TACOMA 99ERS USERS GROUP NEWSLETTER

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Letter from the President

Well, here it is the first of the year and we are getting ready to elect a new slate of officers. I want to thank you for giving me the opportunity of serving as your President this past year. It was quite an experience and I just wish that every one of you could have the opportunity to serve in this capacity so that you could appreciate what this club means to all of us. I wonder how many of you would still be using your T.I.'s if it wasn't for the support that you have received from your club?

One of the easiest ways to help those who come after you is to get active in your club. The best way to do this is to become a member of one of our committees. The committees are: **Equipment, Recruitment, Activities, Computer Room, Education, Library.** At the present time only the Library Committee has all the members that it can take. If everyone joins one committee then no one person will have to do more than his or her share to keep this club going. Think of which committee needs your talents the most and which one you will get the most benefit out of joining. There will be a sign-up sheet passed around at the next meeting and I would like to see a high percentage of participation in them. Remember, an active club is a good club!

The second meeting this month, the fourth Thursday this month only, will be our election of officers for 1987. This is our big meeting of the year, so everyone please try to be there.

NOTICE
JANUARY MEETINGS
CHANGED TO
JANUARY 8TH AND 22ND

PRINTER FOR SALE

AXIOM ELITE-5, TI DIRECT CONNECT LETTER QUALITY DAISY WHEEL PRINTER. THIS IS THE ULTIMATE IN LETTER QUALITY PRINTERS. IT HAS ALL THE PREFORMANCE OF THE OFFICE PRINTER, YET IS DESIGNED SPECIFICALLY FOR THE TI-99/4A HOME COMPUTER. ITS ONLY ONE YEAR OLD AND HARDLY BEEN USED. THIS PRINTER SELLS FOR OVER $350.00 NEW AND THE ASKING PRICE IS ONLY $250.00. SEE WALT TODD FOR DETAILS ON THE GREAT OFFER. (CALL 206-572-8716 OR WRITE TO HIM AT 615 NORTH C STREET, TACOMA, WASHINGTON 98403)

TACOMA 99ERS USERS GROUP

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FROM THE PRESIDENT

(Continued from Last Page)

I would like to publicly thank Ron Prewitt and his family for all the work they did on our Christmas Party. They did a tremendous job and if you missed it, you are the one on the short end of the stick.

Remember, the meetings for the month of January are being held on the second and the fourth Thursdays, due to New Years Day being the first Thursday, our regular meeting day.

The nominating committee made the choice of the following members for our slate of officers for 1987:

Vern Schrotenboer	President
Walt Todd	Vice-President
Ron Prewitt	Treasurer
Larry Hawk	Secretary
Bob Haun	Librarian

There may also be open nominations from the floor. So if you have an idea who would make a good candidate other than the above, you will have a chance to put them before the club at this time. Lets all be sure to be there to vote and remember to get behind our new officers and give them the support they will need to make this a great club!

Thanks for your support this past year and I'll be seeing you at the meetings.

Happy Computing..................

Wally Dubberly

FROM THE LIBRARY DESK

BOB HAUN
584-3938

BEFORE I WRITE ANYTHING ELSE, I WANT TO WISH EVERYONE A HAPPY
NEW YEAR AND HOPE YOUR CHRISTMAS WAS EVERYTHING YOU WISHED.

A COUPLE OF THINGS HAVE BECOME PRETTY APPARENT RECENTLY. I,
AND OTHERS, HAVE RECEIVED SEVERAL COMMENTS AND COMPLAINTS
ABOUT PROGRAMS THAT "DON'T WORK." ALMOST EVERYONE WAS TRACED
BACK TO THE FACT THAT THE FILE NAMES WERE NOT CHANGED FROM
THE CATALOG NUMBERS. PLEASE USE YOUR CATALOG, NOT JUST TO
ORDER! MANY PROGRAMS HAVE MORE THAN ONE FILE. THEY MUST BE
NAMED PROPERLY! THE PROGRAMS JUST WONT RUN WITHOUT THE
CORRECT FILE NAMES.

