


VOLUME 4 NUMBER 6 JULY 1986

Next meeting August 2th
At the Hurst Public Library
9 am

**The reviews, evaluations and opinions contained in articles in this newsletter are the authors' own and do not reflect the views of the NET 99er HCUG.**

## President's Memory Dump

Well it looks like computer cleaning 101 went very well. I say this because I didn't receive any phone calls saying that their computer did'nt work. Cleaning the grom port with a cotton swab is not the best way to do it, but I forgot to bring the spray cleaner. I used a contact cleaner that we use on electric forklifts but you can use the same cleaner that you use in a tv tuner cleaner. We also found out that you can take a Sears credit card and a thin piece of cloth and clean it also. A Sears credit card fits right in the grom port. It also looked like it was a good time to meet with other people that you don't get to meet at the break in the meeting. I would have to say it all went well. My thanks go out to all who came and stayed with or without your 99/4a and to all that helped out. One last thought is that remember that the screws go down so that you can put the bottom back on.

Our next meeting will be on Aug 2nd. We will have a demonstration of a ram disk built by Larry Williams and 32k in the console built by James Crosson and John Creviston. I also found a good deal on some cartridges. Hopefully they wil be in by meeting time. We will be selling them for $1.00. We will also have Multiplan and Logo II for $15.00. Also mark your calander for Sept 6, Oct.4 and Nov.1st. These are the next meeting dates and they are on Saturday.

Don't forget our computer raffle. It is $5.00 in an envelope with your name address and telephone number. You need not be there to win but we would like everyone to be there. The system consists of a Biege 99/4A, Pe box, full height disk drive, Disk controller card, 32k Memory card, Extended basic, Editor assembler, manuals, cartridge holder, muffin fan, light pen, joystick and joystick adaptor, 8 cartridges and 56 disks full of assorted software in a disk box. Now who could pass up a deal to win all this

for $5.00.

MEMORY EMPTY
KEN

P.S. I would like to wish John Lambert a speedy recovery from his recent hospital stays.

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NET 99ER HOME COMPUTER USERS GROUP
MINUTES
JULY 5, 1986

NET 99er HCUG met Saturday, July 5, at 9:00 a.m. in the Hurst Public Library, with President Ken Dominiec presiding. Visitors and new members were welcomed.

Treasurer John Stewart gave the treasurer's report. Members were reminded that the minutes were printed in the newsletter.

The president announced that the Geneve, described in last month's newsletter, will sell for $495.00.

A raffle for a complete system, including the console, PEB, 32K, EA, XB, 56 disks, box, etc. will be held September 6. A $5.00 donation is requested.

Lee DeForest can still get DSDD disks for $ .39 each in lots of 100, through the end of July.

An explanation of a 32K upgrade that adds 4 chips to the console for about $25.00 was presented. It was suggested that several members might like to get together to purchase and to install.

Fulton Cook announced that the Assembly SIG will meet the third Tuesday this month. There will be a handout on an Assembly program.

Bumper stickers and name tags are available.

A suggestion was made to have a library corner at future meetings--someone to demonstrate a few of the programs in the library each month.

An informal survey of those present was made to see how members use computers. There was a wide variety, includimg education, business, games and Startext.

There was a brief question and answer period. Questions concerning the TI 99 4/A will be answered in the newsletter.

After a buy, sell, and swap session, the raffle for a TI Writer was won by Danny Thomas. LeRoy Thompson has donated software and other materials to the club. Some of it will be used in future raffles.

The Johnson Space Center newsletter has been checked out for 6 months. If you know anything about it, please contact John Creviston.

After the break, John Tergerson gave hints on using (*) and (+) in XB.

Fulton Cook gave a demonstration of XB DETECTIVE, an aid in programming in XB or in modifying XB programs.

Ken Dominiec gave a demonstration of POISONS, which lists poisons and their

antidotes. He also demonstrated AXEL F, the theme from Beverly Hills Cops. A third demonstration was MINE I, a German-made program which is similar to the RUNNER games. It has good graphics and sound, several screens, but all instructions and titles are in German.

The meeting closed with a workshop on the cleaning of the computer consoles.

The next two meetings will be August 2 and September 6 in the Hurst Library. At the August meeting, Larry Williams will demonstrate a RAM disk.

Respectfully submitted,
Lexie Glenn, Secretary

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"EXPANDING" YOUR TI
by Kevin Mantooth

Have you ever watched with envious eyes at an IBM user who can put his keyboard on his lap, without second thoughts? Or have you ever watched an owner of another computer idley move his computer around while his types and organizes without worrying about the infamous "lock-up"? Are you jealous of your friends' desk space? Well, if you have had similar thoughts and have yet to do anything about them...then this article is for you! If not...well, this is probably a time waster, so feel free to move on to the next section.

First of all, I'd like to say that this article is meant merely for suggestion and to possibly rouse up some ideas to literally expand your TI-99/4A. I will include some actual procedures, but by no means are these the "official" guidelines or the only possibilities. The intent of this article is to help free you from mild frustrations and to stir up some new interests in your computer.

