

CHICAGO



USERS GROUP

PRESENTS

CHICAGO TIMES

NEWSLETTER OF THE CHICAGO TI-99/4A USERS GROUP

COME TO OUR AUCTION!

MAY 31, 1987

EDITOR: Carole Goldstein

Chicago TI UG's
2nd Annual AUCTION



THE JUNE MEETING . . .

will be held on Saturday JUNE 5, 1987 from 1:00 to 3:00 in the Fireside Lounge at Triton College. This meeting will feature our 2nd annual group auction and hopefully of demo of the GENEVE 9640.

→ LAST ISSUE BEFORE SUMMER BREAK ←

IN THIS ISSUE...

THE DISASSEMBLY	Dave Wakely	Page 3
FINANCIAL UPDATE		Page 5
AUCTION ACTION	Sam Pincus	Page 6
BASICALLY YOURS	Rich Klein	Page 7
MEMBERSHIP CHAIRMAN SPEAKS	Don Jones	Page 11
PROCESSED DATA	Sandy Bartels	Page 14
HARDTimes	Al Stump	Page 15
FAIRE UPDATE	Marcy Brun	Page 18
SOFTWARE REVIEW	Jack Topham	Page 23
BASIC ASSEMBLER	Steve Peacock	Page 24
FROM THE OTHER ORPHANAGES	Jack Topham	Page 27
THE PASCAL ADVANTAGE	Mike Maksimik	Page 29
CONSOLE CALC REVIEW	Bill Gaskill	Page 33
LIBRARY SHELF	Bob Demeter	Page 36
REMARKS	Carole Goldstein	Page 40

Artwork by Buzz Krantz, Dan Gronowski and Danny Goldstein

BULLETINS:

UG HOT LINE NUMBER IS (312) 657-1093.

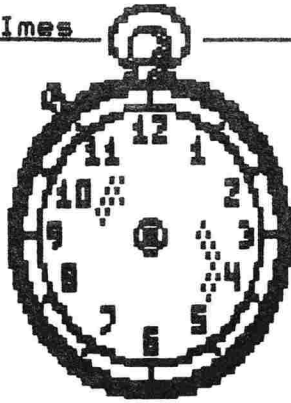
The Beginners SIG and Pascal SIG will meet shortly after the meeting.

Bill Hoffman is interested in starting a C Sig. Anyone interested please let Bill know either in person or on the Group BBS.

MEETING DATES FOR THIS COMING YEAR ARE AS FOLLOWS:

JUNE 5 SEPT 12 OCT 3 NOV 7 (TI FAIRE) DEC 5

The Chicago Times is published 10 Times a year, monthly, except during June and July. Chicago Times is not affiliated with Texas Instruments in any way and is supported only by its subscribers and advertisers. Subscriptions are free with membership in the Chicago TI99/4A User's Group. The Chicago Times is also distributed free to any other User's Group that wishes to reciprocate. Articles contained herein may be re-printed by another User's Group Publication provided credit is given to the Chicago Times as the original source of the article. Comments and letters are welcome, as is the submission of original articles and programs.



THE DISASSEMBLY

Dave Wakely

Turbo's end; What am I bid?; II on TV; BYE (for now); Other Things:

It was right around the time of the last meeting that I decided the Triton Turbo XT was going back. There were several deciding factors, the foremost of which was that the buyer for my other IBM clone, a Zenith Z-148, had backed out. In thinking about it, however, I decided to take some of the advice I have been giving out here, namely, use what works for you. When I need to run IBM software, the Zenith works fine, there is nothing I need to do it can't do, at least for now, so why change? I recall making the same comments about the 99/4A, and they are just as valid for other computers as well. Another factor was when I called Triton asking to trade the Bridge Box for a "regular" IBM keyboard. It was then that I learned that their keyboard would be \$79 or \$89 dollars, which is about average for an average IBM keyboard, and they were only willing to give me \$29 credit for the Bridge Box! The box does work, and it is now evident that it doesn't need sophisticated electronics to do so.

Another advantage of my brief experience with the Triton Turbo was that I was able to do a demonstration at the May meeting. It turned out that John Behnke had just received the new Spad XIII (or is it XIV?) flight simulator, and, using the "concurrent processing" ability of the Triton/II connection, we did a version of "dueling flight simulators", with Microsoft Flight Simulator running in demo mode on the Turbo, in the middle of which I switched to II mode, where John loaded and ran the Spad. At first, John cried foul, noting the increased memory space available for the IBM version (which requires 128K) made it an unfair contest, but I really felt that given the 48K limitation of the II that it held up remarkably well. While perhaps some of the graphics were not as detailed on the II, the sense of real world "simulation" was just as complete. After running the program for a while, John turned it back to me and I switched back to the Triton Turbo, where the IBM program was still running, with the demo finished and the plane sitting on the runway at Meigs Field. In both versions what you see on the screen gives a good approximation of the depth and height of looking out the window of an airplane, with various "ground scenery" below. In fact so much so that although I have the IBM version and enjoy it, I will be purchasing the Spad for my II. The Microsoft FS is one of the programs people point to as a reason for moving to IBM, but with the Spad, II owners, with the limitations of the machine, can now say "we have one, too". The program is that good.

At the end of the meeting I was approached by a group member who, like me, needs IBM compatibility at home, and heard my offer to sell the unit to anyone there before I shipped it back. Thus, the final resting place for the machine was with another group member. This was not only done with the sanction of Triton, but they also transferred the full one-year parts and labor warranty to the new owner. Final score card: I liked the Turbo XT as a clone, I could never get comfortable with the Bridge Box, and I

especially liked the excellent service and support from Triton, vastly improved over the initial, and often incorrect information they gave me about the unit back in January.

Also at the May meeting we presented the winning entries in the programming contest. We expected some drop off in numbers (there were 15 entries), but the quality remained high, and we awarded a total of \$300 in prizes. Carole has a complete list of the winners in this issue. Several winners were not present, so if you entered and were not at the meeting, check the list out. A disk with all the winning programs will be at the next meeting, I am told.

NO, YOU CAN'T BID AGAINST YOURSELF, SIR: Last year at the June meeting we held a surprisingly effective group auction. We didn't know what to expect, but just relied on the help of the membership and put out the word that we needed donations for an auction to raise funds for the group. It turned out to be a rousing success, so much so that we decided to do it again. As of a few days ago, we have almost (but not quite) as much as we did last year to auction off at the June meeting. All proceeds go into the treasury, and this helps us expand services, commit more funds to the II Faire, purchase software for demos, etc. If you still want to help out, bring your original package software or hardware to the meeting early enough for us to check it out and possibly test it. Last year several generous group members donated extra PE Box cards they were no longer using. Now that's the spirit.

MACHINE OF THE MONTH, YEAR, DECADE, ETC: I hear rumors that the "release" version of the Myarc 9640 MAY be at our June meeting. We have seen the hardware before, but this is supposedly the finished product. In previous columns I have expressed disappointment only at the announce price of around \$500, but that was based on only the announced features. What I am really interested in seeing is M-DOS, the operating system for this new machine. It has the ability to make or break it as a viable and valuable product for II owners. I have spent most of the last year speculating on various II products, and this time I will believe it, and evaluate it when I see it. Just keep the term "M-DOS" in mind, though as one of the keys to the future of this machine. At this point I wouldn't be surprised if the machine doesn't show up at all. I just ran across an old Miller's Graphics newsletter from TWO YEARS AGO that talks about it. Has it been that long? Yup.

HEY, WHAT HAPPENED TO THE PRO WRESTLING ON CHANNEL 23?: One of the nifty things we did at the last meeting, among the many nifty things we usually do, was to run the audience monitors on a "broadcast" system. Observant meeting attenders may have noticed that there were no wires leading to the monitors this time, saving Ken Czerwinski several headaches. Bob Demeter brought his black box broadcaster and hooked it up to the main monitor, then merely tuned the other TVs to channel 23, and Viola! sound and pictures were available to anyone within a few hundred feet who happened to be tuned in. Ok, it wasn't quite that easy, as John Behnke spent some time rigging up acceptable antennas, but once it was working it was so impressive that the group decided to purchase a broadcast box of our own. I predict that this will lead to group members bringing battery-powered portable TVs to the meetings so they can have individual monitors tuned in to what we are showing. And technology marches on.

THE LONG HOT SUMMER LOCK UP: This is it, folks, last meeting before the summer break. Why do we do it? Because after 10 straight meetings which

include a TI Faire, contests, auctions, frazzled librarians, etc., the executive committee needs time to recoup, relax and reload. It may be fun, but it ain't easy. This meeting is also your last chance until September for walk-up access to the group library and its new catalog, so between this and the auction, don't forget your checkbook. It is also a time to say so long for a while to your TI friends, and besides, the auction is fun, so let's make this our best attended meeting since the Faire. I know the weather will probably be nice, but you have the rest of the summer to kill the crabgrass or paint the garage. And when it's over, don't forget to keep in touch by way of the bulletin board!

SubrouTines: After the meeting, John B. was observed running a high speed program on the group system. Turned out to be the painfully slow BASIC program ARROW-ZAP which had been compiled by the RYTE Data BASIC compiler! It ran faster than the module ZERO ZAP on which it was based. While with many TI modules this is no great trick, it did respark my interest in this product and give me a few ideas for next year...Having decided he didn't have enough to do, you should know that Faire Chairperson Don Jones has been working like mad organizing the Faire, already! When you see Don the operative word is "thanks"...Every year I tell myself this will be my last writing this column, but it never happens. Any volunteers for resident smart-aleck columnist?...Long overdue: Jack Topham will be taking over as Events Chairperson next year. He will be scheduling the meetings and products we show. Way to go, Jack!...With the end of the year comes the new year and new year's resolutions. This summer I WILL 1) take apart my console and give it the cleaning it needs and deserves (and so should you); 2) finish the database of all past newsletters; 3) complete the statistics from the survey (look for 2 and 3 in the Super Summer Issue); 4) finally finish some of the programs I have been working on in some cases for two years!; 5) Get on the bulletin board more often...Judging from early looks, the survey results are going to turn the Executive committee into Sally Fields clones: "You like us! You REALLY like us!!!"...And finally, and no matter what, the group will NOT be bailing Texincia out of what ever jail or trouble she gets into this summer. You're on your own, kid, try not to embarrass us...

 CHICAGO AREA TI99/4A USERS GROUP
 SUMMARY OF CASH TRANSACTIONS
 APRIL 1-APRIL 30, 1987

	TOTAL	FAIRE	LIBRARY	MEMBER- SHIP	OTHER
RECEIPTS	1,001.91	98.16	377.00	261.00	265.75
DISBURSEMENTS:					
TI 99/4A	300.00				300.00
MAILING	707.66			22.00	685.66
PRINTING	3,125.80		903.20	13.00	2,209.60
SUNDRY	249.26			126.60	122.66
	4,382.72	0.00	903.20	161.60	3,317.92
DECREASE IN CASH	-3,380.81	98.16	-526.20	99.40	-3,052.17

" 25-30-35....."



AUCTION ACTION

San Pincus

Hello there bargain hunters! Its time once again for our annual TI Auction. This year, we have lots and lots of goodies for all of you. Here's your chance to get a bargain and help the Users Group at the same time. Last year's response was overwhelming and it looks like this year will be just as good.

If you have anything to donate, Dave Wakely and I will still be accepting donations on the day of the meeting. Just get your donation to us before the meeting starts.

If it is software, it must be the original disk or tape. No shareware please. Try to bring the instruction sheet (if you have any) and list any special items needed to run it (such as speech synthesizer).

If you are donating hardware, tell us if it works or not. Yes, we will accept "as-is" equipment. Below is an abbreviated list of some of the items that go up for auction on our June meeting.

