(039) 8703 Southern

THE SNUGLETTER

FROM THE SOUTHERN NEVADA USERS' GROUP

Vol. 5 — No. 3 March, 1987

NEXT MEETING

MONDAY, MARCH 9, 1987 — 6:30 PM

CHARLESTON PLAZA LIBRARY MEETING ROOM

PRESIDENTS MESSAGE

As many of you may already know, I have been very busy over the last few months with remodeling my home. I haven't had as much time to work (play) with my computer as I would have liked. For this reason, my report this month will be short. With a little luck I will be finished with most of the remodel in another week and can get on to more important things (like doing some serious computing).

At this month's meeting, we will be seeing a demonstration of the P-CODE CARD and the UCSD PASCAL programming language. Dee Wellman has volunteered to show us how the system works and show us what we have been missing. Some of you may wonder why we are having a demo of a product that is no longer available (and as a matter of fact has always been hard to get). There are several reasons. The first is that we actually had a VOLUNTEER to do the demo. Second, because it is another operating environment for our computers. Third, that it would be an interesting topic that we haven't covered before. Fourth and maybe most important, there is a disk based Turbo PASCAL now available in Germany. With a little luck, it may be translated to English and made available in the near future. If this happens, all the programs and other things covered in this demo will once again be of great interest to many of us. If you are interested in finding out something about the Turbo PASCAL disk, read Mack McCormick's article in the February issue of MICROpendium.

Also at the meeting, if time permits, I will be showing the latest version of John Johnson's MENU program for the Horizon Ramdisk. This version supports the 256K operating system AND actually gives you another 16 sectors of program space on the ramdisk (bringing the total for an expanded ramdisk to 992 sectors). It also greatly simplifies loading the operating system and allows you to add custom CALL's to your ramdisk (load and run any XB or option 5 E/A ASSEMBLY type program

For those of you who belong to the 99/4A National Assistance Group (NAG), their new flyer has announced something called the "COMMAND CENTER XT PLUS CONCEPT". What this appears to be is an IBM clone with a 6502 (APPLE) co-processor. This machine will reportedly allow you to run either APPLE or MS-DOS (IBM) programs. It can even run both types of programs at once. Evidently, both processors share the same keyboard, disk drive, and monitor but are independant of each other. The whole system (not including a monitor) sells (for a limited time to members only) for $1199.

What, you may ask, does this have to do with my TI? Well, in the fine print at the end of the flyer there is a TI interface advertised to allow you to also run your TI programs from the same keyboard. You still have to use your existing drives, P-box, etc. with the TI. If you buy the rest of the system, they will sell you the TI interface for $169.95.

If anyone is interested, I will have these flyers at the meeting for you to look at.

See ya at the meeting.

-John-

MINUTES OF THE
SNUG MEETING OF FEB. 9, 1987

President John Martin called the meeting to order. Topics discussed were the two new hardware advances for the TI. The MYARC 9640 "GENEVE" and the MILLERS GRAPHICS IBM compatible TURBO XT.

Snug Secretary Dave Murphy is moving out of town and Dee Wellman (me) was nominated and elected to fill the Secretary position. GOOD LUCK to Dave and I hope his title screen works in the future.
Gordon Leonard presented a super program on Sprites and demonstrated his Sprite Editor Program. The program is by far one of the best of it's type. The program defines the Sprite on the screen with the hexadecimal code transposed beneath and the Sprite is displayed as it is entered. The programmer can then see what his Sprite looks like as he types. Also, the program lets the user enter the hex code of a character or Sprite that was created else were and that code in turn creates the Sprite to the screen. GREAT PROGRAM! Thank you, Gordon. (The program is available from the SNUG disk library if you are interested in obtaining a copy. I definitely want a copy.) Mike Barrett demonstrated the X-10 POWERHOUSE using the CORCOMP 99 HOME SENTRY software. This system lets the TI owner program appliances (coffee maker),etc., heater or air conditioner dim lights and then turn the lights off automatically all through the HOME SENTRY software. It can be programmed to turn those same units on and off at different times and will allow you flexibility for those people who sleep in on their days off. It does not tie up your computer. The software shows a graphical room of your home then you select the light or appliance to be controlled with the icons provided in the software. The interface sends a signal over your existing house wiring to the controllers which are connected to your lights or appliances, turning them on or off at the times and days that you programmed. The X-10 POWERHOUSE is battery backed up. The possiblities of instituting a complete software program that records the times, days and other data regarding savings on your utility bills was mentioned by Mike and that he may create software so the POWERHOUSE interface will do more. Maybe, this unit could pay for the computer in energy costs on the light bill in a few months. Thanks Mike for the demonstration and the ideas!
There were 17 members in attendance at this meeting. Too bad you members that weren't there missed a couple of good demonstrations.

