

SBTIUG General meeting 4 August 1988

Meeting was opened at 7:24 by President Mike Ewell with 12 members in attendance.

Treasurer Kevin Daberkow reported that the treasury has approximately 658 dollars. We still have to pay for the BBS MODEM. Our old BBS MODEM may be auctioned off.

Librarian Helmut Fuchs reported on the new programs in the library. We have FunnelWeb v4.1 and a new disk manager, DSKU, which has a clock and comments may be entered.

Newsletter Bill Schult reported on the newsletter exchange and requested more articles from the membership. Tutorials would be welcome.

President Mike Ewell announced that the October meeting will be the 13th of October which is the second Thursday, instead of the first thursday as announced in the August newsletter. We have been preempted by the Library.

Mike Ewell demonstrated a program called "PICTURE" that works thru TI-Writer.

Kyle Critten announced that he needs a copy of the manual for the program 'GRAPHICS 3'. Any help on this would be appreciated.

Hal Pusateri, a visitor, attended and asked for assistance in correcting a problem he is having with his PEB. He is unable to read or write to his disk. The problem was not corrected at the meeting, but members offered to work on the problem at Hal's home at a more convenient time.

TREASURERS REPORT
by Kevin Daberkow

PLEASE look at your mailing label to see if some color has been added. If your membership expiration date has been high-lighted in RED, this is your last issue until you renew. If your membership expiration date is in YELLOW, then you should renew at the June meeting.

>> THE DUES ARE \$15 PER YEAR <<

NOTE: Your membership expiration date can be found on the last line of your mailing label.

If any of the information on your label needs to be changed, please let me know. Call me at (408) 281-7435 or write to me at the following address:

SBTIUG - Treasurer
P.O. Box 23447
San Jose, Ca. 95153-3447

There was one renewal during the month of August: Dave Fields. Thank you for your continued support.

The club has not paid out any new expenses since July. However, there are still outstanding bills for the September newsletter mailing and the new BBS modem.

As I mentioned to those who attended the August general meeting, there was an error in the balance given in the August newsletter. I have corrected my mistakes and now show a balance of \$642.99 in our treasury at the end of August.

Editors Ramblings
by Bill Schult

I wish to thank those that have contributed articles for the past newsletters. Especially Chris Schram, Helmut Fuchs, Mike Ewell, and Jim Van Scyoc and any that I have failed to name. I greatly appreciate the articles and hope that articles will continue to be contributed to the newsletter.

Jim Van Scyoc has submitted an answer to the 'CHALLENGE' published in the July issue of BITS BYTES.

On page 7 of this newsletter is a reprint of our first newsletter. At least it is the earliest issue in our newsletter archives. The president, offers to bring in his Peripheral Expansion Box so the members can see one. How the TI scene has changed in the last six years. Let's hope that the next six years will see as much or more improvement as the last six years.

HANDY TIPS FROM THE HOOSIER USER GROUP
reprinted from the PUG Newsletter Jan 88

If you have the speech synthesizer and the TE II cartridge, here is a trick for debugging programs. All you have to do is enter your program, type LIST "SPEECH" and hit enter. The computer will read your listing back to you.

If you are going to save a program to tape and type OLD CSI instead of Save CSI, don't panic. Press FCTN and E together and then press <enter>. This will take you out of the tape loop.

You can add comments after a 608UB or 607D. They will not interfere with the program and you don't need REM or !

When hooked up to a black and white TV, use CALL SCREEN(15). This will disable the color generator and remove the vertical lines you may have seen.

CHALLENGE TAKEN
by Jim Van Scyoc
Southbay TI Users Group

After a fourth of July weekend out of town I arrived back home on the Holiday evening to find Bits Bytes in my mailbox. When I saw the challenge on page 2, I thought it was interesting. (I don't remember seeing it before) I spent several hours that evening with pencil and paper trying to figure out how the problem should be solved.

During lunch on Wednesday, I scribbled down a short program to solve the puzzle. I typed it in on Wednesday evening. It ran, and it partly worked, but I soon realized that the answer I was getting must be wrong. Thursday at lunch I looked at it again and made some changes. (Now this is the day of the SBTIUG meeting, remember!) I rushed home and worked on it before supper and again after supper, even though I realized that I would be late for the meeting.

I brought my answer to the meeting, thinking that at least the answer would be available, but was surprised to find that no one had bothered with it. Therefore I assume that this is a newsletter challenge. I therefore submit my response to "CHALLENGE".