Children's Educational		Personal Assistants	
Equations	(Cart) \$5	Budgets and Goals (Disk)	\$8
Fractional Numbers	(Cart) \$5	Total-Filer (Disk)	\$15
Dragon Mix	(Cart) \$5	Security Analysis (Cart)	\$5
Division 1	(Cart) \$5	Tax/Investment (Cart)	\$5
Space Journey (Percents)	(Cart) \$5	Statistics (Cart)	\$5
Number Bowling (Fract.)	(Cart) \$5	Pers. Real Estate (Cart)	\$5
At the Zoo (Animals)	(Disk) \$5	Pers. Report Gen (Cart)	\$5
Games		Pers. Recordkeep (Cart)	\$5
Hunt the Wumpus (Cart)	\$3	TE II (Cart)	\$7
Parsec (Cart)	\$5	Utility Programs	
Shamus (Cart)	\$5	Rapid Copy (Disk)	\$15
Tombstone City (Cart)	\$1	Sprite Editor (Disk)	\$15
Arts and Letters		Hardware	
TI-Artist/Artist Extra (disk)	\$16	TI Console	\$30
Display Master (disk)	\$14	TI Tape Recorder	\$20
Average Bear Writer (Disk)	\$10	TI RF Modulator	\$7
TI-Writer (Disk)	\$20	TI Joysticks	\$3
BA-Writer (Disk)	\$2	300 Baud Acoustic Modem	\$12

BASICALLY YOURS

Rich Klein

I've got a few things to discuss this month. I received two letters and an inquiry or two at the meeting. I also have a small tip to pass on. First, the tip.

If you use PRINT...USING often, you may have found the use of IMAGE statements somewhat tedious. First, you must set up the IMAGE on a line number. Then you must refer to that line number when using PRINT...USING, like this:

```
100 IMAGE "####.##"
nnn
nnn
1000 PRINT USING 100:A
```

or something along those lines. This gets more difficult as you increase the number of IMAGE statements your program uses. Then you must remember the line number each IMAGE is on. Optionally, you can include the IMAGE in the PRINT...USING statement. For example:

```
1000 PRINT USING "####.##":A
```

Images do not need to be enclosed in quotes all the time. Actually they only need quotes if you want to include leading or trailing spaces in your IMAGE. This, however is what led me to discovering this tip.

I thought that, since you could enclose an IMAGE statement in quotes, that effectively made it into a string constant. Since you can assign string variable names to string constants, then you should be able to set up IMAGES as string variables and refer to them by their variable names in PRINT...USING statements. Why bother, you might ask. It's just one more thing to remember. True, but it can be one more memorable thing to remember. By that I mean this:

```
100 BUCK$="####.##"
nnn
nnn
1000 PRINT USING BUCK$:A
```

If you use variable names that carry special meaning to you, it could make your programming job easier. Remembering a name would probably be easier than remembering a line number.

I was going to pass this on a month or so earlier, but when I found it and told my brother in Columbus, he mentioned that he saw it already in his groups newsletter. Needless to say, this spoiled my good feeling of having come up with something original and I went on to other things. Even so, I thought someone out there might benefit from this.

I don't know if many of you are aware, but in the February 1987 issue I had a program listed in Al Stump's HARD TIMES column. The program was designed to do a simple test on areas of memory in which might endeavor to build and add on to their existing systems. Al received the following letter about the listing which he passed along to me to answer.

Q: Dear Al,

CAN YOU HELP?

I finished building your 32K console mod, and everything works fine up to the actual

error check.

The first time I tried I got an "ERROR IN LINE 1550". I deleted the closed parenthesis immediately following the second K\$, and the program ran. I am not sure that was the correct way to revise the line.

However, I do get the title screen, and the checker program does load. But when run, I get a multitude of errors. I bought eight chips, and the results are always the same.

CAN YOU HELP? M.F., Miami Springs, FL.

A: I can tell you that the correction you made to the program listing was the correct thing to do. How that "(" got in there, I have no idea. As far as your errors go, check the typing in the rest of the listing and check the data bus connections on your project and their connecting points in the console. Sounds like a bad connection there. I'm going to give this back to Al, and maybe he can "address" your hardware problem more completely.

I received another letter regarding programming and telecommunications:

Q: Dear Rich,

In the February issue of the Times, you offered to provide solutions to programming problems, and I do have a problem. I have written a program where I can transact business with the bank computer that I do business with. The program works fine.

I load the program, dial the bank 800 number, and when the bank computer asks for my account number, I simply push a "1" on my computer and with the CALL SOUND statement it produces the frequencies for a 7 digit number.

The way I make this work is I have one of those "hands-free" telephone speaker, receiver type, and I place it next to the speaker on my television that is hooked up to my computer.

The problem is that sometimes this will not work. I think it has to do with some kind of interference between the TV speaker and the telephone receiver. I bought a VOLKSMODEM modem and thought I would use it to communicate between my computer and the bank computer. I have not been able to figure out how to do this.

What I need is someway to work this program through the modem and be able to hear the bank computer through my TV speaker. This may not be possible but if you have any ideas PLEASE help...

Thank you,
J. T. S. #142/87
Huntsville, TX

A: The reason your program with the CALL SOUND routine didn't always work was because TI's Sound chip doesn't reproduce frequencies exactly, but rather as a close approximation. It also is subject to harmonic distortion. The distortion is supposed to have been done on purpose, as TI may have felt that a subtle blend of tones was more pleasing to the ear than clean tones. One of the back issues of 99'er/99'er Home Computer Magazine/Home Computer Magazine (and aren't they ALL back issues now) has a TECH Tip that illustrates how to build a simple filter circuit that eliminates the harmonic distortion.

Any way, The point is, when you use a device of known inaccuracy along with another device of unknown inaccuracy (your phone microphone) errors can multiply and the bank computer may receive a tone it can't recognize. If the modem you purchased is a smart modem that has a speaker, then you can use it to produce the necessary tones. If it doesn't have a speaker, then listen quietly on the phone for your cues, if required.

Alter your program so that when you press "1", it sends out to your modem a "+++". This makes the modem stop listening to the phone line without disconnecting. Then have your program send an "AT" followed by a "D" or "DT" if you did not use touch tone dialing with it since you turned it on. Then have it send the account number "1234567" followed by an uppercase "O". This causes the modem to go back on line after it sends the Acct number. Your string might look like this:

```
"+++ATDT1234567O"
```

You may have to insert commas in the string to pause here and there if the timing is not right. Here's a short list of what the modem commands discussed are:

```
+++      Takes modem off line w/o disconnecting
AT       Gets modem's ATTention
D or DT  Tells modem to dial numbers that follow
          The T indicates touch tone dialing
O        Puts modem back on line
```

I hope this is helpful to you. I discussed this with some friends of mine in the group and this procedure was the procedure of choice among them. I'll take their words for it, since I don't own an auto dial modem. Good luck!!

On to the next order of business. At the May meeting, a fellow user asked me if I could help him with something, he said the good ole boys in Texas said couldn't be done. He wanted to know if you could bring up a line for editing (correction) after it had been entered. I told him I didn't see why not and proceeded to tell him how.

To edit a line already entered in TI Basic requires a lot of work and the net result would almost not be worth it unless you had no other alternatives. For this example, we'll confine ourselves to Extended Basic.

There are two statements in Extended Basic that are of use here, although one is distinctly more useful than the other. They are ACCEPT AT and DISPLAY AT.

ACCEPT AT is the workhorse. I covered this statement as well as DISPLAY AT in the October 31st (86) issue, so we'll cover it only as it pertains to the task at hand. The major advantage ACCEPT has is the SIZE clause, which allows more control over the input field. This sets the size in characters of the field and a positive value here erases that many spaces on the screen, while a negative value leaves any characters there and you can edit them as if you had just typed them in. Of course, when you reach the maximum value of the size clause, you can't enter any more characters, whether the value is positive or negative.

If you enter a bunch of data and then are asked if the info entered is true or if you want to edit it in any way, then you can branch back to the same ACCEPT statement and edit it if that statement contained a Negative SIZE value. Let's see how this works:

```
100 DISPLAY AT(10,3)ERASE ALL:"NAME:"
110 ACCEPT AT(10,9)SIZE(-10)BEEP:N$ 120 DISPLAY AT(22,1):N$: "IS THIS CORRECT? Y/N:
N":ACCEPT AT(24,23)SIZE(-1)VALIDATE("YN")BEEP:AN$
130 IF AN$="N" THEN 110 ELSE N$="" :: DISPLAY AT(22,1):N$: : GOTO 110
```

This little routine, short as it is, does a whole lot. First, the ERASE ALL clause clears the screen before displaying the message "NAME:". Line 110 accepts input at row 10 column 9, which is one space to the right of the prompt displayed. The SIZE clause also sets up an input field of ten characters maximum. Since the value is negative, the field is NOT cleared. If something was there, it can be accepted as input by pressing ENTER. Of course, since the ACCEPT statement contains the word BEEP, you will hear a tone like the INPUT statement gives. At this point, you can type something in or press ENTER to allow whatever is there to be accepted as input.

Once you press Enter, what has been Entered will be displayed on line 22 and you will be asked if this is correct. Notice there is a default of "N" already placed there for you. If you just press Enter, it would be the same as if you had pressed "N" and ENTER. If you press "Y" and ENTER, the "Y" will be accepted as your input. If you press anything else it will be rejected, and a warning tone sounded. This is because of the VALIDATE clause which specifies that ONLY "Y" or "N" can be ACCEPTed. There is a way around this which you know if you read the column on this which appeared previously.

If you entered the default "N", then you are routed back to the same ACCEPT statement with which you entered the previous name. If you entered "Y" then N\$ is emptied out and N\$, empty as it is, is DISPLAYed at 22,1. Then you get to go back to 110 and enter new info or ACCEPT what is still there.

Why did he go back two different ways? To point out that the ACCEPT statement is a SCREEN input statement and not a STRING input statement. I wanted to prove that if you emptied out N\$, you could still ACCEPT what you originally typed in again as N\$. So ACCEPT does not alter what is in a string, but replaces it with the new input, whether it is typed in or copied off the screen. If you try this routine out and study the listing, it will become clearer to you.

If you've erased the input field and wish to edit an input, simply do a DISPLAY AT of the string in question, and then invoke the ACCEPT AT as above on the newly DISPLAYed string.

One last note before I go. At the meeting, someone was having difficulty setting his printer to display text and graphics. While you can't set it up to do both simultaneously, if you follow a few simple rules, you can minimize confusion.

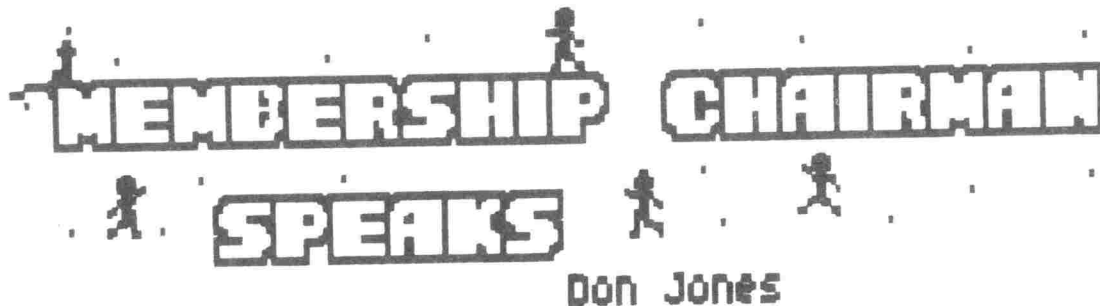
First, make sure you automatic linefeed is turned off on your printer. This is only there for Apple and other computers that lack the power to send out their own.

Second, if your print a document from an Editor (E/A or TIW) specify PIO (or RS232.BA=xxxx) as your devicename.

Third, if printing from the Formatter, specify PIO.LF. Since the formatter sends linefeeds, you don't want the RS232 card to do so as well

Fourth, if you are printing Graphics, specify PIO.CR. If you don't, the RS232 will send CR's every eighty characters or so. This is NOT good since printing graphics requires many, many more than 80 characters to make up one line. The Graphics program will supply the Carriage Returns as necessary. This applies especially if you are printing Graphics from the Formatter. You must print your Graphics separately from your text even if you use the Formatter. Perhaps someone will remedy this in the future.

Follow these simple rules, and after a while, you will find it easier to do any printing.



MEMBERSHIP CHAIRMAN
SPEAKS
Don Jones

MEMBERSHIP AND FAIRE DRIVE CONTINUES

Hi there again, Sports Fans!

Well, this is the last regular issue of our newsletter until September. After this one, you can look forward to the usually great Super Summer Issue that Carole Goldstein puts out annually. (I'm personally looking forward to it right now!) Since this will be my last article until the Super Summer Issue, I feel the need to put a few important issues before you.

