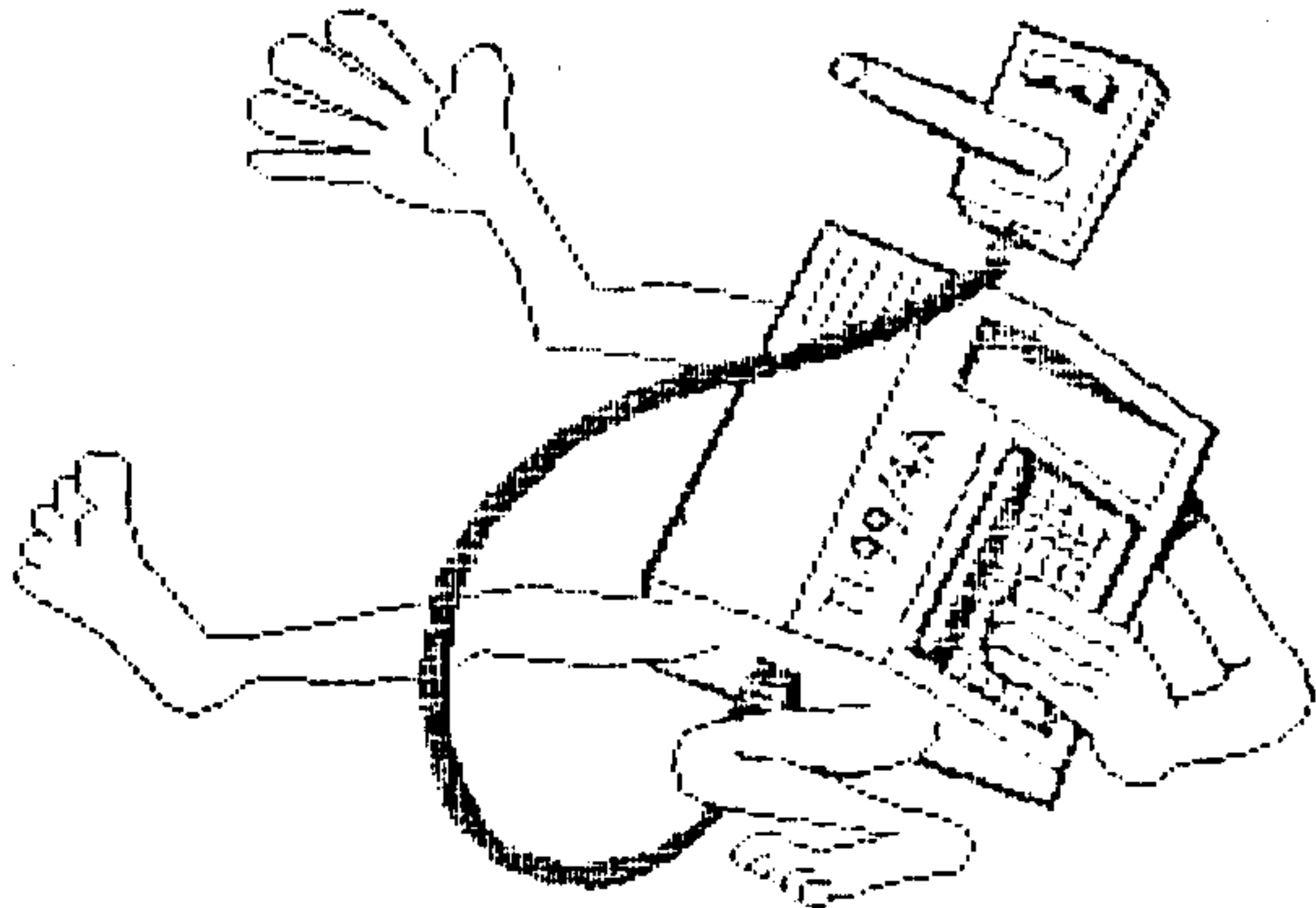
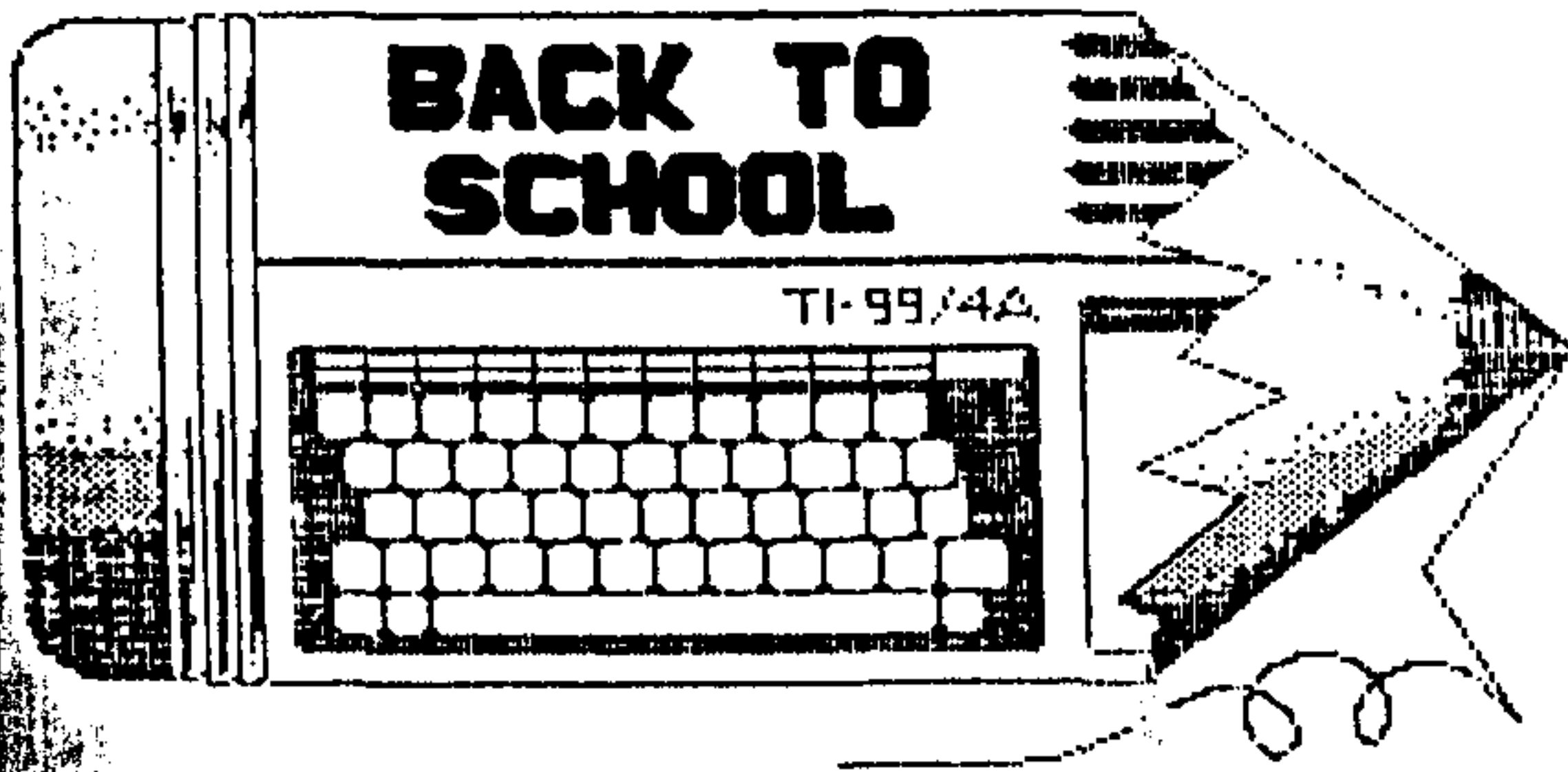


# Spirit of 99



THE OFFICIAL NEWSLETTER OF THE CENTRAL OHIO NINETY-NINERS INC.

PUBLISHED MONTHLY IN COLUMBUS OHIO



\$1.50

VOL. 7

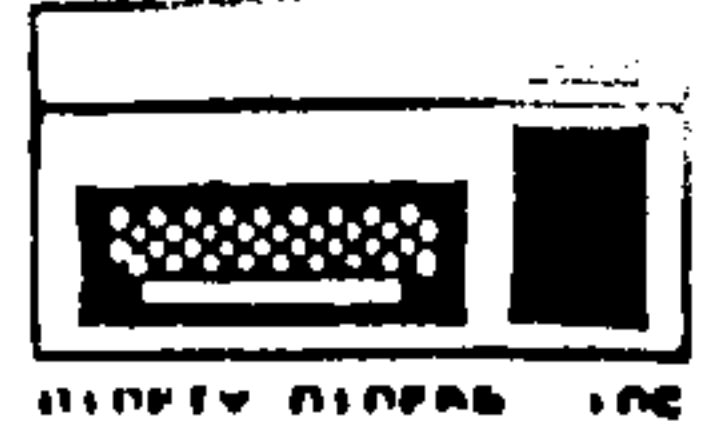
NO. 9

SEP

1989

# Spirit of 99

THE OFFICIAL NEWSLETTER OF CENTRAL OHIO NINETY-NINERS



COPYRIGHT © 1985

Central Ohio Ninety-Niners Incorporated (C.O.N.N.I.). Columbus Ohio 43212, USA. All rights reserved. Spirit of 99 is published monthly for Central Ohio Ninety-Niners Inc. by C.O.N.N.I. members and is the official newsletter of C.O.N.N.I. User Group.

