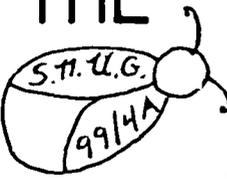


THE  **SNUGLETTER**
 FROM THE SOUTHERN NEVADA USERS' GROUP

Vol. 3 No. 2

February, 1985

LETTER FROM THE EDITOR

Steve Buchanan, our Treasurer, has requested that all SNUG members attend February's meeting. New membership cards will be available for all paid-up members. He will also be determining membership expiration dates for current members.

The above activities should also determine the list of members' addresses for the next newsletter mailing. I've been wanting to eliminate the ex-members for some time but haven't had a complete up-to-date list to do so. However, this should provide the information I need. SNUG currently mails out over fifty newsletters to individuals and it is obvious that we don't have that many people attending our meetings.

This issue contains a tutorial chart on file usage for both cassette and disk systems. It is reproduced from the newsletter, REM 994/A STATEMENTS, from the Mansota Users Group in Sarasota, Florida. It contains a condensed format summary of the defaults and options to guide the less experienced through the use of file storage.

NEXT MEETING

MONDAY, FEBRUARY 11 - 6:30 pm

CHARESTON PLAZA LIBRARY MEETING ROOM

 * SNUG OFFICERS 1984-1985 * Newsletter Editor *
 * Pres. Roy Hufford - 387-6300 * Rudy Johnson - 871-9583 *
 * V.P. Gordon Leonard - 384-2302 * Newsletter submissions should *
 * Sec. Beverly Hufford - 387-6300 * sent to P.O. Box 7151 Las *
 * Treas. Steve Buchanan - 363-1043 * Vegas, Nevada 89170 *
 * *****

HOW TO CHEAT TI OUT OF \$150.00 OR MOD FOR BARE #2 DRIVE
(NO POWER SUPPLY) by Jim Adkerson (876-9125) of SNUG

You can use a Shugart bare drive as a 2nd drive, or a model 1250 TI internal drive as an external drive with the following modifications. You need only to be an Electrical Engineer or have lots of guts (I'm the guy with guts).

#1. You must determine if you have the early or late model drive in the P-Box. The difference being in the location of the Shunt Pack (also known as the Strapping Pack) and the Termination Resistor. With the drives removed and standing on their face and the PC Board facing you, the older models will have the Termination and Shunt Pack horizontal, with the Shunt Pack at the top (as on pg. 4 of the Disk Drive Memory Manual). The newer model has the packs mounted vertically with the Shunt Pack at the edge of the board or right side. If you have the older of the two you must remove the Termination Resistor for the internal drive as described on pg. 4 of the manual. If you have the newer drive leave the Termination Resistor in both drives!! Are you still with me? Hnag on, I will get there.

#2. Remove the Shunt Strap switch using the method on pg. 4 of the manual. Replace the 14 pin Strap switch with a 14 pin DIP switch or a more popular 16 pin DIP (bending over the last two legs) placing the first legs of the DIP in the first holes of the socket, leaving the last two hanging over the end of the socket. Next look on the PC Board next to the socket and close (turn on-Ed.) switches marked #2 and HL, leaving all others open (off-Ed.) Are we there? Nope, just a little more.

#3. Located inside the P-Box (that's the silver thing that makes all the noise and has the blinking lights) is the power cord as described on pg. 5 of the manual. You will need to make a Y adaptor to fit this power plug. It must have two short legs, one for the power plug and one for one for the internal drive, and a third long leg for the external drive. You will need approximately four feet of four conductor cable, two male and one female matching plugs. After the cable has been made, plug one short female

leg into the power cord and plug the other short male leg into the internal drive. Run the long male cord out the back of the P-Box from inside the internal drive compartment. In order to have room for extra cables (control & power) move the drive controller card to slot #7 in the P-Box. Note: do not cross up the wires on the power cord. Match them terminal for terminal on both drives to the original set-up (the two terminals in the center are ground, the two outside ones are 5V + and - and 12V + and - respectively.) Well, are you confused yet? Mush on! It gets worse.