TIP OF THE MONTH- "ABOVE ALL, ALWAYS LIVE WITHIN YOUR INCOME, EVEN IF YOU HAVE TO BORROW TO DO IT!"

(DEE)

LAMENT OF TI AND THE 99 DWARFS!

I/O, I/O IT'S OFF TO WORK WE GO?

BASIC-1y SIMPLE!

X-B PROGRAMMING by Bob Sherburne

Lately there has been a fairly strong influx of new members into our S.N.U.G. little group, and after taking an informal survey, it has come to my attention that many (if not most) of our recent software and hardware demonstrations have gone over the heads of our new arrivals (as well as some of our more seasoned members). Because most of the demonstrations at the meetings are done by a few members who try to stay on the cutting edge of TI technology, the BASICs are usually overlooked in order to facilitate keeping the membership informed of the latest leaps in the TI world.

Because of this technological overkill at the meetings, I feel that many potential programmers think that there is no use in learning BASIC because it is "SLOW," because "ALL OF THE GOOD PROGRAMS HAVE ALREADY BEEN WRITTEN," or because "EVERYTHING IS WRITTEN IN ASSEMBLY NOWADAYS." And if they never try, they will never experience the ECSTASY of getting the computer (THE BEAST!) to do what THEY want it to do!
It's FUN to make the computer draw a picture, or play a tune, but it's work to do nuclear physics or plot a course to the Moon. So, let's start learning by-doing things with our machines that will make us love them, before we try making them work for us. This introduction is getting much longer than I intended. In fact, it's starting to seem like work. YUK!!! I think I'll quit for a while and come back to it later...

There! A day has gone by and the THING waited for me. I made it do what I wanted, and I didn't even have to cuss at it!

PROGRAMMING RULE NUMBER ONE;
IF YOU FEEL LIKE CUSSING, QUIT FOR AWHILE!

After reading back over my text, I tried to think of something lovable to put up on our screens... After hours (well at least seconds) of deliberation I came up with the perfect word. What's more loveable than a wet, shining, dognose?

There is no "right way" to program. IF I were to ask three different people to write a routine that placed the word "DOGNOSE" in the center of the screen, I could get:
#1
```
100 PRINT "          DOGNOSE": : : : : : : : : : :
```
(print 10 spaces then dognose then 12 empty lines)
OR #2
```
100 PRINT TAB(11);"DOGNOSE": : : : : : : : : : :
```
(tab over 10 spaces and print dognose starting in the eleventh column then 12 empty lines)

OR #3
```
100 DISPLAY AT(12,11):"DOGNOSE"
```
(display dognose starting at row 12 colunn eleven)
All three do the sane thing and all three are right. Sone people like to see the screen scroll and don't care that the twelve colons and eleven spaces after the string "DOGNOSE" take up extra bytes of nemory. (they print 12 blank lines after "DOGNOSE" and scroll it up to the center of the screen) If we had four other people do the sane routine, we nay get;
#4
```
100 A$="DOGNOSE" :: DISPLAY AT(12,11):A$
```
OR #5
```
100 DATA DOGNOSE,DOG EARS,DOG BONE
110 READ A$ :: DISPLAY AT(12,11):A$
```
OR #6
```
100 FOR ROW=1 TO 12 :: DISPLAY AT(ROW,11)ERASE ALL:"DOGNOSE" :: NEXT ROW
```
OR #7
```
100 FOR COLN=1 TO 11 :: DISPLAY AT(12,COLN)ERASE ALL:"DOGNOSE" :: NEXT COLN
```

Persons #6 and #7 could have set the variables ROW and COLN and incremented (add something to / decrement neans subtract something from) them each tine through the FOR/NEXT loop, like this;

```
100 COLN=1 :: FOR X=1 TO 11 :: DISPLAY AT(12,COLN):"DOGNOSE" :: COLN=COLN+1 :: NEXT X
```

Guy #4 nay have to display the word DOGNOSE in lots of places in his progran, so he saves seven bytes of nemory (GNOSE and the two quotes) each tine he displays A$ instead. (A$ is only two bytes-one for A and one for $)

Girl #5 has several dog parts to display, but right now she is only reading the first dog part (DOGNOSE) in the DATA statement and displaying it.
Guy #6 likes to scroll, but he likes to do it fron the top down. He starts displaying at the top row and adds 1 to the nuneric variable ROW on each pass through the FOR/NEXT loop, erasing the screen each tine with the "ERASE ALL" statement in the DISPLAY AT command.

