

NH99'ers User Group

New Hampshire 99'ers User Group
PO Box 5991, Manchester, NH 03108

Newsletter

October 1989
Vol. 7, No. 10

CLUB NEWS

by Paul Bendeck, President

Some good news! The club has decided to stay together. However, it looks like there will be some changes in the way we operate. We are investigating how to become an affiliate or satellite club to the Boston Computer Society (BCS) club. This change offers several advantages to our club. In addition to our own newsletter, each member would additionally receive a newsletter from the BCS, which is one of the largest and most interesting newsletters in the TI-99/4A world. Further, by joining the BCS we would have access to a much larger program library. If you've seen a recent catalog listing from the BCS library then you know what I mean. One item that still needs to be resolved is club dues. Currently, NH99'er dues are \$15 per year. BCS dues are \$40 per year. We are exploring several options for how this amount might be discounted. Stay tuned. Curtis Provance is looking into the details of how to go about becoming a satellite club of BCS. He will give us a report at the October meeting on his findings. Don't miss it.

We had a pretty good turnout at the September meeting with about 14 people in attendance. Interest was very high about keeping the club going. We would still like to see a few more people come to the meetings though. Among other things, there was a lot of horse trading of computer equipment at the meeting. Curtis brought several boxes of things to sell and the prices were very reasonable. Epson compatible printer ribbons for \$3, 25 blank diskettes with envelopes and labels for \$10, a complete Myarc computer with mouse and software for only \$400, and much more. If you have anything to sell or trade, bring it to the meeting. If you are looking to buy some extra computer hardware or software, come to the meeting.

One of the things we talked about at the September meeting was programs. Everyone agreed that we need to have more programs to make meetings more interesting and educational too. Some ideas that were discussed included: new software demos, programming tips, hardware projects and support, and demos of some of the club library software. We are also going to provide a capability to make disk copies at each meeting so club members can get copies of club library and demo software right at the meeting. Curtis has offered to be the program coordinator to help get some of these activities going. We also want to encourage other members to participate and contribute. If you have an interesting piece of software, a game, a utility, a new data base program, a flight simulator, or whatever, please bring it to a meeting and tell us about it. Check with Curtis first to coordinate which meeting to schedule your demo. Also, if you have a specific request for something that you would like to see, tell Curtis.

Starting in October, the club will be meeting in a new, larger room at the SEE Center. The new room is across the hall from the original SEE Center. We will have a completely functional TI-99/4A system with PE Box, dual disk drives, printer and monitor permanently setup in the new meeting room. This system will be available for demos and making disk copies during meetings. With the new meeting room we also gained some additional storage space for club materials. This should help to make the meetings much more enjoyable and comfortable. See you at the next meeting.

ANNOUNCING THE "INTERNAL BOARD"

The "Internal Board" AKA the "Zenboard" is now in production. The PC board is being manufactured by one of the best quality manufacturers around. As promised, this board will allow you to build 32K memory, a clock circuit and add your extended basic and speech synthesizer to the interior of your console. Orders are now being accepted at a cost of \$17.50. Documentation will consist of approximately 8 pages of schematics, builders notes, parts list, software for the clock and parts placement overlay.

Specifications:

- * 32K STATIC RAM
- * battery-backed clock
- * speech synthesizer
- * extended basic
- * 3 additional, switched grow sockets
- * any circuit configuration can be used
- * requires no additional power
- * move your extended basic and speech synthesizer inside
- * eliminates nearly all lock-ups due to extended basic cartridge
- * in addition to soldering components connectors, only 12 additional wire connections have to be made to build a complete board
- * switches lights may be added to turn off any or all circuitry
- * grow reset switch
- * compatible with all other known hardware/software
- * circuit designs have been tested



Orders and technical questions/comments can be directed to:

Eric Zeno 414 Highland Rd., Pgh, PA, USA 15235 (412)371-4779

The boards are being manufactured in quantities of 100. Don't delay and get caught waiting for the subsequent manufacturing runs!