Program #1, "CHALLENGE1" gives you nothing but the answer to the puzzle. It is optimized for the three given lengths in the newsletter, and will probably take longer to run if you change any of them (or may refuse to run at all).

```
100 ! SAVE DSK1.CHALLENGE1
110 ! JIM VAN SCYOC, 7/7/88
120 CALL CLEAR :: AC=35 :: BC=25 :: H=12
130 BA=(BC+H)/2 ! ASSUMED VALUE FOR STARTING POINT
140 BB=SQR(BC 2-BA 2)
150 AA=SQR(AC 2-BB 2)
160 DIFF=(BB/BA*H+BB/AA*H)-BB
170 BB=BB-DIFF*2
180 BA=SQR(BC 2-BB 2)
190 IF ABS(DIFF)<E-12 THEN 200 ELSE 150
200 DISPLAY AT(10,1)BEEP:USING "##.#####":BB
210 CALL KEY(0,K,S) :: IF S=0 THEN 210
```

Line 120 sets up initial values. Line 130 then computes an estimated height for the point where the first ladder touches the wall. From this value, line 140 computes the assumed width of the alley, and line 150 the point where the other ladder touches the wall.

From the proportions of the sides, line 160 computes the difference in the sum of the bases which are 12 feet high (the intersection point) and the assumed width of the alley. Line 170 then applies this difference to alter the assumed value for the vertical dimension.

Line 190 tests the amount of difference. If the difference is more than the desired amount, the program branches back to line 150 where the new values for BB and BA are utilized to redo the process. If the answer is within

the specified tolerance, the program prints the answer.

So that you can see what is happening, "CHALLENGE2" shows you the process that the program goes through in narrowing down the answer:

```
100 ! SAVE DSK1.CHALLENGE2
110 !JIM VAN SCYOC, 7/7/88
120 CALL CLEAR :: AC=35 :: BC=25 :: H=12 ! GIVEN
130 BA=(BC+H)/2 !ASSUMED VALUE FOR STARTING POINT
140 BB=SQR(BC 2-BA 2)
150 AA=SQR(AC 2-BB 2)
160 I=I+1 :: DISPLAY AT(24,1):I
170 DISPLAY AT(10,1)SIZE(15):USING
    "##.#####":BB
180 BB1=BB/BA*H :: AB1=BB/AA*H
190 DIFF=(AB1+BB1)-BB
200 DISPLAY AT(12,1)SIZE(15):USING
    "##.#####":DIFF
210 BB=BB-DIFF*2
220 BA=SQR(BC 2-BB 2)
230 IF ABS(DIFF)<1E-12 THEN 240 ELSE 150
240 DISPLAY AT(10,1)BEEP:USING "##.#####":BB
250 CALL KEY(0,K,S) :: IF S=0 THEN 250
```

This version operates the same, except that line 160 of the first version is separated into lines 180 and 190 of version 2. In addition, the answer and the difference are displayed so that you see the changes in the numbers as the program runs.

If you want to experiment with different numbers, the thing that needs to be changed is the "2" in line 210 of "CHALLENGE2" (line 170 in "CHALLENGE1"). If you want less precise numbers, then make the "-12" in line 230 into "-11" or "-10" to reduce the accuracy. (This may be necessary in some cases just to get the program to terminate.)

I have not attempted to come up with a procedure that would let you input any combination of figures and give you an answer. It is possible that a variable could be computed in place of the "2" in line 220 which would speed up the answer when other numbers are used. Since this wasn't part of the challenge, I didn't go that far.

NEW SOFTWARE AVAILABLE FROM THE CLUB LIBRARY

GEE Graphic Language from Australia
Fast bit-map graphics, simple as logo!

Description: GEE is an all-assembly language that loads from XBASIC. Memory expansion and disk system required. Simple enough for children, but fast and powerful. Docs and sample programs included. Uncompress and unpack with ARCHIVER II,

version 2.3 or later.

DSKU VER 4.1 From John Birdwell

Description: This package consists of four files. The file DSKU_4.1 must be uncompressed and unpacked with ARCHIVER II, version 2.3 or 2.4. The file is copyrighted fairware by John Birdwell. If you use it beyond a short tryout, you should send the requested \$15 to John at the address in the docs. DSKU is a very complete set of disk utilities that lets you perform many editing and copying functions of files or individual disk sectors. It is the most complete program of its type for the 4A and 9640. With this you need no other disk managers, sector editors, or copiers.