Girl #7 displays her DOGNOSE at the left side of the screen and noves it over one column at tine with each pass through the loop by adding 1 to the nuneric variable COLN. She could have started at the right side of the screen and noved it to the left by setting her starting colunn at a higher number and subtracting 1 (decrement) fron COLN with each pass by using the "STEP -1" command in her loop.

For your honework, try figuring this one out on your own.

Now, if we had ten nore people that wanted "DOGNOSE" in the center of their screens... Well, naybe ten people wouldn't want it there, but YOU night, because "DOGNOSE" is definitely a FUN WORD!

Until next nonth - CLASS DISMISSED!

IT'S ALL JUST STATIC TO ME?

Did you know that, on a dry sunner day 10 steps on a nylon rug can build up to 10,000 to 20,000 volts of static electricity in the human body!

By simply rising fron a chair insulated fron the floor with rubber casters, you can generate 10,000 volts!

If you build up the voltage and point a finger at a diskette or a component of your conputer you nay be able to FRENCH FRY that component or disk, i.e., cause it's inneediate destruction with a static electricity discharge.

By just touching a key on the console or by touching a peripheral or the frane of the conputer it will disrupt or even seriously danage the computer permanent- ly.

STATIC ELECTRICITY IS A SERIOUS DANGER FOR ANY COMPUTER AND THIS IS A REMINDER THAT SUMMER AND DRY WEATHER WILL SOON BE UPON US, BE CAREFUL!

From The Front Ranger/Feb '87

Tips And Tricks by Joe Nuvolini
For those with Horizon Ramdisks, here's an item for you. If you have trouble with your ramdisk losing the operating system on power up, you can make the following modifications to the board which shoul correct the problem. First, replace the 0.1 uF capacitor (C1) with a 1 uF tantalum capacitor. The plus side of the capacitor faces the center of the board and the minus side should face the edge of the card. The second modification involves the top LED (CR1). You should remove the red LED and replace it with a green or yellow one. CR2, the bottom LED, should be red. The parts you need are available at your nearedt Radio Shack. The 1 uF tantalum capacitor is part no. 272-1434 and costs $.49. The yellow/green LEDs are part nos. 276-021 or 276-022 and are $.79 a pair. These two modifications should cure the problem!

NEW FROM MONTY SCHMIDT: **GPL LINKER V1.1 RunTime Version**

now $49.95
w/Linker $59.95
plus Intern $69.95
add $3 shipping

GPL Linker is an ingenious program that places the power of Graphics Language Programming (GPL) at your command. No extra hardware is required beyond standard 32k and disk system. In short, Linker creates runnable program files from compressed (or uncompressed) GPL Assembler object files. You can then run these programs with "Option 5 Run Program Files" of the Editor Assembler Module.
Up to 24k GPL programs can be developed and run on standard 32k systems. Included in the run time version are two demonstration programs and "CONVERT," a public domain conversion program that converts MS BASIC statements to TI BASIC statements.
Price: $21.00 CDN funds $15.00 US funds.

ENHANCED GPL Assembler V2.1

NØW with high memory loader package

UNLOCK ALL THE SECRETS! New GPL Assembler Version 2.1 available exclusively through Ryte Data.

This program provides the power to write, edit and assemble true GPL programs for the TI 99/4A. Create code that accesses console operating system routines directly. Develop programs that use the GPL Interpreter and all the features of the TI 99/4A.

GPL price Reduction

This package includes the GPL Assembler disk, printed documentation, GPL tips and hints, update support service and commented GROM/ROM listings (with the book "INTERN"). An example for a command module type GPL program is included with source, object and list files on disk.

Requires: 32k memory, disk drive(s), TI Editor Assembler package. Printer/RS-232 recommended.

R/D COMPUTING

Technical Newsletter

with Bill Gronos on assembly!

We have a vision. Our vision is one of continued TI 99/4A support. We're dedicated to the power of the machine. From the novice to the experienced computer user; for management, home, education, entertainment or advanced applications our publication "R/D COMPUTING" is for you. TI never revealed all the important inner workings of the 99/4A. We bring you this vital information every month.

A major feature of R/D COMPUTING is the regular "upgrade projects." These electronic construction projects are designed to give the 99/4A owners more features and improvements. For example, it is possible to increase the speed of your computer with a very simple part and switch. Each month we present new circuits, diagrams and projects for your computer.