Small modifications must be made to the plastic on the inside of the console. Hand soldering skills are recommended. Please allow sufficient time for delivery. Overseas shipping may require additional invoicing. Sorry no C.O.D., US currency only!

SHIPPING				QTY.	AMOUNT
	USA	OTHER			
FIRST PC BOARD	\$2.50	\$0.00		PC BOARD \$17.50 X	
EACH ADDITIONAL BOARD	\$.75	\$6.75		SHIPPING OFF CHART	
SHIPPING ADDRESS:				8 PAGE DOCUMENTS \$1.00 X	
NAME:				-TOTAL-	
STREET:				ERIC ZENO	
CITY:				414 HIGHLAND RD.	
STATE:				PGH. PA. 15235	
ZIP:				Reprinted from JSC Users Group Newsletter	

August, 1989

July 25, 1989

The INTERNAL BOARD, aka The ZENO Board FOOTNOTES:

- I. The projected delivery date of the PC board is Sept. 29, 1989.
- II. The necessary parts and their availability:
 - A. To build the Memory circuit: The memory chip is approx. \$17.50 (the most expensive part).
 - B. To build the Speech circuit: Two speech chips must be removed from an existing Speech Synthesizer.
 - C. Likewise for the Extended Basic GROMS and ROMS.
 - D. To build the Clock circuit: the main chip is approx. \$13.00; the battery capacitor is approx. \$3.00.
 - E. All other electronic components (transistor, resistors, capacitors, 74LS138, 74LS04, dippers, switches, LEDS) are all off-the-shelf items and are relatively inexpensive.
 - F. All costs are estimated and depend on supplier and locale.
- III. The GROMS and XB circuit are able to be switched out so that the computer will operate with other command modules.
- IV. The 32K memory circuit should be compatible with all previous 32K compatible software and hardware.
- V. A capacitor is being recommended for use to support the clock circuit when power is turned off.

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Pres. Release by Ed Butcher

A Sorted Tale (TI-Sort to the rescue)

Last month I wrote about a project that required the sorting of a 2000+ line file. I had tried a sort program that I purchased years ago only to find that it was limited to 300 lines. Just a few days before I left on vacation I sent an order off to Texaments for TI-Sort. When I returned home It was in the mail that had accumulated in our absence. Now that's good service.

I could hardly wait to try it out on the list that I had sorted with TI-Base. If you remember that sort took 24 hours and 8 minutes. No typo there, it took one day and 8 minutes. After I had completed the first all-day-sort Bill Harms had the nerve to mention that MSDOS has a sorting routine built in that should be able to do what I had done in a lot less time than I had taken. And I thought he was my friend.

Now let's give TI-Sort a try. After ignoring the instruction book thouroughly I loaded the program and began to muddle. Hey this thing is written by the same guy that wrote TI-Base. Now is that fair? Oh well the price is cheap enough and it will sort other things besides databases. If it works well it will be worth it.

TI-Sort loads from the usual selection of modules, XB, EA Load and Run, and Program Run. Just like TI-Base it has an (F7) on-line-Help feature and uses the same "F" keys. When the title screen has been cleared a menu is shown for you to select the type of file that you wish to sort. The first selection, of course, is TI-Base database followed by Fixed records, as opposed to broken records I suppose, then Delimited records, followed by Basic file. Also included is the ability to reverse the order of the sort, Catalog a disk, and Exit.

I didn't see any selection for DV/30 records in the menu. Oh well out comes the book I suppose. on page 3-1 the terms were explained. Selection #2, Fixed records, includes any record where the position of the data is consistent in each record. That was the one that I wanted for my project. The screen said press SPACE to advance. On the Geneve that is like spinning a roulette wheel because of the speed of the machine. Later I discovered two ways around the problem. One is the press the first letter of the selection to go directly to it and the other is a late addition that didn't make it into the instruction book. It involves slowing the cursor speed. The instructions were found in a ">Readme" file and consist of pressing a key while in the menu area. (Q) for quick and (S) for slow. I think I can remember that.