TELCO TERMINAL EMULATOR, VERSION 2.1 from Charles Earl

Description: TELCO, version 2.1 eliminates several bugs found in version 2.0. This new terminal emulator features six different emulation modes for communications with different systems; XMODEM, YMODEM, CompuServe B and Quick B, and ASCII transfers. It includes both conventional and PC PURSUIT autodialsers. It includes MACRODS for sending automatic logon procedures or anything else you wish to do with them. It will work with almost any hardware configuration, and displays in 40 columns, 80 columns, or a window size of your own choosing. To gain all this capability, it is disk intensive, loading files as it needs them. It will use all the memory you have available, though, to minimize disk access, taking advantage of 9640 extra memory, supercards, and the like. Without extra memory, it works best from RAMdisk or hard disk, but will work with a minimally expanded system. At least one disk drive, 32k memory expansion, and RS232 card are required as a minimum. This archived file initially unpacks into four compressed files, which must in turn be uncompressed and unpacked. Use ARCHIVER II, version 2.3 or 2.4. The program is User-Supported Software. You are requested to send a \$20 registration fee to author Charles Earl if you use it beyond a brief tryout.

FUNNELWEB VERSION 4.1 (MAY 1988) - NEW AND IMPROVED

Description: The latest version of the fabulous word processor/loader/operating environment from Australia. This version adds much friendlier CONFIGURE files to customize your menus, defaults, screen colors, etc. It features windows and on-screen help files. Complete docs included. Runs on 99/4A or 9640. This package consists of two files of 212 sectors and 283 sectors. Both uncompress to about 350 sectors each. Uncompress and unpack with ARCHIVER II, version 2.3 or 2.4.

WORDSAFARI ORIGINAL TI PUZZLE GENERATOR

Description: This program creates word puzzles of your choosing and prints them along with an answer sheet.

KINGS_CASTLE-GAME ARCADE-TYPE ASSEMBLY GAME FOR 4A OR 9640

Description: King's Castle is an assembly game which requires joysticks. It includes a BASIC loader (KINGCASTLE) and two object files (KINGOBJ and CASTLEOBJ). The file is archived and compressed with ARCHIVER II, version 2.4.

STAR_TREK-XB_GAME one of the best, most complete versions of STAR TREK

Description: STAR TREK is the classic game of finding and fighting Klingons in which you control the navigation, attack modes, defensive screens, etc. This version includes complete instructions written in an XBASIC file (TREKINS) and the game itself (TREK). Uncompress and unpack with ARCHIVER II, version 2.3 or 2.4.

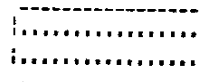
**WIRE IT YOURSELF
ALTERNATE DRIVE INTERFACES
Downloaded From DELPHI TI NET.
submitted by Tom Burke**

If you are thinking of adding a second drive to your system, and it is not a T.I. drive, it may or may not work by connecting it to the external drive connector on the back of the Disk Controller Card.

If it does NOT work with the T.I. recommended installation procedure, try this.....

You will need the following: An adequate length of 34 conductor ribbon cable. (2 to 3 feet)

1 - female 34 pin connector. This will connect to the controller card inside the P.E. box. Part #41-908 6C it should look something like this.



2 - female 34 contact edgcard connectors. Part#41-946
This makes a total of three connectors. The part #'s are from RESCO Electronics. Use the crimp-on type connectors. Put part #41-908 6C on one end of the cable. Plug this into the controller card inside the PE box. Place the first edge card connector approx. eight to twelve inches from the controller card. Crimp it on the cable. Now you should loosen the screw on the right, rear, top of the outside of the PE box enough so that you can slide the other end of the cable out through the gap. When this is done, plug the middle connector onto the internal drive, (don't forget to plug the power cable back on the drive), and put the drive back into the PE box, pulling the excess cable through the gap.

DO NOT INSTALL THE DRIVE PERMANENTLY AT THIS TIME. JUST LEAVE IT SIT IN THE PEB

Next, crimp the remaining connector on to the other end of the cable. Bare in mind that when you do put the connectors on the cable, that the same wires must be connected to the

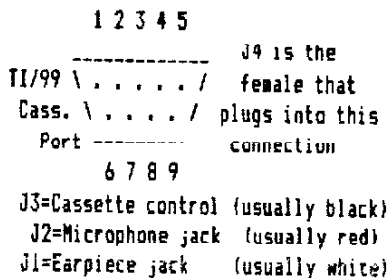
same numbered contacts on all three connectors. (e.g. wire one goes to pin one on connectors 1, 2, 3) Plug the last connector onto the external drive. (contact one to contact one, etc) Now test the system. You may or may not have to remove the resistor from drive #1. Info on where the resistor is found is in the Controller Manual.

MAKE YOUR OWN CASSETTE CABLE

The following information will enable you to make your own single cassette cable for your TI. All parts are easily obtainable from Radio Shack, and for convenience the part numbers are given. All you need is a little skill and time to wire it up.