Editorial, advertising and subscription address is:

181 HEISCHMAN AVE  
WORTHINGTON, OH 43085

Subscription rate (USA) \$20.00 /1 year (12 issues). Foreign subscription rates available upon request. Third class postage paid at Columbus, Ohio.

**CHANGE OF ADDRESS:**  
Send both OLD and NEW address to: Subscription address above. WE assume no responsibility for manuscripts, programs (tape or disk) not accompanied by return postage. Letters to the Editor become property of Spirit of 99. If published, we reserve the right to edit at our discretion.

OPINIONS EXPRESSED HEREIN ARE THE AUTHORS AND ARE BASED ON VALID DOCUMENTABLE RESEARCH. THEY DO NOT NECESSARILY REFLECT THE OPINIONS OF THE PUBLISHER.

We will not knowingly publish copyright material without the permission of the author and credit due.

All programs published herein are of public domain unless otherwise noted.

Other non-profit user groups may use material from this newsletter only if source and credit is given.

Central Ohio Ninety Niners Inc. is a non profit organization comprised of MEMBERS who own or use the TI99/4A computer and it's related products and have paid a yearly membership fee of \$28.00 and whose main objective is the exchange of Educational and Scientific information for the purpose of computer literacy.

C.O.N.N.I. meetings are held the 2nd Saturday of each month at the Martin Janis Senior Center - East Eleventh Ave. at the Ohio State fairgrounds. Meeting time is at 9 am. Meetings are open to the public. Membership dues (\$28.00) are payable yearly to C.O.N.N.I. and cover the immediate family of the member. (An application has been placed

in this newsletter for your convenience) Please address it to:  
EVERETT WADE  
179 ERIE ROAD  
COLUMBUS, OH 43214

## ADVERTISEMENT:

We do accept commercial advertisement at The following rates:  
Business Card (2x3.5):  
\$5.00/issue

1/4 Page: \$25.00

1/2 Page: \$45.00

Full Page: \$75.00

Write this newsletter for other size arrangements.

All ads should be submitted (camera ready) to advertising address above, payment enclosed. Members ads are published at no cost. (Limit of 25 words and must not be commercial please.)

## \*\* INDEX \*\*

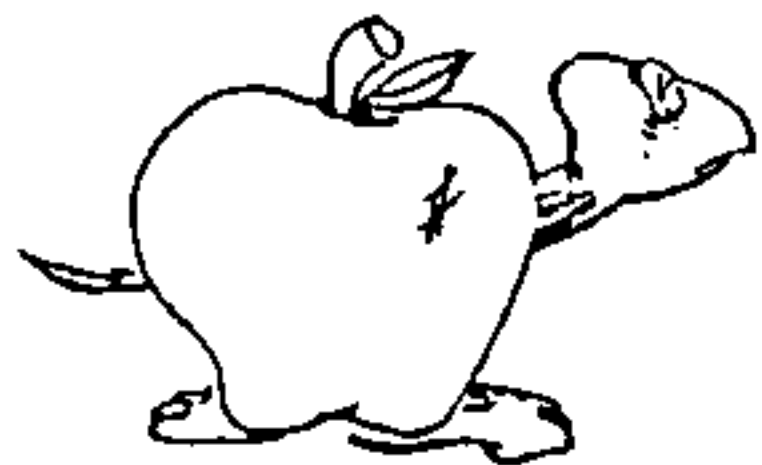
ANNOUNCEMENTS.....	P..3
BEGINNER TIPS.....	P.12
FOUR-A/TALK.....	P.14
GAME REVIEW.....	P.13
INDEX.....	P..2
MEMBERSHIPS DUE. (SEPT)...	P.16
MINUTES.....	P..5
PRESIDENT'S MESSAGE.....	P..4
PRINTER PROBLEMS.....	P..6
PROGRAM OF THE MONTH.....	P.11
SPIRIT OF 99 NL.....	P.10
TI-ARTIST.....	P.17
TI-BASE/PART 7.....	P.18
TIPS AND TRICKS.....	P.12

EDITOR.....JEAN HALL  
ASSIST.....CAROLE PARKINS

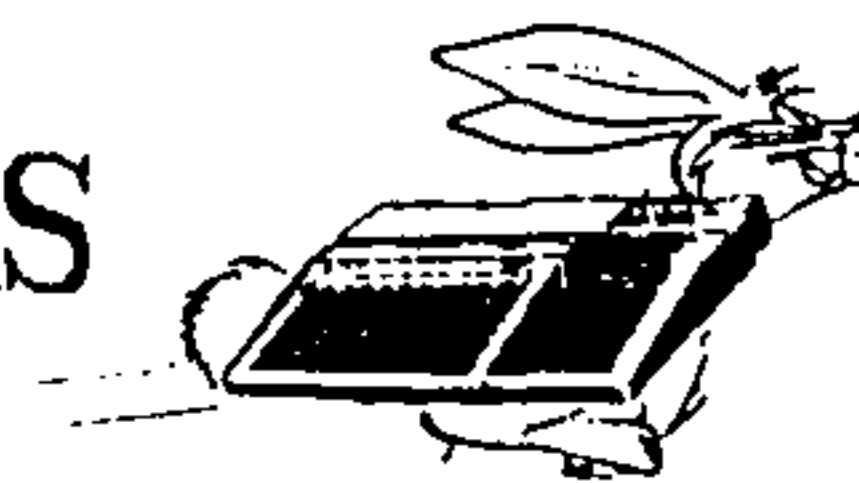
## ## OFFICERS ##

PRESIDENT.....DICK BEERY  
VICE PRES.....JIM SEITZ  
SECRETARY.....CHARLES OSMENT  
TREASURER.....MIKE CHANEY  
LIBRARIAN.....CHUCK GRIMES

ANNOUNCEMENTS



DON'T BE SLOW-PAY YOUR DUES



Dues are usually paid at or before the March meeting, and are \$28 per year for full membership, library and voting privileges, plus the newsletter. You may also pay your dues in two installments if desired: \$14 in March and \$14 in September. If only the newsletter is desired, then payment is \$20 per year. Those who join during other months of the year pay a lesser, pro-rated amount:

Mar---28.00	Apr---25.75	May---23.50	Jun---21.00	Jul---18.75
Aug---16.50	Sep---14.00	Oct---11.25	Nov---9.50	Dec---7.00
Jan---4.75	Feb---2.50			

Fill out an application blank (one on the back of this newsletter), make a check out to C.O.N.N.I. and give it to Everett Wade, the membership registrar, at one of the meetings or mail to him at the following address:

Everett Wade                      179 Erie Rd                      Columbus, OH 43214

MEETING AGENDA ----- SATURDAY 9 SEPT 1989

9 AM LIBRARIES OPEN  
 BULLETINS AVAILABLE  
 REGISTRATION - MEMBERSHIP  
 MICROpendium magazines  
 for sale  
 {DOS SIG}  
 and other SIG GROUPS OF  
 INTEREST TO MEMBERS

10:20 AM DEMONSTRATIONS:



9:25 AM QUESTION AND ANSWER SESSION

9:50 AM BUSINESS MEETING

12:00 PM WE MUST BE OUT OF THE  
 BUILDING BY NOON!!!!

++++  
 +NEW MEMBERS, RENEWALS+  
 + NL SUBSCRIPTIONS +  
 ++++

++++  
 + COFFEE ANYONE? +  
 + SATURDAY MORNINGS +  
 ++++

++++  
 + WEDNESDAY EVENING +  
 + MEETING - SEP 27 +  
 ++++

SHOALS 99ERS                      NL  
 JOHN NIHOF                      RN  
 PETER KRAUS                      RN  
 EDWARD L. EDWARDS RN

Call Jim Seitz (875-5532) to be a host or hostess. SIGN UP IF YOU WANT ANY COFFEE!!

7:30 PM AT MCDONALD'S  
 CORNER OF CLEVELAND AVE  
 AND MAIN IN WESTERVILLE

HOPE TO SEE YOU THERE!!

SEP - BEERY'S



FROM THE PRESIDENT'S DESK

By Dick Beery

After a month off, I find that there are a lot of things that deserve mention. Here goes!