4. Reinstall the internal drive taking care not to crimp the power or control cables. Plug the flat control cable back on the card in its original position, running the new power cord out the back through the #8 card slot. Next you need two 34 connector female edge card plugs and however much 34 conductor flat cable you wish (4 feet is nice). [The 34 conductor can be made by paralieing two or more pieces of multi-conductor cable to total 34 conductors. Ed.] On the back of the card is a flat 34 conductor male terminal - plug one end to this and the other end to the flat 34 male connector. Look carefully at the two terminals, one side is ground and the other is control signal, do not swap sides from card to drive, as this will cause it to not work. Now plug in the power cord and you're done.

If you want it to look pretty you can build a cover out of 1/8" plastic and put little rubber feet on it. You don't need a cooling fan - remember you don't have a power supply inside the drive

NOTE! THERE ARE NO GUARANTEES. I have used this method several times and it works for me. But, if you desire to take this mission and goof up, the system will self-destruct in 10 seconds. [Remember Mission Impossible? Ed.] If after all this you're not confused, call me and I will explain the drag coefficient of a bar of soap.

GOOD LUCK

* The SNUGLETter is published monthly by the Southern Nevada Users' *
* Group (SNUG). SNUG is a non-profit organization of individuals with *
* an interest in all aspects of Texas Instruments' 99/4 & 4A computer, *
* including all related hardware and software by third party vendors. *
* The GROUP meets at 6:30 PM on the second Monday of the month - *
* currently in the Clark County Library meeting room, 1726 E. Charleston *
* Blvd. (Charleston Plaza Mall). Visitors and guests are welcome to *
* attend the meetings. Information on membership is available at the *
* meeting. *

THE CHART OF FILE OPERATIONS FOR THE TI/994A
 A PRODUCT OF BURGETT SOFTWARE COMPANY

Designed and edited by H. Burgett - 6625 Roxbury Dr., Sarasota FL 33581 - Phone 813-924-1886

FILE OPERATING MODES				FILE ORGANIZATION		DATA TYPE		RECORD TYPE		
C	OUTPUT	INPUT	UPDATE	APPEND	SEQUENTIAL	RELATIVE	DISPLAY	INTERNAL	FIXED	VARIABLE
A							ASCII CODE	BINARY CODE		
S										
S	OK FOR	OK FOR	CAN NOT	CAN NOT	DEFAULT	CAN NOT	DEFAULT	OK FOR	DEFAULT	CAN NOT
E	USE WITH	USE WITH	USE	USE	VALUE	USE	VALUE	USE	VALUE	USE
T	CSI &	CSI BUT	W/CSI	W/CSI	CSI	W/CSI	FOR CSI	W/CSI	FOR CSI	W/CSI
T	CS2	NOT CS2	OR CS2	OR CS2	& CS2	OR CS2	& CS2	OR CS2	& CS2	OR CS2
E										
F	WRITE	READ			THE NUMBER OF RECORDS		MUST USE	RUNS FASTER	CASSETTE	
I	ONLY	ONLY			MAY BE SPECIFIED WITH		FOR ANY	AND USES	RECORD	
L	TO A	FROM A			A NUMERAL FOLLOWING		RS232	LESS MEMORY	LENGTH	
E	MEMORY	MEMORY			THE WORD- SEQUENTIAL		OUTPUT		MAY BE	
O	DEVICE	DEVICE							FROM 64-128	
P									CHARACTERS	
E	THERE ARE NO DEFAULT VALUES FOR								SPECIFIED	
R	CASSETTE FILE OPEN STATEMENTS -								AFTER THE	
A	YOU MUST USE THE DEVICE NAME, EITHER								WORD- FIXED	
T	CSI OR CS2 AND A FILE NUMBER									
I	BETWEEN 1 & 255				<---- WITH CASSETTE FILE YOUR ONLY REAL CHOICE IS BETWEEN ---->					
O									DISPLAY AND INTERNAL TYPE	
N	EXAMPLE: OPEN #1:"CSI",INPUT,FIXED 128									
S	OR: OPEN #5:"CS2",OUTPUT,FIXED 128									

