

CLEVELAND AREA 99-4A USERS GROUPS NEWSLETTER

JUNE 1987

OFFICERS	NORTHCOAST	TI-CHIPS	MEETING DATES	
PRESIDENT	MARTIN SMOLEY 1-257-1661	TERRY VACHA 225-5368	NORTHCOAST 1:30 P.M.	TI-CHIPS 10:00 A.M.
VICE PRESIDENT	RICH JOHNSON 261-9274	RUSS SHIMANDLE 1-887-5330	EUCLIDIAN ROOM	NORTH ROYALTON LIBRARY
TREASURER	JIM MEKEEL 286-3179	LIN SHAM 235-3912	EUCLID SQUARE MALL	STATE ROAD & RT 82
MEMBERSHIP	ELMO IACOBUCCI 585-2588 2161 Pine Ridge Drive Wickliffe, OH 44092	JOHN PARKEN 331-2830 4172 W.217TH ST. Fairview Park, OH 44126	THIRD SATURDAY	THIRD SATURDAY
SECRETARY	CHUCK POULIN 731-6473	MARY PHILLIPS 592-4009	JUNE 20, 1987	JUNE 20, 1987
LIBRARY(DISK)	ERNIE & DON NITSCHKE 888-4845	MARK McCAULEY 235-8888	JULY 18, 1987	JULY 18, 1987
(TAPE)	TOM NELLIS 475-4067	JOHN PARKEN 331-2830	AUGUST 15, 1987	AUGUST 15, 1987
	BBS 216-944-1072 (24 HRS)		SEPTEMBER 19, 1987	SEPTEMBER 19, 1987
			OCTOBER 17, 1987	OCTOBER 17, 1987

Want to make a special note of all the visitors at Northcoast this past month. Six fellows drove down from Erie. Hope the trip was made worthwhile by the appearance of "GENEVE". Wes Richardson came from Lexington, KY. We also had people from Youngstown, but consider Ed Luptak part of the family instead company. Some of us also received a phone call from a member of the West Jax (Orange Park, FL) group who was in town. He and Ernie are going to investigate trading programs. Both Chips and Northcoast continue to have visitors and new members resulting from the recent publicity campaigns. Great!

Harry Hoffman of Chips took me up on my "Fireside" meeting. We worked with the commercial version of the Artist-Convert program, chained some files to do fancy printing out of TI-Writer. Harry took home some of my needlepoint and counted cross stitch books which have designs already charted. He is going to use them for ideas to do original fonts and graphics for CSGO. Harry has volunteered to be the main FREEMARE librarian and we went over the procedures I had always used. I will continue to make this offer for the Monday night after the regular meeting. If you can't make the meetings, especially in the summer, you can catch up on what went on, and hopefully learn a trick or two. The next meeting would be June 22 about 7 to 9 or 9:30. Come on down. (333-5986-Deanna).

Last month Judy Thalner made an interesting suggestion that no one seems to have followed up. That is, a way to put all those cartridges you never use anymore to use. You could donate them to the club who could then "rent" them out for a nominal amount per month. If you had nieces and nephews, or grandchildren coming for a visit, you could get a bunch of cartridges at little cost for entertainment. Also, children outgrow the modules very rapidly and you could "keep up with them" by exchanging with the club regularly. Those of you who have GramCrackers or who will be getting the new GENEVE will have no use for your modules anyway. Anyone want to start something with this idea?

Speaking of the GENEVE, wasn't it great to see one that actually worked? I was impressed and am having second thoughts about getting one, even though there are all ready more computers in our house than people. I would buy it just to be able to use TI-Writer in an 80-column mode. I am more convinced than ever that TI-Writer is exceptional because of one feature, the transliterate mode. This opinion was re-enforced recently when Paul Wheeler (who recently purchased a Leading Edge) called to ask what word processing program(s) I was using. He was feeling frustrated, as I have been, in that he could not do things with these so-called high-powered word processors we can do with TI-Writer...all because of the transliterate command. I may do my work on the MSDOS machine, but then it goes off and on goes my TI for anything else. When I first got the MSDOS machine, I thought I would probably hardly ever use the TI. I find myself coming back to it more and more as the so-called glamour of the MSDOS machine wears off. So don't let Madison Avenue convince you that you can't survive without one of "those" machines.

If you are bemoaning the fact there are no good books being written for the TI anymore, I beg to differ. We get between 50 and 60 newsletters from clubs around the country each month which contain a wealth of information and programs for you to type in. I have started keeping a database of the newsletters and of the 132 I have listed, you might be interested to know that 6 have c99 tutorials, 13 have Forth, 5 Gramcracker articles, 37 Hardware projects, 9 Multiplan, 40 Extended basic tutorials and 58 programs to be typed in. Now that the newsletters are being distributed, you can indeed have access quality information. If you happen to type in one of the programs, PLEASE pass it on to one of the librarians. Also, note on the newsletter your initials and date, so the next person will know it's been done and won't duplicate your efforts. This should help get some of these programs in our libraries. There are A LOT of Assembly and FORTH out there waiting to

be typed in also, and some c99. I do a lot of the basic and Xbasic if they look interesting, but just don't have time for the others. It's up to you!

Please take a few minutes to fill out the survey in this newsletter. You will be a part of a national survey being taken by Ali Ulgen, one of the newest Northcoast members. We stumbled on each other almost accidentally and he has become one of our more enthusiastic members. If you don't want to mail it in, take it to your next meeting. The Chips people can send them via the newsletter committee and Ali will be on hand to personally pick up the ones at Northcoast. I have seen his survey form in about half a dozen newsletters on our exchange list. MICROpendium has agreed to print the findings, so let's participate!

Talk about slow mail! Wes Richardson had our newsletter in Lexington the Tuesday BEFORE the meeting, and I got mine in Rocky River the Wednesday AFTER the meeting.

If you have been on the FREE-NET recently, you have seen the notice that there will soon be one in Youngstown. This means we can send EMAIL between the systems. People in the Cleveland TI groups can contact those in Youngstown without incurring long distance calls. As the concept of FREE-NET expands perhaps there will be other cities we can access. Has anyone joined PC-Pursuit yet? I have been saying I am going to, but haven't had the time and my \$25 per month fee would be wasted.

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EXECUTIVE NOTES - TI-CHIPS

Attendance at the May meeting was up. Several people there for the first time mentioned they had received a post card with the information about our group. They thought the post card idea was great and should be continued. TI-Chips thanks Harry Hoffman for sponsoring the cards this past month.

We can all thank Harry for volunteering for the job of FREEMARE librarian. He will be watching for any free or fairware programs available and will send for them. One visitor asked how he could send compensation to the writers of FUNNELWEB. Everyone was reminded of the recent collection taken to send to Australia.

One of the highlights of the meeting was the long-awaited demonstration of the Myarc 9640, the new TI computer. Tom Thalner had burned the midnight oil the previous night learning how it operations. With Judy's assistance, he showed us a few of its tricks. Improvements on the system are developing daily. We look forward to their next demo!

Another exciting program for flying buffs was displayed by Ed Kennelly. Flying a World War I fighter plane was no problem with "Spad XIII", a flight simulator disk, available commercially.

John Parken has installed 32K in his console and is willing to help anyone else who would like to try it. He promised to bring in his circuit board next time. The May newsletter also had instructions.

Mark McCauley and Russ Shimandle demonstrated library programs. Mark had examples of "Print Art" hanging up in the front of the room. The program called "Soft Keys" allows the user to program the ten number keys to do different things which usually require many more keystrokes. (Ever wish you had just one key to press every time you typed "PRINT"?)

Russ loaded "Namebone" and "fing/spell" from cassette. Both are educational and entertaining. "Namebone" is a program so long, that you have to CALL FILES(1) before you can load it from a disk. Former subscribers of 99'er Magazine might remember it.

Again, in May, the raffle prize was a box of program disks. Russ Shimandle was the lucky winner. Congratulations!

The June meeting will start at 10:00 a.m. on June at the North Royalton library. Hope you can be there!

Mary L. Phillips.

PROGRAMMING TIP:

Technique for switching from JOYST to KEY: "Did you ever want to change a name from joystick to keyboard or vice-versa? Here is an example of a change done in the game "Aardvark" found in June 83's 99'er Home Computer Magazine. Use this section of "Aardvark" as an example of change other programs:

Aardvark is like this...

```
630 CALL JOYST(1,X,Y)
640 IF X=-4 THEN FV=FV-1 :: GOTO 780
650 IF X=4 THEN FV=FV+1 :: GOTO 840
660 IF Y=4 THEN FH=FH-1 :: GOTO 900
670 IF X=-4 THEN FH=FH+1 :: GOTO 970
```

Aardvark can change to this...

```
630 CALL KEY(O,K,S)
640 IF K=83 THEN VF=VF-1 :: GOTO 780
650 IF K=68 THEN FV=FV+1 :: GOTO 840
660 IF K=69 THEN FH=FH-1 :: GOTO 900
670 IF K=88 THEN FH=FH+1 :: GOTO 970
```

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By Deanna Sheridan
Northcoast 99ers

This was a good meeting. It did get out of hand a couple of times, but that is no big deal as far as I'm concerned.

We had a good turn out (about forty people), with a wide cross-section from the greater Cleveland area. Within that total, we also had six members from the Erie 99'ers Users Group, and Wes Richardson from Georgetown, Kentucky. We are always very happy to have visitors from other clubs, and I'd like to thank them all for making the trip.

I'd also like to thank Ron Minadeo for the demonstration. It was on the programs and utilities he has discovered in the ten Forth disks we have in the library. I have a great deal of difficulty with Forth, and have just about given up in that area. However, Ron seems to have figured it out, and is making considerable progress with the language.