From the moment your new subscription arrives at your home, you will have access to critical technical information that makes your computer more valuable, powerful and versatile.

We believe that the TI 99/4A deserves new products, innovative hardware, software, information and a dedicated technical publication. This is what makes a computer "viable" in the fast paced microcomputer industry. Now that the 99/4A has been 'opened up,' all the secret information is available. You can have all these benefits and more each month. SUBSCRIBE NOW!

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$14/year - back issues 3 - 15 available

THANK YOU! Our business has grown 300% this year. To show our appreciation we are giving away hundreds of dollars in TI products to 99/4A owners or users groups. To enter drawing, (no purchase necessary) send your name and address on a postcard to Ryte Data. For subscribers to R/D Computing we are giving away XBII plus, 32k memories, GPL Assembler package, etc. Enter your subscription today!

Prices listed in U.S. funds.

New catalogue available.

Super Clock Support

Designed for the CorComp Clock Peripheral—Triple Tech Card or Stand-alone models. This utility package provides more functions for use in your Extended Basic programs. Direct access to the clock ROM at assembly speed gives you these features: three independent timers to set and read; alarm function; two interrupt routines to display time and date on screen with CTRL T—continuously or on your command; all time and date displays are in 12 or 24 hour format using TEXT. This program also allows the week, date and time to be set independently rather than all together.
Program disk is not copy protected to allow you full use in your Extended Basic programs. Package includes disk and instructions. Only $17.95 plus $2

XBII plus

As reviewed in Micropendium October 1985. This command module gives you all the features of Extended Basic PLUS 40 new commands. Totally compatible with TI's XB, this enhanced version gives your programs more power to access your 99/4A. Commands such as MLOAD, MSAVE, VPEEK, VPOKE, GPEEK are superior to most other Basic environments. Various demo programs and new applications using high resolution graphics make this module a "must" for Extended Basic users. Comes complete with a 95 page manual. Requires console and 32k. $75.00 (US) plus $2 shipping.

BASIC Compiler V1.1

New Basic Compiler that is finally easy to use! Supports virtually all Basic and Extended Basic commands in existing programs. Simply load and compile programs from a menu driven directory on your screen. No extensive re-writing, variable declarations or conversions are required. Compiler produces code-list in one pass containing all variable addresses and jump list. Package includes Extended Basic Loader, Floating Point Loader, Integer Loader, Disk Menu program and DSR program for the Compiler support. This Compiler cannot unravel DEF statements and stops on the END statement—no SUB's allowed. TRACE, BREAK, ON ERROR, CALL LOAD and CALL LINK may produce execution errors. Requires 32k. disk. Price: $20.00 plus $2 shipping (US funds).

Ryte Data

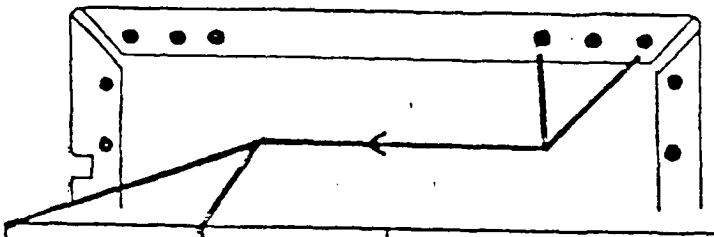
(705) 457-2774

MILLENNIUM COMPUTERS
210 MOUNTAIN STREET,
HALIBURTON, ONTARIO K0M 1S0
TELEX 06-986766 TOR. ATTN: RYTE DA

4/

FROM THE NORTHWEST OHIO "99er NEWS"(Feb.,'87)

IDENTIFICATION OF 5¼" DISKS



SEAL	COMPANY	COMMENTS
• • •	MAXELL	
COMPLETE SEAL	MEMOREX	ALSO ALBINAA (BEST CO)
• •	VERBATIM	
• •	NASHUA	6 dots down each side
▬ ▬	BASF	
▪▪▪▪▪▪▪▪▪▪▪▪	ELEPHANT	
▬▬▬▬	3M	2 bars down each side
▪▪▪▪ ▪▪▪▪	WABASH	6 sets of 8 sqs. per side
▪▪▪▪▪	FUJI	
▪ ▪ ▪	CONTROL DATA	STORAGE MASTER
▬▬▬	SYNCOM	3 bars down each side
• •	CERTRON	8 dots down each side
• •	BONUS	
▬ ▬		

