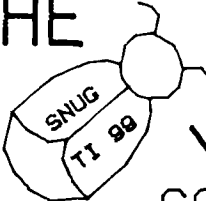# THE SNUGLETTER

## FROM THE SOUTHERN NEVADA USERS' GROUP

Vol. 3 - No. 5                    MAY, 1985

## NEXT MEETING

## MONDAY, MAY 13, 1985 - 6:30 PM

## CHARLESTON PLAZA LIBRARY MEETING ROOM

### PRESIDENT'S MESSAGE

There have been a number of exciting developments for SNUG this month. I hardly know where to begin.

First, we have finally gotten our club computer system! The memory expansion, RS232, disk controller, and disk drives have been recieved and attached to the console we got from Gordon last month.

Second, I have recieved from John Clulow and the New Horizons and OH-MI-TI user's groups in Ohio, a copy of the TI-COMM Bulletin Board System. I have been working on the program to adapt it to our particular system, and have had success getting most of the system to work. I anticipate going on line about the time of the next meeting. If I can get the last few bugs ironed out by then, I will give out the phone number at the meeting.

I also recieved from the same source, the equivalent of 3 SSSD disks FULL of Extended Basic Assembly utilities. These utilities can be linked to your XB programs and called by them at will.

Included are such utilities as DUMP, a hi-res printer dump for TI impact, Epson, Gemini, etc. printers, Two sort routines that have to be seen to be appreciated, and a SCROLL routine that makes words scroll across the screen from right to left so smoothly that you would swear they were sprites except that there are as many as 28 letters at a time moving across the screen. There is also a SCREEN SAVE PACKAGE that lets you save all of your screen graphics, colors, and sprites [with motion] to the disk to be called up at will with 3 to 5 seconds a typical time to load and display on the screen. This means that you can delete all of the CALL CHAR, CALL HCHAR, CALL SPRITE, CALL VCHAR, CALL COLOR, and CALL SCREEN statements from your XB programs once you have set up these routines in your program. At the very least this will save gobs of memory, not to mention program set-up time.

There are a number of other routines on these disks, but I need to keep this article short enough for the newsletter.
All the utilities and programs are well documented on the disks in "TI-WRITER" type files. These utilities will be made available through the SNUG program library as soon as we have opportunity to

copy them to library disks.

Third, there is news from several different sources that the legendary "99/8" computer is about to become a reality. We can only hope that this is true. We have included an article downloaded from the San Diego TIBBS pertaining to this computer elsewhere in this newsletter.

This month's meeting will cover MODEM's, RS232 interfaces, BBS's and related material. It promises to be an interesting meeting (especially if you already have a modem).

          NEXT MEETING--MAY 13--6:30 PM--CHARLESTON PLAZA LIBRARY

See you there!!!

                              -JOHN MARTIN-

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*****************************************************************************
* The SNUGLETter is published monthly by the Southern Nevada Users' Group  *
* [SNUG].  SNUG is a non-profit organization of individuals with an inter- *
* est 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.                    *
*****************************************************************************
```

This is a short program I used when I was using a cassette system to save my programs. It works in either console BASIC or Extended BASIC.

The program works by reading the names of the files from DATA statements which the user must input into the program starting at line 270. The order of the fields in the records is that of program name, program type (CB for console BASIC or XB for Extended BASIC) and index number for your cassette recorder counter for the program location.

I put this Directory Program at the beginning of every tape so I could easily load it when I needed to know what was on it. I left enough space, about count of 10 on my TI Recorder, so that I could add as many DATA statements as I needed for the programs on that tape. In line 260 the DATA statement should be modified as an identifier for that particular tape. There should be a DATA statement following the last real program entry with nulls (the double sets of quotation marks) for the name and type, and a zero (0) for the index. The zero tells the program there are no further entries to be displayed.

The program could be modified to print out a list if you have a printer. I didn't get one until after I expanded my system so I never had the need to do that addition. It has served me - I hope it may be of use to those who may have cassette storage systems.

