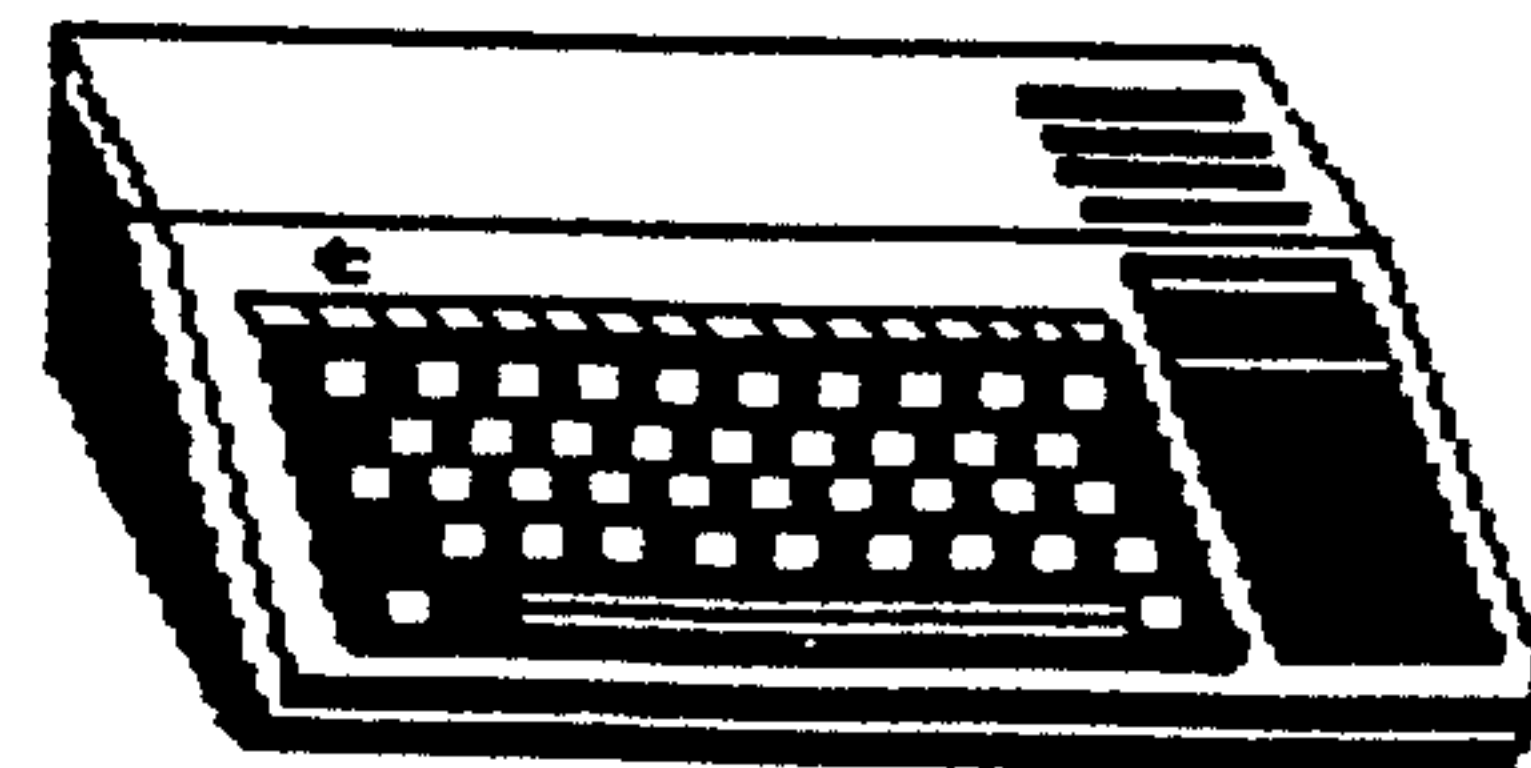




# CLEVELAND AREA

## TI-99/4A USER GROUPS

APRIL 1992



| OFFICE       | TI-CHIPS                  | MEETINGS         |
|--------------|---------------------------|------------------|
| CO-PRESIDENT | Glenn Bernasek 238-6335   | 10:00 AM         |
| CO-PRESIDENT | Dinny Stockdale 1994-3039 | N. Royalton      |
| TREASURER    | Lin Shaw 235-3914         | County Library   |
| MEMBERSHIP   | John Parken 331-2830      | State Rd. 50. of |
|              | 4172 W. 217th St.         | Route 82 1/4mi   |
|              | Fairview Pk., OH 44126    | EVERY THIRD SAT. |
| SECRETARY    | Dennis Likens 842-9627    | APRIL 18, 1992   |
| DISK LIBRARY | Matt Andel 676-9759       | MAY 9 (NEWDATE)  |
| TAPE + MODS  | John Parken 331-2830      | JUNE 20, 1992    |
| HARD COPY    | Dennis Likens 842-9627    | JULY 18, 1992    |

| OFFICE       | NORTHCOAST                 | MEETINGS          |
|--------------|----------------------------|-------------------|
| CO-PRESIDENT | Ken Gladyszewski 1357-7274 | 1:30 PM           |
| CO-PRESIDENT | Walt Ryder 921-8223        | Euclidian Room    |
| Treasurer    | Frank Jenkins 283-8526     | Euclid SQ. Mall   |
| MEMBERSHIP   | Martin Smoley 1-257-1661   | E. 260th off I-90 |
|              | 6149 Bryson                | (South)           |
|              | Mentor, OH 44060           | EVERY THIRD SAT.  |
| SECRETARY    | Bernie Zuckerman 381-4088  | APRIL 18, 1992    |
| DISK LIBRARY | Martin Smoley 1-257-1661   | MAY 16, 1992      |
| TAPE & MODS  | Frank Jenkins 283-8526     | JUNE 20, 1992     |
| HARD COPY    | Dick Alden 1-352-9172      | JULY 18, 1992     |



### From the Editor's Desk:



The LIMA MULTI USER GROUP CONFERENCE is quickly approaching! MAY 15, 16 is just around the corner. For those who can afford the time, getting to LIMA early on Friday May 15th could make your weekend a great success. From 4 to 8 PM, you have the opportunity to help set up this country's best and cheapest Faire, and if you are fast enough setting up, one designated person from our club with a handful of blank disks will be allowed use of Lima's extensive disk library. They will try to have 3 systems set up. This editor received a map and list of accommodations available near the OSU campus. I will make copies for those who will be going and will need to make reservations (if staying overnight). A map is on one side and motels on the other.