With Ron Minadeo's progress in Forth, and the knowledge of Paul Newmeyer who has been writing the in-depth articles for our newsletter, I think any member who wishes to try their hand at Forth can certainly find the help he may need with either of these gentlemen.

We also had an unexpected but welcome demo of the Geneve computer from Myarc. The impromptu demo by the Thalmers was quite interesting, and enlightening. After all this time, to finally see one working was a thrill. I can assure you that the group was all eyes and ears for this one. The new computer appears to be fast, and versatile. It is compatible to most 99/4A software although much slower in that mode, and apparently Myarc is working to make it almost completely compatible. Deliveries are quite slow at this time, but that is expected to improve also.

In working with a couple of programs this past month, I was reminded how versatile an "Ask-key" file can be. This is better known as an ASCII (American Standard Code for Information Interchange), and shows up as a DIS/VARSO file for the TI.

It is because most printers with the help of an RS232 interface speak this language that I can take the cable from my NBBBS machine and attach another cable from my TI and be able to use the same printer with both. If I wanted to print something in enlarged print in GW BASIC, I would use a line: 100 LPRINT CHR\$(27),CHR\$(87),CHR\$(1) and to accomplish the same with TI BASIC, I would enter 100 OPEN #1:"PIO" :: PRINT #1:CHR\$(27),CHR\$(87),CHR\$(1) and get the same result. The ASCII codes also make it possible for you to call databases, BBS's etc., read and/or download files regardless of the type of computer you own.

Each number and letter of the alphabet and some graphic symbols are assigned a number from 1 to 255, most of which are printable. However, many wordprocessors will only handle the set up to 127 (the ESCAPE code) unless you fool it into thinking otherwise. An excellent tutorial on this is found in the June issue of Compute! magazine.

You can take almost any unprotected file generated by any of your programs and convert them to an ASCII or DV80 format. Why would you want to? Any DV80 file can be read by TI-Writer. Suppose you wish your favorite disk cataloging program would let you add some additional comments. Perhaps you would want to denote if it is educational, recreational, utility etc. Or, grade it as to quality, etc. You could have the program do all the hard work, such as reading the disks and sorting them, then you could use a program such as Marty Sealey's FILEREADER to convert it to DV80 format, load into TI-Writer and customize as you wish. Then, as you got new programs, it would be a simple matter to insert them in the proper order and you would not have to go through the process of rereading all your disks to update your lists. If the program does not save to file in sorted format, almost anything that can be printed to a printer, can also be printed to disk. When the program asks for the printer setup, substitute DSK1.FILENAME and it will print to disk in DV80 format. PRBASE has this feature, so does Creative Filing System, etc.

This past month I picked up a program called "Recipe Writer" by Warren Agee. It came out about a year ago, and has not received such press. It seems to be a straightforward no-nonsense program that does the job without any frills. The recipes can be printed out on 3x5 cards, 5 x 6 or even on a full page. I had my fingers crossed the files would be in DV80 format and they were! I am writing an accompanying article about why I like the Artist/Convert program so well and it also fits here. For a craft-person making homemade personalized gifts is one of your reasons for living. I could just picture taking and dressing up my

```
#####
#####
###                                ###
###          IMPORTANT            ###
###                                ###
### WE ARE LOOKING FOR VOLUNTEERS ###
###                                ###
### This is the best time for you to help out with a ###
### project. I say the best time because we have many ###
### people working in areas that may interest you. ###
### This will let you learn and help simultaneously. ###
###                                ###
### One idea might be sublibrarians, where a person ###
### interested in a language such as "C99" work on all ###
### "C" disks and then give the material back to Ernie. ###
### If you have any interests please contact me. ###
###                                ###
#####
#####
```

The Next NorthCoast Meeting

I personally look forward to the next meeting with great anticipation. The demonstration will be by Frank Jenkins, and the subject will be Microsoft Multiplan. I have had a copy of this program for years and have never gotten into it with any measurable success. After the terrific demo Frank gave on PRBase a couple of months ago I can hardly wait for this one.

See you at the next meeting

recipe cards from "Recipe Writer" with instances printed from TI-Writer with the Artist/Convert program. There are clear plastic coverings available just the size of a recipe card to protect them, and I could needlepoint on plastic canvas a recipe box in which to hold them. A perfect Christmas or birthday present. Also, you could make up posters for sales, whatever, include a recipe or two and graphics. Endless possibilities abound.

Just for the heck of it, take some of your files produced by some of your utility programs, convert them to DV80 and load them into TI-Writer. If you do nothing more than just look at them, you will learn a lot about how files are structured and what goes on within your program that you ~~thought~~ were hidden in all those INT/VAR254, etc. files. I haven't even scratched the surface with the possibilities.

The above had been written before the newsletter meeting. Wes Richardson was again in the area to pick up his family and came to Ernie Mitschke's to do some more library trading. We were scanning his catalog in TI-Writer files and inquiries were made as to what "cataloging" program he was using. Would you believe Disk Manager 2?

As mentioned above, when prompted for a printing device, he printed to disk instead. Then loaded the individual files into TI-Writer and could print out disk manager files - with accompanying comments if so desired in a page format!

He has also developed a unique method for alphabetizing ALL his programs, but it takes 3 disk drives, so I won't go into it here. However, I think he should write an article about it for his own newsletter and share with the world.

FAST TERM AND LOG FILES AA259 TERRY VACHA

I just realized that I could log a file to disk even though I had already hung up the phone and had forgotten to turn on the log file(func.B) before starting the telecommunication.

Here's what I did. After my communication with Compuserve, I pressed function 0 and held the space bar to look back at my online work. When I got to the point I wanted to save to disk, I just did the usual. I hit function B, **EVEN THOUGH I HAD ALREADY HUNG UP THE PHONE AND DISCONNECTED WITH COMPUSERVE.** I entered the filename **BSK2.SESSION**, which also opened the log-on file on disk. I hit enter. I then held down the space bar to move through Fast Term's buffer of my online session. When I got to the end of what I wanted saved, I hit function B to close the log, then function B to save it to disk. Now, when Fast Term is done saving your logged file to disk and closes the file, it should ask you for a new file name for the next log file. If it does not, then its hung up and you free it up by turning your modem ON then OFF. At that point Fast Term will go back to your disk and close the file, and then ask you for a new file name.

Now you have a secure disk file DIS/VAR 80, **EVEN THOUGH YOU FORGOT** to turn on the log file when you should have, namely before calling Compuserve.

I wish I had realized I could do this. I have had sessions where I logged on a second time to get what I thought was gone.

//////////aa259 terry////////

FREE NET DOWNLOADING AA259 terry vacha

Free Net doesn't have XMODEM transfers yet for downloading of programs, but you can certainly download in ANSCII format. I'd like to try using the ANSCII format to make BASIC and EXBASIC programs available.

Now what we DON'T want to do is retype program lines. What we'll do instead is make use of that great program XLATE. If you don't have a copy--**GET ONE!** XLATE converts PROGRAMS written on TI-WRITER or DIS/VAR 80 files to MERGE format files. The MERGE format can then be loaded from disk and run as a program. Now to get you ready for this, I'm going to practice with you, so get out your TI-WRITER, FULMEX, etc.

Let's make a tiny EXBASIC program in the EDITOR of TI-WRITER. Type in the following:

```
200 CALL CLEAR
210 PRINT "THIS IS RUNNING"
220 FOR I=1 TO 20::NEXT I
230 CALL CLEAR ::FOR I=1 TO 20::NEXT I
240 GO TO 210
```

That's right, just five lines. If they run, the words "THIS IS RUNNING" will blink on and off at the bottom of the screen.

After you have typed these 5 lines on TI-WRITER, save them to disk as follows: type PF, C BSK1.A

Those commands save your 5 lines to disk without any "control" characters. Now exit TI-WRITER and load XLATE. At the first prompt(after the title screen), type BSK1.A then hit enter. To the second prompt type BSK1.B then enter. Finally, keep accepting the defaults by continually hitting enter.

When XLATE is finished it will have turned those five lines into a MERGEABLE file. So now type NEW and hit enter. Then type MERGE BSK1.B and hit enter. Finally type run. If you were successful, you will have a blinking message at the bottom of your screen. Wasn't that easy?