The file that I had sorted in TI-Base was a text file that was tabulated into neat columns and the Fixed records selection takes care of files like that. After selection that choice on the menu the screen asks you to "ENTER; input device.filename:" DSK1. is on the screen waiting for you to complete the name of the list that you want to sort. The cursor is parked on the "D" though. I wonder why it's there. Oh well, after entering the filename the next prompt states "ENTER; temporary scratch disk:" That says scratch, not scratched. I found out that it needs some disk space to take notes during the sort. It needs a LOT of disk space for notes. I thought I could get away with using

DSK5 (ram-disk) for that to speed things up and it only made it half way through the sort before that 90K was filled and the project ground to a halt.

Ok, so I start over. This time I enter the device and filename for the scratch file and pressed enter. Now it asked me to "ENTER; output device.filename:" I did and at this time it gives you an escape hatch if you goofed. You can't use up-arrow to edit your choices so a mistake requires a "redo" selection. The next prompt puzzled me for a moment and another trip to the book didn't clear things up at all. It asks you to "enter filename of existing structure" and that was a bit confusing to me. A trip to the on-line-help feature yielded instructions for the section that I had already completed.

A little creative experimentation and a few mistakes yielded the correct answer. Now I have used TI-Base enough to know what "structure" means. This is the format of the data records within the field. Such things as order, description, type, and size. I finally pressed <enter> with a blank cursor line and then I was spun off to a familiar structure screen for me to tell the sort program just what it was sorting and where it would be found. I later theorized that the existing-structure selection was to be used if you return to a file for another sort and you opted to save the structure-file from the first time through. A "press enter if no file exists" prompt would be handy there.

As I mentioned earlier the structure choices are familiar to a TI-Base user and ask for a DESCRIPTOR, TYPE, WIDTH, and DECimal. The decimal is only used for Numerical data and disappears if Character type is chosen. After completion of the structure creation you are asked to tell the program which items it is to consider in it's sorting. This can produce nested sorts of as many as 8 levels.

Here we go. The stop-watch is ready and the sort is on. The numbers appear on the screen and hi-lites indicate just what the program is doing at the moment. There is an option that allows you to watch the first 40 columns of the sort as it is happening. It was then that I discovered that I had given TI-Sort an unfair advantage in it's sort. I had given it a presorted file. It was sorting a file that was already sorted on the field that it was sorting on so when it was finished I asked it to sort on a different field. Let's go again. The stop-watch is reset, the disk-drives began to whurr and the screen flashed.

The sort is over and the 24 hours and 8 minute sort has been cut down to 15 minutes. I would say that there is considerable saving of time and equipment there. By the way, the sort on a pre-sorted file took 10 minutes to complete.

There is one other "undocumented" feature in the >readme file that allows the use of a carriage return as a delimiter in a delimited file. A delimited file is one that has some character, often a comma; seperating the fields of a record. I haven't had oportunity to use the Delimited sort or the Basic sort yet but the Fixed record sort that I did use impressed me. I don't have a TI-Base file that is long enough to take more than a few seconds to sort so I will reserve the testing of the TI-B sort for a later date.

Now for the suggestions. I would like to see the ability to configure the program for a perticular machine. I use a Geneve with a Green-screen monitor and 4 disk drives (5 if you count the Ram-disk). As far as I can tell the screen colors can not be changed from the keyboard and the standard white-on-blue looks rather bland on a monochrome monitor. Each time I run the program I have to select Slow speed or the cursor runs away. Since TI-Sort suggests that you use a seperate drive for the scratch file, if possible, the defaults within the program could follow the optomum use of the equipment available if a configure selection was available.

GIN-DAY

LET'S TALK RAM DISKS PART II

BY JOHN F. WILLFORTH (DEC. 1987)

West
Penn Jan 88
99ers

LAST MONTH I ATTEMPTED TO PRESENT A FOUNDATION FOR US TO SPRING INTO THE SUBJECT OF RAM DISKS BY DESCRIBING WHAT THEY ARE AND WHAT FEATURES THEY GENERALLY POSSESS. THIS IS THE MONTH THAT I WILL BEGIN TALKING ABOUT SPECIFIC RAM DISKS. THE ORDER IN WHICH THEY ARE PRESENTED MONTH BY MONTH IS NOT RELATED TO MY PERSONAL PREFERENCE OR THEIR PUBLIC ACCEPTANCE.