- J1,J2 1/8" plugs 274-287.....2 for 1.29
- J3 3/32" plugs 274-281..... .99
- J4 D-connector 276-1537..... 2.49
- Hood for J4 276-1539..... 1.99

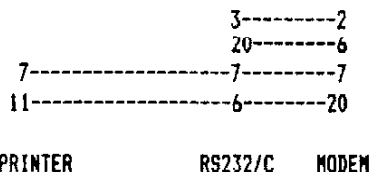
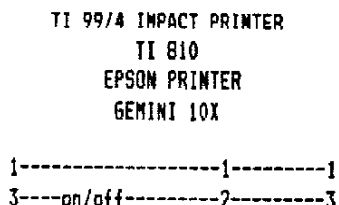
This is the diagram of the cassette port located on the rear of the TI, next to the power jack:



After getting all the parts together, wire the jacks one at a time with two conductor wire. Noting that J3 is a micro-mini phono jack, while the other two are regular mini phono jacks. The positive connection from J3 will connect to pin #1 on the D connector, and the ground goes to pin #2. The positive connection from J2 will connect to pin #5 on the D connector, and the ground goes to pin #3. The positive connection from J1 will connect to pin #8 on the D connector, and the ground goes to pin #9. Connect the wire number to the appropriate part of the plug, following the above method.

INTERFACE YOUR PRINTER TO YOUR MODEM

Many people have asked how to have the data that is coming from the modem, print to their printer at the same time it prints to their monitor. This is not hard, if you have a serial interfaced printer and it does work with the following printers:



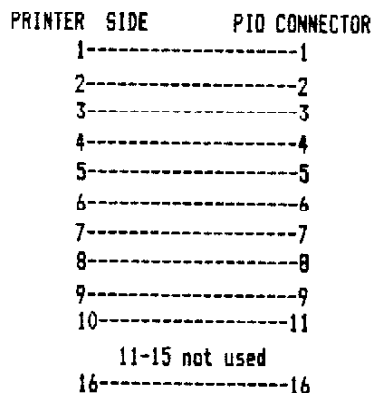
Some modems also connect pin 5 to pin 5. Pin 11 on the T.I. 810 printer is called "REVERSE CHANNEL". It is similar to the pin 6 of the RS232/C. Be sure to set the printer's baud rate to match that of your modem, (300 - 1200). The off/on switch permits you to pause the printer. Using the on line/off line switch on the printer will also pause the modem.

PRINTER CABLES

The following are the pin connections for for a parallel interface (PIO) from your RS232/C to your parallel port on your printer.

You will need the following: - An adequate length of 16 conductor ribbon cable. - One 36 connection male Centronics connector. - One 16 connection female PIO port connector.

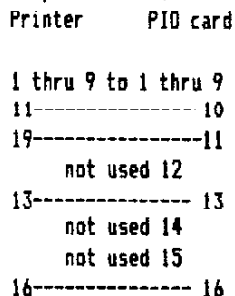
Wire the connectors together as follows:



TAKE NOTE: For an Epson MX/80 printer, you must wire pin 13 to PIN 13

ADDENDUM by Art Byers of the CW 99'ers

If your PIO cable made as above does not work properly, try the pin connections listed below. they are taken from a cable supplied by Texcomp as being specifically for TI 99/4A and PIO printers and does work very well with the TI Impact Printer (which is an Epson MX 80).



BEGINNING TO TROUBLESHOOT THE PRINTER
from MICROSERVICE MANAGEMENT FEBURARY 1988

EQUIPMENT: Most dot matrix printers.

PROBLEM: Proper diagnosis.

SOLUTION: Here is one possible sequence of questions you might ask when a printer malfunctions.

What is the exact nature of the malfunction? Did the input fail to respond to a command or was it operating normally and then malfunctioned?

What kind of program was running at the time?

Has this happened before? Were the circumstances similar? Was the program the same one?

Is the problem temperature related? (Feel the heat-generating areas of the unit and see if the temperature seems excessive.)

TROUBLESHOOTING STEPS

1. RESET THE SYSTEM. Shut everything down for a moment then turn it back on and reload the program that was running when the malfunction occurred. If this solves the problem, the problem might have been caused by some kind of power glitch, some combination of computer operations that only occurs once in millions of operations or some other entirely mysterious one-time occurrence. If this does not solve the problem go on to the next step.

2. RESET THE SYSTEM and load a known good program of equal length and run it.

If the problem does not occur, it could have been because of a problem in the software, or it may be that the software causes the hardware to operate in some specific sequence that reveals a rarely occurring problem. The only way you will be able to find out for sure is to get a known good copy of the software and run it, or run the suspect software on another identical machine.