First, just remember, we are a voluntary organization. If you have a problem of any sort, please write us at our post office box address. Let us know what the problem is, and we will do our best to address that problem. We aren't here for the money, and we aren't trying to "rip-off" anyone, contrary to popular belief. In fact, no one gets paid for any of the services which we render to the members. We are always in need of more volunteers. Part of the problem is that though our membership has increased dramatically, over the last few years, most of our new members are not even in the state of Illinois! Believe it or not, half of the members of our organization are not in the greater Chicago region or even the state of Illinois! So, if you do live in the Chicago area, please consider volunteering.

It is also very important to me that we increase our membership especially relative to the greater Chicago metropolitan area. I am therefore re-opening my membership drive to get more new members in the Chicago area. If you would like to distribute letters/flyers to TI owners in your zip code area, please leave a message for Pat Vetter on our b.b.s. If you don't have a modem, or if you have trouble getting in touch with Pat, please leave a message for her on our hot-line or drop her a note at our post office box address. If you don't get a response from her, then leave a message for me, and I will get in contact with her for you. For those of you who don't know who she is, Pat is our volunteer coordinator. She will get you letters/flyers for any zip code area that you wish to distribute in. Any members who distribute 30 or more letters/flyers will receive their choice of a software disk from our library. This is a small gesture of appreciation for the sacrifice.

In addition to the above activity, I am also instituting a membership recruitment drive. For each new member that a member is able to generate, we will give a disk of software, of the recruiter's choice. Who should you recruit? Anyone that you know that owns a TI computer. They can be family, strangers, neighbors, and/or friends. Also, did you ever consider giving membership gifts to friends and to members of your family who own TI computers? I received an application letter from a gentleman who has five children who all own TI computers for their own respective families! Now that's a good example of both loyalty and commitment. It seems that more and more people are buying up extra used systems so that their children and relatives can enjoy the advantages of using our beloved machine. I feel that when you feel that you have a good thing, you want to share it with the people that are close to you, and that's the way that it should be, in my

book at least!

Speaking about loyalty, how many families do you know that have more than one I.B.M. or Apple, or any other kind of computer? It seems that TI loyalists are increasingly becoming multiple computer families. The reasonable prices for both software and hardware, in addition to the TI's great utility/educational/entertainment potential, are the most obvious reasons why. In fact, I would now have a difficult time trying to think of any of my friends who are owners of only one system. With the TI computer, either you love it, expand it, and, possibly get additional ones, or you sell it and get something else. There are few people who are "luke-warm" about this machine. Either you love it, or you leave it!

THE FAIRE EFFORT CONTINUES!

In my last article, I said that I had all of my committees covered with chairpersons with the exception of one. The position in question was the vendor hospitality chairman. Since then, Marcy Brun has accepted that position. I was later informed that Marcy has extensive experience working for a company that is responsible for staging some of the larger professional shows in the country. They are responsible for the staging of boat shows, home shows, and shows of all sorts, which they put on for large companies and organizations. I felt that Marcy has skills that I couldn't afford to ignore. I have therefore also requested that she function as the manager/director of our Faire. I will continue to function as the coordinator/producer. After I introduced her to our president, Sandy Bartels, Sandy convinced Marcy to become the secretary for the executive board. (As you can see, when we see anyone who is willing to volunteer, we act very quickly!) As a result of having a person with such fine credentials and extensive professional experience, I have come to feel very good about being the chairman/producer of our Faire. The more I think about it, the happier that I am to be a part of this momentous project. We have a really strong team, and with a team like this behind me, I feel that we can do ANYTHING! (Incidentally, I expect for Marcy to initiate her own Faire up-date column in this very issue.)

I now seem to have all of the committee chairpersons that I need as Mike "the Frogman" Maksimik has agreed to coordinate the arcade games that will be going on during the Faire. Mike will be responsible for organizing the games and scheduling other volunteers who will take turns monitoring this activity. If you are interested in helping out, with this particular job, please get in touch with Mike or me.

Now that I have almost all of my committee heads, it's time to ask for volunteer support from the masses. Many of my volunteer positions are one person type jobs, but some require the help of others. Some need only a few extra people, and some may require as many as we can get. The areas in which we presently need the greatest amount of help are in the set-up, break-down, and transportation committees. We are talking about between one and two hours work for each event. Last year, each operation took about 45 minutes. If you are interested, please contact Tony Zlotorzynski for set-up, Jan Janowski for break-down, or Ken Knapp for transportation. You can leave them messages on the group's bulletin board, the hot-line, or at our post office box address. If you are unable or unwilling to do either of the above mentioned jobs, please refer back to the list of committees that I indicated in my article in last month's newsletter. Choose something that you would enjoy doing, but please choose. If you need help choosing, get in contact with me.

Please volunteer early. I would like to have all volunteers to make commitments by September 1. I would like to know by that time so that Sandy Bartels can generate a list of people who will be eligible to attend our first "Friday Night Social Mixer" free. These same people will also be eligible to attend our second "Saturday Night Dinner" as only volunteers, vendors, speakers, demonstrators, and presenters will be allowed to come. (Tickets will be sold to all attendees of the dinner for \$3.50, but children

under 7, when accompanying parents, will be admitted free.

One other place where we will need a lot of help is in the area of equipment. If anyone volunteers the use of his/her system, that person will receive a free one year membership renewal and his/her choice of a software disk in our library. If you loan us your equipment, we will indemnify you against any loss or damage to any part of that system. We only require that the loaner have a record of the serial numbers that is on each piece of equipment and that he/she have each piece of equipment well marked. Towards that end, I will have my electric engraving tool present the Friday before and the day of the Faire. If you are interested in volunteering your system, please contact the Mighty Buzzard, a.k.a. Buzz Krantz. If you can't get in touch with him, please get in touch with me, and I will give him your name.

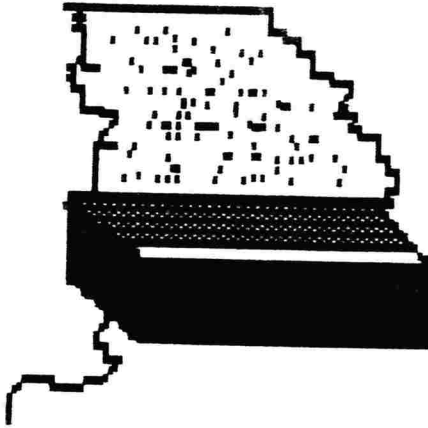
While it's on my mind, a sincere thanks to all the members who have made a point of getting me their completed application forms so that my records are complete. Thanks for the help, Team.

WE MUST EXPAND OUR VISION

I feel very strongly that if we are to remain a viable support organization, we must expand both our vision and the range of our activities. You may remember my heavy promotion of "The Frogman." I did this as I felt that he was a potential source of a great deal of knowledge relative to a most neglected aspect of our machine, i.e., the p-Code System. If you look at both his Pascal S.I.G. and his very well written, astute, and helpful articles, you will see why I feel that my pronouncements and prognostications have proved to be correct. I now want to find some member of our group who is in the "ed biz." You probably know that I am a teacher. Unfortunately, my present Faire and membership activities preclude me from getting involved in another aspect of our group. I am therefore looking for a brother or a sister educator. (You don't even need to live in the Chicago area.) I would like to see an educational article added to our already great newsletter. We must not forget that education (in addition to programming, entertainment, communications, and utility functions) is one of the important and major talents that a computer has. If we have such an article, it would, a.) provide another aspect of support and help to present and potential members, b.) serve as an attraction to those educators who are in schools that still have TI computers, and, c.) further validate us as a serious and respectable support organization. If you have any expertise in any aspect of education, please consider volunteering to write this much needed column. Also, relative to education, if anyone has any ideas about something that we could do, during the Faire, such as a workshop of some sort, please contact me while we have plenty of time.

Well, Sports Fans, this is about it. I'm going to shut my mouth now. I will be talking to you in our great Super Summer Issue. Take it easy, but keep on crunching those numbers!

ITS NOT TOO EARLY TO
START MAKING PLANS TO
ATTEND THE FIFTH ANNUAL
CHICAGO TI FAIRE



PROCESSED DATA

BY Sandy Bartels

I would like to thank all the volunteers that worked at the Villa Park computer show on May 9th. We met a lot of people at this show and we handed out many of our TI Faire announcement flyers, and group membership applications. Our newly purchased additional group computer system, was used for running a graphics demonstration disk created by Buzz Krantz to amaze the public at the fair. We already have one new member from this show, and we hope to get more members as a result of this outing in the weeks to come. We are planning to attend more local non-TI computer shows in the coming months. If you would like to attend one of these shows as a volunteer representing our group, please let me know, we can always use the help, and you can get into the show for free.

This month some of our non-attending members may have gotten their newsletters a little later in the month. I would like to explain. The club has found that the printing costs and postage, as you should know from personal experience, have been increasing and we did not want to reduce the newsletter size in anyway. We want to keep your newsletter at the same high quality that it has always been. The Executive Committee had to look at different ways to cut costs to keep within our yearly budget, without reductions in the newsletter. We found that by mailing our newsletter bulk mail, we would be able to save the money required, and still give Carole the budget she needs to keep producing the high quality newsletter that you are used to reading. Please bare with us. I know that you want your newsletter as soon as possible, but by mailing bulk mail you are saving your club money that can go into producing a better newsletter from which you will ultimately benefit.

99/4a SUPPORT

Myarc's Geneve 9640 Computer	
with pc-type keyboard.....	\$500.00
with enhanced keyboard.....	\$530.00
JOY PAINT '99 with clip art disk #1.....	\$39.95
JOY PAINT'S PAL.....	\$9.95
CLIP ART DISK #2.....	\$9.95
EXTENDED BUSINESS GRAPHS II.....	\$24.95
BANNER '99.....	\$19.95

For the GENEVE please add 2% shipping.

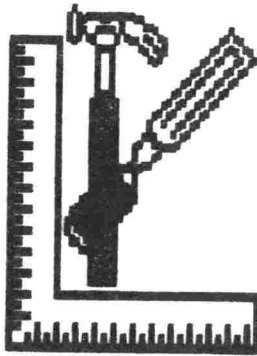
Order information 517 546 0566

Please write for a free catalog!

Great Lakes Software, Inc.

804 E. Grand River Ave

Howell, MI 48843



HARD TIMES

AI SLUMP

Well folks it's been a while since talking to you via the medium of the printed page. But anything worth reading is worth waiting for. I can only apologize by saying that my on site examination of the LOYOLA HOSPITAL nursing staff got them "A" ratings.

While I was there, I had a couple of sleepless nights, what with all the tubes etc. I also had a dream. A dream that is hard to describe, but I will attempt it. Bear with me and you will see it's relevance to our little computer.

"I could hardly sleep that night and so wandering restlessly down to the den I powered on my computer. I was bored and listless so I needed some excitement. I'll dial up the CONNECTION BBS, Hank has a very exciting board and all the techies hang out there. So depressing #5, my screen changes from black to blue and here's my MASS-TRANSFER screen. After answering the appropriate prompts I get a CONNECT. I sign in, read the messages, replying to a few from some guys named BONE CRUSHER and BUZZARD. I change to the file transfer section and look over the catalog, UH OH here's one I want. Darn I can't download from this BBS with MASS-TRANSFER. What can I do, sign off and call back? That gets expensive, well let's live dangerous. FCTN7>><, FCTN=><<, "Y", now I'm out of MASS-TRANSFER, space><<, #6, DEFAULT FILE><<, and I am in FAST-TERM. Let's see if the board missed me? D><< for a download,.....theres the prompt for a file name. HA HA HA the BBS never knew I was gone."

Ladies and gentlemen, the BBS didn't have time to miss me. It took all of 3 seconds to change from MASS-TRANSFER to FAST-TERM. On what type of computer you ask? Well a TI, what else. I never heard of those programs being available for my ATARI.

How could I change programs so fast? With my HORIZON RAMDISK.....and a neat little set of programs called MENU and CONFIG. Excuse me Jack if I do a little software reviewing while I deal with this hardware review. These have got to be the single most useful set of programs around for the HORIZON owner. I can do almost anything with these programs that can be done with FUNNELWEB. In some cases I can do more. But let's not get the cart before the horse. Speaking of CARTS it will also work with your SUPER-CART. I have to get back to the hardware I am trying to talk about, it's just so hard with software that is so, TOTALLY awe inspiring, but back to the HORIZON RAMDISK.

