SOUTH BAY TI USERS GROUP

BITS & BYTES NEWSLETTER

Mailing Address: P.O. BOX 23447 SAN JOSE, CALIFORNIA 95153-3447

*** JANUARY 1989 ***

PRESIDENTS MESSAGE
by Mike Ewell

IDEAS ARE STILL NEEDED FOR DEMOS! WHAT WOULD YOU LIKE TO SEE AT YOUR MEETING? Choices could include Multiplan, TI-writer, disk utilities, loading assembly programs, Data Base Manager by Navarone (or by ??), etc. Without any comment on the list above by the members, I will assume that YOU! would NOT like ANY of these programs to be a demo.

Any comments on the previous demos! Feedback here could help determine future demos!!

At the January meeting, the annual election will take place.

The club will have a new SYSOP for the new year!! Thanks for stepping forward, Chris Schram.

If you accidently delete a file from your disk and you don't know how to bring it back, DO NOT use that disk anymore, but bring it to a meeting for help. When you delete that file on your disk, it is still there. Trust me! Unless you wrote! to the disk after you deleted your file or program.

A lot of people are still using Disk Manager II!, when there are far better programs to use (almost anything else!, if it makes use of memory expansion).

!+!+!+!+!+!+! PLEASE HELP WITH THE NEWSLETTER! !+!+!+!+!+!+!
The club could use your help with the newsletter. Ask Bill!!

[]
[] []
[] The January SBTIUG meeting will be held at 7:13 P.M. []
[] []
[] THURSDAY, January 5, 1989 []
[] []
[] The meeting will be held in the Saratoga Public []
[] Library. The library is located at 13650 Saratoga []
[] Avenue. From 280(680), take the Saratoga Avenue exit []
[] SOUTH. The library will be on your left, just past []
[] the Fruitvale intersection. This is about four miles []
[] from the 280 exit. []
[] []
[]

THANKS TO ALL OF THE PEOPLE THAT HELPED THE CLUB IN THE PAST YEAR.

THANKS TO ALL OF THE PEOPLE THAT WILL! BE A HELP TO THE CLUB IN THE FUTURE, YOUR FUTURE.

If you would like to help with the neweletter, tell ANYONE!!

If you would like to run for office, tell someone!

!+!+!+!+!+!+!+! PLEASE HELP WITH THE NEWSLETTER! !+!+!+!+!+!+!+!
The club could use your help with the newsletter. Ask Bill!!

X NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE X
X X
X FEBUARY AND MARCH MEETINGS X
X X
X The Febuary meeting will be held on 2-2-89 which is X
X the first Thursday. X
X X
X The March meeting will be held on 3-2-89 which is the X
X the first Thursday. X
X X
X The first Thursday will continue to be the first choice X
X for our meetings, but please read the dates carefully X
X to avoid a wasted trip or missing a meeting. X
X X
X NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE XX NOTICE X

SBTIUG CLUB OFFICERS AND OTHERS

PRESIDENT	MIKE EWELL	408/370-7988
VICE-PRESIDENT	JOHN WENTE	408/559-1680
TREASURER	KEVIN DABERKOW	408/281-7435
SECRETARY	NORMAN KNUDSEN	408/267-6193
LIBRARIAN	HELMUT FUCHS	408/263-8339
EDITOR	BILL SCHULT	408/446-1182
*ASSISTANT	PAT MICETICH	408/227-6212
*ASSISTANT	????????????????	4??/555-????
SBTIUG BBS	??-HRS/DAY	408/555-994A
*SYSOP	CHRIS SCHRAM	408/555-9640
*REMOTE SYSOP	RON SPRINGER	408/225-8670
CALTEX BBS	FRANK CONTINOLA	408/578-6264
PUBLIC RELATIONS	DON APTE	408/629-0725
ARCHIVER/NEWSLETTERS	HOY COLE	SEE AT MEETING

SBTIUG GENERAL MEETING 3 DEC, 1987

by Nora Knudsen

The December meeting of the SBTIUG with 17 members and one visitor in attendance, was held at the Saratoga Public Library. The meeting was called to order at 7:25 PM by President Mike Ewell.

The first order of business was a report from our Treasurer, Kevin Daberkow. He reported one renewal during November and a current balance of $519.84.

Newsletter editor Bill Schult still needs original articles for the newletter. He stated that he may wish to move the P.O. Box to a more convenient location. The question was raised as to whether the club actually needs a post office box. No action was taken on either point.

Don Apte, our PR man announced several upcoming conputer faires and swap meets.