There are many demos lined up including our own Ken Gladyszewski on "Do it Yourself Products for the TI, Including Analog to Digital Conversion". Also, Charles Good will demonstrate a preview of Funnel Web v.5.0 with a totally rewritten text editor. Other demos by Eunice Spooner, Jack Sughrue, Bruce Harrison, Delores Werths, Lee Bendick, Barry Traver, Bud Mills, Gary Bowser, Bob Nelson, and more expected. There will also be many dealers there, including our own Ron Markus. Food will be available as before, right next to the conference rooms.

We welcome Wes Harvey, of Bay Village, to visit us

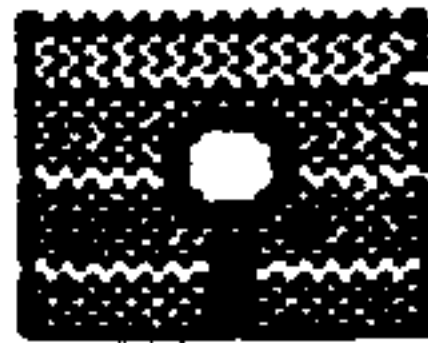
again and hope he will join one or both our clubs. He just acquired a TI computer and tape player. He also uses a Commodore and other computers, but I'm sure he will be happy that he has found a more powerful one in the TI.

In the new MICROpendium, there are many reviews of new and almost new software. One such was the new "Classic Checkers" from Asgard that had a great review. Regena's basic program to teach young children to write was fascinating. I wish we had this computer when my children were young. This program will put on the screen, any letter typed, just as children are taught to write them out. A child can trace it out with a finger or write it on paper as it is forming on screen! Great stuff! As always, there are other programs to type in, and columns for readers to write to each other for help. What would we do without this terrific magazine?

In this issue of our newsletter are articles Marty Smoley on Newsletter Printer (which I use to print this NL), and Wes Richardson on "Chaos, Fractals, and Fuzzy Logic". My apologies to Deanna for excluding her article on Laser Printers. It will be in for next month for sure!

TI-CHIPS changed their meeting date for May to May 9th at 2:30 PM so that Northcoast members could come and visit with us. Also, so they had a meeting in May to attend if going to the Lima Conference!

**HAVE A VERY HAPPY EASTER/PASSOVER CELEBRATION!**



# NORTHCOST 99ers

by Bernie Zuckerman

The MARCH, 1992 meeting of the Northcoast TI-99/4A Users Group was called to order at 1:30 P.M. by Co-president Ken Gladeszewski. There were 20 members and one guest present. Due to the absence of Frank, there was no treasurers report. Since the secretary wasn't here yet, the meeting went right to new business.

Discussion followed as to a virus a member thought was in ROS 8.14, which showed up as the words "I GOTCHA" on the screen, and a computer lock-up. Harry said that he talked to Bud Mills about this and it turned out that this was really an error message that was telling you that your ROS needed to be "Booted" up again! Bud said that in the future it may be a good idea to just have the message read a little less threatening. A member requested that the club's computer read the directory of his disk from "BOOT". The computer reported "No files present on disk". When DM1000 was used, it showed the directory with a blank filename for the first file. It was pointed out that if you happened have a file on your disk with all blanks for a name that you may think a disk is empty when using Boot.

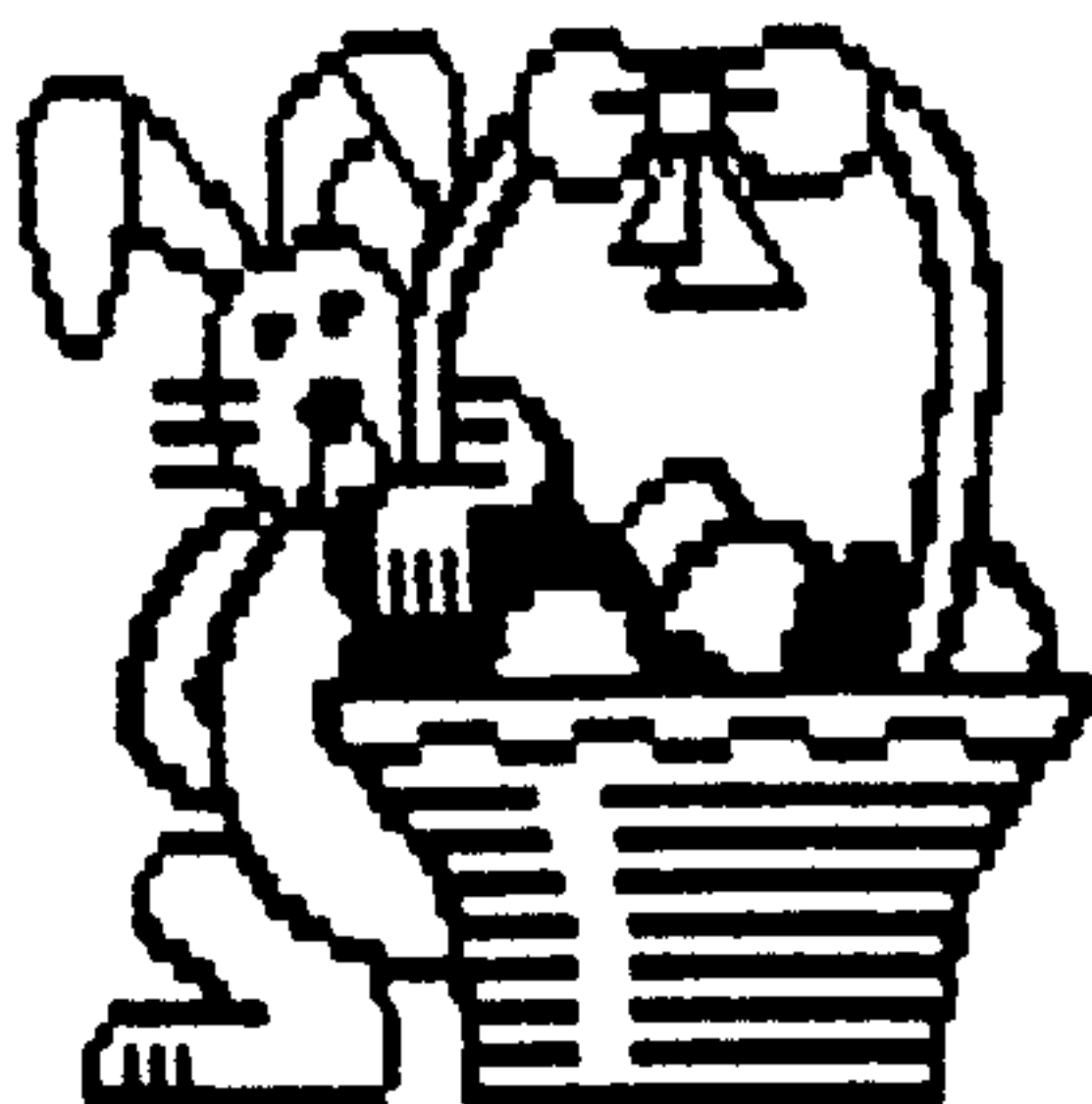
Bernie arrived and the minutes were read and accepted. Reference was made to the letter Glenn Berasek, of TI-CHIPS, suggesting TI-CHIPS lend support to MDOS users. Discussion followed which was mostly against the idea of integrating IBM users into the group. It was felt