Back before the Faire in 1986, I had seen an ad for the HORIZON card and was about to order one when prudence won out. I decided to wait for the Faire, just maybe they (HORIZON) would be there. I was thrilled to see them, I also had a board coming from MIDWEST ENGINEERING. So that was two boards. GREAT, I'll really be cooking with gas. I also took the opportunity to buy a kit of parts from BUD MILLS. The basic idea being to build one from the kit and scrounge parts locally for the second one. That way I could compare the prices between the two. The kit was a show special \$105.00. Not really bad when you consider the value, just a little hard on the budget. The first part of the experiment went well, locally the parts were about \$3.00 more expensive than the kit of parts. (Normal price on the kit was \$110.00) So it is conceivable that you could save \$2.00 on the kit now, assuming that it is still the same price. For those of you who

don't get thrills from scrounging through parts stores you may also be able to get a good deal on parts from the following source.

MIDWEST ENGINEERING CONSULTANTS
203 ARCADIA DR.
VERNON HILLS, IL. 60061
312-362-9034

This source is owned by a fellow User Group member so we are helping our own. I think the arrangements that can be made with the owner will be mutually beneficial. What you can't obtain from Midwest can be found at either AZOTIC on Belmont in CHICAGO, or NU-TRON in VILLA PARK (ask for FOZI). The battery holders I picked up at RADIO SHACK. The sooner you start the better because the prices on the chips are unstable to say the least. My two boards were originally built as double sided, and were upgraded to 256k at a later date. I have built many pieces of electronic gear so this project was no problem for me. If you have built any type of advanced kit previously you should have no problem with the ramdisk kit. The circuit board is top quality, but the foil paths are rather fine. This is only a problem if too large an iron is used for soldering or heat is applied for too long a period of time.

The kit from BUD MILLS was top quality, but I was missing some sockets. It cost me a phone call to TOLEDO OHIO which was made on November 4th. My parts arrived on November 7th with a short note of apology. I felt the oversight was because of rushing for the Faire and was speedily rectified.

The address for BUD MILLS SERVICES is:

BUD MILLS SERVICES
166 DARTMOUTH DRIVE
TOLEDO, OH. 43614
419-385-5946 6PM-9PM

I usually work with someone nearby, that way if there is a problem it is easier to remedy. After you finish reading this, if you want to build a ramdisk you know how to contact the necessary resources.

Let's talk about the process of building the boards. Actually they are a lot of FUN to build. Fun is spelled with capital letters because they were that much fun to build. A couple of pointers:

1. Sort the different sockets by height. Put in the shortest ones first.
2. The germanium diodes (1N34A) are very sensitive to heat. Draw it away from the body of the diode with some sort of heat sink.
3. If you are knowledgeable about electronics scrounging can be fun too, if you aren't knowledgeable it could be a costly mistake. Recognize your strengths and weaknesses.
4. Follow the instructions carefully. They are well prepared.
5. Upon completion of the soldering look for shorts, and if you have a DVM, use it to measure between socket pins to make sure you don't have shorts.
6. I checked each set of chips for a day and then I added the second level to the board. If you are going for 256k from the start, I would advise checking all three sets.

Once you have built your card, run the test as the directions specify. They will let you know if you have a problem. If you have run the tests as you checked each set of chips, there should be no problems.

At this point you are ready to load in the software. It is called ROS and the disk it is on should have that name. Once you have done this, then you have to run DM1000 to initialize the ramdisk. If you purchased your ramdisk from MIDWEST, you will have a specially modified version that will read the correct number of sectors for the 256k ramdisk. Otherwise for 256k use the commands for double sided/double density. Just remember you are starting off with 448 sectors used already. (Actually they just aren't there). You are now ready to load your ramdisk up with files. Here is where good judgement can really pay off. I never have to look for programs anymore. Virtually everything I use is on the ramdisk. It is the epitome of efficiency.

My opinion is: It is not a question of do you need a HORIZON ramdisk, it's a question of how many do you need. On a scale of 1-10, I give this product a "12". If you add the MENU and CONFIG the rating goes up to "15". I could not work without this product and the gentlemen who have made this available to the TI community deserve a STANDING OVATION.

* * * * *

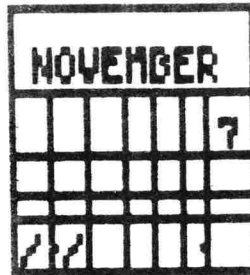
I must in all fairness take a few minutes to look at the software for this DYNO-MITE product, and if I seem to be excited, I am. I think that the combination of the HORIZON ramdisk and the MENU/CONFIG are the hottest item to hit the TI world since time began. (Relatively speaking)

Let's take a few minutes to give MENU and CONFIG a brief overview. On power up if you have set AUTO ON when setting up the CONFIG, you will have a MENU screen with 10 options including the cartridge in the port. If it is a SUPER-CART it will also access that with the press of the S<<. The screen colors are the ones that you set up on the CONFIG. The screen will look something like this:

1. Show Directory
2. Display File
3. Run Program
4. Disk Manager
5. Your Option #5
6. Your Option #6
7. Your Option #7
8. Your Option #8
9. Your Option #9
- C. Cartridge in port

Nice huh? Now hit the space bar, there are 9 more options. These are set as calls and can even be accessed from basic programs if you have the version 6.3 ROS. If you press SHIFT<< 1 or 2 the directory or file will be sent to the printer. If you have a TRIPLE TECH card and press T<< you will have the time displayed on the screen. This should just whet your appetite, for more enthusiasm just contact your closest owner of a HORIZON who is using this software. Talk about a match made in heaven!!!!!!!!!!!!

See you next month, I have to go play with my MENU.....bye



FAIRE UPDATE

MARCY BRUN

We're off and running. After meeting some of the various committee members that are working on the 1987 Faire, I feel very confident in saying we will have a "MARVELOUS SHOW!" The committee people that I met at the May meeting really know what their doing.

We would like to incorporate into the Faire the theme "THE COMPUTER THAT REFUSES TO DIE". We will elaborate on this further at a later time. In future newsletters I am planning on telling you the names of the exhibitors that sign-up for the Faire and the speakers and topics we will be having at the seminars.

As of this reading, we should be started with getting out the information of the Faire to the potential exhibitors. As of this writing, I do not have any names of exhibitors that have signed-up for space yet. However, I do not see any trouble with filling up the floor with dealers that you would like to meet. I was told that last year we had to turn away exhibitors because of the limitation of tables. By the way, if you are a dealer or have any names of dealers that you do business with and would like us to contact them about the Faire, please send your name or list to me through the P.O. Box as soon as possible. We are always looking for new prospects.

This year we will be having a Social Mixer the night before the Faire. I think this is a good idea. It will be at the Holiday Inn O'Hare/Kennedy, which is just down the road a bit going North. There we will have a relaxed, enjoyable atmosphere to mingle with each other. (There are a few people whose faces I have seen, but haven't had the opportunity to meet at our monthly meetings.) I hope to see all of you at the Mixer. Please mark your calendars to join us.

We will also be having a Dinner after the Faire. This will only be for exhibitors, the Board Members and all the people that work on the Faire. If you are interested in coming to this Dinner, which will be right at Triton College, start volunteering to help us with the Faire.

The TI-Faire is a great vehicle to promote the Users' Group. The TI-Faire is also a great vehicle to increase the group treasury a little. This is your TI-Faire and your Users' Group. So, remember to bring all your friends to the Friday Night Social Mixer and the Faire.

FAIRE QUESTIONNAIRE!

As I have mentioned in my regular article, work has already begun on this year's Faire. Though it is five months away, there are many things which require the attention of various aspects of the Faire committee, and a lot of planning is presently going on in order that this year's Faire will be of the same high calibre as our past ones.

In order that this year's Faire is most relevant to the needs of the TI community, we are requesting that the general membership provide some input as to what it would like to see presented. Please fill in the following questions, fill out the information form, on page four, for identification purposes, and mail to our post office box number. All questionnaires will be read and considered. All information will be considered as confidential. Stand up and be counted! Get the kind of a Faire that you want see!!!

 (Within each of the five groupings below, please place a number next to those area(s) which are of interest to you. Place a number 1 next to the area of greatest concern, a 2 next to that area of next lesser concern, etc.)

WHAT WOULD YOU MOST LIKE TO SEE AT THIS YEAR'S FAIRE?

Tutorial or demonstrations in the following languages?

Console BASIC _____
 Pascal (p-Code) _____
 LOGO _____

 WHICH OF THE FOLLOWING SOFTWARE PACKAGES WOULD YOU LIKE TO HAVE A DEMONSTRATION OR A TUTORIAL ON?

TI Writer _____
 Microsoft Multiplan _____
 TI Artist _____
 Creative Filing System _____
 PR Base _____
 Navarrone Data Base Manager _____
 Fast Term (with dialer) _____
 Mass Transfer _____
 Funnel Writer (Loader) _____

Horizon RAM disk ROS/menu _____
 RAG Assembler _____
 STAR Assembly Routines _____

 WHICH OF THE FOLLOWING HARDWARE SUBJECTS WOULD YOU LIKE TO HAVE
 A TUTORIAL ON?

Building a "Super Cart" _____
 Building a Horizon RAM disk _____
 The care and cleaning of a TI console and "PE" box _____
 The care and cleaning of an Epson Printer _____
 The care and cleaning of a Gemini (Star) Printer _____

 WHICH OF THE FOLLOWING PIECES OF HARDWARE WOULD YOU LIKE TO SEE
 DEMONSTRATED?

The Triton Turbo XT? _____
 The Myarc 9640 computer? _____
 The Horizon RAM disk? _____
 The Myarc memory expansion unit? _____
 The Mechatronics GRAM card? _____

 WHICH OF THE FOLLOWING GENERAL SUBJECTS WOULD YOU LIKE TO HAVE A
 TUTORIAL ON?

A general, open question and answer session for
 beginners _____
 A session devoted to interfacing with b.b.s.'s _____
 A session devoted to educational uses and software _____
 A session devoted to the various alternatives for
 the expansion of a TI-99/4A computer system _____
 Using the TI-99/4A computer system for HAM radio _____
 Using the TI-99/4A computer system for music (MIDI) _____
 Using the TI-99/4A computer with cassette storage _____
 Interesting software packages in our library _____
 Interesting commercial software available for TI _____

New hardware available for the TI family of computers _____

What have we left out that you would like to see? _____

Fill in your ideas: _____

GENERAL QUESTIONS (Please answer "yes" or "no.")

Do you intend to attend the 1987 Faire? _____

Have you ever attended a Faire before? _____

Will you attend our "Friday Night Social Mixer? _____

Would you like a place for a camper (RV)? _____

Would you be interested in receiving information about our package deal at the O'Hare/Kennedy Holiday Inn (\$65.00 for single or double occupancy per night)? _____

ATTENTION, ALL MEMBERS!!!!

Please check your mailing label. If you find that there is a blue mark in its upper right hand corner, this means that I do not have an application of yours on file. I need the application to make sure that I have correct and sufficient information for all members. If you have a blue mark on your mailing label, please pull out this center page, fill in the application, put your membership number on it, and send it to our post office box number. You will find it in our return address on the same page with your mailing label. If you are able to attend the June meeting, you can drop it off at the membership table.

Even if you don't have a mark on your mailing label, please check it for any errors. If there are any, or if your status has changed, relative to any of the information requested on the form, please take the time to fill out the application and send it in or drop it off at the membership table.

Suppose you don't have a mark on your label, and all of the requested information is the same. In such a case, please pass the application on to some non-member who owns a TI. If they join the group, it automatically means your choice of a free program disk from our great library.

Thanks a lot for your cooperation.