ANOTHER RELATIVELY SIMPLE PROBLEM CAN BE SOLVED BY CHECKING
THE "SPECIAL DISK CATALOG", IT SHOWS THE NUMBER OF SECTORS
(OR DISK CONFIGURATION) BY A NUMBER. NEEDLESS TO SAY, A 720
DISK WILL NOT RUN ON A SSSD SYSTEM. SO SAVE YOURSELF SOME
FRUSTRATION BY CHECKING THE CATALOG FOR WHAT WILL WORK ON
YOUR SYSTEM.

ANOTHER PROBLEM INVOLVING THE LIBRARY CAN BE SOLVED EASILY.
WE HAVE A LIMITED NUMBER OF "LOANER DISKS." (30 TO BE EXACT)
AT PRESENT I HAVE JUST TWO LEFT TO BE USED FOR ORDERS.
PLEASE, IF YOU PLACE AN ORDER FOR PROGRAMS, PICK THEM UP AT
THE NEXT MEETING OR MAKE ARRANGEMENTS TO PICK THEM UP. AS OF
NOW, I HAVE 5 DISKS IN MY FILE THAT WERE ORDERED IN NOVEMBER.
THE OTHER NECESSITY IS TO RETURN THEM AT THE FOLLOWING
MEETING! IF YOU CAN'T RETURN THEM, CALL ME. I REALLY DONT
KNOW THE ANSWER TO THESE PROBLEMS OTHER THAN TO ASK FOR YOUR
HELP AND CONSIDERATION FOR THE OTHER MEMBERS OF THE GROUP.

NEXT ITEM IS A LITTLE EASIER TO TALK ABOUT. I WILL BE GIVING
THE TI-WRITER LECTURES ON JAN 8th AND 22nd. I'M GOING TO
COVER PRINTER CONTROL CODES AND TRANSLITERATES ON THE 8th.
I'LL GO OVER "MAIL LIST" PROCEDURES ON THE 22nd.

DID YOU KNOW . . .

MUNCHMAN has hidden away in its program, a Test Mode. This gives you the ability to choose any round (1-20, 21-40, 41-60), and screen (1-20), and up to nine MunchMen. To enter Test Mode, just press (within three (3) seconds) when the MUNCHMAN title screen appears:

(1) [SHIFT] [8]
(2) [SHIFT] [3]
(3) [SHIFT] [8]

After this is done, RND(0-2) will appear (what round?). When you have chosen the round you desire, SCN(0-19) will appear (what screen?). Then MM(1-9) or (how many Munch Men). Remember that zero (0) is one (1) in the first two responses. Article extracted from the New Hampshire 99'ers Newsletter for 9/84.

(Tacoma 99'ers Editor's Note: The following will also work on ALPINER.)

From NATIONAL NINTY-NINER 9/84

————————

For those who own Corcomp Disk control- lers, here's a way to load the CC Manager in a program:

100 CALL INIT :: DELETE "LD-CMDS" :: CALL LINK("MGR")

FROM SFV TImes

————————

If you accidentally enter OLD CS1 when you mean to enter SAVE CS1, don't panic... All is not lost. Type SHIFT E and hit ENTER. You'll get an I/O error but don't worry. The program will still be in memory and you'll get a second chance at saving it.

—————

Tired of accidentally hitting FCTN QUIT when aiming for the SHIFT + keys? If you have 32k Extended Basic, disable the QUIT key by entering this routine upon entering extended basic:

CALL INIT :: CALL LOAD(-31806,16)

From SFV TImes

GAMES

BY WALT TODD

HAVE YOU EVER PLAYED "TI-RUNNER"?. WELL IF YOU HAVEN'T, THEN GET SOMEONE TO GIVE YOU A DEMO. I'VE BEEN PLAYING IT FOR ALMOST FOUR MONTHS AND STILL AM INTRIGUED WITH THE CHALLANGE OF EACH NEW LEVEL ATTAINED. THIS GAME IS SO ENTERTAINING THAT EACH MEMBER OF MY FAMILY HAS ACHIEVED LEVEL THIRTY AND HIGHER. THE OBJECT IS TO KEEP AWAY FROM THE BAD GUYS, AND THERE ARE THREE OF THEM, FROM GETTING THE GOOD GUY. THE BAD GUYS ARE ALWAYS MOVING AND ARE IN HOT PURSUIT OF YOUR MAN. WHEN THEY GET CLOSE PRESS THE FIRE BUTTON ON THE JOY STICK WHICH CREATES A HOLE IN THE BRICKS BEHIND YOU FOR THE BAD GUY TO FALL INTO. THUS, ALLOWING YOU ABOUT THIRTY SECONDS TO GET AWAY BEFORE HE REAPPEARS. TO ADVANCE TO HIGHER LEVELS YOU MUST GET ALL OF THE TREASURES AND CLIMB THE ESCAPE LADDER TO THE NEXT LEVEL. THERE ARE FIFTY LEVELS IN THE BASIC GAME BUT FOR THE REAL ADVENTURERS, LEVEL 51 RETURNS YOU TO LEVEL 1 BUT AT TWICE THE SPEED. PAT MURPHIE HAS GOTTEN TO LEVEL 8 AT TWICE THE SPEED.