that if any PC users need assistance or library, there are PC groups that provide this. It was pointed out that many TI groups are now just IBM, and TI is not mentioned in their Newsletters any more. Quote one member: "If I want to an IBM meeting, I can go to the library just down the street. If I want to go to a TI meeting, I come out here where my TI group meets!". Ken will ask Glenn to come to our meeting to discuss his ideas.

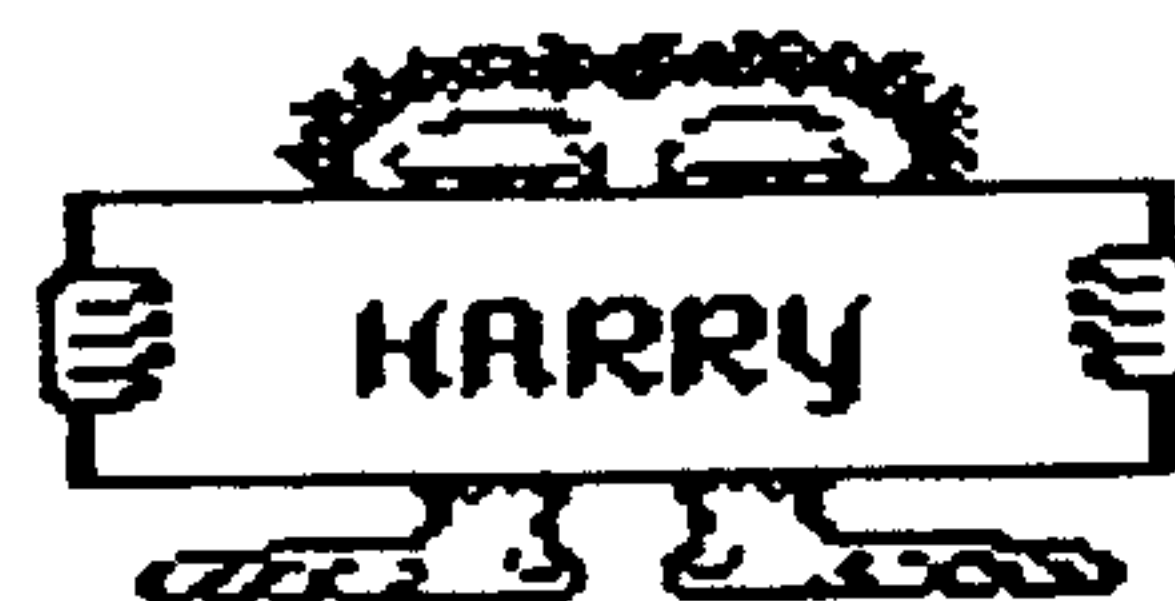
The meeting continued with a demo from Alice Trask of a new game from Asgard called "TI PEI". Alice says this game is so fascinating that it is taking the place of Tournament Solitaire in her family. It is a complicated tile game and very interesting! Alice then demoed the Calendar Maker, also sold by Asgarde.

( Check with RON MARKUS, he may have both games.)

Ken asked Ron Markus to demo a modification to the TI console, called SOB, from Gary Bowser of OPA. This 2"X2" card replaces GROM chips 0 and 1 and gives true lower case letters on screen, as well as a Opt 3 and 5 EA loader, a resident disk directory program, and it talks to you! Gary also manufactures an 80 column card for the console, and a "POPCART" that will hold 5-7 modules/programs in one module approx. the size of your XBASIC one. Again ask Ron about this hardware. The meeting closed at 3:45 P.M.

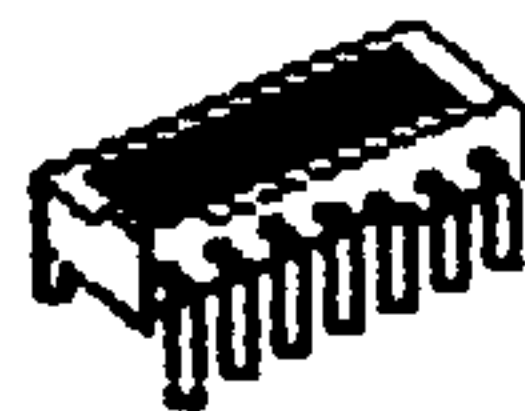


Looking forward to  
seeing all my TI'er  
friends during this  
season of Easter joy!





# TI-CHIPS Notes



21 MAR 1992

TI-CHIPS (~~16 NOV 1991~~)

by Dennis Likens

Tlchips' 21st Mar meeting came to order at 10a.m. I was late in getting there so last months minutes were not read. I also missed the money report, the tape/cartridge/memberships report too. I walked in while Harry was talking about newsletters. These little jewels have some very important stuff in them and I currently have 2 boxes full. Harry also spoke of the HARD/FLOPPY CONTROLLER by ESD. It was rumored to have been at Fest-West and is for sale and is being shipped!

There is a new company called THE TAYLOR COMPANY who are producing a new program out called SMALL-T. This program will allow you to draw fonts, a game called T-CHESS, T-SKED, a dbase manager, a schedule program and a word processor. Not sure but it may be at the LIMA conference.