If preliminary steps point to a hardware problem in the printer or the disk drive, isolate that unit to test it. If, for instance, the printer either does not operate, or prints garbage, your first step is to determine if the printer is at fault. Most printers have a self-test function that will let you test the printer separately from the rest of the computer system. If the printer is working properly, it will proceed to print out all of the characters it is capable of providing. If the self-test operates properly it suggests the problem is somewhere else in the system.

CONTROL CHARACTERS AND FONTS

by Lou Borrelli

reprinted from MICROpendium May 1988

In the early days of writing, Monks dedicated their lives to publishing books or documents by writing everything

by hand (there was no other choice). They even used their creativity by developing fancy script. Today, the same documents can be reproduced in minutes compared to the number of years that it took them. The 1980s allows for the use of typewriters to facilitate the writing of books, letters and documents. The word processor is an even better invention, which helps to avoid wasting paper; Corrections are made directly on screen then saved on a diskette for later reference or output.

As a computer owner, word processing has become a necessity for communication. The words you are now reading were produced with a word processor. Which one? TI-Writer, of course!

The object of these tutorials is not to re-write the manual but to expose readers to some commands that I've found useful while working in the Editor mode of TIW. My philosophy is to "Get the Most Out of What You Already Have."

The special codes I will be referring to are based on my printer, Gemini 10X and TI-Writer. As far as I know, all Epson and Epson compatibles follow the same protocol as Gemini. The interface used is in parallel to free the RS232 serial interface for modem communications., it is assumed that most of the readers access their printers using PIO and have an Epson compatible printer. Even if your system is not configured in this way, I'm hoping you will be able to take the information and adapt it to your setup.

TI-Writer has a 3 option menu:

1. Editor-text creation.
2. Formatter-text print out with special commands.
3. Utility-Similar to Editor/Assembler No. 5.

The object of this and forthcoming articles will be to give you a little insight on your printer and how to access many of its capabilities without going through the Formatter section. That's Right! Special printer capabilities through use of the Editor mode.

Let me start off by giving you a few simple examples.

Regular print or font is set for 10 CPI (characters per inch)

Compressed is set for 17 CPI

Double width is set for 5 CPI

The commands required for accessing these fonts are:

Control U Shift O Control U selects compressed.

Control U Shift R Control U cancels compressed.

Control U Shift N Control U selects double width.

Control U Shift T Control U cancels double width.

Note that double width will also be cancelled once the printer goes to a carriage return (new line of print).

Take the opportunity now to fool around with these controls. Get a feel for your printer's capabilities. Next month I'll discuss the first 32 ASCII (control) codes and what they do.

SOUTH BAY T.I. USERS GROUP

September 1982 NEWSLETTER

FROM THE PRESIDENT....

For those of you that have not heard, the new T.I. Expansion box is here. However it is in very short supply along with the RS232 card and 32K Memory Card.

Installation is very simple, with the only tool required being a phillips screw driver to anchor the input cable. The new RS232 card has 2 connectors, one is for the new FID port and the other has both RS232 ports. This requires that a special "Y" cable be used if you want to use both the Serial printer and a modem at the same time. TI does not even offer a Parallel cable at this time.

Gary Kaplan of 99'er fame will have a TI Fest at Brooks Hall in San Francisco during October 22-24. He has asked for help from the Bay area users groups. What is needed is 12 people "on duty" at any one time to show people around at watch out for and stop vandalism. In exchange, he is offering the use of a booth (worth \$500) to the users groups for membership recruiting. All we need is enough people so that we all work short shifts and will be able to attend the seminars we want. Of course, we will also need someone to man the Club Booth. Please let me know if you can help 1 or more days and what times you will be able to help. Hopefully I will be able to have enough people so that no one has a long shift. You may call me at (408)730 0555 evenings or leave a message on the ol'e phone slave.

Other good news. Chuck Humphreys, our assembly language expert is back from Texas. He is looking for for "A few good Game Programers" (sounds like the marines to me). If you are interested, give him a call at ROMOX Inc. (408) 374-7200 days.

I will drag my TIE box to the next meeting so you all can see one work.

If you have used a piece of software for the 99/4 and would share with us your experiance good or bad, speak up at the meeting when I ask. A lot of us do not know what is available or what it can and can't do.

Have a old piece of 99/4 equipment that is gathering dust. Why not bring it to the meeting and swap or sell it?

Should we change our meeting Location? Date? Frequency? please let me know at the next meeting. If there is enough response I will put it up for a vote.

THE NEXT MEETING IS THURSDAY, 30 SEPT. SEE YOU THERE.