Fairs and Exhibitions: On Sept. 16th, CONNI will be demonstrating programs and making our presence known at a multi-computer show at the Aladdin Temple on Steltzer Rd, along with Atari, IBM and other types of computers. On the same date, the TI International Expo 89 will take place in Alexandria, VA. The annual Chicago and Milwaukee TI Faires will take place on November 4th and 5th. Our SysOp and former president, Irwin Hott, has been urged to present a program on using speech at a show being held at the Olean Center Mall, Olean, NY, on November 11th. CONNI has been invited to set up a table there. For more details on the Alexandria and Chicago-area events see the August Micropendium.

Products: Where to begin? Among Fairware products one can find Mike Maksimik's fine F-DOS, which he will demonstrate at the Chicago Faire. I showed this at the August evening meeting of CONNI, and it was well-received. Also, for graphics, see <G>, an excellent and not difficult graphics program that can produce excellent demonstrations for use at fairs and exhibitions, including animation. Tips is another graphics program that produces greeting cards and a number of other formats. Pix, by Jim Reiss, according to the documentation "implements a new 99/4A-specific compact color and two-tone picture storage format (that is)...typically faster and more compact than RLE for two-color pictures, and the format stores the two colors involved, unlike RLE." Commercial products include Sprite Builder, which produces magnified sprites, Genprog, a program development package for the 9640 by Paul Charlton, a Printers Apprentice version for MDOS, a Personal Home Auditor Accounting System by Bill Gaskill, Music Pro from Asgard, a music editor that permits the user to type notes directly on the staff, a history/graphics package also from Asgard, titled Disk of Pirates, etc. Apologies to the producer of any I may have slighted from either category. Will try to play catch-up next month.

Projects: Curt Borders, our publications librarian, would like to maintain a complete file of the Spirit of '99 newsletters. A list of issues needed appears elsewhere in this issue. Won't you help? Also, we plan to include advertising space in the newsletter to notify members and others of TI, 9640 and compatible hardware and software for sale.

Places: Our August meeting location at Chemical Abstracts was apparently well liked. The facilities, and equipment as desired, were provided free of charge. A friendly and dedicated staff gave us much help and support. Thanks, Charles Rolle and Rick Prudhomme! Ample free parking and a beautiful building and grounds completed the experience.

In September, we will be back at the Martin Janis Center, once again on the SECOND Saturday. See you there!

C.O.N.N.I. Minutes  
Wed. 6/28/89

The meeting was opened at 7:30 P.M. with the introduction of visitors Don Kroner and Dave Suke who are opening a new retail business in Westerville devoted entirely to the used computer market. After the introductions the question and answer period began. At 8:45 Dick Beery asked for volunteers for future demos. At 8:50 the raffle was held. At 9:00 P.M. a discussion of the Lima Fair began and the possibility of that event not being held next year was mentioned. The Disk of the Month was announced by Chuck Grimes. Dick Beery talked about alternative sites for the August Saturday meeting stating that Chemical Abstracts was a possibility. At 9:30 Karl Romstedt Demoed his assembly load programs and at 9:50 Jean Hall demoed Jiffy Flyer. After the demos Dick Beery read a letter from the Lima users group on how to setup a computer fair. Bill Wood announced a source of inexpensive DSDD disk drives. At 10:10 the meeting was adjourned.

\*\*\*\*\*

CONNI MINUTES  
07/08/89



The Saturday meeting was called to order by President Dick Beery at 9:30 A.M. with the start of the question and answer period during which technical and programming questions were fielded. A phone line problem that CONNI Sysop Irwin Hott is having with the club BBS was discussed.

New business was brought forward at 10:00 A.M. and Dick Beery mentioned the possibility of increasing contact with other TI99/4A groups in the state, i.e. setting up a CONNI booth at malls in other towns in Ohio. The possibility of using the Chemical Abstract facility for the August meeting was announced with the fact that that particular meeting may be pushed back to the 3rd. Saturday due to scheduling problems. Bill Wood shared a source for inexpensive disk drives. A show of hands was requested for a possible field trip to OLC after one of the Sat. meetings in the future, some interest was noted.

The contents of the July Disk of the Month was read by Disk Librarian Chuck Grimes. Then the possibility of starting programs to interest youngsters in the club was talked about. Two large TI conventions to be held in September in Washington DC and also Denver CO were announced. The proposed inclusion of a DOS SIG for other types of machines was put before the club with the decision that it would be open to all.

At 11:00 A.M. Tom Roberts gave a Demo of programs he has written in Fortran. Meeting adjourned at 11:30 A.M.

Respectfully Submitted  
Charles Osment, Secretary



When a program is written on one TI-99/4A console, it's a pretty sure bet that it will run on any other TI-99/4A console - unless the programmer has used some of the special features of the CorComp Disk Controller, Super Extended Basic, or whatever. But when a programmer writes a program to output to his own printer, it is by no means certain that it will work with your printer. As far as printer compatibility is concerned, it's a jungle out there. Anarchy, chaos and total confusion!

To begin with, if the printer has a parallel port it must be opened with "PIO", otherwise with "RS232" followed by the baud rate - or something else again for AXIOM. And you may have to add .LF to suppress line feeds or .CR to suppress carriage returns. Next, its output and its response to control codes is partly controlled by those idiotic, microscopic, inaccessible, fragile-looking inventions of the devil called dip switches. And finally, the output is mostly controlled by the printer control codes in the program itself.

Somewhere among the thousands of publications on computers, someone must have written a comprehensive guide to writing and modifying software for printer compatibility. If anyone knows of such, please tell me! I have read literally thousands of user group newsletters over the past several years, and have seen many mentions of "fixes" to various problems, but never a detailed article. I have called printer manufacturers, and they have been most helpful in suggesting that I buy one of their expensive manuals for each of their models. I have talked to programmers with much more experience in writing printer programs than I have, and they tell me it is very difficult, even with the manual at hand, to modify a program for a particular printer without having access to that printer for testing.

I have no experience in programming for any printer other than my trusty old Gemini 10X, and my few attempts to modify programs for other printers have mostly ended in failure. However, I have borrowed several manuals and attempted to chart the differences. I had hoped to compile and publish a complete conversion chart, until I realized the complexity of the problem. Anyway, perhaps I can pass on a few tips to programmers, to help them make their programs as widely compatible as possible, and possibly I can give users a little bit of guidance to help in modifying programs to suit their printer.

In the following, in order to be brief, I have mentioned control code sequences by their ASCII numbers, such as 27 66 1. This would be programmed as CHR\$(27);CHR\$(66);CHR\$(1) or, since ASCII 66 is within the printable range, it might be CHR\$(27)"B"CHR\$(1). 27 77 n means that for n you substitute an ASCII, within an allowable range, according to what you want to accomplish.

There seem to have been four systems of printer control codes used with the printers commonly found in the TI world - Epson, Micronics, Axiom, and Okidata. The Micronics people tell me that they "used the Micronics emulation until the introduction of the current NX series, when they switched to the IBM emulation". The IBM emulation appears to be the same as the Epson mode except that it has a different set of special character symbols - in fact, many current Epson-compatibles have an optional IBM mode.

The Micronics mode and the Epson mode are quite similar, although with aggravating differences. Okidata and Axiom are way out in left field. Since Micronics, Epson and Panasonic (which is basically Epson-compatible) seem to be by far the most popular in the TI community, and most software is written for them, it might be wise to avoid the Okidata. I have also seen mention of problems with Diablo and Centronics, but I have no information on those.

Any of the ASCII from 0 to 127 can be used as a printer control code. If the ASCII is above 31, it must be preceded by ASCII 27, known as the escape code, which is universally used to alert the printer that the following ASCII codes are to be interpreted as controls rather than printed as characters. If the printer recognizes an ASCII below 31, or one or more ASCII immediately following ASCII 27, as a valid control code, it acts upon them but does not print them. This is why, if you insert "control U" codes in a line of text, the text will be shifted left. However, if the codes are not recognized as valid, the ASCII below 32 or above 126 are printed as a blank space, the others are printed as the character they represent. This is why that puzzling E, G, S or whatever shows up on the first line of a printout, if a program is not compatible with your printer.

Some printer commands require a sequence of three or more ASCII codes, of which the first is 27, the second could be anything above 31 and the remainder could be anything at all. If your printer does not recognize the second ASCII as valid, but then comes to an ASCII below 31 which it does recognize, it acts on that ASCII as if it was a single command - which is why your printer sometimes "goes crazy".

The ASCII below 27 are quite standardized, and many of them have names, such as BEL for 7 (activates buzzer) which are also commonly used in telecommunications. ASCII 10 (line feed), 12 (advance to next top of form) and 13 (carriage return) seem to be universally recognized. For some reason, Panasonic owners seem to have trouble with line feeds when running programs written for other printers.