Glenn suggested that someone write to the Chicago Users Group to get info on the manual that pertains to software. We have the hardware manual they produced and it is a VERY good one. Glenn reported he did not get tons of mail about his proposal of MS-DOS support. We would open the door to members (and new ones) who have PC's emulating MSDOS. It was said that a MSDOS sig would not take over if PC's owners were allowed to join. Our support would be to get a newsletter for MSDOS users and a listing of PD software. A motion was made that we take on support for IBM, Lin made the motion that we do, Mary Predmetsky second. A vote of maybe was entered. 2 people said yes, 4 said no, around 6 said nothing. So it will be brought up again at a later date.

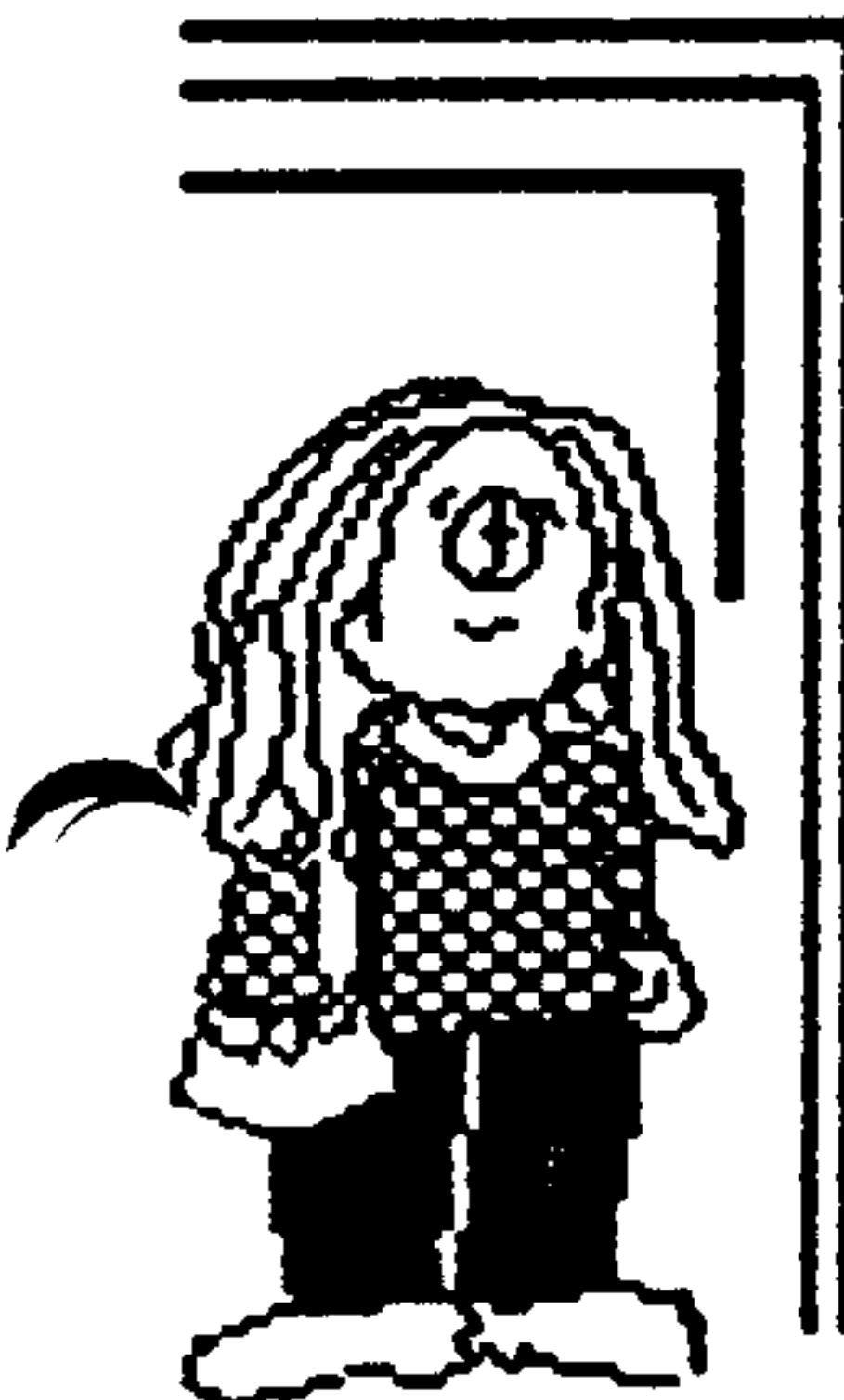
Harry mentioned the Lima conference was going to happen 15/16 may. Also the POP CART will be there. OPA's Gary Bowser from Canada sells this little jewel. For \$95.00, you get 265k of rom of your choice. In other words, you

select the programs/modules and he will burn them in for you. You can go as high as 2mb now. This device takes advantage of the REVIEW LIBRARY that TI never told us about. You can get a menu of up to 16 programs per page (screen). He can configure the TE-II to emulate 1200baud. In other words, he can customize the module you want.