Keith Felix announced that the bulletin board was not operating and that he was considering turning the operation of the board over to an unnamed individual who had shown favorable interest.

Mike Ewell reminded us all that The January Meeting calls for the election of club officers for 1989. The only response to a call for nominations was a motion (which was almost immediately seconded) that the present slate be renominated. This does not plecude nominations from the floor at the January meeting, however.

Don Apte raised the comment that he had seen PC Jr. thermal printers offered for $10.00. The devise is presumably compatable with the TI.

HAPPY NEW YEAR EVERYBODY !

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 you membership expiration date is in YELLOW, then you should renew at the June meeting.

>> THE DUES ARE $13 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 in November and one renewal in December: Fransisco Martinho and David Caton. I would like to thank Fransisco and David for their continued support.

The club also took in additional money in December in the form of our annual Christmas raffle. There were many fine items available for the raffle and the club collected $32.00 from the sale of additional tickets. Thank You!

The club shows a balance of $580.04 as of the end of December.

"C"ing is Believing - Part ??

by Kevin Daberkow

I am sorry to announce that the January C article will not be ready in time for the newsletter deadline. As many of you know, December can be a rather hectic month with to many tasks to accomplish prior to the holiday. I wish you all a very Happy New Year, and am looking forward to seeing you all again in January.

Till next time . . . . .

Editor's Ramblings

by Bill Schult

I would like to take this opportunity to thank all of the members that have contributed articles for the newsletter during the past year. It is these articles that make a good newsletter.

We do however need more original articles for our newsletter. Original articles dealing with programming techniques, equipment explanations, construction projects and etc. are what will make our newsletter even better. So do not be bashful. Here is your opportunity to get published.

January is the month that we elect the officers that will run the club for the next year. So if you feel inclined to be in a decision making position in the club, step forward and accept a nomination.

I would like to take this opportunity to wish each and every one of you a happy and prosperous new year.

Financial Planning One liners
by Tony Falco
reprinted fromMUNCH newsletter

Until computers came on the scene, calculations involving compound interest were laborious and complex. In most on the job applications, values were not calculated but rather they were read from tables. Your TI can now make financial calculation easy as illustrated by the four one liners below.

Suppose Auntie Mabel donates $1000 for your new born son's education. Running program 1 will find that if you invest it at 8% compounded monthly and leave it for 18 years then you will have earned $4,200.57

You estimate needing $100,000 (a conservative estimate) for college 18 years hence. Program 2 tells you that at 8% compounded monthly for 18 years you should make a one time deposit of $23,806.27 to have $100,000 when you need it.

When you see that amount you decide that a systematic savings plan would be more practical for you. So you will invest $200 a month at %8 annual interest for q8 years. Program 3 tells you you will have accumulated $96,017.23 by the end of your 18 year ordeal.

You are curious to find the exact monthly deposit needed to yield your $100,000 goal. Program 4 to the rescue. This program says you will need $208.30 per month if you use all the figures above.

More technically speaking. Program 1 computes the future value of a one time investment. Program 2 computes the present value for a one time investment. Program 3 gives values for an annuity. And the last program creates values for a sinking fund.

Of course the hardest part is not computing the values but coming up with the dough.

```
1 CALL CLEAR :: INPUT "Invested:$":P :: INPUT "Rate: ":R ::
INPUT "Cpds/Yr: ": N :: INPUT "Years: ":T :: A=P$(1+R/100/N
)^(N$T) :: PRINT "FINAL VALUE=$"STR$(INT(A+.5)/100 :: END
```

```
2 CALL CLEAR :: "Needed:$ ":A :: INPUT "Rate ;":R :: INPUT
"Cpds/Yr:":N :: INPUT "Years: ":T :: P=A/(1+R/100/N)^(N$T)
:: PRINT "Deposit=$" STR$(INT(P0+.5)/100 :: END
```

```
3 CALL CLEAR :: INPUT "Deposit:$ ":P :: INPUT "Rate:":R " ::
INPUT "Times/Yr: ": N :: INPUT "Years: " :T :: A=100$N$P$((1
+R/100/N)^(N$T)-1)/R :: PRINT"Final=$"STR$(INT(A+.5)/100) ::
END
```

```
4 CALL CLEAR :: INPUT "Needed: $":A :: INPUT "Rate: ":R ::
INPUT "Times/Yr: ":N :: INPUT "Years: ":T :: P=A$R/((1+R/
100/N)^(N$T)-1)/N/100 :: PRINT "Deposit$"STR$(INT(P+.5)/
100) :: END
```

TI WRITER's INCLUDE FILE
by Jim Swedlow reprinted from MUNCH June 1988

One of TI Writers nicer features is Include File (.IF). It has a few limitatins, but it extends TI Writers capabilities.