ASCII below 27 are not preceded by the escape code 27. Some printers will optionally recognize 14 (double width for one line) and 15 (cancel 14) preceded by 27, but programmers should avoid this since other printers will treat the 27 as a blank space. The NX-10 recognizes 27 10 as a command to reverse the paper one line and 27 12 to reverse to top of page.

The escape code 27 can be input from the TI-99/4A keyboard by depressing the CTRL key and the period key together - the actual ASCII is 155 but printers, other than the Axiom, will accept it as 27. This is handy when opening the printer in immediate mode or writing a routine for your own use, but should be avoided in programs being distributed because the character prints out as a blank space which will probably confuse anyone trying to modify the program.

I have studied the manuals, and attempted to chart some of the codes, for the Gemini 10X, SG-10 and Star NX-10; Epson FX-80, FX-85/185 and its IBM mode; Panasonic KX-F1080; MX Graftrax Plus; Brother M-1009; Seikosha 550A or 550TI by Axiom; and Okidata (model unknown). Due to differences in terminology, it is not easy to relate them to each other.

The IBM mode of the Epson FX-85 seems to be entirely compatible with its Epson mode except that it lacks some features. The FX-80 seems to be entirely compatible with the FX-85 except lacking NLQ and a few specialized codes (and I

did not get into comparing graphics capabilities of any of these printers). The Brother M-1009 is also apparently highly compatible. The MX Graftrax Plus, another Epson model, is entirely compatible but lacks some features (no graphics capability?). The Panasonic KX-P1080 is very compatible but also has several unique codes of its own for setting tabs and spacing, etc. The Star NX-10 also seems to be in complete agreement with the FX-85, but with some additional codes for unique features such as reversed paper feed. I would guess that in actual practice these may not be as compatible as they seem. And of course, any maker's newer or more expensive models have additional codes for features not found on older or cheaper models.

The Seikosha 550A or 550TI, made by Axiom, recognizes a few of the common codes between ASCII 7 and 14, but from there on it has entirely its own system of codes; many of these same codes are used by Epson/Micronics for entirely different purposes, so running a program written for either on the opposite printer can be guaranteed to produce pure garbage. Okidata likewise recognizes a few of the low codes and then goes into its own system, frequently in direct conflict with the Epson standard; due to the terminology used in its manual, I am not sure what some of them do.

The Gemini 10X, made by Star Micronics, has long been superseded by newer models, but stocks are still being sold by discounters. It has been a sturdy workhorse, long popular with TI owners, and a great many programs have been written using its printer control codes. These are 90% compatible with Epson - but that other 10% causes a great deal of trouble. The differences are described below. The Star SG-10/15 was a transitional hybrid, switchable by dip switch 2-2 between the Micronics mode and the IBM mode. The Micronics mode is completely compatible with the Gemini 10X (except for download characters) and with some additional features - NLQ and proportional printing, and a slashed zero option. The IBM mode seems to be very compatible with the Epson standard. This printer was superseded by the Star NX-10, which is again Epson compatible.

A major incompatibility between programs written for the Gemini 10X or SG-10, and Epson-compatible printers, is that Micronics recognizes 27 66 1 to select pica, 27 66 2 to select elite and 27 66 3 for compressed, and on the SG-10 also 27 66 4 to select NLQ and 27 66 5 to cancel it. On Epson/IBM printers, 27 66 is the beginning of a series of codes used to set vertical tabs. Actually, since pica is the default, there is no need to program for it except to cancel condensed print, for which purpose 18 is recognized by both Micronics and Epson. (Avoid using 27 80 to return to pica because Micronics does not understand it and might misinterpret it to change default tabs.) Similarly, 15 will select condensed print on both the Micronics and Epson. Unfortunately, there is no compatible code for elite; Epsoms use 27 77 to select elite, but 27 77 n is used by the 10X, SG-10 to set the left margin n spaces, so that misinterpreting these codes can be catastrophic! The Epsoms use 27 108 n to set the left margin, but this is not recognized by Micronics.

The other major difference is 27 51 n which sets the line feed to n/144" on the 10X and on the SG-10 in Star mode, but to n/216" on Epson compatibles and on the SG-10 in IBM mode. The "fix" here is to multiply the value of n by 1.5 when running a Micronics program on an Epson printer. The same applies to 27 74 n which sets a one-time line feed of n/144" or n/216".

Micronics uses 27 82 n to set the margin at the top of the page, but Epson recognizes this as a command to switch to one of the international character



sets, which can produce some interesting results. The Epsoms use 27 114 n to set the top margin, but Micronics doesn't know this one. Micronics uses 27 55 n to select an international character set, but the Epson will read 27 55 as a comand to cancel 27 54 which selected a special character set. I'm not sure what that means, but the results will surely be undesirable.

There may also be a conflict between the Micronics 27 98 n, which performs a one-time tab of n columns, and the Epson 27 998 n n 0, which "sets vertical tabs in channel", whatever that means.

Several codes, common to both Epson and Micronics, use 1 as the 3rd ASCII to turn on a feature and 0 to cancel it. For instance, 27 87 1 turns on double width (expanded) print and 27 87 0 cancels it. Also, subscript is selected by 27 83 1 and superscript by 27 83 0. Some of the Epson/IBM compatibles will accept either an ASCII or numeric 0 or 1 (i.e., "1" or CHR\$(1)) for that third code, for which reason you will often see program coding such as CHR\$(27);"W1". These should be avoided when programming for general distribution, because the older Micronics recognize only the ASCII. If I understand my notes from the manual correctly, the Panasonic KX-P1080 also accept ASCII 129 or 177 in lieu of ASCII 49 or "1" and ASCII 128 or 176 in lieu of 48 for "0" !

According to the manuals, ASCII 141 can be substituted for ASCII 13 on the Brother M-1009, and ASCII codes 128 to 255 can be substituted for 0 to 127, respectively, on the Epson - but there seems to be no good reason to confuse the other printers by using those!

Different printers also have different sets of symbols in ASCII 160-254. The Gemini 10X and SG-10 in Star mode has one set, the SG-10 in IBM mode has an entirely different set which I presume is also on the Epson in IBM mode, and I think that the Epson has still a different set. This causes problems when running some banner or graphing programs which access these characters. Different printers also vary in the number of international character sets available and the sequence of their access codes.

I have never gotten involved in graphics printing, and I failed to chart all the graphics codes when I had borrowed manuals available, so I cannot comment on compatibility here. I have not heard of any problems except that some Axiom models are apparently incapable of graphics, and there is also sometimes a problem with thin white horizontal lines through the picture - possibly because of the n/144" and n/216" difference in line spacing between Micronics and Epson?

With downloadable characters, we find another jungle which I'm not too anxious to explore. The Gemini 10X has a quite simple and efficient method, and I once published in Micropendium a DOWNCHAR program to design these characters on screen, dump them to the printer for editing, and save them to disk. I have also written a routine which will convert a sequence of any length of standard or reidentified screen characters into a D/V 80 file of download character printer codes.

But, here the SG-10 Star mode departs from compatibility with the 10X. Its system offers much greater capabilities but is also quite complex and entirely different. I tried, and failed, to convert my routine for use on the Epson FX-85; its system is somewhat similar to that of the SG-10 but again different. I am told that the Epson RX-80 does not support downloadable characters, the

LX-80 only allows 6 and some Panasonics only allow 40 of them. I have seen an article describing a method of creating downloadable NLQ characters but unfortunately the name of the printer being used was not mentioned.

This article is obviously incomplete and probably inaccurate. Perhaps it will inspire someone to write something better. In the meantime, programmers could help out a great deal by putting REMs in their programs giving the name of the printer they are writing for, and REMs after every printer control command indicating its purpose. I regret that I have not been in the habit of doing that!

\*\*\*\*\*

### SPIRIT OF 99 NEWSLETTERS FOR LIBRARY

The Newsletter Librarian, Curt Borders, would like to have a complete set of our newsletter - SPIRIT OF 99 - in the Newsletter Exchange Library. He has already donated all of his copies of the newsletter to the library. Jean Hall has indexed all but 3 issues of the newsletters and will donate a hard copy to the NL Library and a disk copy to the Disk Library for members use when the indexing is completed.

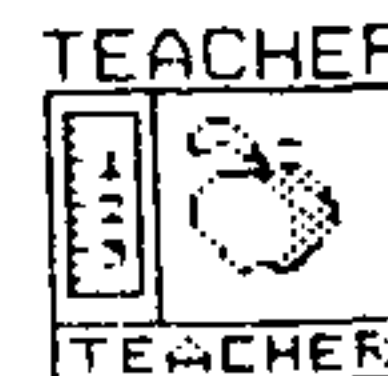
Below is a list of the Spirit of 99 newsletters needed to make a full set. If you have any of the needed newsletters and are willing to donate your issue or a copy of any of the needed issues, please give your newsletter(s) to Curt Borders at the next C.O.N.N.I. meeting.