THE HORIZON RAM DISK WAS NOT THE FIRST RAM DISK ON THE MARKET, BUT IT WAS THE FIRST WITH STATIC RAM AND LOW POWER AT THAT. THIS ENABLED THE UNITS TO SAVE THE ROS AND THE FILES IN THE EVENT OF POWER OUTAGES AND NORMAL POWER-DOWN OF THE PEB FOR LONG PERIODS OF TIME (WEEKS AND PERHAPS MONTHS) WITH THE USE OF ONLY THREE "AAA" NI-CAD BATTERIES. THE ORIGINAL CAPACITIES OF THE TWO VERSIONS AVAILABLE FROM HORIZON COMPUTER LIMITED WERE 104K (360 SECTORS) AND 192K (720 SECTORS), THE DIFFERENCE, IF YOU CALCULATE FOUR SECTORS PER EACH ONE K. OF MEMORY, IS THE MEMORY USED TO STORE THE ROS (RAMDISK OPERATING SYSTEM).

THERE WERE LARGER RAM DISKS ON THE MARKET WHEN THE HORIZON CAME OUT, BUT NONE THAT OFFERED THE SOURCE CODE OPENLY TO ANY WHO WANTED TO DEVELOP NEW APPLICATIONS FOR THIS CARD. THIS DECISION WAS A FACTOR IN MAKING THE HORIZON RAMDISK THE POPULAR UNIT THAT IT IS TODAY AS WELL AS THE TERRIFIC ENHANCEMENTS BOTH HARDWARE (MIKE BALLMAN) AND SOFTWARE (JOHN JOHNSON) WISE. MORE ON THIS SUBJECT LATER.

THE HORIZON RAM DISK (I'LL REFER TO AS HRD) WAS DESIGNED TO OPERATE WITH ALL OF THE DISK CONTROLLERS ON THE MARKET (T.I., MYARC, CORCOMP, AND PERCOM) AND WITH MOST 32K MEMORY EXPANSIONS (T.I., MYARC, FOUNDATION, BOXCAR, ETC.). THE HRD IS NOT YET ABLE TO OPERATE IN THE GENEVE (9640) ENVIRONMENT, BUT EXPECT THIS TO CHANGE SHORTLY. WITH THE UNCERTAINTY OF THIS MARKET, AND THE ADVANCES MADE EVERY DAY, THE AREAS THAT I TALK OF HERE ARE ONLY ONE MORE RUNG OF THE LADDER HIGHER TOMORROW, SINCE WE HAVE NOT YET SEEN THE APEX OF THE LIFE CYCLE OF THE TI-99/4A AND IT'S FAMILY OF PERIPHERALS.

THE HRD SUPPORTS NEARLY ALL SOFTWARE THAT CAN BE LOADED ONTO A DISK DRIVE IN THE NORMAL FASHION, FILE OR DISK COPY WITH DISK MANAGER II, DM1000, OR THE MYARC AND CORCOMP DISK MANAGERS. IF THE PROGRAM IN QUESTION HAS SOME SPECIAL TRACK/SECTOR PROTECTION YOU WILL PROBABLY HAVE TROUBLE INSTALLING IT ON THE HRD, OR FOR THAT MATTER ANY RAM DISK.