TI Writer cannot work on large files. No books in one file here. As you reach the size limit, the time it takes to load and save files increases markedly. Include File to the rescue.

Suppose you have written two chapters of your next book. You named your files CHAPTER 1 AND CHAPTER 2 (very original). At the end of Chapter 1 (the very last line) add this:

```
.IF CHAPTER2
```

Name CHAPATER1 for the Formatter and it will print both chapters. All the formatting commands you set for Chapter 1 will be used when Chapter 2 is printed. So you don't have to restate the margins and such.

Ah, you finish Chapter 3. No problem. At the end of Chapter 1, add another line:

```
.IF DSK1 CHAPTER3
```

You cannot do this at the end of Chapter 2, as you can't chain these commands. Also note that you must specify the drive number (DSK1 in this case)

I prefer to make a master file (called CHAPTER0) with all of the .IF commands:

```
.IF DSK1.CHAPTER1
.IF DSK1.CHAPTER2
.IF DSK1.CHAPTER3
```

Before (not later) your .IF lines, put in your format header and footer instrUctions. Now you have all of your format commands in one place that is easy to find and edit.

HELPFUL HINTS
by R. J. Bieber
reprinted from SNUGLETter

Can't get a program to load from a Cassette Tape you found stashed away in an old box of junk. Can't get some Basic or XBasic programs to load from disk? Do you keep getting I/O error 02 or I/O Error 50 during disk loads. Does your program load but crashes with a Memory FULl Error. Here's a few hings that even I forget about from time to time.

I/O ERROR 50 usually indicates the Program is in Memory Image Format and must be loaded via E/A Option 5 "Run Program File", FNLWEB Option 3 "Program", or thru a M/I program loader such as Barry Boone's E/A Option 5 Loader or Systex loader. Most M/I Programs are in blocks of 33 or 34 sectors, some are less.

I/O ERROR 02 covers a multitude of errors, but they all boil down to one final problem - the program cannot be located or it's too large to be loaded into memory.

If you are trying to load a program from Cassette Tape into just the basic console you are restricted to about 16K of console memory. Subrract another 2K (2072 bytes) of memory if you are using Extended Basic. If you have XB plugged into the basic console Enter NEW and then do a SIZE command. You will see 13928 BYTES FREE. Adding in the loss of 2K for XB you actually have 14964 Bytes of memory to play with in Basic, As you can see bare console memory is very linited. If you don't have the 32K Memory. If you don't have the Memory Expansion (MX) Unit there isn't much you can do.

If you are trying to load from diskette other problems can plague you:

1. Check to be sure the program/file is on the designated disk.

2. Make sure you have typed-in the correct information in your OLD DSK#.FILENAME Statement.

3. If the program is written in Basic and it's over 40 sectors long, it may be too large to fit into standard console memory. Again, if you don't have the 32K MX Unit there isn't much you can do.

But don't despair. If you have a 32K MX Unit then there are some more steps you can take. When you turn on the Computer TI-Basic reserves about 1.5K (1554 Bytes) for file manipulation which is equivalent to CALL FILE(3). If your program Opens no more than 2 files at a time then Enter CALL FILES(2) then Enter NEW. This will free-up an extra 518 bytes of memory. Usually this is enough to allow the program to load and run normally.

If your program loads but crashes with a Memory Full Error and it Opens no more than 1 file at a time try entering Call FILES(1) and NEW. This will free up 1K (1036) bytes of additional memory which may be enough to allow the program to load and Run without crashing. If it continues to crash then it's time to go in and make some changes. During PreScan before the program executes all Variables, DIM'd Arrays, CALLs and GOSUB line numbers are stored in console memory. Some variables will be stored in the 32K MX Unit if it's available allowing for larger programs to be stored in the console. To save memory space don't use GOSUB's unless the SUB routine is used more than once, keep varialbe names short, dimension Arrays only in the size and quantities needed, and convert Numeric variables into String variables for storage in 32K MX.

If you have a MX Unit here's another way of getting around a large Basic program load problem. Load it via XB and see if it will run. If it does then Save it to Disk (under a different filename). You'll notice the Disk Directory may show an I/V 254 file in lieu of a Program. I/V 254 is the format by which XB saves a very large fprgram to disk. You probably won't need to use CALL FILES(1) and NEW to reload it, but XB is mandatory.

Each line number uses at least 2 bytes of memory. If a Basic program runs in XB then restructuring groups of single statements into multistatement lines could save you a lot of memory, especially in very large programs.