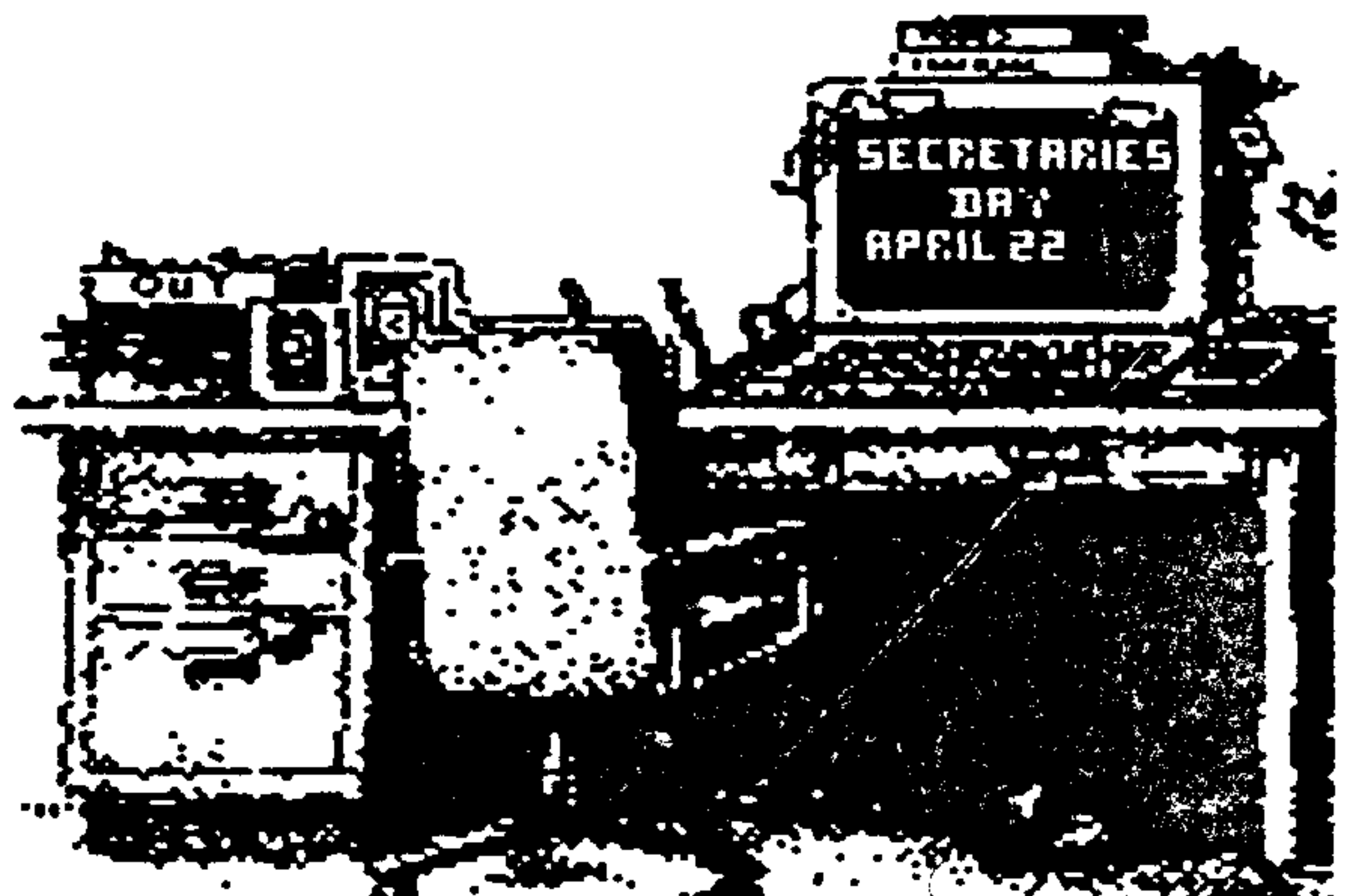
Glenn had a 3.5in disk drive installed on the groups PEB for a demo. He brought in PC xfer along with a PC disk to show how it worked. He also said that Dan and Rob Williams authorized putting the Wheel of Fortune game on the TICHIPS disk for the LIMA conference.

We had a visitor from the NORTHCOAST group, Wes Richardson. He showed us some programming using basic, XB and assembly routines. 1 of these programs was an XB program that had sprites, birthday music and pictures to show how all could work together as one. The second program was A02FLOAT. This program is an EXTENDED BASIC program which demonstrates how variables in an array can be shared by both XB and assembly. It also shows that assembly can be used to do the floating point mathematical calculations in a program, while the XB program is used for the screen displays and data inputs and outputs. The third program was MAGNA-CALC. This program can add, subtract, multiply and divide numbers up to 240 digits long, with exponents from -99,999 to +99,999. The X and Y registers are used for calculations, and there are 10 additional storage registers. Wes's demo's showed that by combining the ease of programming in Extended Basic with the speed of Assembly, your programs can be both fast and easy to write.

Well, the MAY meeting will be at 2:15 pm on MAY 9TH to accomidate the LIMA conference. The raffle of 10 disks full of great programs was Lin Shaw, congrats to Lin. See *ya next meeting.*



**Don't forget those  
Special Secretaries  
in your life on  
APRIL 22nd**



# CHAOS, FRACTALS, & FUZZY LOGIC

by WESLEY R. RICHARDSON, FEBRUARY, 1992  
NORTHCOAST 99ER'S, CLEVELAND, OHIO

## CHAOS

Classical physics teaches us that if you know the initial boundary conditions of a physical process, that you can predict the condition of a system at a later time. An example of this would be that if you have a ball at the top of a hill, and know the height and slope of the hill, as well as the gravitational constant, and the characteristics of the ball, then you would be able to determine what the position and velocity of the ball would be at any time. Using these concepts has enabled physicists and engineers to develop many of the conveniences we commonly use today. With the increases in measurement precision, greater use of computer analysis, and an explosion in the amount of data generated about physical events, scientists are realizing that real events are more complicated than previously believed.

Consider two adjacent drops of water coming from your faucet in the kitchen sink. Although the two drops occupy nearly the same position, have the same speed, temperature, and chemical composition, their "lives" may follow completely different paths. If the drop number 1 goes into your pan for soup, and the drop number 2 happens to just catch the edge of the pan, and falls into the sink, then those two drops of water will have different events which would not have been predicted by their initial conditions. CHAOS is the term to describe the phenomenon that very slight differences in initial conditions can lead to completely different results.

National weather forecasting uses a super computer to analyze patterns based on thousands of measured parameters. The basic assumption is days which have the same conditions will have the same resultant weather. To validate this assumption, we only need to see how many times the weather forecast predicts what happens. In my opinion, the accurate prediction is less than 50 percent of the time. This does not mean that we should fault the weather forecasters, but rather we should recognize that weather is an example of chaos.

If everything in nature is actually chaotic, should we just give up trying to model nature?

The answer is no. The very tools such as computers and improved measurement techniques which help us recognize that chaos exists, will help to define, model and predict chaotic systems.

## FRACTALS

A fractal is a mathematical way of describing shapes and concepts which are best defined as having a fractional dimension that is not an integer such as two or three dimensions. There are an unlimited number of fractal patterns, but they all have a common characteristic. If you examine any two nearby coordinate positions, you will find very dissimilar surroundings. If the two positions appear similar, then you simply need to look closer by increasing the magnification to reveal the differences. In fact, the further you increase the magnification, the greater the difference in the appearance will be.

Fractals, generated by mathematical calculations, can resemble shapes found in nature such as mountains. Like the water drops, if adjacent points in a fractal plane can have significantly different surroundings, then is a fractal an example of chaos? The preferred answer is that a fractal must be a special type of chaos. One of the features that make fractals so interesting is that while the patterns and shapes appear extremely complex and detailed, the equations to generate those shapes are often quite simple. The Mandelbrot set fractal equation is  $Z'=(ZxZ)+C$ . The C term is a constant, Z is a value at one iteration of the equation, and Z' is new value.