THE HRD HAS A SWITCH SELECTABLE CRU ADDRESS, WHICH ENABLES YOU TO SELECT IT'S CRU ADDRESS EASILY. THE ROS TALKED OF EARLIER, IS RAM, AND CAN THUS BE ALTERED EASILY AS THE NEED ARISES (IMPROVEMENTS TO THE OPERATING SYSTEM OR CUSTOMIZING). THE HRD HAS A COMPLETE SET OF "CALLS" AND CAN EASILY HAVE NEW CALLS WRITTEN BY THE USER. YOU DON'T NEED AN EPROM BURNER TO IMPLEMENT THEM ON THE CARD. THESE CALLS ARE SUMMONED IN BASIC OR EXTENDED BASIC. THEY INCLUDE:

- 1) CALL DN(N) SET DRIVE NUMBER
- 2) CALL WO OR WF SET/CLEAR WRITE PROT. ON THE DRIVE.
- 3) CALL MS(N) SETS MAX. SECTORS THE ROS WILL RECOGNIZE.
- 4) CALL CO OR CF TURNS CARD ON/OFF
- 5) DELETE "XBCALL" EXECUTED AFTER CALL INIT TO MOVE ALL THE CALL ROUTINES TO THE LOW 8K. OF EXPANSION MEMORY. CALL LINKS THEN CAN ACCESS THEM.
- 6) CALL EX USED WITH CALL CO/CF ALLOWS THE USER TO LINK TO THE ROS FROM BASIC.
- 7) CALL DM USED TO LOAD A DISK MANAGER WHEN THE DISK MANAGER FILES ARE ON THE RAMDISK.
- 8) CALL NF(N) ONLY USEFUL WHEN CRU BASE ISN'T <1000 TO ENABLE BASIC AND OTHER PROGRAMS TO ACCESS THE RAMDISK.
- 9) CALL ? USERS CAN CREATE THEIR OWN USER-DEFINED SUBROUTINES. DOCUMENTATION INCL.

THE HRD CAN BE PURCHASED AS A 192K. UNIT FULLY ASSEMBLED AND WARRANTIED FOR 90-DAYS FROM HORIZON FOR \$195. OR AS A BARE BOARD W/DOCS AND SOFTWARE FOR \$45. OR JUST THE BARE BOARD FOR \$38. IN ANY QUANTITY. I TALKED TO RON GRISE JUST YESTERDAY 12/25/87, AND WAS TOLD THAT THE LAST UNITS HE SENT OUT WERE SET UP TO BE EASILY UPGRADED TO THE HRD+ (USES 32K. BYTE CHIPS AND CAN BE EXPANDED TO ONE-MEG.). THEY INCLUDE MENU 7.01 AS WELL AS THEIR OWN OPERATING SYSTEM. BUD MILLS SERVICES PROVIDES THE COMPLETE KIT ASSEMBLIES FOR THIS UNIT AND THE HRD+. MORE ON THE HRD+ NEXT MONTH. THERE IS JUST TOO MUCH DIFFERENT TO INCLUDE THIS MONTH. HORIZON COMPUTER, LTD P.O. BOX 554, WALLBRIDGE, OH 43465 AND BUD MILLS SERVICES, 166 DARTMOUTH DR., TOLEDO, OH 43614.

ED. NOTE: I HAVE BEEN USING THE HRD FOR NEARLY AS LONG AS IT'S BEEN AVAILABLE, AND HAVE HAD NO PROBLEMS WITH IT, EVIDENCED BY THE FACT THAT ROS REV.'S HAVE BEEN SO SELDOM IN COMING.

EDITOR'S NOTE: At our some lengthy distance from Australia, we have no way of knowing if this was written tongue in cheek or if the author really meant business. Judge for yourself. cm-Central Westchester 99ers

FROM MELBOURNE TIMES, (T.I.M.U.G.)
WITH THANKS TO ATICC AND
COLIN CARTWRIGHT.

KALIEDAWRITER DATA BANK NOV 1988

My next subject may help to satisfy some curiosity and create a lot of disbelief. Once again, problem, where do I begin?. What I am currently working on is a device that I call Kaleidawriter Data-Bank, which with a bit of luck is only the beginning of the Kaleidawriter family.

It all began about 9 years ago when I designed a device which would let me draw all over my TV screen, and due to lack of finance and many other problems I made one and then decided to shelve the project. Well since then it has been dragged out from time to time and modified and shelved again. Well to cut a short story short it was a year ago when it raised its ugly head again. I say ugly because it had undergone so many changes that I had more bugs in it than a light bulb gets around it on a hot summers night.