Use the program below to practice making changes to a file program - learn how files operate

```

100 REM *HERB BURGETT FILE TUTORIAL*
110 *TI BASIC FOR CASSETTE*
120 CALL CLEAR
130 PRINT TAB(13);"MENU"
140 PRINT
150 PRINT "cassette file demo program"
160 PRINT "refer to the chart to make"
170 PRINT "changes in your file options"
180 PRINT : : :
190 PRINT "1.CREATE (OUTPUT)":" A NEW NAME/PHONE FILE"
200 PRINT
210 PRINT "2.REVIEW (INPUT)":" AN OLD NAME/PHONE FILE"
220 PRINT
230 PRINT "3.END SESSION"
240 PRINT : : :
250 CALL SCREEN(11)
260 CALL HCHAR(1,1,66,32)
270 CALL VCHAR(1,32,66,48)
280 INPUT "INPUT YOUR CHOICE?":C
290 ON C GOTO 300,450,550
300 OPEN #1:"CSI",OUTPUT,INTERNAL,FIXED
310 ENTRY=1
320 INPUT "NAME ->":N$
330 PRINT : : :
340 PRINT "type END to close the file"
350 IF N$="END" THEN 420
360 INPUT "PNONE->":P
370 PRINT #1:ENTRY;N$;P
380 PRINT ENTRY,N$,P
390 ENTRY=ENTRY+1
400 PRINT : : :
410 GOTO 320
420 PRINT #1:999;ZZZ;999
430 CLOSE #1
440 GOTO 130
450 OPEN #1:"CSI",INPUT,INTERNAL,FIXED
460 PRINT : : :
470 INPUT #1:N,N$,P
480 PRINT : : :
490 IF N=999 THEN 530
500 PRINT "ENTRY":N
510 PRINT "NAME: ";N$:"PHONE: ";P
520 GOTO 470
530 CLOSE #1
540 GOTO 130
550 END
  
```

BURGETT'S CHART OF FILE OPERATIONS FOR TI 99/4A

	FILE OPERATING MODES				FILE ORGANIZATION		DATA TYPE		RECORD TYPE	
D I S K F I L E O P E R A T I O N S	OUTPUT	INPUT	UPDATE	APPEND	SEQUENTIAL	RELATIVE	DISPLAY ASCII CODE	INTERNAL BINARY CODE	FIXED	VARIABLE
	OK FOR USE WITH DISK FILES	OK FOR USE WITH DISK FILES	DEFAULT VALUE FOR DISK FILES	OK FOR USE WITH VARIABLE RECORD TYPE	DEFAULT VALUE FOR DISK FILES	OK TO USE WITH DISK FILES	DEFAULT VALUE FOR DISK FILES	OK FOR USE WITH DISK FILES	OK FOR USE WITH DISK FILES	SAVES SPACE BUT WON'T RUN WITH RELATIVE FILES
	WRITE ONLY TO A MEMORY DEVICE	READ ONLY FROM A MEMORY DEVICE			RECORDS MAY BE FIXED OR VARIABLE	RECORDS MUST BE FIXED LENGTH IF RELATIVE TYPE IS USED	MUST USE FOR ANY RS232 OUTPUT	RUNS FASTER AND USES LESS MEMORY	DISK RECORD LENGTH MAY BE FROM 80- THE DEFAULT TO 254 SPECIFIED AFTER WORD- FIXED	SAVES SPACE BUT WON'T RUN WITH RELATIVE FILES
		PROTECTED DISKS MAY ONLY BE USED FOR INPUT	CAPABLE OF BOTH READ AND WRITE	CAPABLE OF WRITE ONLY TO EOF-WHICH PREVENTS WRITING OVER UNPROTECT- ED FILES	DEFAULT VALUE VARIABLE					

<-- THE DEFAULT VALUE FOR A DISK --> <---- DEFAULT VALUES ARE SET TO PROGRAM THESE DISK FILE FUNCTIONS
 * OPEN STATEMENT IS UPDATE * OR YOU MAY CHOOSE THE NON-DEFAULT VALUES IF YOU REFER
 * NO SPECIAL OPTION IS REQUIRED FOR FILE FUNCTIONS