The hope is that if a simple equation creates a fractal, then possibly a simple equation could control chaos and chaotic events. In fact, by applying simple rules, repeated over and over, it may be possible to explain DNA replication and human cell development. Instead of trying to model complex systems by regression analysis using thousands of variables, apply the propagation or development rules to all of the possible elemental scale starting conditions. The use of the computer is ideal to do this type of calculations for us, assuming we know what the repetitive rule is for a particular physical process.

## FUZZY LOGIC

The first computers were based on analog concepts. The next step was digital systems based on modulo 10 (decimal), then mod 8 (octal), and then finally mod 2 (binary) and mod 16 (hexadecimal). Digital electronic circuits can be thought of as having two states: High or Low, On or Off, True or False,

### ...CHAOS

1 or 0. If I test a condition such as are you a boy or a girl, there are only two possible outcomes. When computer programs reach a decision point, the possibilities for the next step to be executed can be uniquely defined. This is called discrete logic or Boolean logic. A new area of logic is now developing, which is called Fuzzy Logic. Fuzzy logic to a computer provides a way to answer a question such as do you like this food, with an answer such as, well, sort of, or it's ok. The answer in this case is neither yes or no.

Between the extremes of the analog world and the digital world, fuzzy logic combines the functionality of both. The exposure controls for a Japanese camera now operates using fuzzy logic. A new generation of computers are being developed which will use fuzzy logic circuits. Now, if we could determine the operant rules for DNA reproduction or some other chaos, could this be programmed using a fuzzy logic computer and produce an independent thinking computer? Will artificial intelligence machines be able to capture the thought processes of a living creature? I believe that computers and machines will always only be capable of doing what they were designed and programmed to do. Realize, however, that very few things we have today have one person that designed and built the entire object. In each case, components are used which were designed and manufactured by other people, whether it is an integrated circuit in a computer or a bolt in a car. The point is that just as a computer programmer writes in a high level language today, and seldom worries about machine code, the future could bring even higher levels of programming. Some day the programmer may only be required to tell the fuzzy logic chaos computer to control the environment in your home to 74 degrees at 40 percent humidity, and the computer will develop its own way to achieve those results.

### COMPLEXITY

The study of Complexity has become a field of its own just like astronomy or economics. Through the use of our minds and the use of computers, people are trying to understand the observable and the unseen worlds. The more we learn about something, our understanding increases, but yet it seems as information expands, we realize how little is really known about anything, and how complex we perceive things to be.

### THE UNIVERSE

Our lives are more complex today, than just

twentyfive years ago. When I was in school, the elemental particles were protons, neutrons, electrons and photons. Later gravitons and neutrinos were added to this list.

Today, the number of particles is in the hundreds and includes groups of particles with names of classons, leptons, fermions, and hadrons. Our vocabulary has been expanded to include baryon, hyperon, J particle, lepton, meson, nucleon, upsilon particles (including quarks), and strange particles.

Quantum Mechanics was the foundation of theories to explain modern observations of the world around us. Quantum Electrodynamics (QED) studied electromagnetic radiation and its interaction with matter, and refined earlier theories. Quantum Chromodynamics (QCD) expanded on QED to include quarks and attempted to explain strong interactions. The Grand Unification Theories (GUTs) combine the three fundamental interactions of strong, electromagnetic, and weak forces. The supersymmetry theories add in gravitational forces to the GUTs in an attempt to explain all four known interactions in physics. The latest theories of the universe and everything are the String Theories. Particle behavior is explained not as a point or wave, but as a string. You can observe effects of the whole, but if you cut the string, it would cease to exist.

In observing the universe today, with 100 billion galaxies, each with 100 billion stars, astronomers must also be knowledgeable of particle physics and subatomic theories. Light travels at about 186,282.397 miles per second. If the age of the universe is about 15 billion years, then the most distant objects in the universe must be about 88,000,000,000,000,000,000,000 miles from earth. When we try to think on a scale such as this, the numbers almost become incomprehensible, except in a mathematical sense.

### CONCLUSION

Nature may be the same as it always was, but our explanations of the universe are certainly increasing in complexity. I believe that this is an exciting time to live in. To witness all of the changes in computers, electronics, technology, and space. Chaos, Fractals, Fuzzy Logic, GUTs, and Strings are new concepts and are a part of that change. You also have now changed because hopefully you have learned just a little bit more.

920215 WR

# Newsletter Printer

Written By: Art Gibson, 439 West Rockwood St., Rockwood, TN 37850

Demo by: Martin A. Smoley

## NorthCoast 99'ers User Group - Feb. 15, 1992

The first thing I should say is that this page was not printed with Newsletter Printer (NLP). Although I like NLP, I have spent years learning the use of FunnelWeb (in great detail) and I don't intend to overwrite that knowledge with new data. Also, this page was printed with my (Canon LBP 8 Mark III) Laser Beam Printer. I combined the Canon and FX-85 features to get this result. So don't expect this printout from your Star NX-1000.

The default file printout you see below is my quick ref. sheet for the NLP printer codes. This specific file is for my visual use only. The file which I actually use with NLP only contains the information in the left column of the printout, with no comments or extra characters. If the information looks confusing don't feel alone, when I first pulled out NLP I had so much trouble with it I had to call both Deanna Sheridan and Harry Hoffman for help in getting started. I also studied Art's DEMO and Docs. My demo sheets are to go along with, not substitute for, Art's instructions.

. NLDefaults: NLDEFAULTX  
. Printer Codes for Epson FX 85  
. and Star NX-1000 printers.