DOUBLE-SIDED DISK HOLDS 254 FILES

By BRUCE HALL

For all you TI'ers out there with double-sided drives that would like to make more efficient use of your disk space but would like to keep certain programs separate like TI artist and P-term but don't want to use a whole disk for each program or you want to store more than a hundred and twenty-seven files [example: graphics characters], I have a simple solution, by installing a switch, you can make your second drive look like two single-sided drives.

edge connector
ribbon cable
31
32
drive
switch
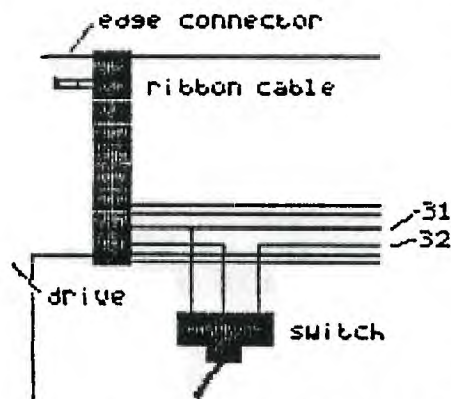
The parts needed are as follows, solder, wire, electrical tape, S.P.D.T switch(ex.radio shack#) and a few tools. The theory is fairly simple, the computer selects side zero or side 1, by forcing the head select line to go high for side zero and low for side one. For single sided operation the head select is always high. By cutting the wire for the head select (wire 32) and hooking the wire on the side of the disk drive to the common of the switch (see ex.) and hooking the wire coming from the disk controller to one of the outer terminals and the other outer terminal of the switch to a logic ground (wire 31). With the switch in the position shown in the ex. the drive would act normally and all formatting and copying for ss will by on side zero. By toggling the switch you ground the head select line and force the drive to select head one. You can now format side one like a totally separate disk! When formatted and used in this way, all the information stored on side one is unrecognizable in normal mode. This way you can have 127 files on one side of the disk and another 127 on the other, or two programs totally separate from each other. Also, information stored this way on side one is not accessible to anyone without this modification.

To install a switch, remove the disk drives from the P box, separate the drives, the switch will be installed in the ribbon cable between drive one and two. This will leave drive one unaltered, but allow you to manipulate drive two. While looking at the connection on the back of the drive you will notice in the edge connector you have an alignment slot in the PC board. This is the top of the connector. Now that you know where the top of the connector is, look at the bottom. You can see the individual wires formed in the ribbing connector, the bottom wire is # 34, count up two wire positions and that will be the head select line. Carefully, separate wire # 32 and # 31 from the ribbon cable, cut line #32 in half and remove a short piece of insulation from # 31, now hook the wires for your switch as shown in the diagram, making sure you have sufficient wire to place the switch in a convenient location. Solder and tape all connections and reassemble in reverse order.

I hope I haven't been to long winded, but this was done late at night, with much ·tolerance from my loving wife... I have tried this out on my own machine and it still appears to work. If you have questions or problems, please give me a call. My number is (206) 432-0739.

TI WRITER — PRINTER CONTROL CODES

By Lou Amadin
Illawarra Regional Group - TIsHUG
(From TISHUG NEWS DIGEST)

The TI WRITER word processor consists of two programs:

The TEXT EDITOR - used to create and edit a text file.

The TEXT FORMATTER - used to format and print a text file. The Formatter has a special feature called Transliterate which is used to recode nominated characters in order to control printer output.

It is possible, however, to invoke the special features of your printer with or without using the Text Formatter.