* OPEN STATEMENTS MUST USE A FILE # BETWEEN 1 & 255 AND A DEVICE NAME
 * EXAMPLE: OPEN #5:"DSK1.MYFILE",INTERNAL,RELATIVE,FIXED 128
 * OPENING MODES ARE CAPABLE OF CHANGE - AFTER AN OUTPUT FILE IS CREATED, IT COULD BE OPENED LATER AS AN
 * INPUT FILE OR (PROVIDED THE RECORDS ARE VARIABLE TYPE) IN APPEND
 * COMMON ROOKIE ERROR MESSAGES - SEE THE USERS GUIDE PP III-10 thru III-12 FOR MORE DETAILS
 * >FILE ERROR<...Attempting to CLOSE, INPUT, PRINT or RESTORE a file not currently open ...Attempting to INPUT records from a
 * file opened as OUTPUT or APPEND ...Attempting to PRINT rec on an INPUT file ...OPENING file already open
 * I/O ERROR<...02 Means bad open attribute (one or more OPEN options are illegal - don't match the file)
 * ..25 Means the file INPUT is attempting at read past the end of file ...06, 16, 26, &36 Device not currently connected

Use the program below to practice making changes to file programs - YOU CAN LEARN BY TRIAL & ERROR.

```

100 REM *HERB BURGETT FILE TUTORIAL EXBASIC FOR DISK*
105 CALL CLEAR :: CALL HCHAR(24,1,66,64):: CALL VCHAR(1,32,66,48)
110 CALL SCREEN(1)** DISPLAY AT(3,6):"FILE TUTORIAL MENU"
120 DISPLAY AT(6,2):"1.CREATE NEW FILE"
121 DISPLAY AT(7,4):"(SAVE DSK1.MYFILE)"
130 DISPLAY AT(9,2):"2.INPUT DATA"
131 DISPLAY AT(10,4):"(OLD DSK1.MYFILE)"
140 DISPLAY AT(12,2):"3.REVIEW RECORDS"
150 DISPLAY AT(14,2):"4.CHANGE A RECORD"
160 DISPLAY AT(16,2):"5.SAVE UPDATED FILE"
170 DISPLAY AT(18,2):"6.END SESSION"
180 DISPLAY AT(21,2):"INPUT YOUR CHOICE?"
181 ACCEPT AT(21,21)VALIDATE(DIGIT)BEEP SIZE(1):Z
190 ON Z GOTO 200,290,340,410,250,400
200 CALL CLEAR ** PRINT "THIS PROGRAM CREATES 5 RECORDS": : :
210 FOR X=1 TO 5 ** INPUT "LAST NAME -FIRST ":A$(X)
220 INPUT "STREET ADDRESS ":B$(X)
230 INPUT "CITY &STATE & ZIP ":C$(X)
240 NEXT X
250 OPEN #1:"DSK1.MYFILE",RELATIVE 100,INTERNAL,UPDATE,FIXED
270 FOR X=1 TO 5 :: PRINT #1:A$(X),B$(X),C$(X)
280 NEXT X :: CLOSE #1 :: GOTO 105
290 CALL CLEAR
300 OPEN #1:"DSK1.MYFILE",RELATIVE 100,INTERNAL,UPDATE,FIXED
320 FOR X=1 TO 5 :: INPUT #1:A$(X),B$(X),C$(X)
330 NEXT X :: CLOSE #1 :: GOTO 105
340 CALL CLEAR :: FOR X=1 TO 5
350 PRINT A$(X): ::PRINT B$(X): :: PRINT C$(X) : : :
360 NEXT X
370 PRINT "RETURN TO MENU? (Y/N)"
380 CALL KEY(O,K,S):: IF S<1 THEN 380
390 IF K=89 THEN 105
400 END
410 CALL CLEAR
420 OPEN #1:"DSK1.MYFILE",RELATIVE 100,INTERNAL,UPDATE,FIXED
430 INPUT "WHICH RECORD#(1-2-3-4-5)? ":X
440 PRINT A$(X): ::PRINT B$(X): :: PRINT C$(X) : : :
450 INPUT "LAST NAME - FIRST ":A$(X)
460 INPUT "STREET ADDRESS ":B$(X)
470 INPUT "CITY &STATE & ZIP ":C$(X)
480 CLOSE #1 :: GOTO 100
  
```

We have received a correct copy of last month's program named TRANSL, the program which makes full screen editing possible. [This comes direct from Fred Hawkins of the Lehigh 99'er Computer Group.]