.PD PIO.CR.LF print device name

.RS ^ required space  
.PS % page number symbol

|                     |    |                                 |
|---------------------|----|---------------------------------|
| .BD 1,27,71         | ^A | DouBlestrike                    |
| .NB 2,27,72         | ^B | No douBlestrike                 |
| .UN 3,27,45,1       | ^C | <u>UN</u> derline               |
| .NU 4,27,45,0       | ^D | No <u>UN</u> derline            |
| .IP 5,27,52         | ^E | <i>It</i> alics Print           |
| .NI 6,27,53         | ^F | No <i>It</i> alics              |
| .HP 7,27,83,0       | ^G | <sup>superscript</sup>          |
| .NH 8,27,84         | ^H | superscript off                 |
| .LP 9,27,83,1       | ^I | <sub>subscript</sub>            |
| .NL 10,27,84        | ^J | subscript off                   |
| .XX 11,27,69        | ^K | <b>emphasized</b>               |
| .NX 12,27,70        | ^L | <b>emphasized</b> off           |
| cannot use (Ctrl M) |    |                                 |
| one line (Ctrl N)   | ^  | <b>Works</b> alone.             |
| .YY 1,27,120,1      | ^Q | NLQ on                          |
| .NY 2,27,120,0      | ^R | NLQ off                         |
| .ZZ 3,27,77         | ^S | start Elite Print               |
| .NZ 4,27,80         | ^T | cancel Elite Print              |
| .DP 5,27,87,1       | ^O | <b>double</b> wide              |
| .ND 6,27,87,0       | ^P | cancel <b>double</b> wide       |
| .BS 5,8             | ^U | BackSpace <==<<                 |
| .PP 18,27,80        |    | Pica Print codes                |
| .PC 27,80,15        |    | Pica <b>C</b> ondensed print    |
| .PG 27,75,224,1     |    | Print <b>G</b> raphics codes    |
| .L6 27,65,12        |    | 1/6" text <b>L</b> ine feed     |
| .L9 27,65,8         |    | 1/9" Graphics <b>L</b> ine feed |

OK! There are three print code files on Art's disk at this time, GEMINI10X, NLDEFAULTS and PANASONIC. I used NLDEFAULTS, deleted all the comments, changed the print codes to match my NX-1000 and re-saved it as NLDEFAULTS. After that I re-edited it to add back all the new comments and fancy printer stuff (as you see on this page) and saved that as NLDEFAULTX. The information in the file goes like this. Starting at the left you have a dot command, similar to that used by FW or TI-Writer. It would appear as (.PD) or (.BD) etc. It is followed by one space. The small graphic character after that is the control code you would see on your screen which tells NLP to insert the codes that follow at that point in the text. That character is followed by a comma and then the ASCII numeric values, separated by commas. For example, in the Doublestrike line, 27 stands for Escape and 71 stands for upper case G. Sending (Escape G) to the NX-1000 printer turns on Doublestrike printing. The ^A (circumflex A) represents (Control A) or (Ctrl A). So (^) circumflex means hold down the Ctrl key and press A. Do this at the location in your text file where you want the Doublestrike to start. At that point the small graphic 1 will appear. As I hope you can recognize, the column below ^A represents the key combinations for each control code you wish to insert. The last column is just an enhanced description of what the command will do.

### ----- SO HOW DOES IT WORK -----

After you set up the default file as I have described, you need a letter or some document to play with. Start up Art's software as if it were FW and then select (1) to get into the EDITor (the keys are about the same as FW). You can use SD to search a disk and then LF to Load your File. Once you have a file loaded sprinkle in a bunch of printer commands (^A), (^E), (^G), etc. When you have done that save the file with SF. Now use (Q)uit and (Y)es to exit the editor. This time select (2) to load Art's printer utility. When you see Art's selection screen choose (3) to install your printer drivers (the DEFAULTS file). The program will display >DSKn.DEFAULTS< and ask for a decision. You can press ENTER, or if you are using a GEMINI10X, type that in and then press ENTER. After that select (1) for PRINT and enter the name of the file you want to print (if it does not appear). That should produce something on your printer. The first thing I did was to try and print Art's DEMO file. After that I changed it and saved it as MS/DEMO. I compared my demo file to Art's to see what changing certain commands would do. After about two weeks I had a fair idea of how to use the NLP software.

If Harry wants to put my stuff in the Newsletter, please remember this. This is demo stuff, not tutorial, and it was designed to go with Art's stuff (not substitute for it).

I will include my stuff on Art's library disk. *Marty.*

# NorthCoast 99ers Users Group.



Newsletter

MS/DEMO

Printer

2/12/92

**Note:** This file was created by Martin A. Smoley to demonstrate some of the functions of the Newsletter Printer for the February meeting of the NorthCoast 99ers. The Newsletter Printer was written by Art Gibson, 439 W. Rockwood St. Rockwood, TN 37854. This file was created by editing the DEMO file that came with Art's disk until I wound up with the printout I wanted, which is the way I recommend that you start any new software of this type. First make a copy of the disks you received, so you don't destroy the originals (of course). One of the main features of this print utility is that you can switch from one column to two columns or from Pica to Condensed print with great ease. This is very helpful if you are

using a printer that does not reverse feed, as many new printers can. You can also reset the margins (on the fly) from your text file. I have set this section to Condensed two column, with a left margin of 12 characters, a column width of 58 characters and the right column starts 74 characters from the left. The command to do this is as simple as .c2 12,58,74. You can change the **size** and **style** of the characters within the text, but you are completely on your own if you do. Art's software cannot make allowances for tricks you play on it, so if you don't know what you are doing, the text may hang over somewhere. It took me over three hours to get this section to work out with the large inserts.

Here is an **example** of Condensed one column (.c1 7.118). The lines across the page are only here for eye appeal.

## Two Column Pica

The switch to Pica two column is as simple as .P2 7,33,44. The program can handle (.P1) Pica one column, (.P2) Pica two column, (.C1) Condensed one column and (.C2) Condensed two column in any order. If you want to sneak in oversized words or column headings (as above), you must enter extra control codes to take

up space in a line. I use (Ctrl Z) which produces Char 26 (a small capital A). This character is seen by your software but not by your printer. This lets you compensate for **double wide** characters that the software does not see. I do not care for (.P2), especially with double sized words. It leaves a lot of unwanted white space on your document.

## Graphics

Newsletter Printer makes it quite easy to add graphics to your printout. It can incorporate TI-Artist instances into your page by merely loading the instance with (.G1 DSKn.instance\_1) and then telling it where to print that instance with (.GR n,n,n). Note: n would be replaced by a number. As Art describes in his demo file, it is possible to expand your graphics to stretch across the page as the speeding disks you see on this page. You could also use three different graphics

across by loading G1, G2 and G3 and then print them with (.GR 1,2,3) at the desired location. Art has thrown in a command to let you set the Graphic Margins. The code for full left would be (.GM 0,60), two from the left is (.GM 2,58) and four from the left would be (.GM 4,56) etc. This is a good program for those who don't get too fancy with their printouts (with oversized embedded words as above) but would like easy access to two column printing. This printout was made with NIP.

**Note:** Here is a tip for the Hot Dog word processors out there. You can load an escape character into NIP as a file. Then you can move it with COPY and use it where you want. NIP will pass it through to the printer without a care. I used it in this file to sneak in [ESC J S], which tells the printer (one time line feed). This allowed me to stretch the text on the page and get a couple extra lines in. More important than that, it means that if you are willing to put in the extra work you can force your printer to do things which are not normally available through NIP.