Once in a while XLATE will mess up the very last line of your program and you'll just have to retype it. So if something goes wrong, just retype that last line, **WHETHER IT LOOKS BAD OR NOT!**

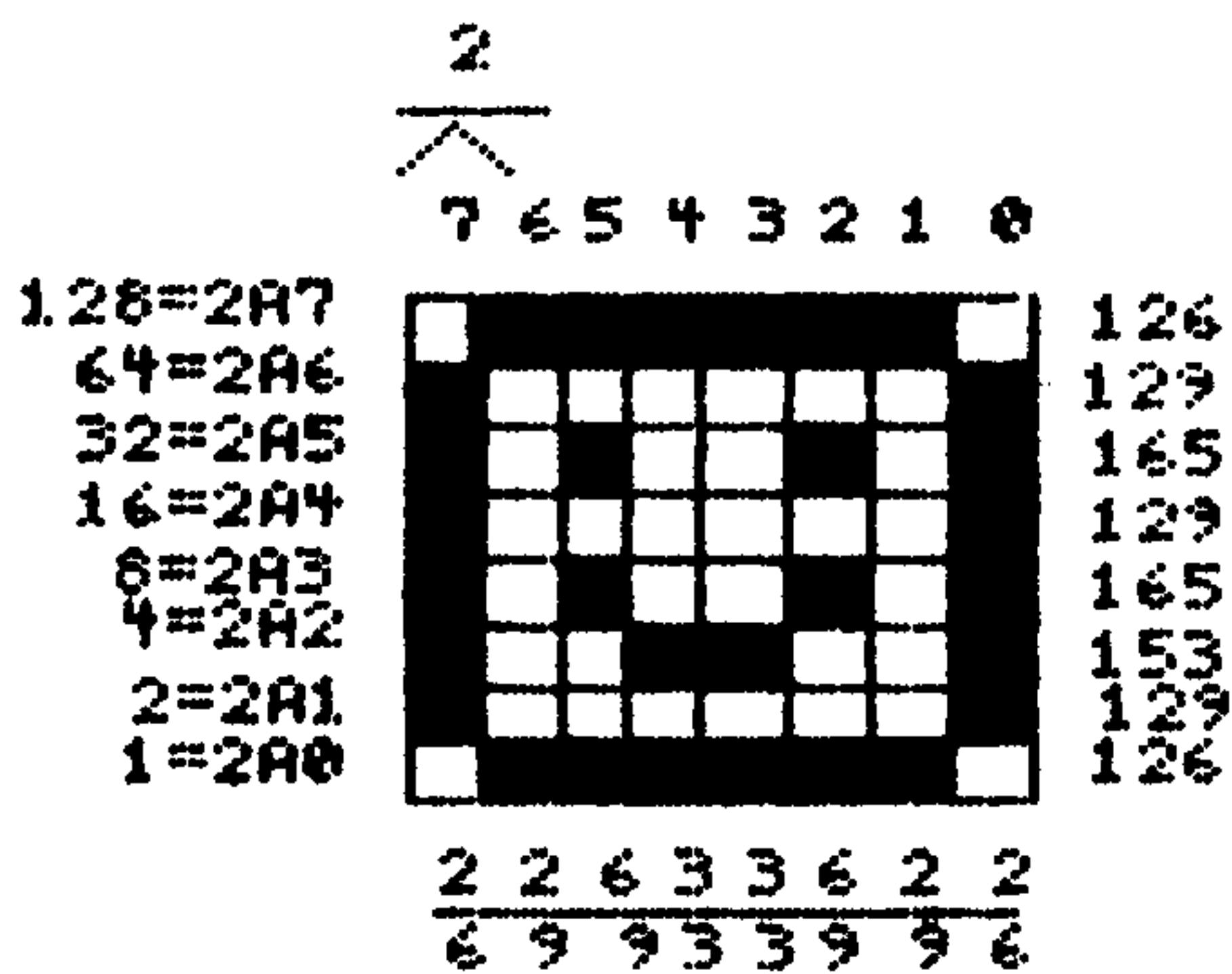
Now if I load some of the club's BASIC or EXBASIC programs onto Free Net and tell you to convert them to runnable programs you'll know what to do. First you would capture the ANSCII file of the program to disk using the buffer of Fast Term or whatever. Next, you would clean out the Free Net junk that is not BASIC programming lines, by using TI-WRITER. After that use XLATE as I've explained above.

USING TI-ARTIST INSTANCES IN X-BASIC
 BY ROY CARLSON, PUG (PITTSBURGH) 4/87

Those of you who purchased TI-ARTIST may have noticed a subtle allusion in the back to the manual to the possibility of incorporating Instance files into your X-Basic programs. The manual suggests that since the Instance file is saved in a DV80 format, you should be able to read it, and incorporate it into an X-Basic printout or display. Well... taint quite so straight forward.

OK, background! I started out trying to learn how to do bit-mapped graphics on my printer, whose manual was, of course, written in MS basic instead of TI, so we had to interpret that, then fight through the veil of poor explanation. What we finally gleaned was reasonably simple, sending "escape,k,n1,n2", then all the graphics in decimal #'s one at a time. Gee, that sounds simple! No really, n1 and n2 are actually two #'s that tell the printer how many informations to recognize as a b-m code. N1 is determined by dividing the total # of codes you will send by 256, then using the remainder as n1 and n2 is determined as the integer part of the division.

Example, if you are planning on sending 312 codes of information (a pix about 39 characters wide), divide 312 by 256. You get 1 with 56 remainder. Viole, n1=56..n2=1. Then, all you have to do is convert these #'s into TI-basic command form. Example... Print #1:CHR\$(27);"K";CHR\$(56);CHR\$(1). Now the printer will take the next 312 #'s it sees,, and convert each into a one-wire wide by 8 wire high int code. These codes are in the form of an accumulated decimal equivalent on the eight print wires (see drawing).



NORMAL PRINT CODES

The wire at the top is at the 2 7 value, the bottom at the 2 0. Add the values of each wire together from top to bottom, and you get a number between 0 and 255 (0 being no wires will print, and 255, all wires do!)

OK, simple, right? Just draw out your picture on graph paper coloring in all the squares appropriately, then spend two or three hours converting that to numbers for each vertical line of each character square, and then a few more

urs to type them all into data statements, and it works.

Almost! You must remember to open your printer with a .crlf

so that it doesn't do arbitrary carriage returns and line feeds in the middle of your picture, and of course, you must end carriage returns at the appropriate times, and you'll probably have to experiment with the line spacing, (on my printer, around 10 lines per inch), and, of course, it is advisable to do it with one directional printing, just in case your printer (like mine), perversely likes to indent a line very once in a while. OK, by this time, I had understood what the printer manual tried to convey about the decimal #'s, and looking at a DV80 file saved by an instance in TI-Artist, I recognized the format. Each line after the first had exactly 8 decimal #'s under 256, which looked just like the ones I needed for bit-mapping.

Ah-Ha! All I needed to do now, I thought, was write a small program to read the file and send it to the printer. After all, in the first line of the instance file, there were two numbers, explained as the width and height of the instance. (2,3 for instance translated into 2 characters wide, 3 characters high.) All that would be needed was to read in 2*8 codes, print them, do a cr lf, get 2*8 more, etc. Relatively simple! Off we went, did the program, fired up the printer, and... what a mess. Didn't look like it at all. First impression, bad program, of course. But, when I put my own numbers in from a graph, it worked. Hmm... Well, it turns out that the numbers stored in the instance file are derived by accumulating horizontal rows instead of vertical. These #'s are useless to the printer. How to convert? I put them into an 8*8 array, read them back out the opposite way, and guess what? It worked. Enclosed is the program listing that I wrote, so you can look it over and see what I did. It's slow, it's inefficient, but it's a good tutorial in array logic, and printer control. Hope you enjoy it. Now, if we could incorporate this into a text processor, we could have our own "newsroom" style program. Only major problem seems to be that to get a picture to fit together vertically without venetian blind effect, the line spacing has to be moved, and when you do that, your text gets scrunched together. (Maybe that's why "newsroom" is semi-unreadable, it converts text to graphics). Anyway, anyone want to try? May the 4's be with you, ROY. (EDIT NOTE: Evidently Roy had never seen or heard of Anne Dhein's program. This is provided again, so you can see what divergent approaches are being made to the ASCII files of a TI-Artist Instance).

PROGRAMMING TIP

If you have difficulty finding which joystick is to be used in a program, try the following routine. All you do is push the Fire Button on either joystick and the computer will remember which you are using.

```
100 CALL KEY (1,J1,S)
110 CALL KEY (2,J2,S)
110 IF J1+J2<>17 THEN 100
140 JS=INT(J1/18+J2/9+1)
```

With this little program prior to use of CALL JOYST(JS,J,S) in your own program, the computer will respond to whichever joystick you were using when you pressed the firebutton.!

WE DO NOT NORMALLY PUBLISH PROGRAMS THAT WE KNOW WILL NOT WORK. THIS ONE IS SIGNIFICANT TO UNDERSTANDING THE ACCOMPANYING ARTICLE. THE PRINCIPLE, I AM SURE, IS ON THE RIGHT TRACK. THERE IS, HOWEVER, SOMETHING WRONG IN LINE 140 FOR STARTERS. CAN SOMEONE TAKE IT AS A CHALLENGE TO GET THIS WORKING AND WE WILL ALSO PUBLISH IT.

```

1 REM TI-ARTIST TO XB
9 DIM A(640)
10 CALL CLEAR :: GOSUB 1000
15 DISPLAY AT(12,1):"NAME OF ARTIST FILE TO MERGE" :: DISPLAY AT(14,8):"DSK2.FILENAME I" :: ACCEPT AT(14,08)SIZE (-15):FILE$
20 OPEN #2:FILE$,DISPLAY,VARIABLE 80,INPUT
21 FILE1$=SEG$(FILE$,1,LEN(FILE$)-1)&"R" :: OPEN #22:FILE1$,DISPLAY,VARIABLE 80,OUTPUT
25 INPUT #2:W,H
30 CALL CLEAR :: B$=STR$(W)&"",H$=STR$(H):: PRINT #22:B$ :: N2=INT(8*W/256):: N1=8*W-N2*256 :: PRINT " PLEASE BE

```

```

PATIENT!": :
31 PRINT "I'M BUSIN BASIC, YOU KNOW!": : PRINT " THIS JOB WILL TAKE ";W*H/9+.70;" MINUTES!": : :
32 IF W*H/6>10 THEN PRINT "MIGHT AS WELL GO TO LUNCH!": : GOTO 40
33 IF W*H/6>5 THEN PRINT "WHY DON'T YOU GET A COFFEE?": : GOTO 40
34 PRINT "JUST RELAX, IT WON'T BE LONG"
40 FOR J=1 TO W*H
45 FOR C=1 TO 8 :: INPUT #2:A(C):: NEXT C
47 GOSUB 100
50 PRINT #22:B$
60 NEXT J
65 CLOSE #2 :: CLOSE #22
66 GOTO 2000
100 !TAKE 8 DIGITAL #'S AND MAKE AN 8*8 ARRAY
105 FOR X=0 TO 7 :: FOR Y=0 TO 7 :: ARRAY(X,Y)=0 :: NEXT Y :: NEXT X
106 FOR X=1 TO 8 :: B(X)=0 :