#### ISSUE NEEDED

- 1982 VOL 1 NO. 1
- 1983 VOL 1 NO. 2
- 1983 VOL 1 NO. 4
- 1983 VOL 1 NO. 5
- 1983 VOL 1 NO. 7
- 1983 VOL 1 NO. 9
- 1983 VOL 1 NO. 10
- 1983 VOL 1 NO. 11
- 1983 VOL 1 NO. 12

#### ISSUE NEEDED

- 1984 FEB
- 1984 MAR
- 1984 APR
- 1984 MAY
- 1984 JUN
- 1984 AUG
- 1984 OCT
- 1984 DEC
- 1985 MAR





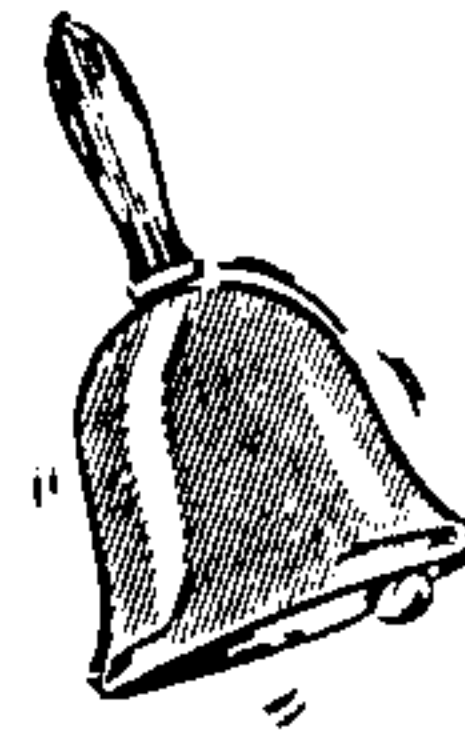
TIPS AND TRICKS  
by Charles Osment

Shortcuts in computing garnered from various TI99/4A user groups newsletters around the country. All information here is available from our Newsletter Exchange Library. (See Curt Borders at one of the meetings or call him before a meeting and request a certain issue).

1. Want a free ride to level 3 of Parsec? Try this: a. Crash one ship before firing. b. Work up to Bynites. c. Crash after each Bynite. d. Push Redo before the game ends. e. Crash one ship before firing. e. After Swoopers come Killer Satellites. g. Now you're at level 3.
2. FCTN 4 too far to stretch your fingers? Try this! Hold down at the same time FCTN J and the spacebar.

3. Bells

```
100 For X=1 TO 4
110 FOR C=0 TO 7
120 CALL SOUND(-500,6000,C
,4000,C,2000,C)
130 NEXT C::NEXT X::END
```



CHERRIO

#####

BEGINNER TIPS  
by Jean Hall

You have turned on your PEB, TV/Monitor, and console and inserted your Funnelweb disk in drive 1 so you can use TI-WRITER.

Press number 2 for Extended Basic.

Next, press 1 for EDITOR. When the command line appears, you type in LF for LoadFile and insert the correct drive number and the correct filename and press ENTER.

Whoops!! What's that???? IO ERROR CODE 02.

Check to see if you have put the correct disk in the drive you are using and that it has the correct filename on the disk you inserted.

What if you get an IO ERROR CODE 06.

Check to see if you closed the drive door or put the disk in upside down.

Have fun with your TI!!! <ME>



FOUR-A/TALK

Random ramblings  
about things TI.

by Bill Gaskill

August 1989

A HOT SUMMER IN THE  
99/4A and 9640 COMMUNITY

(Thanks to THE FRONT RANGER, Aug  
1989)

WHAT'S HOT:

PPDNU (Page Pro Device Name  
Utility), COLUMNTEXT, TI-SORT and  
THE BUGGER.

DISCOVERIES:

-Inscebot Inc. has released the  
commerical version of TI-SORT. It  
contains all of the features  
mentioned in a previous  
Four-A/Talk column, but now has  
some of the neatest "windows" you  
have ever seen for on-screen  
help. It loads quickly and has  
performed flawlessly. If you  
don't have it, you WILL want it.  
The program sorts almost any kind  
of file, in ascending or  
descending order, by multiple  
fields. It also makes sorting  
TI-Base files a "dream". Grab it!  
For \$14.95 plus \$2.50 shipping  
and handling, you can't go wrong.

INSCEBOT INC.  
P.O. BOX 291610  
PORT ORANGE, FL 32029

-Richard W. Lauhead, a member of  
the Minneapolis/St. Paul 99ers,  
has written a neat assembly  
language coded utility to convert  
disk/path names on a floppy or  
ram disk to other paths/names.  
The program was originally  
written to convert Ed Johnson's

Page Pro 99 so that it would run  
from a hard drive, but according  
to the author, the program will  
work on any application, not just  
Page Pro. The utility may be  
ordered from Richard or  
downloaded from GENIE and  
probably the other major on-line  
information services by now. The  
program is not Fairware, but  
Richard wouldn't turn down any  
donations that you care to send.  
Here's a short explanation of the  
program from him:

"Page Pro 99 Device Name Utility  
is a utility program I wrote to  
convert all the device names on  
the Page Pro example disk from  
DSK1 to WDS1.PAGEPRO (the  
directory on my hard disk where I  
put all the examples). This  
allowed me to load all the  
example pages without getting I/O  
errors, or having to use the  
method detailed in the manual for  
getting around this problem. I  
also used it on the three  
program files to convert all the  
default DSK1 prompts to  
WDS1.PAGEPRO prompts. The utility  
is really very simple. It reads  
each sector of the disk on the  
drive you specify and searches  
for the string DSK1. If it finds  
the string, it replaces it with  
the device name you specify, and  
corrects the device/file length  
byte. The program uses low level  
disk controller sector read/write  
routines. It has been tested on a  
CorComp controller on the Geneve,  
a Horizon RAM disk on the Geneve  
and a TI controller on the  
TI99/4A, but it should work on  
any controller. It has not been  
tested on the had disk  
controller."

Richard's address is:

Richard W. Lauhead  
3985 Clover Ave

St. Paul, MN 55127

-Ron Prewitt, a member of the Tacoma 99ers, has released version 4.1 of Columntext and version 3.1 of Margintext. Both are companion programs designed to produce columnized output of DV/80 files. Both programs are menu driven and almost don't need any documentation to figure out. If you want to spruce up the appearance of your newsletter, this may be the package for you. Ron ask a paltry \$5.00 for his efforts. You may write to him at:

Ron Prewitt  
6429 South Fife  
Tacoma, WA 98409

-Mike McCasline has compiled a listing of over 200 TI-99 bulletin Board Systems around the country. I don't know if Mike is interested in sharing the list or not, but a couple of dollars might help sway him if you are interested. Mike's address is:

Mike McCasline  
Box 885  
Monrovia, CA 91016

#### NEWS:

-The official "final" version of Advanced Basic for the Geneve was released June 30th. It may be downloaded from GENie in either one arc'd file (#3330) or as 7 un-arc'd files.

-MDOS version .95H for the Myarc Hard Disk was released on June 6th by Lou Phillips. It may be downloaded from GENie. It is recommended that you download the un-arc'd version, apparently because of a "possible" problem with the compression of the file when it is archived. Both versions are available for

download. The un-arc'd version is file #3299.

-As of July 15th, the word is that the most recent version of MYWORD for the Geneve will be the last one produced. Apparently since Peter Hoddie has moved to the Silicon Valley area of California he is no longer working for Myarc. Paul Charlton, who at last report was working in the Boulder or Fort Collins, Colorado area, is still working for Myarc. More good things to come I hope.

-A rumor is circulating that John Johnson will take over as sysop for the TI RoundTable on GENie and that Scott Darling, who took over from Mark Sumner, way back when the TI RoundTable was first formed, will move on to "other" things.

-Another rumor picked up is that Norm Sellers, master of music fairware, is nearing completion on a new assembly language coded utility for the 99/4A. Although I don't have a name for it, the program supposedly will read disk files and tell you virtually anything that there is to know about the files. A real "Innermost Secrets" type application.

-Ernie Pergrem, the Educational Program Chairman for the Chicago TI User Group, has undertaken a project to put together a 20-25 page booklet of non-copyrighted articles from other newsletters? It will be patterned after the very successful Hardware Projects Manual that the Chicago Group produced via Nick Iacovelli et al.

