the person who uploaded the file, the CIS Name of the file,
the date the file was uploaded, the size of the file.
Xmodem has two numbers here. 21810(9312) the number of
times the file has been accessed, a list of keywords and a
short description of what the file is/does.
        After each file in BRO, you get the prompt (R D T) for
read, download, or return to top which is the DL 1 prompt.
Read only makes sense if the file is ASCII or text format
(to look for keywords). If the file is not what you want,
press enter and it will step to the next file. If you have
found what you want, type D and you will receive a choice of
protocols. Choose 1 (Xmodem). You will see the msg:
"Starting Xmodem Transfer". Enter a carriage return when
transfer is complete."

Switch fast term into Xmodem with FCTN N and type the
name you want on disk (no periods).  Press and hold down the
FCTN, SHIFT, and X keys all at once.  Press R to receive the
file.  Next choose CRC checking.  Then sit back and watch it
transfer the program to you, stopping every 41 sectors to
dump to disk.  At the end, press enter.  You can then
download another, or go to the other DL sections (DL 1 to
6).  Type T to go to the Forum section, or OFF to logoff
Compuserve.

On Mass Transfer, when you have Compuserve ready to
send, press FCTN AID (7).  Type X for Xmodem Transfer and
then the file name (DSK1.PROG).  Then select CRC, and
receive options.  Any problems, type FCTN CLR to abort.



TEXAS  INSTRUMENTS  TI99/4A.

(Done with the FatBits program in this newsletter.)



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