A good way to to see how much memory a program uses is to do the following (32K Memory Expansion and XB ver 110 used as a reference).

Select XB. Then with nothing loaded Enter SIZE. You should see:
11840 Bytes Stack Free
24488 Bytes Program Free Space

Now load your program via XB, but DON'T RUN it. Enter SIZE again. you'll notice the program Free Space has decreased. The difference tells you how much memory the program has used.

Next, Enter RUN then press FCTN 4 and wait for the program to Break. Enter SIZE again and you'll see a change in both the Stack and Program Free Space. These second differences tell you how much memory is being used up by Variables, Arrays, CALL's, GOSUBs, etc..

In addition each time a file is opened or a Disk Drive is accessed aother 518 bytes of memory is used until the file is closed or disk access stops. So if you open a Disk Catalog file #1 and a Printer Port file #2 and access a Disk Drive file #3 you are tying up 1534 bytes of memory until the files are closed.

If only a small quantity of memory is available after the program boots, there may not be enough room left for file and disk drive access or variable manipulation. Thus your rogram will crash. I advise leaving around 1K (1000 bytes) of memory free for the manipulations of variables. If the program opens files, leave at least 2K (2000+ bytes free for variables and files manipulation.)

MONOGAMY IS A MUST WHEN MODEM IS THE MEDIUM

by Chuck Moss

From the Detroit News 08/31/88

For years now my computer-nut buddy Ian had been trying to sell me on modems. "you'll love it," he said. "it's a whole new world!"

Now, modems are little devices that let your computer connect up with other computers through the phone lines. With a modem, your computer can link up with other machines that have modems, share programs, exchange data and even merge with national and international networks.

"It's like a giant singles var for computers," Ian boasted. "It's the New Age of Information. There are no limits to data transmission! Information is free, and mankind is liberated. It's the electronic revolution."

So I bought a modem and joined the revolution, but as usual I was too late.

I immediately called up my friend. "Ian! I've finally got a modem. Hook up your computer. Let's upload and download, baby."

"Are you kidding?" he gasped. "I never connect with other computers anymore."

"But I've got some great new programs. Let's link up."

"No way, man! Who knows where those programs have been."

"But Ian," I protested, "what about the New Age of Information? What about the liberating electronic revolution?"

"Awww, c'mon. Where have you been? This is the 1980s. Haven't you heard of bugs? Haven't you heard of viruses?"

"Huh?"

"A computer bug is a program where some nasty person has stuck in instructions that make your computer do bad things. It might be simple, like flash 'Ha Ha' on screen, or it might wipe out all your data. Some bugs can even crash your entire system."

"And some viruses are worse. Somebody can stick a line or two in a program's millions of commands that will not only do bad things, but will write itself onto other disks and programs. If it gets loose onto the networks, a bad virus can get into any computer that hooks in. There are lots of bad viruses out there!"

"So..." I felt sick.

"...so you can't be too careful. No hacker with any sense lets his computer modem hook on with just anyone."

"Not even for some quick data exchange?"

"Those are the worst," Ian said. "you're at risk for every virus in the book. After all, how much do you really know about that other computer? It might be the kink that goes on-line for any stray word processor with a wink and an access code."

"But the free flow of information, " I cried.

"We've all had to change our habits, the free and easy days of the 1970s and early '80s are over, my friend. We've all had to adopt more responsible attitudes. Sure, we all used to link up on Saturday nights, but no more. In fact, now I only log on one system that I know is clean. Monogamy is fashionable"

"How come I never heard of about all this?"

Ian shrugged. "Search me. Didn't you get a packet from the surgeon general?"

"My great Aunt Mildred probably threw it away," I said with a groan. "So it's over. My poor TI can never join that wild scene of swinging computers?"

"Only at your own risk," Ian said. "except well... you can buy a sort of buffer that identifies and catches program bugs as they come in. The exchange isn't quite... as sensitive. But it does offer protection. In fact, it's uniformly recommended that no actively networking computer be without one."

"You can't mean it's come to this?"

"I'm afraid so," said Ian. "Computer condoms."

RATEGRAM ranks accounts

reprinted from MICROpendium Nov. 88

The Source online information network has introduced RATEGRAM, a service ranking the best performance money market accounts, certificates of deposits and funds from more than 15,000 U.S. institutions. In addition to weekly updates on interest rates, annual effective yields and moving averages, RATEGRAM lists the compounding frequency, minimum deposit required, and institution name, address, and telephone number.

For Source membership information call 1-800-336-3366