Sincerely yours,
Don Jones
Membership/Faire Chairman

CHICAGO AREA TI-99/4A USERS' GROUP, INC.
APPLICATION FOR MEMBERSHIP

Date _____

Name _____

Address _____

City, State, and Zip _____

Telephone Number (_____) _____

Occupation _____

Computer Equipment Owned _____

Please List Any Computer Languages That You May Know _____

Special Computer Related Interests And/Or Needs _____

How did you hear of our group? _____

Annual Dues for Membership - \$18.00 (\$21.00 for Non-Attending Status)

(Over-seas members: Please add \$3.00 for postage)

Disk or Cassette? (Non-Attending Members only, please circle one)

(Please allow six to eight weeks for processing and delivery.)

Make checks payable to:

Chicago Area TI-99/4A Users' Group, Inc.

Send completed application and check to:

Don Jones (Membership Chairman)

c/o Chicago Area TI-99/4A Users' Group, Inc.

P.O. Box 578341

Chicago, Illinois 60657

Please do not write below this line.

For Office Use Only:

Date Application Received _____

Membership Number Assigned _____



SOFTWARE REVIEW

Jack Tophan

BILL KNECHT is offering two DS disks of music programs for \$6 to cover his costs. One has popular and folk tunes. The second has hymns and Christmas medley. XB and full system required.
815 Yorkshire, Pasadena, TX 77503

Stu Olson reports that Mass Transfer 4.3 will have YMODEM as well as X, for even faster file transfers. The perfect gets.....???

RAPID COPY by Barry Boone and distributed by Texaments offers super fast disk copy utilities for MYARC, TI and CORCOMP controllers. XB load or E/A OPT 5. A modified MYARC disk management file puts the RAPID COPY option on the UTILITY menu. When selected RAPID COPY is loaded for use. MYARC disk manager is then on the RC menu so you can go back. I have all the files on my RAM DISK so it all happens with blinding speed. RC is a track copier so the target disk is formatted to match the source disk then copied track by track. No it does not copy the serious protected files. The CORCOMP files operate much the same way. Part of the speed is the ability to optimize the track interlace pattern. Verification is an ON/OFF option that slows the copy time slightly. I use verification to avoid a bad copy. A disk catalog option is included as well. For technical reasons the MYARC program will not let the RAM disk be used in the copy process. Hunter has RC for \$17, a real value. The way RC integrates itself into your disk manager is first class, and shows what can be done when the effort is taken.

TEXAMENTS has announced TI-99/4A TURBO PASCAL. TP is a single pass compiler and linker. You can use existing programs or write your own. System requirements are disk, 32k, and an E/A cart. For \$80 you will get TP, an extensive user manual, and a window management program. The compiler generates pure TMS9900 machine code in a single pass at up to 80 lines per second. The compiled program will run up to 50% faster than C99. E/A OPT 5 programs can be generated. Application library and programming aids are in the works. For more info call (516) 475-3480.

The Central Oklahoma UG purchased the Owner written and Master 99 software libraries from the defunct International UG and has placed them in the public domain. They are selling SSSD or DSSD disks of files at \$2 each. Contact them for more info at:
P.O. BOX 30703, MIDWEST CITY, OK 73110

The club purchased TOTAL FILER by Warren Agee and distributed by ASGARD SOFTWARE. TF is a wholly TI 99 unique program which is aimed at organizing your TI WRITER text files. Each TIW file is cataloged with Author, Title, Abstract, and key words. Up to 127 files can be cataloged on one data disk. System requirements are disk, 32K, and XB or E/A cart. A printer is optional but desirable
Once a data disk is full, a utility compresses the data and key word search speeds up. One big plus is that the defaults that are aimed at

text files can be changed so TF can be easily used for collections, magazine and book articles, etc. The power is in the key word search. System configuration can be changed for 1/2 drives, printer defaults, etc. and Saved. Records can be Added, Viewed, Edited, Saved, Printed, and Searched. Initialized and empty data disks are prepared for use by a menu selection.

All of the records on the data disk can be searched for any of the keywords. The * is used as a wildcard where uncertainty exists. A really neat and well thought out program. \$23 from Hunter Electronics.

NOTE: Both Rapid Copy and Total Filer will be among the goodies to be auctioned off at the upcoming club auction.

Our own OWEN MAYER has written a program for keeping track of your Tape and Record collection. On the club BBS as BRK2MUSIC and BRKDOC, he wrote the program to improve upon the TI PRK cart. The names should have been, I think, PRK2MUSIC, etc. Oh well, a good program that does what it says. Thanks Owen.

THE BASIC ASSEMBLER



BY Steve Peacock

USING A CHARACTER IN A MAZE (READ THE SCREEN DO NOT GO THROUGH THE WALL)

This month we will use several of the things that have been taught in past months. With this program, a maze is created and you move your 'man' through it. The main new thing is how to read the screen and not move if you are up against a wall. The BASIC command 'CALL GCHAR' is used to read a character, on the screen, and then print the animated character, if the new position is valid. The program will not permit the printing, if the new position is not valid. In the assembly version the command 'VSBR' is used. In using this routine, the following must be kept in mind. First store the current row and column position in a holding variable. Then update the row or column. Next read the row and column to see if you can print there. If you can, then print. If not retrieve the stored row and column.

When typing in the assembly version of the maze, please note that most lines start with two spaces and also end with two spaces. These spaces must be included in order to make the total number of bytes correct.

In line 440, 470, 480, 520 and 530 of the BASIC version there is a variable 'UCR', this is the UnChangedRow. Likewise in line 440, 490, 500, 520 and 530 the 'UCC' is the UnChangedColumn. Please save this program. I plan to add to it in the future. If you type it in exactly as it is printed you will be able to make the changes without any trouble.

```
#####
100 REM PROGRAM BA7B==>Basic Assembler #7 Basic Version
110 REM USING A CHARACTER IN A MAZE (READ THE SCREEN DO NOT GO THROUGH THE WALL)
120 REM (C)1985 S. PEACOCK (Save this program, we will add to it later.)
```



```

130 REM YOU MAY WANT A 'CALL CLEAR' HERE
140 READ DF1$
150 CALL CHAR(43,DF1$)
160 DATA CCCC3333CCCC3333
170 CALL SCREEN(7)
180 CALL COLOR(2,11,15)
190 DISPLAY AT(1,1):"++++"
200 DISPLAY AT(2,1):" + "
210 DISPLAY AT(3,1):" + + + + + "
220 DISPLAY AT(4,1):" + + + + + "
230 DISPLAY AT(5,1):" + + + + + "
240 DISPLAY AT(6,1):" + + + + + "
250 DISPLAY AT(7,1):" + + + + + "
260 DISPLAY AT(8,1):" + + + + + "
270 DISPLAY AT(9,1):" + + + + + "
280 DISPLAY AT(10,1):" + + + + + "
290 CALL HCHAR(10,31,43,2)
300 CALL HCHAR(11,1,43,2)
310 DISPLAY AT(11,1):" + + + + + "
320 DISPLAY AT(12,1):" + + + + + "
330 CALL HCHAR(12,31,43,2)
340 CALL HCHAR(13,1,43,2)
350 DISPLAY AT(13,1):" + + + + + "
360 DISPLAY AT(14,1):" + + + + + "
370 DISPLAY AT(15,1):" + + + + + "
380 DISPLAY AT(16,1):" + + + + + "
390 DISPLAY AT(17,1):" + + + + + "
400 DISPLAY AT(18,1):" + + + + + "
410 DISPLAY AT(19,1):" + + + + + "
420 DISPLAY AT(20,1):" + + + + + "
430 DISPLAY AT(21,1):" + + + + + "
440 R,UCR=10 :: C,UCC=17
450 CALL HCHAR(R,C,88)
460 CALL JOYST(1,X,Y)
470 IF Y=4 THEN UCR=R :: R=R-1 :: CALL GCHAR(R,C,A):: IF A<>43 THEN GOTO 520 ELSE R=UCR
480 IF Y=-4 THEN UCR=R :: R=R+1 :: CALL GCHAR(R,C,A):: IF A<>43 THEN GOTO 520 ELSE R=UCR
490 IF X=4 THEN UCC=C :: C=C+1 :: GOSUB 560 :: CALL GCHAR(R,C,A):: IF A<>43 THEN GOTO 520 ELSE C=UCC
500 IF X=-4 THEN UCC=C :: C=C-1 :: GOSUB 580 :: CALL GCHAR(R,C,A):: IF A<>43 THEN GOTO 520 ELSE C=UCC
510 GOTO 460
520 CALL HCHAR(UCR,UCC,32)
530 UCR=R :: UCC=C
540 CALL HCHAR(R,C,88)
550 GOTO 460
560 IF C=33 THEN C=2 :: R=12
570 RETURN
580 IF C=1 THEN C=31 :: R=11
590 RETURN
600 END

```

```

*****
*****
*

```

```

*PROGRAM BA7A=>Basic Assembler #7 Assembly Version
*USING A CHARACTER IN A MAZE (READ THE SCREEN DO NOT GO THROUGH THE WALL)

```

*(C)1985 S. PEACOCK (Save this program, we will add to it later.)

```

REF VSBW, VSBW, KSCAN, VMBW, VMBR, VWTR
DEF START
START LI R0, >0958 *REDEFINE CHARACTER '+' (>0958 ADDRESS)
      LI R1, DF1 *DF1 IS THE HEX CODE FOR THE BARRIERS
      LI R2, 8 *8 BYTES TO WRITE
      BLWP @VMBW
DF1 DATA >CCCC, >3333, >CCCC, >3333
      LI R0, >0706 *WRITE TO REG. 7, CHANGE SCREEN TO DARK RED
      BLWP @VWTR
      LI R0, >0385 *CHANGE COLOR OF SET 2
      LI R1, >AE00 *DARK YELLOW ON GRAY
      BLWP @VSBW
      LI R0, >0384 *CHANGE COLOR OF SET 1
      LI R1, >6600 *DARK RED ON DARK RED (FOR THE SPACE/CHAR 32d 20h)
      BLWP @VSBW

```

```

*****PRINT MAZE. MAZE CAN BE CHANGED BY ARRANGING THE
LI R0, 0 *'+ ' TO DIFFERENT POSITIONS. WHEN PRINTING THE
LI R1, MAZE *FIRST 'X', ADJUST POSITION IF NEEDED.
LI R2, 672
BLWP @VMBW

```

```

*****
***** **COLUMNS !** NOTE: SPACES IN COLUMNS 1,2,31,32
***** ** V** MUST BE INCLUDED
***** 1 2 3 TOTAL
***** 12345678901234567890123456789012 BYTES

```

MAZE	TEXT	1	2	3	TOTAL
	' ++++++				* 1 32
	' +			' +	* 2 64
	' + ++++++ + + + + ++++++			' +	* 3 96
	' + + + + + + + + + + + + + +			' +	* 4 128
	' + +++++ + + + + + + + + + +			' +	* 5 160
	' + + + + + + + + + + + + + +			' +	* 6 192
	' + + ++ + + + + + + + + + +			' +	* 7 R 224
	' + + + + + + + + + + + + + +			' +	* 8 O 256
	' + + +++++ + + + + + + + + +			' +	* 9 W 388
	' + + + + + + + + + + + + + +			' S	320
	' + + + + + + + + + + + + + +			' <-	352
	' + + + + + + + + + + + + + +			'	384
	' + + + + + + + + + + + + + +			'	416
	' + + + + + + + + + + + + + +			'	448
	' + + + + + + + + + + + + + +			'	480
	' + + + + + + + + + + + + + +			'	512
	' + + + + + + + + + + + + + +			'	544
	' + + + + + + + + + + + + + +			'	576
	' + + + + + + + + + + + + + +			'	608
	' + + + + + + + + + + + + + +			'	640
	' + + + + + + + + + + + + + +			'	672

```

LI R0, 304 *PRINT FIRST 'X'
LI R1, >5800 *
BLWP @VSBW *
CLR R1
LP LI R1, >0100 *>0100 TO READ JOYSTICK #1
   MOVB R1, @>8374 *TO SET UP KSCAN TO READ JOYSTICK
   BLWP @KSCAN *SCAN THE KEYBOARD (JOYSTICK)
   CLR R1 *CLEARS REG. 1 WHERE TO VALUE @>8376 WILL BE PLACED.