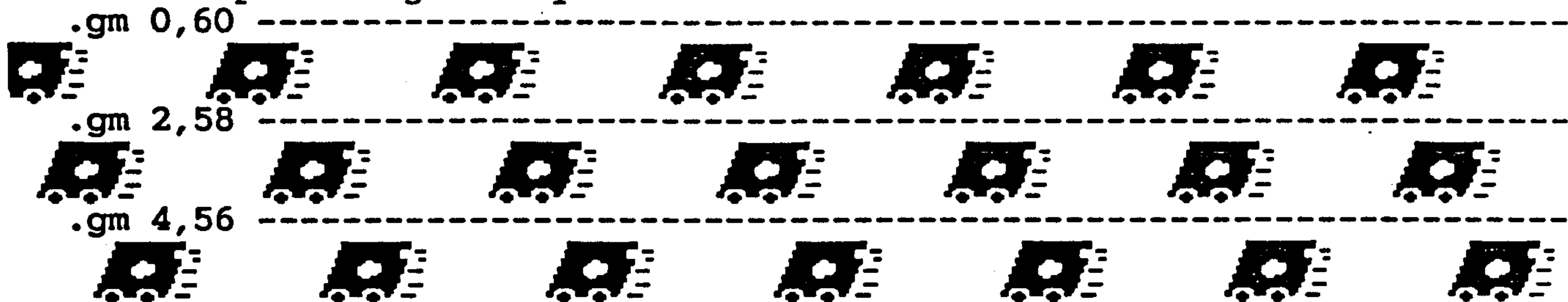


Uhoh, now we changed to condensed two column printing. This was done with .c2 20,50,76. Since I don't have much to say about the type and number of columns printed, I guess I'll mention the graphics at the top of the page. This is a modified TI-Artist (c) file. TI-Artist will not produce an instance this wide. The drawing of the

disks was saved as an instance, then the file was loaded into a text editor and the lines copied down until I had enough to fill the page width. Next the first value on the first line of the file was changed to reflect the additional lines of data.

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Graphic margins may be set as below:



Note in the text file that the above graphics were printed left justified in each example.

This section is printed using .C1 28,40 as a sample of margin setting.

Here is a list of the changes from version 2.0 to version 2.1

.GM: Graphics Margin was added.

.P1, .P2, .C1, .C2: now allow text margin setting.

.LS: Line Spacing, such as .LS2 for double spaced printing.

.BS: BackSpace, to allow odd printing if desired.

.PW: Removed, now margins can be set.

Print filename returned to the editor.

Have fun and good editing and formatting!!!

Written by: Art Gibson  
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Rockwood, TN 37854  
615-354-1931



**GR/DEMO**

Newsletter Printer

By

**Art Gibson**

439 W. Rockwood St.

Rockwood, TN 37854

Load three Graphics (Instances).

.G1 DSK2.TANK\_I  
.G2 DSK2.CASSETTE\_I  
.G3 DSK2.COPTER\_I

Use the three Graphics

.GR 1,2,3



TANK\_I



CASSETTE\_I



COPTER\_I

Use the two outside Graphics (from above), but reverse the order with .GR 3,0,1



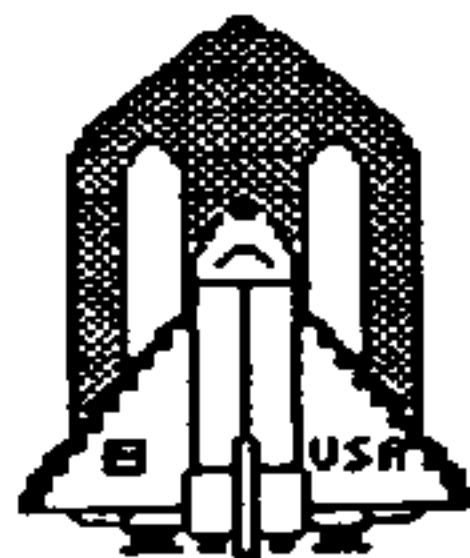
Print the COPTER\_I Graphic by itself with .GR 3,0,0



Load SNOOPY\_I into G2 with .G2 DSK2.SNOOPY\_I and print it with .GR 0,1,2



.G1 DSK2.SHUTTLE2\_I brings the shuttle into G1 and .GR 0,1,0 prints it.



This is the Shuttle  
The text was put in  
with TI-Artist

Load in the Speeding Disks Graphic and print it.

.G1 DSK2.DSK/LOGO\_I  
.GM 2,58  
.GR 0,1,0



As you can see, I pulled in Instances and printed them wherever I wanted. You can confuse NIP with Graphics from time to time, but it usually works quite well. The only problem was that I could not put text next to a Graphic with NIP. The only way to do that is to put the text into the Graphic with TI-Artist and then print it all out together.

RETURN ADDRESS:  
CLEVELAND AREA 99/4A USERS GROUPS  
C/O HARRY HOFFMAN  
3925 TROWBRIDGE AVENUE  
CLEVELAND, OH 44109



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

FIRST  
CLASS

FIRST CLASS

FIRST  
CLASS



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Here is an Amateur Radio Packet Bulletin Board that you can use!

This on-the-air packet bulletin board in the Cleveland area has added a regular telephone line port. This was done first; to encourage licensed amateurs to try packet radio, second; to allow unlicensed persons who are interested in amateur radio the opportunity to see what on-the-air bulletin boards look like.

You are invited to check this board out. You need a computer capable of 2400 baud, 8 bit, no parity, 1 stop bit. Call 216 779-6350. The computer will connect and greet you with a line instructing you to use a pretend call sign, VISIT, for both the call and the password. This allows you to log on anonymously. Unfortunately,

it must be assumed that you are unlicensed and therefore you cannot use the SEND command. If you use this board a lot, you will be given more latitude.

This board is supported by the North Coast Amateur Radio Club and brought to you by Steve, N08M. If you have any problems, don't hesitate to call on my voice line: 216-777-1177.

"LIST @"= list of all messages. "WHAT"= list of downloads. "DOWNLOAD FILES.LST"= list of files. "D README.DOC"=explanation about downloading. "README.DOC"= read a message.

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I hope more people give me information early enough to get it in this Newsletter, especially news of when computer SHOWS ARE COMING UP.