```
100 REM * TAPE DIRECTORY
110 REM   * BY RL JOHNSON
120 REM   * SOUTHERN NEVADA USERS'
   GROUP 5/4/85
130 CALL CLEAR
140 REM
150 READ PROG$,TYPE$,INDEX
160 COUNT=COUNT+1
170 DISPLAY TAB(2);PROG$;TAB(22);
   TYPE$;TAB(25);INDEX
180 IF PROG$="" THEN 310
190 IF COUNT=20 THEN 210
200 GOTO 150
210 DISPLAY "RETURN TO CONTINUE"
220 COUNT=0
230 INPUT A$
240 CALL CLEAR
250 GOTO 150
260 DATA "    TAPE #4 -- SIDE 1","",0
270 DATA CANON IN 'D',CB,10
280 DATA "","",0
290 DATA "","",
300 DATA "","",
310 DISPLAY "END OF DIRECTORY"
320 DISPLAY "RETURN TO CONTINUE"
330 INPUT A$
340 STOP
```

                              Rudy Johnson

*The following was retrieved from San Diego TI-SIG TIBBS (619)276-3173*

RYTE DATA
BOX 210 MOUNTAIN ST.
KLIBURTON, ONTARIO KOM 180
CANADA

Welcome to the RYTE DATA SERVICES information newsletter on the new computer system we mentioned on every BBS we could find in North America! This bulletin is designed for all present TI owners and future 9900 family computer owners.

WE will be reporting directly back to the developers of this marvelous machine. The public response to their work will determine the final production runs set up. Your input is CRITICAL! Write us with YOUR response, letters, ideas, comments, and/or programs (assembly language is preferred) and PLEASE pass the data along to friends, associates, TI owners and anyone else who might be interested, retailers, programmers, user groups, etc.

Beta testing is slated to begin next month as soon as the printed circuit boards run off the line. As this happens, we will be reporting on features, changes, and more final details on the operation of this truly superb machine. This new computer incorporates the 9995 chip from Texas Instruments, fully compatible with the 9900 family of micro processors used in the TI-99/4A. Based on the unreleased TI-99/8 intended to be the successor to the 99/4A (before the disasterous "computer wars" of 1983) this computer is everything the 99/4A and 99/8 should have been..... and more! None of the current limitations of the TI-99/4A have been designed into the new machine. Several exciting features included or are designed as options. Perhaps most important is compatibility with 99/4A hardware and software. You will be able to use your Peripheral Expansion Box, disk drives, modems, printers, monitor, and other software that runs on your system right now with few if any modifications. Interface connectors will work PLUS rather than the huge flat cable hanging off the side of the 4A the new console connector will be smaller and round. The unfortunate news is that there are some compatibility problems with non-TI equipment. Further testing will show exactly which hardware will not work with the new computer system. If you are considering upgrading your 99/4A console now we would suggest that you stick with the original TI expansion unit. More on all this in a moment.

Prototype design work is completed. This is not a proposed system or any sort of clone. Rather than announcing a future computer to be developed later, this computer has actually produced before confirming the fact. The motherboards are up and running. The printed circuit boards are going into production phase, but no commitment has yet been made for final full-scale volume production runs, as we mentioned, this depends on your feedback! Due to the heavy financial investment, not to mention the time factors, we have been asked NOT to reveal full information at this point. With these stakes at risk the parent company (a very well known TI support manufacturer) is setting up a new company to handle the production, distribution, and marketing. We are assisting in an informal manner. In other words, we are doing everything we can do to provide market research and assist them in commiting to resurrecting the TI world for everyones benefit.

Formal release date has been set for the June Consumer Electronic Show. We will keep all interested parties informed through our information newsletter subscription. Upon authorization to release FULL data we will notify all subscribers.

Now back to the features. Standard memory configuration is 128K expandable internally to 512K with option to address up to 1MB of memory directly. This is what the TI-99/4A "could" have been capable of with some slightly different addressing schemes. The ROM size has not been fully specified at this writing. In addition to the 128K - 512K RAM another 16K VDP RAM is included, similar to the 16K memory of the TI-99/4A contained in the Video Display Ram. This is also expandable to 64K with a new VDP chip from TI. Plans are for this to accomodate teletext (if all goes as planned).

A full size keyboard (selectric type) with function keys has been designed into a console design which is larger than the 4A , similar to the Apple II, but sleeker and lower in profile. The reason for this approach is the original TI expansion box will be used as the card cage, rather than forcing users to purchase another piece of hardware or completely re-designing the cards for additional function. For example, an internal modem card is under development for the PEB as are RAM disk cards, Analog/Digital cards, and real time clock cards. The Pascal subsystem is another case in point along with the standard RS232 cards. Having retained hardware compatibility, it only makes sense to allow users to upgrade without sacrificing their total investment in hardware (and software).

The Video Display varies in other ways as well. Resolution is TWICE that of the 4A in both directions. A full 80 columns is displayed for full scale word processing and even better graphics. As we all know even IBM uses TI's 9918A chip in the PCjr. Now with a much faster machine and greater VDP RAM we will see some truly amazing graphics capabilities! Being seperate from the CPU, addresing this VDP RAM will not slow the machine down the same way it does in the 4A. Rather than the CPU being owned and operated by the Graphics Read Only Memory possibilities such as page switching banks of graphics screens and muti-layered sprites are on the horizon. In addition, the video output will support both composite (the TI-99/4A output) and RGB (red-blue-green) monitors. This will let owners use their existing monitors, or switch to the higher resolution RGB units available. Using the older composite monitors will sacrifice some of the resolution possible with the new machine. This of course is to be expected when dealing with the advances in equipment.