What's wrong with the Formatter program? Nothing really, but why use two programs when you can get away with one.

For those of us who are just a little lazy, there is an alternative method of controlling printer output which, although not quite as powerful as the Formatter, is nonetheless convenient because everything is done from WITHIN the Editor. This is made possible by using CTRL U or Special Character mode.

The characters displayed on the screen in Special Character Mode may appear to be a little strange (see p146, TI WRITER manual) but the printer will act upon them. Note that the codes will not be printed out and as such do not occupy any space as far as the final document is concerned.

1) Create your document in the usual way with the Text Editor, bearing in mind that what you see is what you get.

2) Press CTRL U to invoke Special Character Mode(the cursor will change to a thin bar). You may now embed the printer control codes in your text using all of the editing facilities of the Text Editor. The codes are entered precisely where you want the effect to take place.

Use the table below as a guide in selecting the required codes. Remember to "disable" the selected mode immediately after the last word to be acted upon in order to avoid any unnecessary effect on the text.

PRINTER CONTROL CODES WITH CTRL U

Printer Mode	Enable	Disable
Expanded	Shift N	Shift T
Compressed	Shift O	Shift R
Double Strike	ESC G	ESC H
Underline	ESC - 1	ESC - 0
Page Break	Shift L	
Reset Printer	ESC @	

Notes :-

1) Use CTRL U toggle into and out of Special Character Mode.

2) ESC (Escape) is FCTN R.

3) Other Special printer modes such as emphasized, skip over perforation, subscript and superscript are available.

4) Check your printer manual if the above control codes do not work with you printer. Mine is a BMC BX80.

Special thanks to Homero Torras for his assistance and suggestions.

TI ... "THE GREAT DECEIVER"

This is a story of much to do about nothing. If started when Mr. Ti developed his BASIC, you know, TI BASIC. He decided the user (us) could use the video memory area to store their (our) program. Wanting to give us as much as possible of the 16K (16,384) bytes of memory available, he set upon a deception to ponder the talents of the great Pink Panther.

Now the video memory area (VDP RAM) is needed for storing screen information. The screen displays 24 lines of 32 characters, i.e. 24x32=768 characters in view on the vdu! Mr. Ti set the VDP RAM addresses 0-767 for the screen map. We use this area by writing DISPLAY "HI" and the ASCII values for "H" and "I" are loaded into the screen memory. Well that's not the end of it. What about the shape of each of each character? Alphanumeric characters have their shapes automatically defined by the system and we redefine character shapes with CALL CHAR. Just where are these character shape definitionss stored? You guessed it! VDP RAM.

Now back to Mr. Ti's dilemma, he wants us to have as much free area as possible for our program code. However, character definitions take a lot of memory-8 memory locations for each character in fact! But it gets worse. The video processor chip (TMS9929A) allows the character table to start only at certain points in VDP memory. It can start at memory address 0, but that clashes with the screen map. Next it can start at address 2048, but that will take away valuable programming space. Anyway to cut a long story short, Mr. Ti decided to start the character table at memory address 0. How? you ask. Good question, because now when you write something to the screen memory you are also redefining some character shape!

Just a few extra comments so you know where we are at: (1) The video processor allows up to 256 character shapes to be defined; (2) When you write an ASCII value to the screen memory the video processor looks for the character shape at an address calculated by:-ASCII value x 8 + base address of the definition table (in our case this is 0).

What Mr. Ti did next was truely tricky. For the screen display he compromised and gave us around 130 of the 256 characters using only the high character values, i.e. CHR$(128-255). Now remember what was said earlier about when we DISPLAY "HI" on the screen. The ASCII values for "H" and "I" are loaded into the screen memory. This does not happen! What Mr. Ti's BASIC does is to add 96 to each ASCII value and load that into the screen memory; e.g. ASC("H")+96, ASC("I")+96. You see the character shapes for "H" and "I" have been predefined by the system at memory locations: (ASCII value + 96) x 8.

Have you ever wondered why the graphic characters range to CHR$(159) and don't go as high as CHR$(255)?