-Tom Freeman and Jim Lohmeyer of T and J Software have announced

the release of THE BUGGER, an assembly language debugger that sends output to the RS232 port to avoid corrupting the program being debugged. The program lacks print routines at this point apparently, but will have them included as soon as the necessary code for "all" RS232 cards is available. THE BUGGER is available for \$18.50 (which includes S/H) from:

T and J Software  
515 Alma Real Drive  
Pacific Palisades, CA 90272

-Barry Traver has uploaded over 15 files of public domain graphics data files (that contain pictures) that can be used with a program called TIPS, by Ron Wolcott, to convert the pictures to TI-Artist Instances. As soon as I locate Ron's address I will let you know. I also haven't been able to find the TIPS program either.

-Comprodine's Roger Merritt and TextComp's Jerry Price have apparently entered into an agreement whereby the giant distributor of TI-99/4A products will handle Comprodine software. On a similar note, Paul Coleman, author of GAP (Giant Artist Posters) and the Nameloc line of software, is apparently now lending his programming skills to the Comprodine line of innovative products. Look for great things to come!

Comprodine  
1949 Evergreen Ave  
Fulerton, CA 92635  
714-990-4577 (12-5 PST)

TexComp Users Supply  
P.O. Box 33084  
Granada Hills, CA 91344  
818-366-6631 (24 hr. order

line)

-To read the rest of this article, please see THE FRONT RANGER, Vol 6 No. 11 August 1989, page 10. Check with Curt Borders to check it out of the Exchange Newsletter Library.

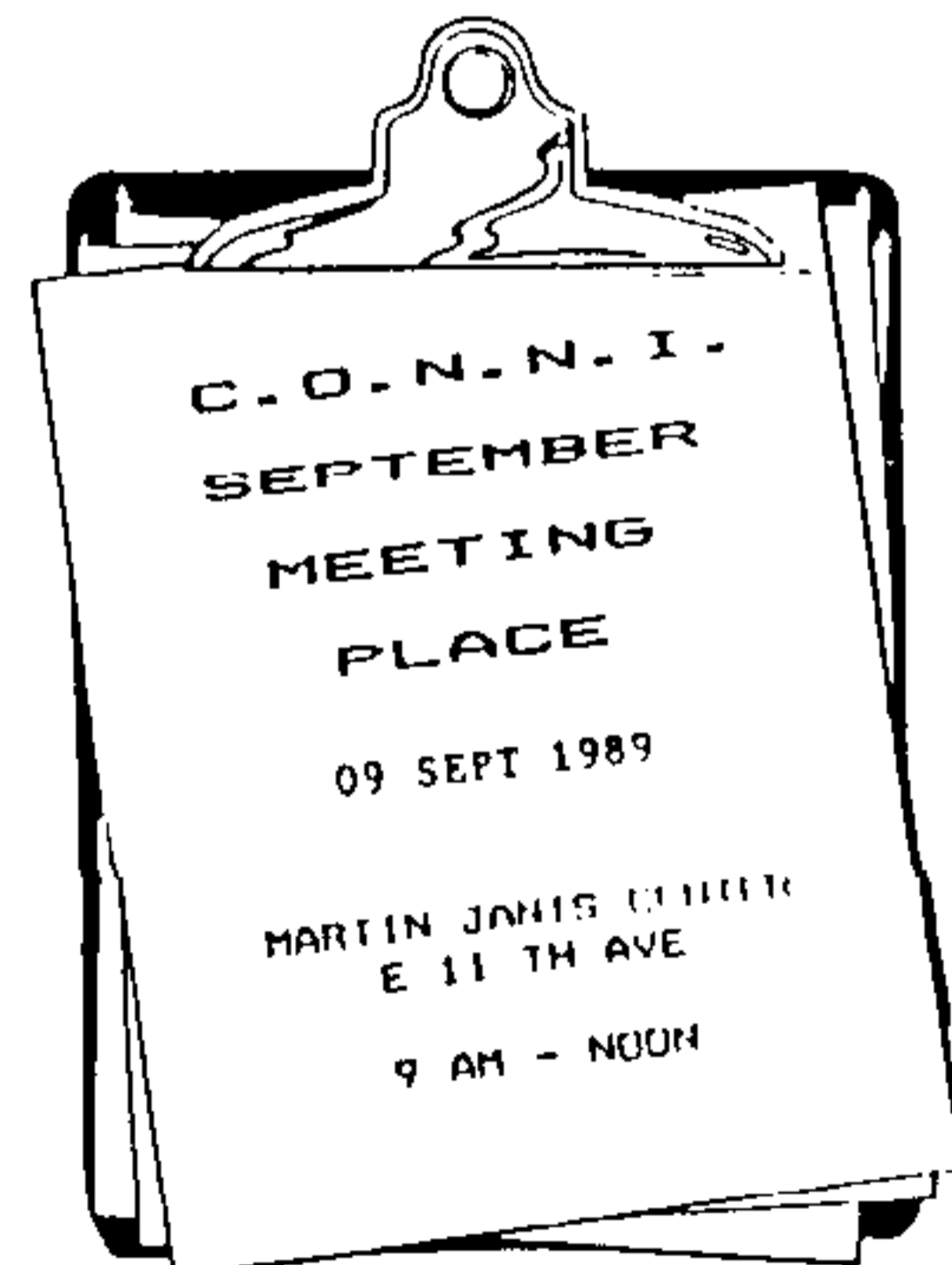
!!

**MEMBERSHIPS DUE IN SEPTEMBER**

- CURTIS BORDER
- EARL W. EVANS
- SONNY GRUBB
- EDWARD J. KELCH
- RAYMOND MANN
- KENNETH E. MARSHALL, JR
- JACK MONTAG
- CHARLES L. OSMENT
- KARL ROMSTEDT
- CLIFFORD R. SCARBERRY
- ROBERT G. VAN GASTLE II

Please see Everett Wade, Membership Registrar, and pay your dues for the next 6 months at the September meeting on 09 Sept 1989.

**RETURN TO**





# TI-Artist

Version 2.01

FROM INSCEBOT, INC.

Copyright 1985 Chris Faherty  
HOUSE ACTIVE

TI-ARTIST FOR THE GENEVE  
PRESS CTR ALT SHIFT  
TO REGRIN CONTROL AT  
BOOT MENU



(Thanks New Horizons Mar 1989 NL)

```

1 ! THIS IS A BOOT PROGRAM
  TO LOAD TI-ARTIST
  WITHOUT LOOKING THRU
  ALL THE DRIVES FOR EACH
  FILE.

3 CALL WORK

5 ON ERROR 12

11 CALL INIT :: CALL LOAD("D
SK5.ARTIST"):: CALL LINK("ST
ART")

12 CALL RET

13 SUB WORK

14 CALL CLEAR :: DISPLAY AT(
10,2):"This will take 10 sec
." :: SUBEND

15 SUB RET

16 CALL CLEAR :: DISPLAY AT(
10,2):"SORRY GUESS YOU DIDN'
T":" LOAD ARTIST TO DRIVE #5
":" LETS GO BACK TO MENU":"
* I WILL DO IT FOR YOU *"

17 FOR I=300 TO 0 STEP -1 ::
  DISPLAY AT(14,4):"time TO M
ENU:>";I :: NEXT I

18 CALL INIT :: CALL LOAD(-3
1962,100,130):: SUBEND

```

## ARTLD

by Roger Feinauer

Many times I need to use TI-Artist and a lot of times while using software to do the newsletter i'm in Extended Basic. For convenience I have a special disk with a formatted version of Artist to run on drive number 5. On the Geneve drive number 5 is built in the system, but you could do the same thing with any ramdisk on the 99/4A as well. I also have on my disk a batch file that does a diskcopy of of this disk from drive one to five. I do this from Mdos, then run the batch file on my system that runs GPL and XB.

On my menu program I have two programs one is call ARTLD and the other is a file that loads a disk called FONT. To load the disk called GRAPHICS LOADER and loades with DSK.FONT.LOAD, which has FONT WRITER II, MACFLIX, GRAPHICS EXPANDER, ARTIST ENLARGER, TI-ARTIST AT DRIVE 5, PICASSO. The file at the right is the file I have in drive number 6 ARTLD which is setup to load TI-ARTIST at drive #5. using EXTENDED BASIC.

The program looks at drive #5 to see if it can find a program named ARTIST if it can't find it. Then it goes to to line #12 and loads the sub routine called RET which tells you that it couldn't find TI-ARTIST then it returns you back to the starting menu. If it finds the file named ARTIST then it loads TI-ARTIST. I believe you could also use this on a 99/4A roger.



I am reserving the copyright on this material, but I will allow the copying of this material by anyone under the following conditions. (1) It must be copied in its entirety with no changes. (2) If it is retyped, credit must be given to myself and the NorthCoast 99ers, as above. (3) The last major condition is that there may not be any profit directly involved in the copying or transfer of this material. In other words, Clubs can use it in their newsletters and you can give a copy to your friend as long as its free.