The disk operating system is substantially different. The interface will allow your choice of 5 1/4 floppy disks or a hard disk to be added without adding a hard disk controller. Double sided double density disks can be added in any combination of SS/SD SS/DD or all the way up to the new quad density 800K floppies now available. The DOS has been rewritten to be more powerful and easier to utilize. Rather than switching back and forth to see your file directory, or do other housekeeping duties, the system will allow such functions

to be accessed readily.

It looks as if the sound/music capabilities will be upgraded as well. Were not sure about this feature at this point. It could remain very similar or it could easily be a more powerful approach. The TI could easily use more flexible sound shaping, envelopes, and attack/delay....Comments ?

Another question for the developers is that of speech. This is rather complex to develop fully. Some doubt has arisen about the desire owners have to keep (or be able to obtain) speech with the new computer. TI still has the leading edge in the speech technology area. Few people realize that the PCjr's speech unit cost more than TI's EVER did. This is another area we require your input on. It will be possible to add a card to the expansion unit later, but if it's a high priority item for users.....

Now here's the real clincher....SPEED. Running at a full "10" megahertz clock (remember the 4A runs at 3.3mhz the IBM PC at 4.6mhz) this monster will outperform anything in its class!! With all the other features, this computer will give everyone a run for their money. Even the 32 bit machines will have a hard time keeping up with a full blown 16 bit system. A large software base all ready to go will make the machine very attractive to old and new users. The system designers have mutiplexed the address lines so that large banks of memory can be used. This allows the more powerful and memory intensive business software to be used and developed. One of the unheralded technical advances TI used in their 9900 family was the memory to memory architecture. This means that the computers workspaces are all EXTERNAL to the CPU's internal registers. Programmers are able to take better advantage of the speed potential without lines of code to push/pop the stack. We can expect some very powerful software to follow this machine.

People who have upgraded their consoles recently have discovered what so many 99'ers already know - to get the same capabilities out of any other machine, you have to spend a lot more money. Still it comes down to marketing. Today I take great pleasure in showing some of the technical experts what the 9900 chip is capable of. We have lived to see the 99/4A live on. Osborne proved there was life after death in this industry.

With the many companies still supporting the 4A you can upgrade your console knowing that the equipment you purchase will be useful later. Should you upgrade to this new computer, the hardware will move along with your new HOT system. More powerful software will be introduced, more support will appear and truly innovative products will be developed. We have seen a gradual fading away of some TI support companies. Other companies have moved to produce clones, but have never made it past the drawing board. One persistant rumor was that TI would re-enter the market. Their legal people (as of mid-January) say they most definitely will not. Another announced computer has been put on the back burner. Some people even wanted to buy the rights to the TI-99/4A, but who wants to risk 40 million in venture capital in the hopes of doing a better marketing job? Well we know who! It is very real and your response will determine the full commitment to production.

A comment about this last point we have been asked about this hesitancy in final production commitment. It boils down to the risks involved. Effective marketing is the FINAL KEY. Obviously no one can afford to go into full scale production without knowing that money can be made. On the other hand, it isn't really fair to raise false hopes. A balance is being struck. Our efforts are dedicated to helping TI users (as we are also long term die hard enthusiasts) and the developers.

As contract commitments to volume purchasing of chips must be made, and full commitment from TI in producing these new VDP chips, such features may change slightly by the June release date. As noted, we will keep our subscribers informed during the next few months. We are developing the first user support services newsletter, magazine, software development, development and marketing for this new computer and the TI-99/4A. From now until the formal release in June, we are offering an introductory price for a monthly publication. Judging from the response to date, we are planning a full scale publication to cover this new computer starting in July 1985. At that point we will include advertising reviews, technical information, and programs for both computers.

At this time we are actively soliciting assembly code programs to fill the market demand. With a standard 128K to work with, vastly superior software is the next wave for the TI world. The next issue will be sent out to you automatically. If you decide not to follow these developments, simply write cancel across the invoice and return both the next issue and the invoice to us. As a special introductory offer, the price is $6.00 for the total of 7 issues. Our next issue will include more details, new products, programming, and reader feedback. Reports on beta testing and developments will continue along with information and to formalize this limited authorization.

Below is an order form for the 7 issues of the newsletter, if you are interested in obtaining them. By subscribing you are automatically letting them know you are interested in seeing this computer turn into a reality.
TI-99/8 INFORMATION BY

RYTE DATA
BOX 210 MOUNTAIN ST.
KLIBURTON, ONTARIO KOM 180
CANADA

Dear Sirs,

I am very interested in hearing more information on the new TI-compatible computer. Enclosed is $6.00 for the introductory issues 2-7, U.S. funds or $8.75 Canadian.

NAME_____ DATE_____

ADDRESS_____

CITY_____

STATE_____ ZIP CODE_____