Well once again it was seen by a few more people, Fred being one of them. I am not going to tell you all the things that it did or all the things that it would not do anymore, because part one of it didn't work, But never the less I showed the little bit that it could do and the photographic record of some of the things that it could do.

Interest bloomed again! I am now sure that I must be totally MAD!. Anyone that sits up until 2am. nearly every morning working on the damn thing must be. Well thats how I felt for quite a while but now things are starting to come together.

Let me step back one step for a moment. I am not sure how it happened

but someone had the bright idea that the device would be easier to get off the ground if it was adapted to aid a computer, well being an ex-employee of TEXAS Instruments in their so called electronics department and being in possession (<hasn't that word got a lot of s/s?) of a 99/4A, It became the obvious choise, and after many sleepless nights I now know what it will do and won't do for the 4/A.

Mind you when I started this project I think that I may have used my TI maybe three for four times only. It was then that I came to the conclusion that the 99/4A needed all the help that it could get. For example, all the other current computers that are on the market had so much more back up and appeared to be better graphics and programs.

At first I figured that maybe I should be designing the DATA-BANK around a Commodore (sorry about this bad language?) but due to the fact that all my spare money was going into renovation of my home, I had to settle for a 99/4A.

NOW that I have you in suspence long enough I will get to the punch line.

What will DATA-BANK do for YOU?.

"It is an intelligent life form" that will allow you to run all those fancy programmes that you see on computers that have cost their owners a small fortune.

The reason that FRED has not given very much information out about DATA-BANK prior to this is that I was not prepared to make any claims about DATA-BANK until I had proven its bug free operation to myself. I did not want to be in a position making claims only in theory.

From my last statement you can work out for yourself why it has taken so long.

I have proven that it is better to have something that you can receive straight after you have paid out for it. There is nothing worse than waiting on a delayed order due to a

bug in a system that wasn't thought out thoroughly prior to sale.

KALEIDWRITER DATA-BANK is not yet available, but it won't be much longer, hopefully early next year. Now that I have finished most of the design, proven and tested it I now have the task of trying to work out which functions to make standard and what to offer as optional extras.

For example, it will be able, if you had every option, to run IBM, AMSTRAD, COMMODORE, AMIGA, and MSX software via the 99/4A console.

It will also have a direct monitor interface for Forty or Eighty columns. It will be able to do all the things that GRANCRACKER did PLUS.

Most common TI software will be resident, no more waiting to Load.

It will give the TI 99/4A massive speed increase without loss of useability of any software. There will also be a wide selection of KALEIDAWRITER software for your enjoyment. Each KALEIDAWRITER Module will allow memory expansion up to 5 MEG.

When I say each Module, I am letting you know that there is a lot more on the drawing board. Don't say I did not warn you about disbelief, but there is more!. Getting harder to believe yet?. THE PRICE!!!.

At this point of time that has not been totally settled. As I said before, it depends on what is resident and what is optional, but I can say it will be much less than then buying even one of the other computers mentioned. Every so often I read back to myself what I have written so far and I sound like a Mid-Dawn TV commercial. You will have to excuse me but I tend to get a bit excited as I get closer to completion. There is more that I could tell you but I don't want to give away all my cards at this point of time. Hoping that this has whet your appertite.

Well I hope all of you 99ers out there are faithful to your machines as

SCHEDULE OF MEETINGS
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The next club meeting is scheduled for Monday October 16 starting at 6:30 PM. Meetings are held the third Monday of each month at the Science Enrichment Encounter (SEE) Center, 324 Commercial Street, Manchester, NH. Below is a list of dates for upcoming meetings.

November 20
December 18
January 15
February 19
March 19
April 16
May 21
June 18

KALIEDAWRITER (Cont'd) from previous page

KALIEDAWRITER compliment any computer that I choose to configure. What I am trying to	DATA-BANK will choose	explain is that without your support in quantity DATA-BANK is not a viable proposition. Thats all about	DATA-BANK for now and I will keep you up to date. COLIN CARTWRIGHT.
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Manchester, NH 03108