```

```

*****RIGHT BYTE MUST BE ZERO FOR COMPARISON.
      MOV  @>B376,R1    *CHECK Y RETURN
      CI   R1,>0400    *Y RETURN OF UP POSITION (04)
      JNE  T1          *JUMP IF NOT EQUAL TO T1 (NEXT CHECK)
*****IF EQUAL PUT THE UNCHANGED POSITION IN REG. 8, THIS
*****MAY BE NEEDED LATER, IF THE 'X' IS NOT TO BE MOVED
      MOV  R0,R8        *REG. 8 WILL HOLD THE UNCHANGED POSITION
      AI   R0,-32       *CHANGE REG. 0, DECREASE BY ONE ROW (MOVE UP)
      JMP  PG          *JUMP TO PRINT ROUTINE
T1    CI   R1,>FC00     *Y RETURN OF DOWN POSITION (-04d FCh)
      JNE  T2          *SAME AS ABOVE
      MOV  R0,R8
      AI   R0,32
      JMP  PG
T2    MOV  @>B377,R1    *CHECK X RETURN
      CI   R1,>0400    *X RETURN OF RIGHT POSITION (04)
      JNE  T3          *SAME AS ABOVE
      MOV  R0,R8
      INC  R0
      JMP  PG
T3    CI   R1,>FC00     *X RETURN OF LEFT POSITION (-04d FCh)
      JNE  LP          *SAVE AS ABOVE
      MOV  R0,R8
      DEC  R0
*****START OF PRINT ROUTINE
PG    MOV  R0,R9        *REG. 9 HOLDS THE CHANGED POSITION
      CLR  R1
      BLWP @VSBR       *READ TO SEE IF REG. 0
      CI   R1,>2B00     *HOLDS THE '+' IF IT DOES THEN WE CAN NOT PRINT
      JEQ  CB          *THE 'X' IN THE WALL (CB-CHANGE BACK)
      CLR  R1          *IF NOT CLEAR REG. 1
      MOV  R8,R0        *MOVE REG. 8 (THE UNCHANGED POSITION) TO REG. 0
      LI   R1,>2000     *PRINT A BLANK ON CURRENT POSITION
      BLWP @VSBW
      CLR  R1          *CLEAR REG. 1
      MOV  R9,R0        *MOVE REG. 9 (THE NEW POSITION) TO REG. 0
      LI   R1,>5800     *PRINT A NEW 'X'
      BLWP @VSBW
      LI   R4,6000     *
      DEC  R4          *A DELAY LOOP OF 6000d *TRY WITHOUT THIS LOOP
      JNE  $-2         *
                        *FOR SPEED!!!
      JMP  LP
CB    MOV  R8,R0        *CHANGE PRINT POSITION BACK IF WALL IS HIT
      JMP  LP          *JUMP BACK TO MAIN LOOP
      END

```

FROM OTHER ORPHANAGES

Jack TOPHAM

From EAST SUSSEX, the town of BRIGHTON, in ENGLAND comes TI*TIMES. Same size as our newsletter and 61 pages. Good NEWSLETTER made even better by John Behnke's GRAPH SHEET program on page 28. Watch it Carole, you got competition.

The FOX CITIES UG has a couple of TIPS for all. 1) When you are in the COMMAND LINE of TI WRITER, press CTRL Q will take you to the EDIT mode directly. 2) TI is selling new and reconditioned 99 components at very low prices. PEB for \$55 +\$3 S&H. Call 1-800-TICARES for more info.

Yours truly blew it last month. To get out of SAVE or OLD casset routine, use SHIFT E NOT CTRL E. Thanks to all 200 of you that came down on me.

John Behnke made the ATLANTA CALL NEWSLETTER in Jan with his LABEL MAKER program. You sure can't keep a good man down. Thanks from Atlanta John. One UG which will remain nameless picked up both of my Jan articles in total without any credit. Wish I was famous like John. My lawyers are ready to go for the big \$.

The LA 99 TOPICS had a TI WRITER Tip. To get automatic page numbering placed other than at the left hand corner, follow the normal commands for either HEADER or FOOTER, and use carets (^) to move the page number to the right. The caret is a required space. Try it.

The March TIDBITS from Kentucky has a TI-ARTIST caution. If you have full disk and Vs 2.0 you may not be able to access FONTS. PICS and SLIDES will load but FONTS may not. DEVICE ERROR will be reported. Delete one file and you will be back in business. This is true of any disk format.

The BLUE GRASS 99 UG, also in Kentucky carries a warning from Dr. Romano from AMNION HELPLINE. A bogus mail order company called "NATIONAL ASSISTANCE GROUP" who is selling PUBLIC DOMAIN software and FAIRWARE at exorbitant prices. Thanks GUY. Have you taken advantage of the HELP LINE. GAD! Why not?

The SUNCOAST BEEPER Tip of the Day comes from Jim Swedlow (of SIDE PRINT fame). When printing a TIW file with a BUG and you dont want to waste paper as you try to find and fix it, change PIO to RS232.BA=9600. The TIW will output into thin air until it gets to the BUG then stop. Change back to PIO when the BUG is gone. Jim is one smart guy.

The MOBILE, ALABAMA UG reports that FORTRAN IV is available for the 99/4A. LGMA Products has announced 99 FORTRAN at \$50. Similar to BASIC it is true compiled language. From TENEX (219) 259-7051 or write LGMA at Box 210, RD 4, Coopersburg, PA 11801. The 99 lives on and gets bigger and better. They also report that TI has replacement GROM ports for \$5.95, \$1.50 ship, and 6% tax. Charge card OK. Call 1 800 741 3067.

The UG in AMARILLO, TEXAS has taken on the question of when and how should disk drive heads be cleaned. They report that their study concluded that head cleaning disks are overrated and potentially harmful. Seems that normal use provides head cleaning action. Very poor quality disks could flake iron oxide and be a problem. If you do want to clean the heads, open up the drive and use a swab and isopropyl alcohol. At the same time you can check the guides for smooth free travel. A half drop of fine oil will go a long way. All this at your own risk. Don't fix what ain't broke.

The VANCOUVER UG writes about a HIGH SPEED CASSETTE utility that cuts cassette load and save times in half. Send \$5 to John Willford at RD #1, Box 73A, Jeannette, PA 15644. Sounds like a real winner.

From NORTHERN NEW JERSEY UG comes two XBASIC Tips. 1) To hide an object or text, make it the same color as the screen and then have it appear at once by changing to the desired color. 2) Randomized numbers on the 99 tend to repeat. Fix it with a line...
100 I2=1 :: I=RND :: IF I2=I THEN 100

At the March meeting we heard a lot about TI WRITER and many inquired about SIDE and DOUBLE printing of text. LA 99 Computer Group is offering PRINTGEMS for \$10. This is a

collection of Tom Freemans printer utilities and worth every penny. 310 sectors of goodies. One program allows printing 2, 3, or 4 columns. Sideways printing of course! A bonus program allows printing a program listing any width you wish. All three programs are fully documented. This is FAIRWARE. Use it, then pay for it!
 PO Box 3547 GARDENA, CA 90247-7247

Here's another modification for your console. A recent MICROPENDIUM showed how to defeat the ALPHA LOCK UP business when using JOYSTICKS. A 1N4148 diode wired between pin #6 of the keyboard connector and the alpha lock switch. The cathode goes to pin 6 thanx. A snap to do, I did not have to remove the keyboard to add the diode. Works as advertised. NO MORE ALPHA LOCK NONSENSE.

BUG NEWS from WHITTIER, CA reviewed Jim Swedlow's vs 3.3 SIDE*PRINT and XB*TOOLS. S*P is made to order for MULTIPLAN and comes with full DOCS. I use the earlier version which I reviewed last year and now it has been made better. It now includes a mini disk manager and three different fonts. XB*TOOLS is a must have for XB programmers. File compactor, variable lister, data compress, move lines, and full DOCS. Send \$5 for each program to Jim at 7301 Kirby Way, Stanton, CA 90680.

THE PASCAL ADVENTAGE

MIKE MAKSIMIK

As some of you already know, Pascal is a highly structured language. Not only in program form, but in variable and type declarations, too. A type is a formal declaration of a data structure, whether it be simple integers to complex files and records. This month we will talk about these data structures.

A Pascal type declaration for an array is as follows:

```
TYPE Ary=ARRAY[1..200] of CHAR;
```

This statement allocates 200 bytes for CHARacters in an array called Ary. Note that in many implementations, including the P-system, you can save memory by preceding the declaration by the word PACKED:

```
TYPE Ary=PACKED ARRAY[1..200] of CHAR;
```

Now, memory will be used more efficiently and space will be saved, but it may take longer to operate on this array, because the individual characters may not fall on byte boundaries. The computer has to unpack the array before performing any operations on it, then it must repack it to store it back in memory. On our computer, the difference is negligible. Note that, arrays can be of any type, even your own pre-defined types! For example, if I wanted to store an array of 500 names, addresses, phone numbers, etc., I can do so by creating a RECORD:

```
TYPE CharArray=Packed Array[1..33] of Char;
   AddressList=Packed Array[1..500] of RECORD
                                   Name:CharArray;
```

```

Address:CharArray;
CityStateZip:CharArray;
Phone:Packed Array[1..14] of char;
End;

```

I have just defined the type, but now I have to assign the type to a variable. I'll call the variable DataBase:

```

VAR DataBase:AddressList;
    X:Integer; (*used below*)

```

Now, say in the body of my program, I wanted to input some values. I want to read the name, address, etc. of a person from the keyboard. We can use the WITH..DO pseudo-loop to do this, along with some readln and writeln statements:

```

BEGIN
FOR X:=1 to 500 DO
  WITH DataBase[X] DO
    BEGIN
      Writeln('input a name');
      Readln(Name);
      Writeln('input the address');
      Readln(Address);
      Writeln('input City, State and Zip');
      Readln('CityStateZip');
      Writeln('Input Phone #');
      Readln(Phone);
    END;
  (*end of routine*)

```

Well, that loop is good for inputting a lot of records, but what if I want to access just one field of the record, like the phone number? Well, you CAN directly access the phone number:

```
Writeln(DataBase[350].Phone);
```

Notice the period separating the array and its record fields. Use the period when you need to do the access directly.

When you declare a Packed Array of Char in P-system pascal, you can also use it with the STRING intrinsics listed in the p-system compiler manual. In addition, If you wanted to change a single element of a string, you can do so just as if it were a packed array of char. Look at this example:

```
Type TestString=Packed Array[1..80] of Char;
```

```

VAR Test1:TestString;
    Test2:String[80];

```

In this case, I have declared two equal structures. They are completely compatible, and in UCSD pascal, they may be interchanged as freely as possible. One may print the entire array, or do array operations on the string, as follows:

```

BEGIN
  Test1:='Hello, how are you?';
  Test2:='I am fine...';
  Writeln(Test1,Test2);

```

The output from these two line would be:

```
Hello, how are you?I am fine...
```

You may insert spaces where you wish. If, for example, I wanted to change the three periods in Test2 to exclamation points, I would do it like this or in a similar fashion:

```
Test2[10]:='!';
Test2[11]:='!';
Test2[12]:='!';
WriteLn(Test2);
```

The output would be:

```
I am fine!!!
```

This may be very true for arrays, but can we improve on these great ideas? Yes! There are two main types of data implementations in Pascal: Static and Dynamic. Static types are the simple types, arrays and files. Dynamic type are those which are connected with POINTERS and may grow or shrink in memory. The good thing about dynamic data structures is that they are extremely memory efficient. One need only use the memory one needs for a task. Consider the folowing segment:

```
Type ListPointer: ListType;
ListType:Record
    Line:Packed Array[1..80] of char;
    Next:ListPointer;
end;

VAR
    S:String[80];

Procedure Enqueue(S:String[80],VAR Cursor:ListPointer);
VAR Temp:ListPointer;
    BEGIN
        NEW(Temp);
        Temp .Line:=S;
        Cursor .Next:=Temp;
        Cursor:=Temp;
    END;

Procedure Serve(VAR S:String[80],VAR Head:ListPointer);
VAR Temp:ListPointer;
    BEGIN
        IF Cursor .Next<>NIL THEN
            BEGIN
                Temp:=Head;
                S:=Temp .Line;
                Head:=Head .Next;
                Dispose(Temp);
            END
        ELSE
            WriteLn('List is EMPTY');
    END;

BEGIN (*Main*)
New(Head);
New(Cursor);
Cursor .Next:=NIL;
Head:=Cursor;
Enqueue('hello there everybody',Cursor);
Enqueue('Have a Nice Day',Cursor);
Write('input a string');
```

```
Readln(S);
Enqueue(S,Cursor);
While S<>'List is EMPTY' DO
  BEGIN
    Serve(S,Head);
    Writeln(S);
  END;
END.
```