```

```

: NEXT X
110 FOR Z=1 TO 8
120 X=Z-1
130 FOR X=0 TO 7
140 ARRAY(X,Y)=INT(A(Z)/2^POWER(X)):: IF X=7 THEN 160 ELSE A(Z)=A(Z)/ARRAY(X,Y)*2^POWER(X)
150 NEXT X
151 !OPEN #88:"PIO"
152 !FOR X=0 TO 7::PRINT #88:ARRAY(X,Y)::NEXT X::PRINT #88:CHR$(13)::CLOSE #88
160 NEXT Z
170 FOR Z=1 TO 8
175 X=Z-1
180 FOR Y=0 TO 7
190 B(Z)=B(Z)+ARRAY(X,Y)*2^POWER(Y)
200 NEXT Y
220 NEXT Z
222 B$="" :: FOR X=1 TO 7 :: B$=B$&STR$(B(X))&" " :: NEXT X :: B$=B$&STR$(B(X))
225 RETURN

```

```

230 !AT THIS POINT WE HAVE 8 #'S STORED IN B(1 THRU 8) THAT CAN BE WRITTEN TO DISK
1000 FOR X=0 TO 7 :: READ POWER(X):: NEXT X
1010 DATA 7,6,5,4,3,2,1,0
1020 RETURN
2000 OPEN #2:FILE$,DISPLAY,VARIABLE 80,INPUT :: OPEN #5:"PIO.CRLF"
2010 INPUT #2:W,H
2020 N2=INT(8*W/256):: N1=8*W-N2*256
2030 FOR LINE=1 TO H
2040 PRINT #5:CHR$(27);"K";CHR$(N1);CHR$(N2);
2050 FOR X=1 TO 8*W :: INPUT #2:A(X):: NEXT X
2060 FOR X=1 TO 8*W :: PRINT #5:CHR$(A(X)):: NEXT X
2070 PRINT #5:CHR$(13);CHR$(10)
2080 NEXT LINE
2090 CLOSE #2 :: CLOSE #5 :: END

```

SUPER EXTENDED BASIC
BY JOE NUVOLINI - FRONT RANGER - 5/87

During his visit, Craig Miller demonstrated a new Super Extended Basic which he helped develop for Triton. When they began to run out of XB cartridges, Triton asked him to develop a replacement. Craig took on the challenge. Along with Danny Michael, Mike Dodd, and Doug Warren, MG has produced for Triton an enhanced XB that contains all the features of the original, plus many new ones. For those with GramCrackers, many of the new features are familiar, as they are part of Danny Michael's enhanced XB which we have been using for some time. The new Super XB is a cartridge. Some commands have been modified. CALL VERSION now returns 120 instead of 100. The LIST command allows you to specify a column width of 1 to 255. A bug in CALL INIT has been fixed. CALL LOAD now works without memory expansion. The PERMANENT command has been removed as has RESEQUENCE. The RES command will now allow you to resequence a block of lines without resequencing the entire program. You can output the TRACE command to a printer. There are also some new commands. COPY will copy a block of lines, DEL will delete a block of lines, and MOVE will move a block of lines.

There are some new features. The error messages are now in upper and lower case. The QUIT key is turned off during normal operations. You can now bypass auto load by holding down any key when selecting XB. One of the most exciting features is the new cursor movement during edit operations. The up and down arrows used in conjunction with the FCTN/SHIFT keys step the cursor up or down one line. The left and right arrows used similarly will move the cursor to the beginning or end of the line, respectively.

Now a look at the new CALLS. CALL ALL(num var) rapidly fills the screen with the character selected. CALL CAT("DSKx.") will catalog disk number x. CALL CLOCK1 will display the time in the upper right corner of the screen. CALL CLKOFF1 turns it off. CALL CLSALL will close all open files. CALL BEEP, CALL HONK, and CALL CHIMES will sound the respective sounds. CALL COLOR(f,b) will change the colors for all character sets at one time. CALL BYE and CALL NEW do what BYE and NEW do except that will work from a running program. CALL GOSUB(num var) and CALL GOTO(num var) allows you to use a numeric variable in these statements. CALLAL KEYS("keylist,num var) allows you to set up a valid key list. CALL PEEK(addr, num var), CALL PEEKV(addr, num var), and the corresponding PEEKS allow you to poke and peek in gram/gram and VDP. CALL QUITON QUITOFF turns the QUIT key on and off. CALL GOSPRT starts sprite motion and CALL

NOTE: This program was found in the last group of programs we received from Anion via Youngstown. I tried it and it is VERY slow, but is included to show what can be done with ASCII files. The principle involved could be adapted to other applications.

This program was written to read in THE ASCII file created by TI-ARTIST instances, then print that file out to any Epson compatible printer. This allows you to display a picture created by TI-ARTIST with only your Extended Basic cartridge. The following is a summary of the program lines: the program lines.

90-110 OPEN FILES, SET PRINTER TO 7/72" LINE SPACING.

120-130 INITIALIZE VARIABLES

140 READ IN ROW/COL LIMITS AS X AND Y

150-520 MAIN PROGRAM LOOP

170 READ IN ONE LINE OF DATA, EIGHT NUMBERS AT A TIME

190-360 LOOP THAT CONVERTS THE DATA STRING INTO A SERIES OF 8 BIT BINARY NUMBERS (IN ROWS)

380-420 LOOP THAT INVERTS THE BINARY ROWS INTO BINARY COLUMNS, WITHIN EACH 8X8 GRID

430-490 LOOP THAT CONVERTS THE BINARY COLUMNS TO DECIMAL BYTES, THEN SEND THEM TO THE PRINTER.

520-550 RESET PRINTER, CLOSE FILES

This program can also be used without TI-ARTIST, as in a

screen-dump program. Simply derive the character definition string that would be used in a "CALL CHAR()" statement, then convert the two HEX numbers that define each row of a 8X8 character into decimal numbers. Combine the 8 resulting numbers on one line, separated by commas. Each line would then contain eight numbers, and would define one screen character. You also add a first line that contains only two numbers, the row/column limits of the graphic.

For example:

0,56,44,44,124,44,44,44

Becomes:

0 - 00000000
56 - 00111000
68 - 01000100
68 - 01000100 The letter "A"
124 - 01111100
68 - 01000100
68 - 01000100
68 - 01000100

and then becomes:

Col#	Bin value	Dec value
1	00000000	0
2	00111111	63
3	01001000	72
4	01001000	72
5	01001000	72
6	00111111	63
7	00000000	0
8	00000000	0

```

10 @=1 :: =2 !THIS PROGRAM
READS DATA FROM A FILE CREAT
ED BY TIARTIST AND PRINTS TH
E GRAPHIC ON AN EPSON PRINTE
R.
-----
20 !NOTE: THE PROPORTION IS
ONE TO ONE, SO A PICTURE THAT
IS 10 BY 10 CHARS ON SCREEN
WILL BE 10 BY 10 ON PAPER
-----
30 CALL CLEAR :: INPUT "NAME
OF INPUT FILE? DSK":A$ :: O
PEN #@:"DSK"&A$,INPUT :: OPE
N #:"PID.CR.LF" :: PRINT #
:CHR$(27)&"1"&CHR$(13)&CHR$(
10):: B$=CHR$(27)&"L"&CHR$(8
) &CHR$(C):: C$=CHR$(13)&CHR$(
10)
-----
40 DEF A=POS(D$,"",@):: LIN
PUT #@:D$ :: B=VAL(SEG$(D$,@
,A-@)):: C=VAL(SEG$(D$,A+@,L
EN(D$)-A)):: FOR D=@ TO B ::
PRINT "ROW":D :: FOR E=@ TO
C :: PRINT "COL":E :: PRINT
# :B$ :: LINPUT #@:D$ :: D$
=D$&" " :: FOR F=@ TO 8 :: E
$(F)=" " :: NEXT F
-----
50 F$=SEG$(D$,@,A-@):: G=VAL
(F$):: G$="" :: FOR B=@ TO 8
:: H(B)=[] :: NEXT B :: IF G
=[] THEN G$="00000000" :: GOT
O 110
-----
60 FOR I=[] TO 8 :: IF G= ^I
THEN H(8-I)=@ :: GOTO 100
-----
70 IF G< ^I THEN 90
-----
80 NEXT I :: GOTO 110
-----
90 J=I-@ :: H(9-I)=@ :: G=G-
(^J):: GOTO 60
-----
100 FOR B=@ TO 8 :: G$=G$&ST
R$(H(B)):: NEXT B
-----
110 E$(F)=G$ :: D$=SEG$(D$,A
+@,LEN(D$)-A):: NEXT F
-----
120 FOR F=@ TO 8 :: H$(F)=" "
:: NEXT F
-----
130 FOR K=@ TO 8 :: FOR F=@
TO 8 :: H$(K)=H$(K)&SEG$(E$(
F),K,@):: NEXT F :: NEXT K :
: FOR K=@ TO 8 :: L=[] :: FOR
F=@ TO 8 :: IF SEG$(H$(K),F
,@)="1" THEN L=L+(^(8-F))
-----
140 NEXT F :: PRINT # :CHR$(
L):: NEXT K :: NEXT E :: PRI
NT # :C$ :: NEXT D :: PRINT
# :CHR$(27)&"@&"&CHR$(27)&"0"
:: CLOSE #@ :: END

```

Super xB Cont

STSPRT stops sprite motion. CALL SCRON and SCROFF will turn the screen on and off. CALL ALOCK(x), CALL SHIFT(x), CALL CTRL(x), and CALL FCTN(x) will check the corresponding key from a running program. And last, but not least, CALL DRAW1 enables Draw and Plot. This is a stripped down version of D & P. With it you can draw black & white graphics using the following CALL LINKS: Edit, Show, Circle, Draw, Move, Fill, Plot, Gsave and Gload. When requested this program is loaded into low memory after the command CALL FILES(2) has

been entered.