KRACKERSNACKS
By TOM FREEMAN

Retain GRAMS 1 and 2 For Your Own Use
====== ===== = === = === ==== === ===
Some users who have loaded Danny Michael's fine new combination Extended Basic and Editor/Assembler modules into their Gram Krackers may wish to preserve the use of TI-Writer at the same time. I had previously loaded GRAMs 1 and 2 with E/A and TI-W respectively, and thus this new program, which uses these two GRAMs to hold the ASSM1 and ASSM2 files for rapid loading, were no longer available. I had already modified these modules to load the files from my RAMdisk, which is also quite rapid, so I did not need Danny's rapid loader. However, I did wish to use the combination and make use of the other enhancements. such as cataloging from E/A and preserving file names.

The following modifications to your FINISHED files will accomplish the task. Essentially, I went to the area of Danny's code where the assembler was loaded from GRAM into CPU, and changed it back to the original E/A code, with some address changes because of the move to GRAM 7, and screen location changes. All the other routines used by E/A to get the program from the disk were preserved.

To accomplish the changes, go to the GRAM KRACKER memory editor (press 5 on GK title screen), then FCTN 1 to get to GRAM memory, FCTN = to get to HEX, enter, and then type in E658. You should see in the memory window code beginning with the following bytes: 06 F4 60. Press FCTN 9 to replace the first three lines of code with the following bytes between the ! marks (where you see ASCII text on the right you can type in ASCII, which saves half the typing - also remember to push the W/P switch to Bank 1 or 2 while you are typing):

```
>E658 ! 08 8B A1 14 4C 6F 61 64 20 41 73 73 ! '‡‡‡‡Load Ass'
>E664 ! 65 6D 62 6C 65 72 28 59 2F 4E 29 3F ! 'embler(Y/N)?'
>E670 ! 20 FB 06 E7 9F D6 75 0F 60 5A D6 75 ! ' ‡‡‡‡u‡'Z‡u'
>E676 ! 4E 60 5A 06 E5 B2 E6 28 06 E5 D4 BF ! 'N'Z‡‡‡‡(‡‡‡‡'
```

Defaults for Assembler Source Code File
======== === ========= ====== ==== ====
Danny's mods retain separate default areas in GRAM 2 for all the file or device names you input - only those for LOAD and SAVE file in the Editor are the same. I personally wish to have the last file name I used for SAVE in the Editor appear as the default for the Source Code in the Assembler, since I normally assemble source code I have just written and saved. This is easily done by positioning the cursor after the g in the upper left corner, typing F347, then FCTN 9 to get in the memory window. Replace the first byte 4C with 88 (W/P off!).

While you are making changes, you might consider the following:

1) If you are in fact loading the TI-W and E/A utility files from RAMdisk, then you should change the device name/number at gE61E (I use DSK4.) The length should still be 5 bytes.

2) I have also changed the name of the default program name for option 5 Run Program File from UTIL1 to another name. You can do this at gE62D.

3) The format RAMdisk option from Danny's main E/A screen does not work if you have the RAMdisk with MYARK XBasic, because the CALL PART now requires three numbers rather than 2. To make sure you do not choose this option by mistake, go to gE0F8 and change the words "Format RAMdisk" to "Non-Valid Key " and change the bytes at gE12D - E12E from 52 B1 to 40 5A. You will now stay on the menu screen if you hit 7.

BE SURE you have saved your original modified module BEFORE you make the changes. You should now save your newly modified module under a different name. GRAMs 1 and 2 will no longer be used for the ASSM files and you can go back to keeping other modules in this space. so long as the high bytes in GRAM 2 from 5ED4 to 5FFF are not used (Danny uses them to hold the default file names in E/A). Also note that because these 2 GRAMs in the GK are not used. Danny's mods are now also useful in the 56K version of GRAM KRACKER. However the default file names for E/A mentioned above will no longer work; you will always see garbage when you are prompted for a file name. It is easily eliminated with FCTN 3.

Using MSAVE
===== =====

As there are still 2609 bytes of memory free at the top of the E/A in Gram 7 (from >F5CE on) you can still store a few short Basic programs if you use the following (slightly cumbersome) method:

1) If you are using GRAM 2, save it using Option 4 Load/Save Console from the GK main menu. The third switch must be in the GRAM 1-2 position. Also save the "module" (Menu 2) since we will be clearing the module space. If you have a 56K GK without GRAMS 1-2 see NOTE below.