Let's break the program down. In the type declarations, I declared a new type called ListPointer equalling 'ListType'. The ' ' means 'pointer to'. Then I declare the type ListType which is a very simple record containing an 80 character line and a pointer. This is essentially the data structure. It is how we manipulate it that counts. I declared the variables Head and Cursor to be the pointers, and a string variable. Then I declared two procedures, one to put a line of 80 characters into memory, and one to pull it out of memory. Since it is dynamic memory, there are no array indexes, and consequently, no direct way of accessing a single record. One must start at the head and use the linking pointers to traverse the list, searching for the right line. In this program example, I enqueue two strings and an input string, then print all three. Note that, if I had a loop for the input section, the program would allocate just enough space for the input strings, with nothing left over. All the strings would be printed out in FIFO order, that is, first-in-first-out. I could have defined other operations on the list, such as PUSH and POP, to make it a stack, or simple operations, to treat it like a simple linked list. The uses are unlimited. You can even make left and right pointers, to define a tree structure. Or multiple pointers to make complex graphs. Your computer uses these pointers, not to make structures, but to allocate memory. In the p-system, as with most pascal implementations, there are three separate areas in main memory. The code pool, where your program is stored, the HEAP, where the dynamic data structures are stored, and the STACK, where arrays and strings are stored. All three work in harmony to make the computer run most efficiently. Simple modifications to the above program, and the use of a concurrent process, could make you a nice printer spooler to be incorporated in your program. In fact, this would be a nice graphics dump program. (Hmmm...) Imagine drawing on your screen, then pressing a key to dump the screen, and INSTANTLY go back to drawing, without waiting for the slow graphics mode of the printer. Stay tuned, frogmates...

In closing this month, I would like to bring to the attention of our p-sig some news. Many of you have requested the number for Pecan Software Systems, the p-system distributor. Their number is 1-800-63-PECAN. You may call business hours to order. Their catalog of independent suppliers and fair-ware-er's is near completion, but I have the most updated list. Contact me at the meeting if you want a look at it for some names and addresses. Our group project for the Faire will be a demonstration of the music program, along with graphics and some neat utilities, all written by the SIG. Please, read your manuals over the summer and get familiar with the system. Time will run out very quickly!! Remember, I am the FROGMAN in the group BBS, user#318. If you have an urgent message, leave it there or on the group recorder.

TO ALL THOSE HAVING PRINTER SETUP BLUES:

I have created a file called SYSTEM.STARTUP that will set up your printer and modem for whatever parameters you like. Be at the next meeting, at the SIG, and BRING a newly formatted ZEROED disk.

HAVE A GREAT SUMMER!!!!!!

Winners of the 1987 programming contest were announced at the last meeting. There were quite a number of entries this year. A total of \$300 in prize money was awarded to the winners. Winners were as follows:

1st Place	Rat Race by John Behnke	Prize \$75.00
2nd Place	Mini Spread by Jerry Theis	Prize \$75.00
3rd Place	Screen Help by Oscar Brentana	Prize \$50.00
4th Place	Jet Copy by Jerry Theis	Prize \$25.00
5th Place	3-D by Reeves	Prize \$25.00
6th Place	Collapse by John Behnke	Prize \$25.00
7th Place	XB Windows by.....Reeves	Prize \$25.00
Youth Award	Foodsearch by Eric Helman	Prize 2 Library Diskettes

As you can see, entering the programming contest is both enjoyable and profitable. Its not too early to start working on your entries for next year.

CONSOLE CALC

Review By Bill Gaskill

Spreadsheets certainly are not new to the TI community. If you haven't followed their development for the 99/4A then take a look at the list below.

PROGRAM NAME	LANGUAGE	MIN. MEM. REQ.	AUTHOR
99-CALC	EX. BASIC	16K	PHIL BARNES
COUNT-SIL	EX. BASIC	16K	SYSTEMS INTERFACE
MITI-CALC	TI BASIC	16K	MILO TSUKROFF
MULTIPLAN	ASSEMBLER	32K	MICROSOFT CORP.
SNAP CALC	EX. BASIC	16K	GARY STRAUSS
TI-99/4A CALC	TI BASIC	16K	GREGORY SCHMALHOFER
TI CALC	EX. BASIC	16K	RAYMOND J. HEROLD

There are probably a couple of others that I haven't listed and there are some "spreadsheet-like" programs that aren't included in the list because they are task-specific applications rather than true spreadsheets.

The point is, the TI Community has been more fortunate than most other orphan computer users in that several attempts have been made, by various authors, to provide us with an alternative to the Microsoft Multiplan spreadsheet that requires the Multiplan cartridge and 32K memory. The problem with the alternatives is that they are all too slow and too limited in their capabilities. Thus, if a 99/4A user really wants spreadsheet power, he/she is still tied to the Multiplan program, which is itself pretty slow, but not nearly as limited as the alternatives.

Console Calc is another alternative that has vaulted into the limelight compliments of author Galen Read and marketer Bill Moseid of Data Biotics. This program is a module-based spreadsheet written in assembler or GPL (I can't tell which just by using the program) that boots up as fast as any module, it supports screen and text color changes and also takes advantage of memory expansion if you have it. The neat thing is that you don't have to have it to use the program.

While it may be unfair to compare Console Calc to Multiplan, the fact is, Multiplan is the standard for 99/4A spreadsheets just as TI-Writer is the standard for word processors. Thus, a comparison is inevitable. This is especially true since Console Calc is the first non-basic language spreadsheet to appear for the 99/4A since Multiplan.

It is obvious that Console Calc is designed to provide machine code spreadsheet power to console-only users as well as users who own memory expansion. Thus an overall comparison would really be unfair since Console Calc is trying to appeal to a much broader user-base than Multiplan's "memory-expansion only" audience. However, certain functions "common" to any spreadsheet should and will be compared.

Since Dan Bricklin wrote VisiCalc for the original Apple computer in the tail end of the '70's, spreadsheets have flourished as a business-computer user's tool of choice. Witness the popularity of Lotus Development Corporation's 1-2-3 offering. They are also beginning to make in-roads in the home user's environment. The popularity of spreadsheets as I see it comes from their ability to serve so many varied purposes and diversified needs. They are used for everything from data-intensive applications such as check registers or daily budget expenditure recorders to money calculations and sales projectors. I have a friend who even does word processing with his spreadsheet.

Of course, spreadsheets are primarily designed to crunch numbers via user concocted formulas. Their "what if" capabilities are what made them so popular and versatile. Consequently, it is really the ability to accept, interpret and compute formulas that is or should be the backbone of any spreadsheet.

GENERAL OVERVIEW:

In its "console" form, Console Calc supports 864 cells in a 28 row by 27 column format. With memory expansion, the spreadsheet grows to 2500 cells in a 50 by 50 row/column configuration. (Multiplan supports 16,065 cells in a 255 row by 63 column configuration.) The main menu offers options to enter digit formats, erase the entire spreadsheet, enter a formula, goto a cell, load a spreadsheet, enter a number, print the spreadsheet, quit the program, perform a recalc of formulas, save a spreadsheet and enter text.

Operations supported that are not listed on the main menu include the ability to move from window to window, insert or delete a single character, clear an input field, change spreadsheet colors and enter common formulas with two keystrokes.

Operations that are not supported include cell width formatting, insertion of a blank row, formula printing and compressed printing of the spreadsheet and any type of relational operator functions.

DOCUMENTATION:

Console Calc's documentation consists of a 12 page manual that contains 10 pages of information. One entire page is wasted on a single illustration and the last page contains a warranty notice. Although the manual contains some typos, it is generally adequate for the novice user. One obvious error in the documentation stands out in the paragraph explaining how to print a spreadsheet. It tells you that if you press Y at the

ROW/COL Y/N?

the row/column designators will not be printed. Pressing Y does cause them to be printed with the spreadsheet.

EDITING FEATURES:

Text formatting is limited to 12 characters of upper, lower or mixed case. All entries and formulas are edited simply by placing the cursor on the cell to be edited and then pressing the appropriate letter from the menu. For example, to edit an existing formula, simply move the cursor to the cell containing the formula, press F for formula and it appears at the base of the screen. Numeric formats can be set to 9 place accuracy

behind the decimal point using the digit feature, but you must remember that this would only leave 2 places for the rest of the results. Otherwise you will get an error. You cannot replicate a formula or text entry nor can you copy or move things about the spreadsheet. As mentioned earlier, insertion of a blank row is also not supported. Entry of any input requires that the ENTER key be pressed to assign the value or text to a desired cell. You cannot use the arrow keys to do it. An auto-repeat feature is provided for the cursor when holding down the arrow keys.

FORMULAS:

Formulas are limited to a maximum of 12 digits including operators and row/column designators. Only logical operators are supported. Those supported include addition of one cell value to another, summing of a range of cells in a row or column, subtraction of one cell value from another cell value, division of one cell value by another cell value, multiplication of one cell value by another cell value, involution (the exponent of) of one cell value to the power of another cell value, Arc-Tangents, Cosines, Logarithms, Sines, Squares, Square Roots, and Tangents. Unfortunately, AND's OR's, NOT's and IF's are not supported.

LOADING/SAVING:

Loading and saving operations are straight-forward and they adhere to normal 99/4A conventions, meaning that CSI loads or saves to cassette 1 and DSK1 loads/saves to disk drive 1. An entire spreadsheet is saved each time SAVE is accessed. This includes all cells available, whether they are used or not. Files created in console-only memory will not load in expanded memory, at least not those created and then saved with cassette. Also, the cassette LOADING routine does not stop the tape player from running when end-of-file has been reached. Disk files are saved in DIS/FIX 128 format. I assume that cassette files are saved in DIS/FIX 192 format.

PRINTING:

An entire spreadsheet is printed each time you access the PRINT option. While you may print a spreadsheet to disk or printer, you cannot print only a portion of the spreadsheet. Each page of print contains up to 6 columns (if the spreadsheet is that wide) and the maximum number of rows allowed by your memory appear on each page (28 for console-only memory, 50 for expanded memory.). Columns past column six appear on page 2, columns past 12 on page 3 etcetera.

Row and column designators can be included or omitted from the hard copy, but you must press the logical key choice to select the desired format. Don't go by what the documentation tells you to do. It is written exactly the opposite of what it should be. Formulas cannot be printed or if they can, I wasn't able to discover how.

ERROR TRAPPING:

I have saved this topic for last because I feel that it is the single most important drawback in an otherwise interesting piece of software. Throughout my use of Console Calc I found that attempts at error trapping by the program caused it to lock-up, thus wiping out any changes made to the spreadsheet since the last save. Simple errors like forgetting to include the plus sign in a formula summing a series of rows or columns would lock the program up with no error message being displayed. Another time, I blanked out a text entry in a cell by space-barring over it and then pressing ENTER instead of using Fctn 3. The screen showed a "VALUE TOO HIGH" error message and then locked up. This is a real shame because it really destroys the potential value of the application in my opinion. Formula entry errors are perhaps the most common errors made by spreadsheet users. To have such errors be fatal to the spreadsheet being used is fatal to the effectiveness and utility of the program as far as I'm concerned.

CONCLUSIONS:

I really wanted Console Calc to be a powerful program and I wanted to be able to give it a favorable review. Unfortunately I cannot. Several things keep me from doing so. While the program operates quite quickly thanks to the language it is written in, the size limitation on spreadsheets, even with memory expansion is not sufficient for an average person's check register, even on a monthly basis. For all practical purposes, the 50 row limitation is to blame. Fewer columns and more rows would make it a more flexible application. As it is, one is limited to applications such as time value of money calculations, breakeven analysis, gas mileage calculations (which is the example spreadsheet in the documentation) and other non-data type spreadsheets. There simply isn't enough room in a spreadsheet to store multiple checks, budget expenditures or any other recurring type of transaction.