TRANSL

```
1 CALL CLEAR :: OPEN #1:"DSK1.TESTR" :: OPEN #2:"DSK1.OUTR",VARIABLE 163
2 LINPUT #1:L$ :: S=POS(L$," ",1):: ON ERROR 6 :: N=VAL(SEG$(L$,1,S))
3 ON ERROR 5 :: A=INT(N/256):: A$=CHR$(N-A*256):: PRINT L$
4 PRINT #2:CHR$(A);A$;CHR$(131);SEG$(L$,S+1,80); CHR$(0):: GOTO 2
5 PRINT #2:CHR$(255);CHR$(255):: CLOSE #2 :: END
6 ON ERROR 5 :: RETURN 2
```

***** TIPS FOR CASSETTE USERS *****

Here's a lifesaver. It's 2 A.M., you just got the last bug out of your new program, you sleepily put a new cassette in the recorder, type OLD CSI instead of SAVE CSI and hit ENTER! But all is not lost - just type Shift E, hit ENTER, get an IO error message, and start over. This works in BASIC but not XBASIC unless you have the Memory Expansion. Did you ever absent-mindedly type SAVE CSI instead of OLD CSI, push RECORD, and not realize it until you had erased a program from the cassette? Did you know that the cassette has two tabs on the back edge that can be removed to keep that from happening? Just slip the tip of a knife blade under them and pry up to snap them off. Each side of the cassette is protected by the tab on its back left edge; when the tab is removed, the recorder's RECORD button can't be pushed down. Later on, if you want to record over that side, just put a bit of tape over the hole. If you are using black a black and white TV for a monitor, you can get a sharper screen by starting your program with - 1 CALL SCREEN(15). [This is from Jim Peterson's TIPS FROM THE TIBERCUB. Ed]

***** TESTING MEMORY *****

It has been brought to my attention that many of you've been curious if you can test how much memory you have used in a program and how much memory you have left without having the Extended BASIC module. All that you need to do is insert the the following two lines as the very first two lines of your program.

```
1 A=A+8
2 GOSUB 1
```

When you have finished typing in these two lines then type in RUN. After a few seconds the program will break and the following error message will appear on the screen: MEMORY FULL IN 1. This means that the process is half completed. All you need to do is to type in 14544-A:A and the computer will return two values. The top number represents the amount of memory used and the bottom number the amount of memory left. Remember that these lines should only be added whenever you wish to test the amount of memory used and the amount of memory remaining. [And should not be saved with the program. Ed.][This tip was from Ed York of the Cin-Day Users Group. Ed]

***** PRINTER TIP *****

If you have been frustrated by the fact that your printer is capable of printing no more than the 80 characters per line which the 99/4A outputs, there is a very simple solution. When you OPEN the output to the printer, simply add the file-specification VARIABLE 132 (MAXIMUM). The default value for this file-specification is 80; which explains why you get an automatic carriage return and line feed after eighty characters, i.e.,

```
100 OPEN #1:"PIO",VARIABLE 132
```

[This is from M.U.N.C.H. T1 Tip #1.]

***** NEWSLETTER PACKETS *****

Those members who checked out the packets of other Users Groups newsletters are reminded to return them. Any member who has not returned materials checked out at a previous meeting will be denied further privileges in this benefit.

***** OTHER SOURCES OF 99/4A INFORMATION *****

The following publications are available with information on the TI 99/4A:

The Smart Programmer
Millers Graphics
1475 W. Cypress Ave.
San Dimas, CA 91773
Published Monthly
\$12.50 for one year

Super 99 Monthly
Bytemaster Computer Services
171 Mustang St.
Sulphur, LA 70663
Published Monthly
\$12 for one year

Microcompendium
P.O. Box 1343
Round Rock, TX 78680
Published Monthly
\$12 for one year

The National Ninty-Niner
99ers Users Group Association
3535 So. H St. #93
Bakersfield, CA 93304
Published Monthly
\$12 for one year

Mini-Mag 99
S.O.S. Publishers
21777 Ventura Blvd. #203
Woodland Hills, CA 91364
\$20 for one year (\$15 until Feb. 28, 1985 for initial subscriptions)

If any of our members have any of these publications, other members would certainly be interested in seeing what the issues are like. Please, bring them to the meetings so others may judge their worth.

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FIRST CLASS