2) Move the entire contents of GRAM 7 to GRAM 2 (Gram memory - FCTN 1 until a g appears in the upper left corner if it isn't already there. E000 for Start, FFFF for Finish, g4000 for Dest, then FCTN 2 to move).

3) Initialize the module space (Menu 3).

4) Load module (Menu 1) with MSAVE from the original GK utility disk.

5) Go back to the Memory Editor (Menu 5), FCTN 1 to get to G memory, FCTN = for HEX. Press enter, then type in E012. In the memory window you should see E2 B7 E2 B7. Press Fctn 9 to get the cursor in there, then type in F5 CE F5 CE (with W/P off!). Fctn 9 again, move the cursor back over the memory address and change it to E1DD, FCTN 9 and change this E2 B7 to F5 CE also.

6. Move the 35 bytes at E2B7 to F5CE by entering E2B7 for Start, E2D9 for Finish, and gF5CE for Dest. then FCTN 2 to move. Put Switch 4 back in W/P position.

This new MSave will save Basic programs starting at F5CE, rather than E2B7, leaving enough room for the E/A module. Save it with a new name (such as MSAVE plus your initials) with Menu 2.

You may now go to the Basic (gram 1-2 switch down and Loader Off), enter your basic programs, and save them by entering CALL MSAVE. When you are done, and quit Basic, you should see them on the main console menu.

Now go back to the GRAM KRACKER, and save module again (using yet another name, just in case). You are now ready for your final modification of GRAM 7.

7) Go back to the GK Memory Editor, FCTN 1, FCTN =, and examine the 2 bytes at E012. This represents the first free address after your programs. Therefore you will want to save all the bytes from F5CE to that address.

8) Making sure tha g is in the upper left corner, and 3rd switch is in GRAMS 1-2 position type in F5CE for Start, the bytes you just found for Finish, and g55CE for Dest., and press FCTN 2 to move.

9) The final change is at g4010. This is the address for the next application header after Editor/Assembler and must contain F5CE. Type it in.

10) Reload the module you saved in Step 1.

11) Move the entire modified contents of GRAM2 to GRAM 7 by typing 4000 for Start, 5FFF for Finish, gE000 for Dest and press FCTN 2.

12) Save your new "module" with resident Basic programs under a new name. Remember that to USE these Basic programs the loader must be OFF, and switch 3 must be in TI Basic position.

NOTE; IF YOU HAVE A 56K GK, make the following changes in above steps:
1) You can't save GRAM 2.

2) Move GRAM 7 to GRAM 3 by using g6000 for Dest. NOW clear everything else by
a) Start 8000 Finish FFFF, W/P to Bank 1, FCTN 3 (FILL). b) FCTN 1 twice to get to CPU memory, Start 6000 Finish 7FFF, FCTN 3
c) same as b) but with W/P in Bank 2 position
d) Save "module" (Menu 2) - this should give you one file on disk
e) W/P ON (mid position).

TI....."The Great Deceiver"
(Continued)

Try adding 96 to 159 and what do you get? Yes, that's right—255. The video processor allows characters 0—255 so why can't we use some of the lower value characters for graphics? Answer: because the character shapes would be defined in the screen memory area. And why didn't Mr. Ti place the character shape table much higher in memory away from the screen memory? Answer: because he wanted us to have more memory area for programming.

Finally, does any of this make any difference to the BASIC programmer? No! All of this is transparent to the BASIC user. However some machine language programmers have hopefully just seen the light. Remember, all of this is top secret, so forget it!

KRACKERSNACKS
(continued)

3) to 7) are the same

8) First reload the "module" you saved in Step 2d). Then move the bytes with g75CE as Dest.

9) The change is at g6010. BEFORE going to next step,
a) Move GRAM 3 to GRAM 7 (Start 6000 Finish 7FFF Dest gE000, W/P to Bank 1, FCTN 2
b) Clear GRAM 3 (Start Finish the same, FCTN 3)
c) W/P on (mid position)
d) Save module - this will give GRAM 7 only.

10) is the same.

11) Load the "module" save in 9d.

12) is the same.

All this is not as complicated as it sounds - I just tried to make it as clear as possible.

From TOPICS - LA 99ers - October, 1986

TACOMA 99ERS
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