There is also a plan to have a feature that will allow you to RUN a program from another program using RUN A\$ where A\$ has been defined earlier as a disk number and program name, e.g., a\$="DSK1.PROGNAME". This cartridge will be available from Triton in the near future.

I have used many of the CALLS listed above in the Danny Michael's enhanced 6K Extended Basic and they are great, especially the editing enhancements. If you don't have XB yet, try this one.

TI-ARTIST FONT FORMAT
 By Robert Coffery, Jr., West NY 99ers
 via NEWJUG NORTH AND HOOSIER UG

NOTE: When I purchased TI-Artist, I was very disappointed that there was no documentation for creating fonts. A diagram showed how they "looked" in a DV80 file, but gave no clue as to how to get them there from the screen as there is no "SAVE FONT" feature. A clue is given in the second part of the TI-WRITER to ARTIST article by Anne Dheine. I had about decided the only way to get a TI-Artist font was to convert a CS6D, or go backwards and create one directly from TI-Writer with the appropriate codes. The following article is how Mr. Coffery solved the dilemma. This person has converted a GRAPHX font to TI-ARTIST. It sounds quite involved, but again, shows how someone has been able to do something creative with DV80 files and that is the whole point!!!

When you load a TI-Artist font style into the TI-Writer editor, you will see a basic pattern which is very similar to the format of an Artist Instance!

INSTANCE:

```
A,B
0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0
```

FONT

```
n
A,B,E
0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0
```

A and B refer to the (8*8) blocks that will define the Instance of a Font letter. A will be how many blocks across, and B will be how many blocks down. n equals the character being defined in the font. (A;B;C, etc). E is equal to the numbers of pixels wide the character is plus a pixel of space between the font letters. A*B will equal how many lines it will take to define the character or instance. Each definition line (the lines that show as "0"s here) contain 8 numbers, ranging from 0-255.

ARTIST FONT DESIGN

For the sake of time and space we will assure you have either drawn a full font as an Artist picture or have converted a font picture from Graphx to Artist.

(1) When you get your letters in the picture, leave 5-7 pixels on the bottom and right side of your letters! You may separate letters with the MOVE feature of ENHANCEMENT if you didn't leave enough space between them.

(2) After you've done this, find your largest and widest character. Write down the pixel height and width. Also write down the WIDTH plus one, (1), of ALL the characters. The extra pixel is for space between characters. If you don't have eagle eyes, use the zoom feature to count them.

(3) Save all your characters in 1 picture if possible, else give them sequential names like PIC1, PIC2.

(4) Copy your reference pictures to a clean disk! Things will get VERY MESSY if you don't!

(5) Go into Enhancement and press (S) for Slides section, next press 7 to save an Instance.

(6) Use a file name that fits whatever character type you are working on, such as: a number 1,2,3..UPPERcase, UA,UB,UC..lowercase LA<LB<LC..SYMBOLS!/,#,\$... Once the file is named, you will be returned to your picture.

(7) Now use the joystick and get to the upper left hand corner of your character. When you start to increase the size of the Instance box, the top line of the box should cross over the top-most pixel(s) of your character, same for the left-most pixel(s). Remember, whatever is under the box line will be included!

(8) The box will increase by 8 pixels at a time. Increase the box so that it covers the entire character. (If you find that the box also covers a part of another character, then go back and move it so it doesn't.) Use the least amount of space as possible to cover the letter!

(9) When you have covered the entire letter, hit the firebutton, the letter will automatically be saved under the entered name.

(10) REPEAT STEPS 6-9 until you have saved all the characters you want to use in your font style!

ASSEMBLING THE FONT

(1) You will now start to assemble your font file. Use the EDIT SECTION of TI-WRITER. Place the character of whatever one you are going to load in first, (probably "A") on line 0001, note the line #.

(2) Hit FCTN 9 (BACK), so that you are now back in the command mode.

(3) Type the Load File command (LF), then using the format below, load the first character Instance:

```
[XXX DSKX.A_I]
      |       |
      |       | Instance file
      |       |
      |       | line number you put the char font on
```

This will load the character instance into memory after line xxx. Using the LF command this way will allow you to load DV80 files (Instances!) without disturbing the data already in the editor!

(4) After you have loaded the Instance at the end of your file (line xxx), you will need to add a number to the line that has only 2 numbers on it!. It will look something like this:

2,3

After the second number in that line, type a comma and the WIDTH number you wrote down for the character you are working on. Say the number is 9, it will look like this:

2,3,9

(5) Go back to step (2) until you have finished loading and altering all your characters for the font style.

WARNING*WARNING: If you are doing it right, you are working WITHOUT carriage returns. YOU DON'T WANT THEM! So for Pete's sake or your own.. DON'T EVER HIT REFORMAT! (EDIT NOTE: I always use the hollow cursor when doing this type of work and saves a lot of mistakes and frustration)

NOTE: It is a good idea to ALWAYS include a space character in every font. To do this put a blank line at the end of your assembled file and load any character Instance

after that blank line. Take the width of the widest character and add it to the 2 number line (like we did before). Now change those other lines that loaded in to all 0's. Keep the same number of numbers, but change them to 0's.

(6) You will then go through your file and make sure there are NO BLANK LINES (except the space character), or C/Rs at the end of lines. Also, doublecheck that those lines that had 2 numbers now have 3!

(7) Now that you've double checked everything, hit FCTN 9 (BACK). Type the PF command. (Print File). Type the filename you would like to call your font. Use this format:
DSKX.NNNNN_F

(Remember, you do not want to SAVE FILE, you want to PRINT FILE to disk.) You now have created your very own font! Now go into the Enhancement part of TI-Artist and load the font. You may need to alter some of the characters. If everything doesn't look satisfactory, continue to step 8.

(8) Go into the ENhancement section of TI-Artist and load the font. Get all the characters onto the screen. There should be 1 pixel spacing between the characters.

(9) Go into the [S]Slides section and resave the character, making sure that the left side of the box goes over the left-most pixel of the character.

(10) If your characters are not level, you may need to see which are too high. Write down all characters that need to be lowered.

(11) Go back into the Enhancement, and re-save those characters as Instances, and make sure you start 1 (or more) pixel higher than the last time when you re-save it! Keep doing this until you've corrected all the faulty characters.

(12) After you have re-saved all the characters that were not right, go back to the Editor in TI-Writer. Load your Font file and Scan through the file until you find the character you want to correct.

(13) Delete the definition lines below the 3 number line. Note the line that the 3 number line is at! Load your saved Instance using the same format as before:

XXXX DSKN.XXXXXXX_I

(14) Delete the line that has been loaded which has only 2 numbers.

You have hopefully corrected that character. If not, do it again. Lower case characters and symbols can cause you problems in centering, etc., so a little experience may be necessary to get things right, but a little common sense will prevail. Learning to do this could open the door to a lot of possibilities...who says a font has to look like an alphabet?

(EDIT NOTE: This does look like a lot of work. An easier way would be to get a disk from EDU-COMP called "Artist Extras" for about \$6. Use the grids of CSGD to make the font, then the FONT CONVERT program on the Artist Extras disk. However, if you hadn't read the above, you would not have learned more about DV80 files, merging files into TI-Writer and also why and how to use the PRINT FILE command. This article is meant to plant seeds for more ideas.)

TELECOMMUNICATIONS TIPS AND INFORMATION
FROM NORTH JERSEY TI-USER GROUP VIA LA TOPICS

Did you ever want to use your TI-Writer for sending information via a modem? The Magnetic Users Group, North Andover, MA has discovered the way to do it.

SENDING PARTY:

Compose text as usual in TI-Writer. However, when it comes time to save it on disk, use PRINT FILE with no characters.

PF C DSK2.README

Exit the EDITOR section of TI-Writer and enter the FORMAT section.

FILENAME: DSK2.README

DEVICE NAME:RS232.LF

USE MAILING LIST:N

WHAT PAGE(S)? (ALL)

NUMBER OF COPIES ? 1

PAUSE AT END OF PAGE? N

CHECK To be sure that the RECEIVING PARTY IS READY before you toggle the SENDING MODEM ON. When everything is ready, hit "ENTER."

RECEIVING PARTY :

Enters the EDITOR section of TI-Writer and prepares to LOAD FILES.

LF RS232.LF

When the sending party is ready to send, wait until you hear the squeal of his modem, then toggle the receiving modem on and hit the ENTER button. You won't see anything on your screen, but the lights on your expansion box will flicker. Then if everything has been done correctly, the file will suddenly appear. The S(ave)F(ile) to your own disk in the usual manner.

If you don't get your timing correct, you may lose part or all of line one. You can recover most of it with "DOOPS" (Control I), but it is easier to simply be sure that your text starts with one or two blank lines.