**\*\*\* Miscellaneous Information \*\*\***

This month I'm going to try to answer some questions and include some new information from the new TI-Base manual. The first thing I'd like to say is "read the manual several times". There is a lot of information in it that you will probably miss the first or even the second time you read it, "I know I did". Make the two readings at least a day apart. If you read it twice in a row, you'll read in mistakes the first time through and rather than find the mistakes you'll reinforce those mistakes the second time through. It is very apparent from letters I receive that some people try to start using TI-Base after just skimming through the manual. TI-Base is too complicated for you to bluff your way through. I have been working with it for many months and I still keep the manual close at hand, and refer to it or the new QUICK REFERENCE GUIDE constantly. As far as programming problems go, typo's are my biggest. If you enter LOCAL BLNK C 30, and later in the program you try REPLACE BLANK WITH " Good morning", TI-Base will not watch BLNK with BLANK. The next big mistake I make is to try and concatenate too many characters together. I then try to jam them into a variable with too little space. If BLNK has 30 spaces available you must add up the characters you have in the fields you want to stuff into BLNK. It's easy to say REPLACE BLNK WITH FN ; LN. FN and LN don't look like much but they may represent 25 characters each, for a total of 50. You must keep these things in mind or written down, the system will not give you any help with these problems. One important thing I try to remember is "don't try to write a big program in one chunk". You should be creating a library of small CFs or programs. Each of these programs should do a fairly specific job, like printing labels or writing screen messages. Work on an individual CF until it works well and then use a bunch of these small programs together to do a larger job. If you are having problems with a CF, or a group of CFs you are trying to use, leave the TALK ON. All the lines will scroll up the screen as you watch. If TI-Base cannot execute a line for some reason, it will place an asterisk at the very beginning of the line for you to see. If you can't get the hang of this method, Version 2.01 has a TRACE command. It is simply TRACE ON/TRACE OFF. If you enter TRACE ON, all lines which TI-Base can execute will be sent to your printer. You can then compare that printout to your original CF and the lines that didn't print out did not execute. When you find lines that won't execute, check them for variables first. See if you are trying to put too much data into a variable, or possibly the data is the wrong type. With version 2.0 and up I can't seem to mix those C)haracter and N)umeric fields the way I could with 1.02.

I hate to admit that I was trying to put too much data into a variable that was not initialized at the beginning of the CF. If you are attempting to use a command or function for the first time and you do not understand how to phrase the statement, work small. Create a very small CF that does little more than test your new function. If you need to use a database with this function, use one with only a few names in it. "I use NAMES, it contains only six names." That speeds up the test time and allows me to try the maximum amount of variations in the least amount of time. When you are having problems with a CF and you'd like a hard copy to look at, there is a new command called LIST. If you type LIST DSK1.filename/C at the dot prompt, TIB will go to the disk number you entered and try to find the filename you want, remember the /C is needed. If it can find that filename, it will LIST it to your printer. I find this command and SNAP, which is the new TIB screen dump, very helpful. I seem to be able to find many small errors on a printer page that I overlook on the monitor.

**\*\*\* Printer Controls \*\*\***

Since I am already talking about printing hardcopies, I'd like to throw in some printer information. TIB Version 2.01 has built in printer control codes. They are present in the form of a database on the PR6DISK, named PRINTER. If you LIST or EDIT the SETUP CF that comes with TIB you will see \* PRINTER EPSON in that file. Because there is an asterisk at the beginning of that line, TIB ignores the command and none of those control codes are available to you. That's because of the wide variety of printers on the market today. You must set up your own printer control codes in this system and make them available for TIBs access. Here's a little help on approaching this utility. We will look at the EPSON section because I am familiar with EPSON printers. Type USE DSK1.PRINTER (E). The name PRINTER should come up in the bottom line across your screen as a normal database in use. Next type DISPLAY STRUCTURE. Now, with your printer turned on, type SNAP (E) and hopefully the screen will be dumped to your printer. It should look like the screen below.

FIELD	CREATED DESCRIPTOR	CHANGED TYPE	WIDTH	DEC
1	NAME	C	010	
2	FF	X	002	
3	LF	X	002	
4	CR	X	002	
5	DS	X	004	
6	UL	X	006	
7	EX	X	002	
8	CM	X	004	
9	IT	X	004	
10	B	X	004	
11	SPS	X	006	
12	SBS	X	006	
13	HT	X	002	
14	ST	X	020	
15	NM	X	026	
16	BLANK	X	030	

. SNAP

000 1 PRINTER 00006/00007

Continued Next Page.

Notice that we are looking at a database structure, though it is a little abnormal. It's abnormalities are it so useful. TIB recognizes this database as the where it will find the control codes for your printer. That field must be NAME. In the NAME field you would your printer name, such as Epson. The next three fields recognize as Form Feed, Line Feed, and Carriage These must stay exactly as you see them for TIB to properly. The rest of the fields are Double Strike, Under Enlarged Print, Condensed Mode, Italics, Bold, Bold, Bold, Horizontal Tab, Set Tab, Normal Mode (includes all of the previous commands), and a Blank line 30 in length. One item of great importance is the I field designation. The I type tells TIB that the item in this field is specifically a printer control code. Also tells TIB that it should interpret the normal numbers characters you type into the I field as Hexadecimal. If you type NAME.PRINTER and type EDIT, you will see the screen below. "I assume for Diablo", is the first screen you encounter. Pressing FCTN 3 will save you to the EPSON

EDIT

```
EPSON
OC
OA
OD
1B47
1B2D01
OE
000F
1B34
1B45
1B5300
1B5301
09
1B440A0A0A0A0A0A0A00
1B4B1B2D3014121B351B461B5>
0000000000000000000000>
```

000 1 PRINTER 00000/00007

of these screens can be edited to your needs. You can change the names to your own liking. For example you can change EI to EA, for ENLARGED. You can also change the data fields to match the codes your printer expects, if they are already set properly. This part is a little confusing, but not really hard. NOTE: If you change the length of a data field the data will be lost and must be re-entered. Make sure you understand what you are doing before you change any fields. Changing the data and thus changing the control code is simple as typing over what is currently in a particular field. Lets look at OB, which stands for Double Strike for Bold on the Star XI-10. The printer command for OB or (ESC) "B". What you see in the field is 1B47. If you want to change this, you would simply type over it with normal numbers and numbers. TIB, however, will interpret these to Hexadecimal numbers.

Hexadecimal, it is 1B. So the first two characters in the OB field stand for Escape (1B). The second half of the command is "B" or 47. The decimal for B is 71 and the Hex for B is 47, so 1B47 is Hex for (ESC) B. In every printer handbook I can remember seeing, the ASCII, the Decimal and the Hexadecimal are given for the printer commands. You may have to search through your printer manual, but you don't have to figure them out, just look them up and type them in. One more example would be B for Bold, which actually produces Emphasized on my XI-10. My book says (ESC) "E" turns on Emphasized. Just below that it says 27 69 and below that it says 1B 45. If you check the EDIT screen, you'll see that the B field contains 1B45. OK, how do you use this stuff. Well in most cases it's easier and more convenient than you might think. First EDIT the SETUP file. Remove the asterisk in front of the PRINTER EPSON. If you have an Epson, Gemini Star or a similar printer, try the EPSON command first. After using FCTN 8 to save the new CF, type 80 80Hex.SETUP to return the SETUP file. As SETUP runs watch the bottom of your screen and you will see PRINTER come up while the EPSON commands are being installed. After SETUP finishes all traces of this operation will disappear, but the results will still be usable. Open the NAMES 80 by typing 80E NAMES. With your printer turned on type PRINT (B) (E). If everything worked, you just got your printer to TIB Bold. Type PRINT ALL FN,NI,LI (E). This should print out ALL of the names in NAMES, in Bold Faced print. Typing PRINT (NI) (E) should return you to normal print, or DRAFT MODE. Try PRINT ALL (B) FN (CN) NI (NI) (IT) LI (NI) (E). This should PRINT ALL the First Names in Bold, the Middle Initials in Condensed and the Last Names in Italics. Notice that the printer controls are enclosed in parenthesis and that a delimiter (comma or blank space) is needed between the fields or control codes. The (E) represents Press Enter. This type of control code use is very helpful when you are dumping a complete database to the printer. You can type PRINT (CN) (E) and then PRINT ALL (E). With TIB version 2.01 that troublesome line cramping that produced a printout that looked like a printer test pattern has been eliminated. Condensed mode now produces a nice neat columnar type page. I hope this is enough to get you started. Remember, read that manual. There is more on printer controls in the manual and I'll probably slip some of them into the tutorials in the future.