As I mentioned before, probably the most frustrating characteristics of my TI would have to easily be the lock-ups, the lack of flexibilty, and the space consumed by my system. I have the PEBox myself, so if you happen to have a third party expansion system, you may have fewer or possibly just different problems. I've always found it hard to find a desk big enough to hold all of this equiptment and often found myself shifting my console to the side to make room for papers, disks, etc. Of course, when I shift the console, the dreaded heavy duty "firehose" loosens and 30 seconds later I find myself muttering "umprintables" at the computer. After watching how easily the keyboards are moved around on some of the other computers, I decided to invest a little money and time into making my own lap keyboard.

Theoretically, designing this keyboard is a very simple process. To actually do it takes a little more creativity and possibly some dexterity. The ideal remote keyboard could be built as follows:

1: Take your ambition down to your local Radio Shack or other electronics store and buy a keyboard ($3.50) and some wire or cable.
2: Open the console, unplug the present keyboard.
3: Clip the connector of your new keyboard in half and solder your length wire/cable between the two ends.
4: Plug in the new keyboard
5: Screw everything back together, and you're all set.

Sounds simple enough, right? Well, for me at least, all of the above is only the dream project of simplicity. If you are good with a soldering iron and have good manual dexterity, then you're all set..."I'll meet you at the conclusion", but if you're like me you may find this detailed step-by-step guide more helpful. It is hard to give a direct outline, because I used what I could find at Radio Shack and no other resources. If you shop elsewhere, you may find yourself easily skipping some of my difficulties. So before you cough up any of that hard earned money, read this entire article and consider what

you might do to make it easier or more flexible to your needs. You may find this article extremely detailed, but this was done because I know how uncomfortable many people are with the idea of tampering with their computer. Hopefully, this article will prove to be unnecessarily detailed to make those people feel more at ease.

MATERIALS:

1 Keyboard (try to find one with a connector of 15 wires instead of the ribbon cable) 1 "male" 25 pin serial connectors (try solderless!) 3 "female" 25 pin serial connectors (keep the guy happy!)

1 2' length of ribbon cable (25 conductor) 1 straight serial cable (no crossed wires) 1 worn shoe (preferable a sneaker or slipper)

NOTES:

a) I used 25 pin connectors and just filled one side. Unfortunately, 15 pin connectors are hard to come by, but if you can find them they would be ideal.

b) You could get by with one keyboard, but the connector cables are so short I chose to buy two and "trash" one of them in the end. This basically allows you more wire to work with and if this seems dreadfully wasteful, consider that you would probably pay more for just the connector than you are for this keyboard, and these things make great paper weights!!

PROCEDURE:

1: Collect up all the parts you will be using and find a nice cool, quiet room with a big table and good light.

2: Flip your console over and unscrew the seven screws holding the bottom on. (Look in 4 corners, middle, and front)

3: Remove the bottom cover being careful not to damage the on/off switch and set it way off to the side.

4: Position the console to be face-down with keyboard edge be closest to you.

5: You should now see the bottom of your old keyboard directly in front of you with a long silver box screwed in behind it. You need to remove three screws from the silver box (2 on each side and 1 in the upper middle). When removing the middle screw, be extra careful not to let it slip into the box. You might want to keep some tweezers handy just in case.

6: Carefully lift up the silver box and unplug the keyboard. The connection will be directly between the two. You will have to pull the connector down to disconnect it and may need to use a screwdriver to help with this.

7: Take your NEW keyboard and cut the connector wires in half. If you took my advice and bought two, then cut the wires as close to the keyboard as possible on the first and cut off the connecting plug on the second. The second will be your remote keyboard. The first will be your deluxe paper weight.

8: Connect your remote keyboard wires to a female (holes only) plug. I would recommend putting all the wires to one side if you use a serial connector. If you are using a solderless connector, just press the wire into the clamp and hammer the lid down when all wires are in place. Be sure to also leave yourself some slack to give the last few wires room to stretch.

9: If you "boobed" it up or had some trouble with slipping wires, feel free to yell a few words of frustration and throw the shoe towards the farthest wall.

10: Now take the other half of the connector (the plug side) and connect the wires to a male connector. Mentally connect your keyboard with the plug and make sure all wires line up properly.

11: If you successfully finished this, you're in the home stretch. Go ahead and fetch your shoe while you're in a good mood. CAUTION: If your family is home, DO NOT make eye-to-eye contact! This will save you a lot of explanation about the shoe.

12: Now connect a female connector to one end of the short ribbon cable.

13: Connect the short cable to the end plug-connector.

14: Fetch the bottom cover, and run the open end of the short cable through the ventilation slot closest to the side of the console.

15: Mentally line up your wires and connect the other female connector to the open end. This end should be on the outside of your computer.

16: Plug in your end plug, flatten the ribbon cable, carefully set the silver box into place (look on the under side when trying to line it up), and screw everything back together.

17: If you dropped that little screw into the silver box, remember your faithful shoe...

18: Connect your serial cable between the keyboard and the console and try it out!