From Pa: Tip

NOTES:

A. This is in Extended Basic

B. in CALL JOYST, the X and Y are the variables for the position of the joystick. 4 or -4 is always returned. (See CALL JOYST in the User's reference Manual)

C. In BALL KEY, we are checking for the K or Key that is pressed. The numbers 83, 68, 69, and 88 are the ASCII codes for the S, D, E, and X (arrow keys).

D. Always use the same logic and variables found in the program. It makes it easier. For example, the GOTO's are the same: FV and FH logic are the same, and even the line numbers can be the same.

E. Each identical line number is doing the exact same logic. For example, in line 640, the I=-4 is left on the joystick, while K=83 is S(left) on the keyboard.

DMS

DEANNA SHERIDAN

20311 LAKE ROAD, ROCKY RIVER, OH 44116

DRAFTS FROM T2-WRITER
by Deanna Sheridan
NorthCoast 99ers

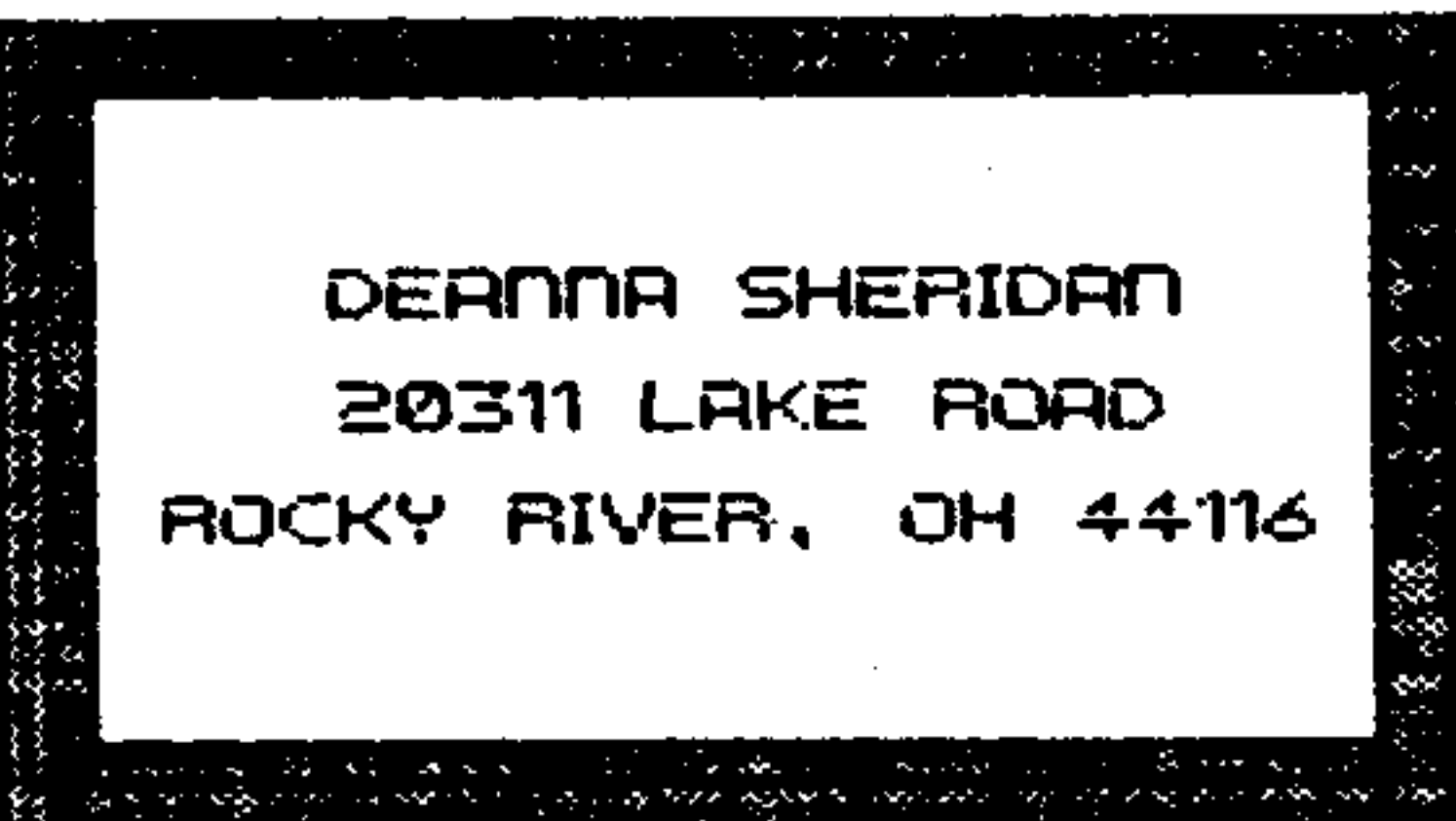
Last month we printed the first part of an article by Anne Dhein. It was probably fascinating, but looked like too much bother to ever try. There is good news. There is a second part to this article. In fact the entire tutorial, plus an extended basic program to do the Artist-to-writer conversions for you. Even better news is that this is a public domain disk and has been put in the library.

MIKE SHERIDAN



20311 LAKE ROAD
ROCKY RIVER, OH 44116

THIS MAY NOT BE YOUR "CUP OF TEA" AS FAR AS DESKTOP PUBLISHING IS CONCERNED. BUT IT IS MINE. I HAVE PASSED UP MOST OF THE AVAILABLE GRAPHIC PROGRAMS SINCE I HAVE ZERO ARTISTIC ABILITY AND COULD FIND NO PRACTICAL USE FOR THEM OTHER THAN DRAWING AND PRINTING PRETTY PICTURES. I GOT CSGD AND SOME ACCOMPANYING DISKS OVER A YEAR AGO AS THIS CAME THE CLOSEST TO BEING PRACTICAL FOR ME. I HAD PLANNED TO DO SOME NICE HEADINGS FOR COLUMNS OR DEPARTMENTS FOR THE NEWSLETTER. BUT NEVER SEEMED TO GET TIME. I HAD ALSO HOPED TO UTILIZE MY VAST CRAFT LIBRARY OF CHARTED DESIGNS TO MAKE SOME NEW GRAPHICS. BUT TIME WAS AGAIN THE PROBLEM.



BEING ABLE TO PRINT YOUR LETTERHEAD WITH YOUR LETTER AND PUT IT ANYWHERE ON THE PAGE YOU WANTED WAS JUST WHAT I WAS LOOKING FOR. I WROTE AN ACCOMPANYING ARTICLE ABOUT ASCII FILES WHICH MAKE ALL THIS POSSIBLE. THE TI-ARTIST "INSTANCES" ARE SAVED IN ASCII FORMAT. YOU CAN LOAD AS MANY INSTANCES AS THE SCREEN WILL HOLD, AND ARRANGE THEM IN ANY MANNER YOU WANT, RESAVE THEM IN A NEW INSTANCE, PUT THEM THROUGH THE CONVERT PROGRAM AND THEN RUN THEM FROM TI-WRITER AT WILL. LET'S SEE YOUR FANCY PC/MSDOS WORD PROCESSORS DO THAT. THE TRANSLITERATE COMMAND WAS PROBABLY AN AFTER THOUGHT SINCE SO LITTLE ATTENTION IS GIVEN TO IT IN THE MANUAL, YET IT IS WHAT ENABLES TI-WRITER TO GO FAR BEYOND THE POWER OF COMPARABLE AND EVEN MUCH Fancier PROGRAMS

JOHN AND DEANNA SHERIDAN
20311 LAKE ROAD
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Since I didn't even own TI-Artist, I made a trip to EDU-COMP to purchase same and see if Judy had any files of "Instances" I might like. The packages she showed me for the most part were duplicates of what I already had in CSGD fonts and graphics. The good news was she had a disk entitled "ARTIST EXTRAS" which has programs to convert CSGD fonts, graphics and pictures to TI-Artist Instances. I was in business.