The limit of 12 characters per formula is a real hinderance to anyone who is a serious spreadsheet user. The ability to design complex formulas is among the biggest advantages in using a spreadsheet. Console Calc's limitations tie one to creating only the simplest of formulas, both because of the size limitations of the formulas and because of the lack of support for relational operators. I also noticed that some times a recalc had to be performed twice to get the correct results. It is nice to have all the fancy mathematics supported, but in my opinion, it would be even nicer to be able to create formulas that can make decisions via AND, OR, NOT, IF etc.

Overall, I believe that Console Calc is a good start on a nice piece of software for the novice user. For advanced spreadsheet users it is not even in the ballpark and should not be considered. While I feel it is a little "pricey" for the TI Community at \$39.95, about \$42 when all is said and done, it may meet the needs of a few users. The version that I tested was version 1.0. The documentation illustration shows V1.1 on the screen. I don't know if I purchased an outdated program or not. When I called Triton in San Francisco they gave me the Data Biotics phone number. After half a dozen different tries at that number I got an answer from some other company that shares the number with Data Biotics. The person I talked to told me I had to call back between 12:30 and 1:00pm California time to contact anyone from Data Biotics. Some support, huh? It's beginning to look like I've got another \$40 "dust collector" to add to my closet shelf.

REPORT CARD:

Performance.....C
 Documentation.....C
 Ease of Use.....B
 Value.....C
 Final Grade.....C

Libtary Shelf

— Bob DeMeler —

GEN'EVE JUNEMEETING BETHERE!!

Flash!! The Gen'ev has landed. Myarc's Gen'ev 9640 TI compatible computer will be at the June meeting. Special thanks to Darryl Dhein of Dhein's Wholesales. Darryl has guaranteed I will have one of my 9640 orders in before the June meeting. Hopefully I will receive it

in time to read the manuals and learn a few things before my demo. Nevertheless, the Gen'ev'e will be with me on Saturday June 6, 1987. We'll run it thru it's paces and see what this long awaited machine can do. Please mark the date on your calendar and plan to attend. This is our last meeting before summer break. What a way to end the season. The most talked about computer in the TI world will be shown and running at lightning speed. Get ready to throw your 99/4A's away. The future is at hand. GEN'EVE Saturday June 6, 1987 1:00-3:00pm Be there or Be square!

Boy that was accelerating!! My my my, where has this year gone? June already? Is time moving faster? Sometimes I feel there's only 16 hours in a day. Are the months getting shorter? Or, is this just something that happens when you reach your upper mid 30's? I can't explain it, but, it seems like a few months ago I was wrapping christmas presents. Now we're ready for summer break. Oh well, se la vi. Anyway, some of you may have noticed I've slowed down on getting library orders out on time. Too many irons in the fire. So, rather than make our good members wait, I have enlisted some help. You may notice a new face hanging around the library table. But that's just his face hanging. The rest of his body is busy doing library work. My good friend and new helper is Bill Hughes. Bill has decided to take time out of his busy schedule to help me out. He is already busy at work getting library orders out. If you haven't received you orders yet, please be patient. I beg forgiveness and promise your orders will arrive soon. I appreciate the patience of those that have waited and have spoken to those who have sent me letters. By the time you receive this newsletter, everyone should have received their order.

Tick, tock, and the time moves on. Why do I always wait till the last minute to do this? Expect to see a complete list of fairware in the Aug. Super Summer newsletter. The groups library is doing rather well. This is evident by the number of sales we make each month. We appreciate the support we get from the membership. Our library is growing thanks to all the many fine contributors we have. A disk with programs from the winners of this years programming contest will be available in the library. But first I need a favor. We had a stack ready to sell at the May meeting. I can't seem to locate them. I don't have a master. If someone that bought one could make and send me a copy, I'd really appreciate it. The '87 winners disk will sell for \$4.00. As I was busy during the meeting, I hope someone will post the names of the winners in their article. My personal congratulations to all.

What's on the fairware scene? Seems as though more and more fairware authors are becoming upset with the dishonesty of software users. At one time I thought 10% of the people that used fairware paid the authors. I now understand the percentage is down to about 2 or 3. This is very very bad for the TI community. This will soon mean less programs being generated as fairware authors become more and more upset. Please, if you've been meaning to send an author a check, do so. If you are using a fairware program, then you must enjoy it. If you enjoy it, send a donation to the author. If you don't have the \$10.00 suggested, send something. It's time for the user to let these authors know how much we appreciate their effort. I'm just as guilty as the next guy. But believe you, me, I'm gonna start cutting some checks to the authors quick. Who wants to be a 2 time loser? TI dropped us. If we keep sh__ing on our fairware authors, they'll do the same thing. I hear too many people saying, "I don't know how to program. I can't upload original programs to the board. Everyones not a programmer." Well they're right. Some people don't know how to program beyond 10 PRINT "HELLO" 20 GOTO 10. These are some of the people that depend on fairware authors to provide them with their programs. The fairware authors have been good to us for many years. I think it's time we started supporting them. Nothing in life is free. If we don't start paying the piper, we'll soon find the fairware author to be a dying breed. PLEASE SHOW YOUR SUPPORT TODAY!!!!

How 'bout fairware? Mr. John Birdwell has just released version 3.3 of his famous DSKU sector editor program. If you have version 3.2, throw it away. It's stone age. The newest version is loaded with new features. John has put many hard hours of work into 3.3. And it's easy to tell. You can read, write, catalog, find strings, everything. This

disk is for everyone. No TI owner should be without it. I'm not gonna tell you everything about it. You'll have to buy it to find out for yourself. I can tell you one thing. You've not seen another fairware program like this one. John has a big surprise for everyone. I know I certainly was amazed at his man's programming abilities. DSKU 3.3 1 SS/SD disk. \$2.00

Oh man, here's a good one. It come from the Western New York 99er's. It's a database for catalogging your diskettes. This baby is really neat. No more fumbling around trying to sort or find your programs. THE USABLE DISK CATALOGUER is here. A data base is set up that will literally store hundreds of filenames. Each disk is catalogged. When the filenames appear, you are asked specific questions about each. You choose a category for each filename. What format is it in? Add keywords. You may also type a description. All filenames may be saved and sorted. When you call the files back up, you have a choice. Call all files. Or you can look for key words, etc. Here's the nice thing about this one. Unlike other disk cataloggers, this one provides a file description on the printout. Now you know what each one of those files are and what they do. CATALOGUER SS/SD disk \$2.00

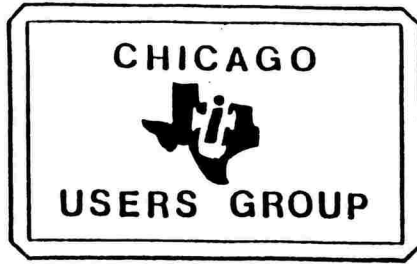
Wow! When I first saw this next one, I thought someone gave me a copyrighted disk. The title screen on this baby is so professional you won't believe it. I'm talking about Jeff Bunting's SPACE STATION PHETA. It runs out of E/A option 5 and is just beautiful. Once you see the quality of craftsmanship of this program, you'll understand why I'm on my soap box about fairware support. This programmer has given us a beautiful game any software house would love to sell. I am truly amazed at the talent of this programmer. In Space Station Pheta you must work your way from level to level before your oxygen supply runs out. Each level gets harder and harder as you climb ladders and jump from girder to girder. Watch out for the electrified floors. And don't forget to get the key. Or, you won't be able to make it out of the room in time. I'm sure you'll have hours of fun with this game. Options also include use of keyboard, right or left joystick. A must for every game enthusiast. SPACE STATION PHETA 1 SS/SD disk. \$2.00

Hey, how about this one? From the man who gave us The Printers Apprentice now comes 99ANIMATOR. Yes, Mike McCann of McCann Software has put out his first piece of fairware. For all you Buzzard like people out there, here's one for you. Yes Buzz, now you can watch your creations come to life. 99ANIMATOR will give you 21 frames to run your pictures on. Each frame shows a different position of your picture. When all 21 are run together, it's just like watching a movie. There's even a slow and fast key. So you can speed up and slow down your pictures. If you're into art and drawing, this one's for you. 99ANIMATOR 1 SS/SD disk. \$2.00

Hey hey, look at the clock on the wall. It's time for me to get out of here. Besides I'm sure you have better things to do today then sit here and read my ramblings. Keep those library contributions coming in. I'm saving all the good ones to create another library disk. As the list gets bigger, we'll add updates to the newsletter. Until then, Thanks. Below is a list of contributors that have free programs coming. Provide me with a disk and your request.

Paul Farber - 8 Dave Mewhiney - 5 Tom Tomaszewski - 3
Al Stump - 3 Todd Kaplan - 2 Kevin Fass - 1
T. Van Puymbrouck - 1 Tony Zlotorzynski - 1
Walt Inmon - 1 Ed Lee - 1 Gary Cox - 1
Mike Maksimik 1 Gary Osika - 1 Lou Craig - 2
Rich Helman - 2 Owen Meyer - 2 Tom Kurcz - 2
Ron Paswinski 4

GUEST
SPEAKERS!
VENDORS!



DOOR
PRIZES!
SEMINARS!

PRESENTS THE

5TH ANNUAL

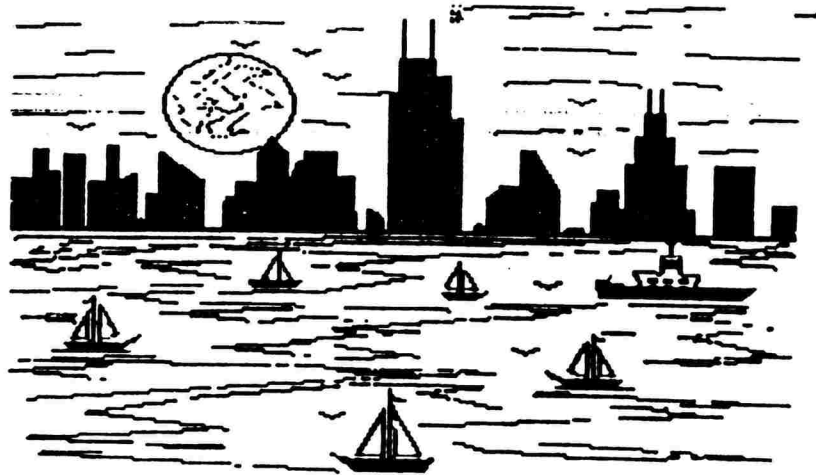
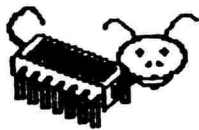
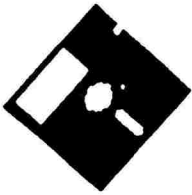
TI FAIRE

TRITON COLLEGE

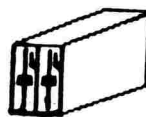
2000 5TH AVE

RIVER GROVE, IL

NOV. 7TH
9 TO 6



FOR INFO ON THE FAIRE OR ON GROUP
MEMBERSHIP WRITE :
CHGO. TI USERS GROUP P.O. BOX 578341
CHGO. IL. 60657



OR CALL OUR HOTLINE 312/657-1093

GEN. ADM.
3.00

CHICAGO TI USER'S GROUP

 PO BOX 578341
 CHICAGO, IL 60657

Air Mail


PRINTED

MATERIAL

 Mr. Stephen Shaw
 Member #738/87

Stockport, Cheshire England

REMARKS
Carole Goldstein

As the June meeting is the last before summer break this is also the last issue before the 1987 SUPER SUMMER ISSUE. Look for it to appear around the very last of August. It is not too soon to start working on your submissions for that issue. With your help we will put out the biggest and best Summer Issue yet.

Even if you are a non-attending member please consider submitting your articles, reviews, letters, comments, etc. You can send them to the group mail box at the address above or transfer them to the Users Group BBS at 312-966-2342 by using the (S)ubmit function.

Be sure to read Al Stumps article this month. It concerns the building of the Horizon Ram Disk. John Behnke lent me his Horizon while he was out of town and I used it to work on this issue of the newsletter. I can attest to the praise that Al has given to the Horizon and to the Menu and Configure program. Its lightning speed and versatility have made my job easier this month. Poor John. I don't know if he'll be getting it back upon his return.

This coming meeting should be one of our best. Bob Demeter promises to have a GENEVE 9640 by the meeting and having that demo follow our annual auction should make for one fantastic meeting. See you there.