\*\*\* Geneva Myarc \*\*\*

Here's an important tip from Bob Stevens of Battle Creek, MI. Bob says he had some disastrous results on his Geneva with a Myarc Disk Controller when he tried to run CFs off the PREDISK. The cure he found was to initialize some new disks using 16 rather than 18 sectors and reset the interlace to 10. He then copied his TI-Base files to the new disks and lived happily ever after. Thanks for sharing that with us Bob, it will probably save someone in Florida a lot of aggravation.

\*\*\* THE LINE FAIR \*\*\*

This is a little early but I'd like to start plugging the Line Fair. Quite a few people from the Cleveland area will be going to the Line Fair this year. The fair will be held on May 20, and I hope to give a Demonstration of TI-Base at that time. I am also looking forward to meeting some of the people I have corresponded with and talked to over the phone.

Continued Next Month.

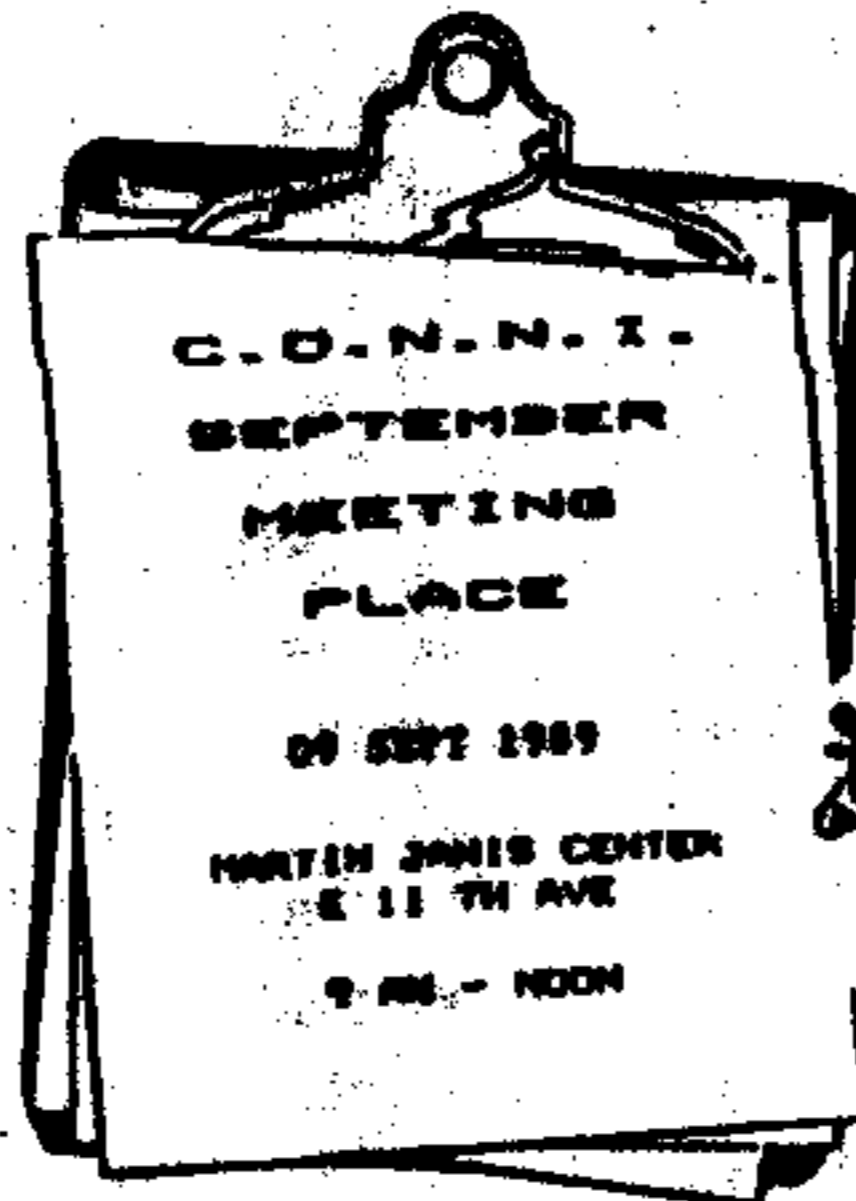
**MEETING DATES  
FOR  
1989 - 90**

**C.O.N.N.I. BOARD MEMBERS**

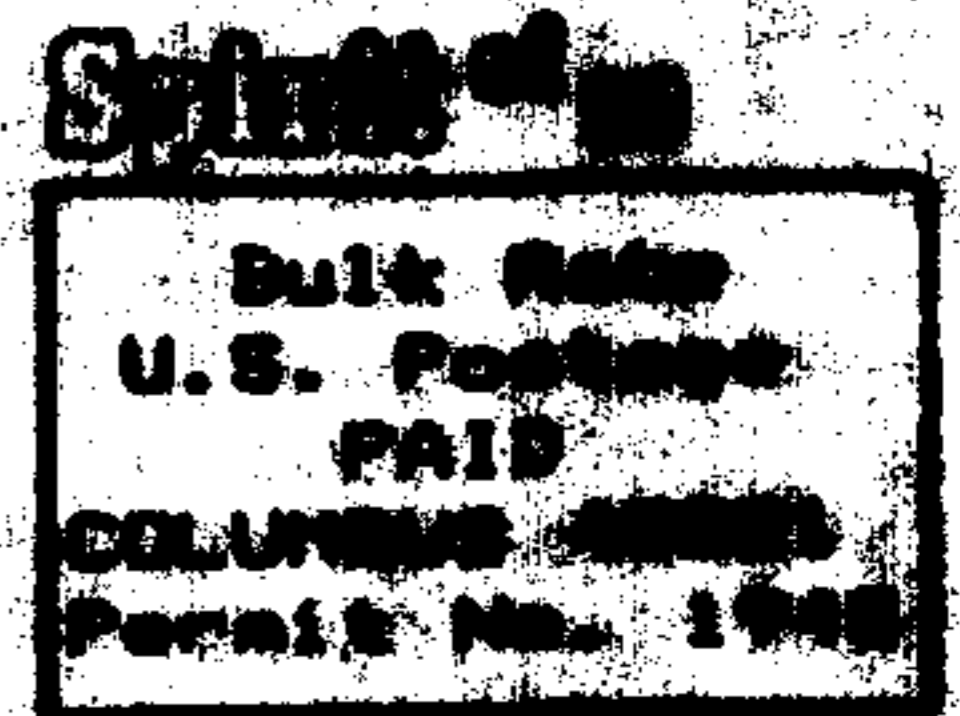
**2ND SATURDAY**  
 07 SEP 1989  
 04 OCT 1989  
 01 NOV 1989  
 09 DEC 1989  
 05 JAN 1990  
 10 FEB 1990  
 10 MAR 1990  
 14 APR 1990  
 12 MAY 1990  
 09 JUN 1990  
 14 JUL 1990  
 11 AUG 1990

Pres. - Dick Beery (614) 459-3597  
 Vice Pres. - Jim Beltz (614) 875-3532  
 Treas. - Mike Cheney (614) 275-2281  
 Sec. - Charles Beent (614) 833-1498  
 Membership - Everett Wade (614) 262-1000  
 Librarian - Chuck Brines (614) 262-1000  
 Cassette - Sonny Brubb (614) 1-873-8700  
 Cartridges - Dave Truesdale (614) 262-8719  
 NL Exchange - Curt Borders (614) 277-8200  
 TIBBS - Irwin Hott (614) 263-3319  
 Dick Beery (614) 459-3597  
 Editor - Jean Hall (614) 885-4223  
 Assiat. - Carole Parkins (614) 871-0905

**4TH WEDNESDAY**  
 23 AUG 1989  
 27 SEP 1989  
 25 OCT 1989  
 22 NOV 1989  
 20 DEC 1989  
 24 JAN 1990




**RETURN TO**



**C.O.N.N.I.  
 101 MERRIMAN AVE  
 NORTHWESTEN, OH 43085**

**TIME SENSITIVE MATERIAL  
 POSTMASTER - PLEASE DELIVER PROMPTLY**



**SUDHANSHU (PAT) PATEL**  
 Owner

**CHERRY PARK SQUARE**

15 Cherry Park Square  
 Westerville, Ohio 43081  
 (614) 899-7403

**EXCHANGE NL**

**SMAUG USER'S GROUP/99**  
 RT 4, BOX 23  
 BREWTON, AL 36426

**\*\*\* MEMBERSHIP APPLICATION \*\*\***

NAME \_\_\_\_\_ AGE \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

AREA CODE \_\_\_\_\_ HOME PHONE \_\_\_\_\_ BUSINESS PHONE \_\_\_\_\_ EXT. \_\_\_\_\_

WHAT IS YOUR PROFESSION/VOCATION \_\_\_\_\_

HOW LONG HAVE YOU OWNED YOUR COMPUTER? \_\_\_\_\_

DATE OF APPLICATION \_\_\_\_\_ ACCEPTED BY \_\_\_\_\_