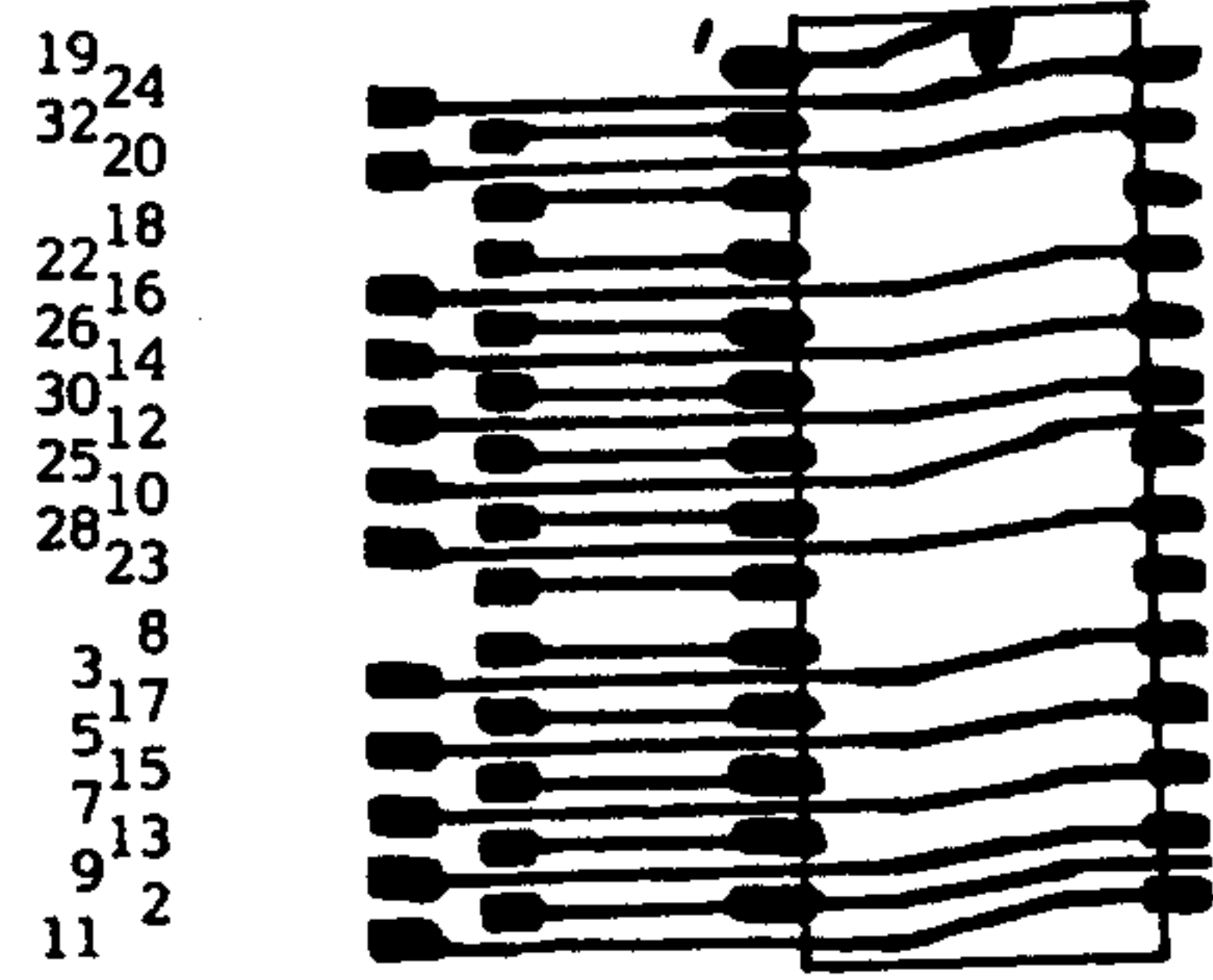
The procedure is very simple, but slow. The CSGD conversion program takes a while and, if you don't have the time or patience, you better pay the \$9.95 for the companion disk sets. I would put a font in to convert, go do some chores, come back and load another. But soon I had a diskful of fonts and instances to try out.

I have done a letterhead for my son who is just going into the baseball season. Since my husband is Irish, I did one for us with a Shamrock. I couldn't believe that in all my CSGD disks there wasn't one Shamrock. I raided my craft library and could not find a charted one there either. But I did come up with a picture I could trace on a CSGD graph and proceeded to create it that way. Then I converted it to TI-Artist, went in the zoom mode and cleaned up the rough edges. Then it was very simple to load a font, place the "J" and "D" in each Shamrock. I then chose a font for our names and another for the address. I saved it as a new Instance and used the convert program. It took about 20 min. for it to convert to the TI-Writer format. However, it is now there for use anytime I write a letter. I can center it in the middle, or have it to the left, whatever looks best. The only drawback is that you are limited in size to the 32-column screen of TI-Artist.

TRIO+ SOFTWARE has a commercial version for \$9.94 from TENEX which will also convert fonts that you can print out of TI-WRITER (as done here). You can merge 2 Instances which gives you a full-width printout. The files can be merged also. Desk-top publishing for \$9.95? You can't beat that!

* IMPORTANT TECHNICAL CORRECTION TO SINGLE CHIP ARTICLE, April 1987 Issue *

I'm sorry but even though I try to be very accurate in any technical article that I put in the West Penn 99'er, every once in awhile, one slips through. The article and schematic are correct, as well as the etch layout for the board. The problem is in the numbering on the left side of the component layout that indicates which pin will connect to the circuit card. The numbers for the GROM connector are wrong.



The numbers shown to the left are correct and can be used as a reliable reference when you are connecting the circuit card up to the GROM conn. *You should also note that the pin labeled as 25 will only go to the GROM conn. pin 25, if you intend on using the transistor inverter circuit Joe Spiegel included onboard for DBIN. You may eliminate the inverter circuit by not including the resistor attached to (C)ollector and the resistor attached to the (B)ase of the transistor as well as the transistor itself. You must then include a wire from the point (C)ollector of the transistor to the pin(s) 9 or 10 of U508 on the CPU board. The circuit does work using the rest of the information in the article.

*****John F. Willforth WP99'er

10

XB to TI-ARTIST INSTANCE...

By Terry Atkinson

Reprinted from 9T9 Newsletter, TI Users Group of Toronto

NOTE.. Line 4 in Version 1 of this program is the filename that the screen will be saved as. Change it to whatever filename you wish.

These programs were created to ease the pain of converting TI EXTENDED BASIC screens to a DV/80 format which can be loaded by TI-Artist 2. At present I have 2 versions. Version 1 is used for XB. This takes about 25 minutes to convert a screen to disk, depending on how many characters are on the screen. The maximum sector size the program will take is 58 sectors. Version 2 takes only about 7 minutes to convert a screen and requires the CorComp disk controller, making use of the tool shed utilities built into it.

There are two ways to run the program: either as a sub-program merged within a program or as a program run from EX-Basic at the appropriate break point. Instructions are geared toward that end. To use this program, first run your program that contains the graphics you want to convert, when the screen is displayed that you want to convert, "BREAK" the program (FCTN 4) and lok at the breakpoint in the program, making sure it does not contain a FOR/NEXT loop. Replace this line with the statement "RUN DSK1.XB2ART" or whatever you have named the conversion program. In teh case of the FOR/NEXT loop, it would be better to select another line located before or after the breakpoint line. The resultant file obtained after running this program can be loaded directly into TI-Artist as an INSTANCE. After the INSTANCE is altered, you can save it as a TI-Artist program file.

For any advice, contact the author, Terry Atkinson.

EXTENDED BASIC VERSION

```
1! Terry Atkinson 28 Savona
Court Dartmouth, NS B2W4R1 (
voice) 1-902-434-1346
2! This program may be freel
y distributed. Please do not
remove the authors name
3 DATA 1,24,1,32
4 DATA DSK1.SCREEN
5 READ SROW,EROW,SCOL,ECOL,0
UT$ :: IF POS(OUT$,"_I",1)=0
THEN OUT$=OUT$&"_I"
6 IF SEG$(OUT$,1,3)="DSK" AN
D LEN(OUT$)<16 THEN 8
7 CALL CLEAR :: PRINT "Pleas
e check filename in DATA sta
tement in program" :: END
8 FOR E=0 TO 14 :: CALL COLO
R(E,2,8):: NEXT E :: CALL DE
LSPRITE(ALL):: CALL MAGNIFY(
1):: CALL SCREEN(8) :: CALL
SPRITE(#1,32,16,1,1)
```

```
9 B$="123456789ABCDEDED" :: OP
EN #1:OUT$
10 PRINT #1:STR$(ECOL+SCOL+1
)&","&STR$(EROW-SROW+1):: FO
R F=SROW TO EROW::FOR G=SCOL
TO ECOL::CALL GCHAR(F,G,H)
::IF H>32 THEN I=H ELSE I=95
11 CALL LOCATE(#1,F*8-7,G*8-
7):: CALL PATTERN(#1,I):: CA
LL CHARPAT(H+ABS(H=31),C$)::
GOSUB 13 :: NEXT G:: NEXT F
:: CLOSE#1
12 CALL SOUND(4000,400,1)::
CALL CLEAR :: END
13 FOR E=1 TO 15 STEP 2 :: D
$=SEG$(C$,E,2):: E$=E$&STR$(
POS(B$,SEG$(D$,1,1),1)+PO
S(B$,SEG$(D$,2,1),1))&"," ::
NEXT E
14 E$=SEG$(E$,1,LEN(E$)-1)::
PRINT #1:E$ :: E$="" :: RETU
RN
```

CORCOMP CONTROLLER VERSION

0! by Terry Atkinson Savona
Court Dartmouth, NS B2W4R1 (voice)
1-902-434-1346 (TIBBS) 1-902-434-3121

1! This program may be freely distributed. Please do not remove the authors name. APRIL 1986

2 CALL INIT :: DELETE "LD-CMDS" :: CALL DELSPRITE(ALL) :
: CALL MAGNIFY(1):: A\$,B\$,C\$,D\$,E\$,F\$,G\$,H\$,I\$,J\$,K\$=" "
:: A,B,C,D,E,F,G,H,I,J,K=255

3 Y\$=RPT\$("80",7):: Z\$=RPT\$("01",7)

4 FOR I=0 TO 14 :: CALL COLOR(I,2,8):: NEXT I :: CALL LINK("MOVEM")(2,0,40960,768):: CALL CLEAR :: CALL LINK("MOVEM")(2,880,41728,1920)

5 CALL CHARSET

6 CALL A(L\$,L,M,N,O,Y\$,Z\$):: CALL DELSPRITE(ALL):: CALL CHARSET :: CALL LINK("MOVEM")(3,41728,880,1920):: CALL LINK("MOVEM")(3,40960,0,768)

7 OPEN #1:L\$:: PRINT #1:STR\$(O-N+1)&","&STR\$(M-L+1):: CALL SPRITE(#1,32,16,1,1) :: FOR P=L TO M :: FOR Q=N TO O :: R=(P-1)+Q-1

8 CALL LINK("VPEEK")(R,160,A\$)

9 IF ASC(A\$)>32 THEN S=ASC(A\$) ELSE S=95

10 CALL LOCATE(#1,P*8-7,Q*8-7):: CALL PATTERN(#1,S):: T=768+8*ASC(A\$):: CALL LINK("VPEEK")(T,96,B,C,D,E,F,G,H,I)

11 PRINT #1:STR\$(B)&","&STR\$(C)&","&STR\$(D)&","&STR\$(E)&","&STR\$(F)&","&STR\$(G)&","&STR\$(H)&","&STR\$(I):: NEXT Q :: NEXT P :: CLOSE #1