You should now have yourself a nice, loyal, remote keyboard fully functional and working hard to keep you happy. You may notice that it seems kind of bare and might tend to fall over on your desk or put little puncturing holes in your legs. Yes, that's right...time for the creativity end of the project. What to mount it in? Well, I don't have all the answers, but you might find a metal box or build your own. Keep in mind that the keyboard needs a slight tilt forward to have level keys. At the moment, mine is mounted on a strip of sloping styrofoam and set into a cigar box until I find something better that would take minimal effort to construct.

I had some very frustrating moments during this project, but hopefully this article will eliminate most of yours. The end result was much worth it in my opinion. Some things to look out for are twisted connections and loose wires. I had trouble getting it all lined up in the end, so if you get no output to your typing, then you have the connection backwards (ie. all wires on right side on keyboard connection; on the left in the console). If you get the wrong output (A's instead of 5's) then you have some twisted connections. Try taking off the female connector on the outside of your console and connecting it in other combinations. If most letters show up except a few (possibly in line) then you have a loose wire. When you connect the first connector to the plug inside the console, line it up to be sure the serial connector can go under the box, and design it to have the ribbon cable go underneath the box and backtrack out again. Don't worry, there's plenty of room under there. Other than that, you're on your own!

Having accomplished the design of your personal remote keyboard, you are probably saying, "Ha ha, you confounded console! You have locked-up on me for the last time! Off into the back corners of my desk with you!"

After successfully ignoring the snickers of your family (no eye contact!), you are probably impressed with this new desk space. The next step is to get some disk drive mounting boxes and the appropriate cables for extension and run them out next to your keyboard. Now as long as you have your power switches within reach, you can stack your keyboard on top of the PEBox and put it all up on a shelf, on the floor or wherever along

with your modem, printer or any other peripherals.

So after reading this long article of my long winded ramblings, we have successfully piled the system away to give us a fully functional and practical TI with nothing more than a monitor, disk drive, and small keyboard on the desk. Not too shabby for a few pages of reading! I would like again state that this is only one way to accomplish these results and is obviously by no means the best. This will give you an advantage of hindsight before you even begin, which was my one of my reasons for writing this article. If you are not very apt for technical tasks, I would strongly discourage you from attempting this project on your own and would also encourage you to make sure you understand the basic ideas of everything stated above before starting. If something doesn't make sense, it could be due an error in my organization and I cannot take responsibilty for any damage that may result from a misunderstanding of any sort. I hope this article will encourage you think of similar ideas of your own to share with us. If you have any questions or suggestions (as in a mounting box) please feel free to give me a call before I go back to school in Indiana. Good luck and remember...there is no friend like a loyal shoe....

Kevin Mantooth
(Thanks to Chad Davis for the comfort of knowledge
that this project is possible and has been done!)
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TRY THIS
by Jonathan Black
reprinted from the April C.C.99'er

Here's a CALL LOAD address to play around with: Hex 8400. The address that you use in the CALL LOAD statement is -31744. Here is a short one line command that uses it. If you have TI Invaders then you will recognize it.

```
10 CALL INIT :: FOR I=14 TO 1 STEP -1 :: CALL LOAD(-31744,I):: NEXT I :: FOR I=1 TO 14 :: CALL LOAD(-31744,I):: NEXT I :: GOTO 10
```

Experiment with it and let me know what you come up with.

Note: This has not been fully tested so the results may not be exactly alike in all circumstances. I have found that a CALL LOAD(-31744,255) or a CALL LOAD(-31744,256) before running this can change the tone.

Jonathan
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MEMBERSHIP UPDATE

July 5, 1986

I would like to welcome new member

DR MICHAEL McLENDON M7/87
6824 STARNES RD
N RICHLAND HILLS TX 76118
485-1189
281-1764

The following members renewed their membership.

Billy & Terese Pels M6/87
Terry L Irby M6/87
King D Bell Jr M5/87

Dick & Bob Webber M6/87

Unfortunately we had some members who did not renew their membership.

Bob Bennett
Douglas R Buffington
Miguel (Mike) Cantu
George A Caufman
Jeffery G Drinan
Roy R Geer
Joe Gillo
Douglas Klingman
Robert W Martyn
Ruth Neidholt
Randy Rostad
D Christopher Russell
Frank Schnell
Greg Wilson

A NOTE TO ALL MEMBERS. Look on your mailing label on your newsletter for the date that your membership is renewable, such as M1/86 is January 1986, M5/86 is May 1986, etc.. The club does not send out reminders on dues because the postage is prohibitive. If you know any of the members who did not renew, please give them a call and see if you can learn the reason. Let your officers know so they can look into the reasons. Your help on this will be greatly appreciated.

John Lambert
Membership Committee

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***EDITOR'S NOTE:
The deadline for contributions for the August newsletter is Wednsday August 13th

Comments or questions about anything? Contact your officers:

PRESIDENT---: Ken Dominiec, 656-1473
V.PRESIDENT-: Lee DeForest, 237-9746
SECRETARY---: Lexie Glenn, 232-2852
TREASURER---: Jim Stewart, 214-370-0922

Got some intresting info to share? Articles, letters, paragraphs, & words of wisdom are yours to contribute. Contact Jeff Gatlin, editor. 214-264-2925. Startext MC60053