THIS CHART SHOWS THE NAME OF THE MANUFACTURER WHO MAY HAVE PRODUCED THAT DISKETTE YOU NOW HAVE IN YOUR DISKETTE DRIVE. I WOULD LIKE TO THANK THE N.O.V.A. USERS GROUP OF VANCOUVER, WA. FOR THIS CHART PRINTED IN THEIR NOV. ISSUE.

```
100 REM ##A GLIMPSE OF REALITY
          FOR COMPUTER ADDICTS##
120 CALL CLEAR
130 CALL CHAR(96,"1018183C3C7E3C18")
140 CALL CHAR(112,"FFFFFFFFFFFFFFFF")
150 CALL CHAR(120,"FFFFFFFFFFFFFFFF")
160 CALL CHAR(121,"5555555555555555")
170 CALL CHAR(122,"5D5D5D5D5D5D5D5D")
180 CALL CHAR(128,"00001192543BFF5D")
190 H=22
200 CALL COLOR(9,16,1)
210 CALL COLOR(11,2,2)
220 CALL COLOR(12,13,1)
230 CALL COLOR(13,14,1)
240 CALL VCHAR(4,16,112,3)
250 CALL HCHAR(4,17,112,3)
260 CALL VCHAR(4,20,112,18)
270 CALL HCHAR(22,1,120,96)
280 CALL HCHAR(3,18,112)
290 CALL HCHAR(2,17,112,3)
300 G=0
310 H=H-1
320 FOR Z=7 TO H-1
330 CALL VCHAR(Z,16,96)
340 CALL VCHAR(Z,16,32)
350 NEXT Z
360 G=G+1
370 CALL SOUND(15,(H*150),2)
380 CALL HCHAR(H,G,121)
390 IF G=32 THEN 300
400 IF H=7 THEN 410 ELSE 320
410 FOR F=3 TO 30 STEP 3
420 CALL HCHAR(7,F,128)
430 CALL VCHAR(8,F,122,14)
440 CALL SOUND(30,(F*200),2)
450 NEXT F
460 PRINT "NOW DO SOMETHING ABOUT IT!!"
470 GOTO 470
```

EPROMS

by Arther Auther
OH-MI-TI & NEW HORIZONS

Ryte Data is offering a pair of EPROMS for the Disk Controller Card that will allow up to QUAD density. The cost is $45.00.

THE FOLLOWING PROGRAM WILL DEMONSTRATE A MOST AMAZING THING THAT IS ONE OF THE MANY FEATURES THAT EXIST IN TI BASIC (EXTENDED), EVEN IF TI ACCIDENTLY PUT THEM IN OR NOT. ED BITTNER ALSO DUG THIS OUT OF AN OLD NEWSLETTER, BUT AT THE TIME I TYPE THIS I CANNOT GIVE CREDIT TO THE AUTHOR OR THE NEWSLETTER. PLEASE FORGIVE ME.

```
100 CALL CLEAR :: PRINT "HERE I GO" :::
110 GOSUB 200 DELAY_ROUTINE :: PRINT "HELLO ! I'M BACK"
120 END
200 FOR D=1 to 400 :: NEXT D
210 RETURN
```

IF YOU DON'T DO A LOT OF PROGRAMMING, YOU MAY NOT SEE THE THE SUBTLE BEAUTY OF WHAT IS DEMONSTRATED HERE. THE LINE 110 TELLS THE COMPUTER TO GOTO A SUBROUTINE AT LINE 200 IN THE PROGRAM, AFTER WHICH IT WILL RETURN TO THE NEXT COMMAND, OR LINE STATEMENT, WHICH WILL BE ..... WELL YOU MAY THINK THAT " DELAY_ROUTINE " WAS A TYPO ON MY PART. IT WASN'T. YOU ARE ABLE TO INSERT REMARKS IN GOSUB AND GOTO STATEMENTS WHICH ARE PART OF MULTI-STATEMENT LINES OTHER THAN AT THE END OF THE LINE! THIS FEATURE, ALTHOUGH DEMONSTRATED BY THIS SHORT PROGRAM, COULD BE EVEN MORE HIGHLY APPRECIATED, IN A 5 ROW EXTENDED BASIC LINE, TO DIRECTLY POINT TO WHAT YOU ARE GOING TO DO WHEN YOU GET THERE, TYPE OF THING.

THE ONLY STIPULATION IS THAT THE STRING IS CONTINUOUS (NO SPACES), THAT IS WHY THE "_" EXISTS. TRY IT, THIS MAY PUT A NEW TI WEAPON IN YOUR ALREADY GREAT TI PROGRAMMING ARSENAL.

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 related hardware and software by third party vendors. The GROUP meets 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.
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