12 CALL SOUND(4000,400,0) :: CALL CLEAR :: END

13 SUB A(A\$,A,B,C,D,Y\$,Z\$):: CALL CHAR(34,"FF"&Y\$&"FF"&Z\$&Y\$&"FF"&Z\$&"FF"):: CALL SCREEN(8)

14 CALL SPRITE(#1,34,16,1,1,#2,35,16,1,1,#3,36,16,1,1,#4,37,16,1,1)

15 DISPLAY AT(1,1)ERASE ALL:"THE SCREEN HAS BEEN SAVED A

ND WILL BE RESTORED LATER.":
: DISPLAY AT(4,1):"SAVE FILE NAME: "

16 ACCEPT AT(4,16)BEEP SIZE(-8)VALIDATE(UALPHA,DIGIT):A\$
17 DISPLAY AT(5,1):"WHAT DRIVE NR? 1" :: ACCEPT AT(5,16)BEEP SIZE(-1)VALIDATE("1234"):B\$

18 A\$="DSK"&B\$&","&A\$&"_I" :
: DISPLAY AT(7,1):"FILENAME IS: ";A\$: : "DO YOU WISH TO DUMP THE COMPLETE SCREEN? N"

19 ACCEPT AT(10,18)BEEP SIZE(-1)VALIDATE("YN"):B\$

20 IF B\$="Y" THEN A,C=1 :: B=24 :: D=32 :: SUBEXIT

21 DISPLAY AT(12,1):"DO YOU KNOW THE ROW-COLUMN COORDINATES THAT YOU WISH TO DUMP? Y" :: ACCEPT AT(14,7)BEEP SIZE(-1)VALIDATE("YN"):B\$

22 IF B\$="N" THEN 27

23 DISPLAY AT(16,1):"START ROW: START COL: END ROW: END COL:"

24 ACCEPT AT(16,11)SIZE(-2):A :: ACCEPT AT(16,25)SIZE(-2):C :: ACCEPT AT(17,11)SIZE(-2):B :: ACCEPT AT(17,25)SIZE(-2):D

25 IF D<2 OR D>32 OR D<C OR C<1 OR C>31 OR A<1 OR A>23 OR A>B OR B<2 OR B>24 THEN 24

26 GOSUB 29:: DISPLAY AT(24,1):"DOES THIS LOOK CORRECT? Y":: ACCEPT AT(24,25)BEEPVALIDATE("YN")SIZE(-1):B\$:: IF B\$="N" THEN 24 ELSE SUBEXIT

27 DISPLAY AT(15,1):"RECOMMEND YOU LOAD AND RUN THE GRAPHICS PROGRAM YOU WISH TO DUMP AND COMPUTE THE ROW/COLUMN COORDINATES"

28 DISPLAY AT(19,1):"AND RE-RUN THIS PROGRAM":"THANK YOU -4,0) :: STOP

29 CALL LOCATE(#1,A*8-7,C*8-7,#2,A*8-7,D*8-7,#3,B*8-7,C*8-7,#4,B*8-7,D*8-7) :: RETURN

30 SUBEND

LOADING PROGRAMS
Jim Mekeel, Northcoast 99ers
Cleveland, Ohio

Since we have several new members in our group a review of loading program files would be beneficial. I will just cover BASIC and XBASIC in this article and leave assembly language programs to some later time.

There are three types of program files that can be used based on what they contain or the size of the program. These are:

PROGRAM
INTERNAL/VARIABLE 254
DISPLAY/VARIABLE 163

There are several other file formats that the TI uses but not for storing programs. The other files can only be used within another program. Examples: TI WRITER uses D/V 80 or D/F 80 files for the user created data, TYPWRITER uses INT/FIX 192 for the same purpose, and ADVENTURE PERSONAL RECORD KEEPING modules use data files that can only be used with those particular modules.

Cassette users really have only one choice in BASIC XBASIC and that is the program file. The program file is not really stored on the tape in what a disk user would call a program format but the format is invisible to the user so there is no need to discuss it here. With the new cassette assembly language loaders available, the cassette user has some other options available now, but again, I will just keep to BASIC/XB in this discussion.

PROGRAM FILES

A runnable program is usually stored in program format and can be used as follows:

CASSETTE
type OLD CS1 enter
wait for program to load
type RUN enter

DISK
type OLD DSK1.name enter
wait for program to load
type RUN enter

- or -

type RUN "DSK1.name" enter

In most cases the program should now run if the proper BASIC was used and there is no problem with the program file. If you receive an error message, there might be a problem with the program or it might be simply that the wrong BASIC was used.

Usually, an XBASIC program will not run in the BASIC environment. This is because XB has a greater number of CALL statements and can have multi statement lines. The usual result of running an XB program while in BASIC is a FOR-NEXT ERROR IN xxx message. If I get this error, I always do a quick LIST to the screen to see if there are multiple statement lines which tells you that it is XB.

Many BASIC programs will run in the XBASIC environment. However, some programs will not run in XBASIC and this is

usually because BASIC will allow use of characters above ASCII 143 to 156 whereas XBASIC will only allow characters up to ASCII 143. The usual error reported when running a BASIC program while in the XB environment is BAD VALUE IN xxx. If this occurs, simply reload the program in the proper language.

If a PROGRAM file uses more memory than 45 sectors or uses many large arrays, some memory dedicated to other functions will need to be freed by a CALL FILES statement. This need is usually indicated by a MEMORY FULL IN xxx error message. To execute a CALL FILES statement:

type NEW enter
then load run

The program should now run unless there is something wrong in the code.

INTERNAL/VARIABLE 254 FILES

Normally these are long XBASIC programs that can be loaded into the machine and run the usual way if the 32K memory expansion is connected to the system. Because the computer has automatically kicked these files over to I/V 254 format from a normal PROGRAM file, the use of CALL FILES is not needed.

CASSETTE
not available

DISK
load run Normally

DISPLAY/VARIABLE 163

A program in this format would be an XBASIC program saved with the MERGE option. As this implies, this file can be merged with another file already in RAM. The OLD command will not work with this file, but can be used as follows:

CASSETTE
not available

DISK
type MERGE DSK1.name enter
wait for program to load
type RUN enter

The program should now run normally and can be saved using the SAVE command. There does not need to be another program already in RAM for the MERGE command to work.

CAUTION

Both INT/VAR 254 and DIS/VAR 163 file formats can be used as data or ASCII text files. If these files are loaded as described above, an error message will result. If it is desired to then view these files, a good filereader program must be used such as found on DISK HELPER ONE which is available in the fairware section of our library.

ASSISTANCE

If any questions arise or trouble occurs, ask one of the other members in the user's group. One of the best benefits of belonging to an user's group is the sharing of experience and knowledge. So if you don't know...ask!

AN ADVENTURE NORTH MENTIONING...

/ LEGENDS \
/ by \
/ DONN GRANROS \

An Incomplete Review By:
Dave Talan (Northcoast 99'ers)

Did you ever notice that adventures come and go! There was the Adventure Editor, and then there were lots of Scott Adams adventures; there was the TOD Editor, and then more TOD games (Different monster names, graphics, and so on...but in essence the same game...) If anyone still plays adventures, you might recall one called "Old Dark Caves." Not only was this game new to the TI World, but it added the excitement that lacking for so many long years. This revolutioned the [TI] adventuring realm, with excellent graphics, sounds, and a decent plot. Now, the author who brought you "Old Dark Caves" now brings you "Legends." I can assure you that this will be in a category above and beyond the rest...

To start off, the adventure has a 30+ page manual, two disks, and is backed by the integrity of Asgard Software. The adventure disks are furnished unprotected, which allows the PURCHASER to make a LEGAL BACKUP! To my surprise, the program itself (or the logic, if you will) is written in extended basic- but because it accesses over 60,000 bytes of graphics data through assembly routines, the adventure is one of lightning speed! Unlike "Old Dark Caves," its sequel "Legends" will allow for four players! This is nice if you

have friends over...

Some excellent features of the adventure are a character generator (for designing your own characters), fifty large monsters, 44 distinct game screens, 6 separate dungeons to explore in search of clues, weapons, and treasures. One can stay at inns, use teleporters, drink potions, avoid traps, pitfalls and wandering monsters. Furthermore, as your characters advance in experience and wealth, they can venture to the Adventurers Guild for additional training in the art of combat, such as learning new spells and skills, which you will need...

From what I was told, "Legends" will rival even the best adventures on other home computers! Watch out "Ultima II", here comes "Legends," and its on that little 'ole TI-99/4a!!!

Although this is not intended to be a complete review, for the reason that the adventure isn't due to be released until June 1987, it should be just enough to get your mouth watered! The system requirements are as follows: TI-99/4a console, 32k expansion, one disk drive, and extended basic. [One excellent feature of "Legends" is that it can be configured to use the RAM DISK or take advantage of DS/DS disk drives and controllers.

Any questions about the article can be answered by Dave Talan, my phone # is (216)/333-5829. Or you can obtain more information by writing to Asgard Software at:

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CLEVELAND AREA 99/4A USER GROUPS
C/O DEANNA SHERIDAN
20311 LAKE ROAD
ROCKY RIVER, OH 44116

PLEASE NOTE - NEW ADDRESS

CHECK YOUR EXPIRATION DATE.
THIS MAY BE YOUR LAST ISSUE!!

!! TIME DATED MATERIAL !!