Texas Instrument 99/4A and Myarc 9640 Computers

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

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fee of \$20 and whose main objectine is the exchange of Eduific information for the purpose of computer literacy. C.O.N.N.I. meetings are held the 3rd sat -urday of each month at Chemical 2549 Abstract, Olentangy River Road Columbus, OH. Meeting time is 8:30 AM til 2:30PM, Meetings are open to the public. Membership dues (\$20.00) are payable yearly to C.O.N.N.I. and cover the immediate family of the member. Please send check to our membership registrar and

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MEETING MINUTES Saturday, April 16, 1994.

The meeting opened later than had been expected because of unexpected equipment difficulties: i.e., matching the T.I. equipment to the large screen provided by the site.

While John Parkins, the technical wizard, worked toward solving the problem, Dick Beery led discussion on a number of topics: the Information Highway; electronic interconnections that are developing now among schools and that will permit sharing of classes and teachers, thereby enriching the educational opportunities for all; the soon-to-be-opened Columbus Free-Net, based on similar structures in Cleveland, Youngstown and Cincinnati,

that will provide free access to parts of the

Internet from one's own modem or through use of a terminal at any area library; and recent contacts with Alan Peterson, son and estate administrator for the late Jim Peterson.

Members were encouraged to "practice" their modeming skills on local free BBSes and then join the Free-Net. The system will provide access to people, information and programs from all over the world. Dick Beery and Chuck Grimes have applied to do volunteer work with the Free-Net.

Alan Peterson generously opened his father's library to a committee from the club. Our goal is to copy the entire library so that it will not be lost. How and when access to it will be made available to other T.I. user groups has not yet been determined, but the matter

is being studied. Dick Beery, Bob De Vilbiss and Everett Wade are currently engaged in copying the disks.

We hope to use some of the Peterson disks in completing subscriptions for the Disk of the Month. No new subscriptions are being accepted, but it is our desire to complete the orders of current subscribers as generously and appropriately as is possible, using selected Peterson disks as well as other new program offerings as they appear in the T.I. world. One you've gotta hear is the superb newly-released Rhapsody in Blue (Gershwin) from Harold Timmons! Subscribers who choose not to accept this option may request a refund of the unused portion of their subscription.

The group also discussed the impending transfer of the

Spirit of '99/National Clearinghouse BBS from Irwin Hott to Bud Wright. Both parties have agreed to the transfer; it is hoped that the implementation can be speedily accomplished. Good luck, Bud! We look forward to a great new era in our BBS! And deepest thanks to Irwin for the time, effort and expertise he has poured into the project. Good luck to him with his many current projects!

Of course, the upcoming Lima Fair was discussed at length. It seemed as if most of those present planned to attend. Hope we see you all there! Also discussed was Lima's repeated, and most generous, offer to let a selected club member copy any or all of the Lima disks received during the past year. We certainly intend to take advantage of the offer again.

Encouraged by the increased attendance at the meeting (14!), we discussed revitalizing our thinking and club activities. (See article this issue on "The Squeeze is On!"). Members in attendance were polled as to what demonstrations and activities they would like us to present during the coming months. In about fifteen minutes, we were able to set up goals through October 1994. See the listing elsewhere this issue that displays several of the scon-to-be-implemented ones.

Once the equipment snafu was corrected, the demonstrations proceeded as planned: Dick Beery showed a short program he had written that incorporated several interesting elements from Jim Peterson's Nuts & Bolts #2; there followed a playing of Harold Timmons' new setting for Gershwin's Rhapsody in Blue. Both appeared to be well received.

I think that all who attended left feeling cheered by prospects for the future and ready to continue and expand their enjoyment of the 4A's capabilities.

See you next month!

Respectfully submitted,

Dick Beery, Secretary and Program Chairman.

CONNI MEMBERS:

The

SQUEEZE

is ON!

During our meeting of April loth, as has already been indicated, we were able to come up with of number of interests for programs and techniques to be demonstrated during the coming months. Sorry if you missed the excitement of that meeting. Hope you will be there in full force at the May meeting. You may have noticed that our May meeting date this year does not conflict with the date of the Lima Fair; so, we will be meeting on Saturday May 21, a week following Lima, to exchange stories and anecdotes, show off our purchases, and ALSB to have a superlative demo on the use of Multiplan in keeping trach of your assets, your net worth, your business or whatever. We'd love to have an even larger turnout this time,

The SQUEEZE is on! What in the world do we mean by that? The expression illustrates a point of view regarding ways in which one can accept/deal with impending loss. An illustration: the doctor tells you that you have six months(a year) to live. (Hope this doesn't really

happen to any of us!). But, if it does, you can box your head, fold your hands in your lap and say quietly "Well, I guess it just has to be. . . \* OR, you can say

months--1'm gonna try to stretch it to a year and a half, etc. OR you can say "Whatever the time frame turns out to be (and I am sure gonna try to stretch it), I am gonna get the MOST out of every day, hour, minute..." I am going to SQUEEZE that time to the limit! I will take the resources that I still have and have perhaps until now undervalued, and squeeze the maximum in enjoyment and potential from them.

Beginning to see the point? Think of all the programs for the 4A and/or 9640 that you have on the shelf. You got them, opened them and looked at them briefly (or maybe never really got around to looking at them at all--I can think of a couple I have that are in that category). Maybe you used them for a brief time, but never really learned to unlock their potential. Remember GEE? Remember Hike Maksimik's F-Dos? And literally dozens of others that maybe you have and that I have never seen. It's time to dust them off and renew your admiration for the skill lavished in their construction, and for the satisfaction they can still bring you if you will let them. I rediscovered the joy of writing a simple Extended Basic program in preparing for the April demo. I have always been one to wait in hopes that someone else will

write a program that suits my needs. But if you don't really NEED to write something, but do it for the sheer joy of writing--wow, well, you just have to try

\*The heck you say! Six it! Ever dabble at writing

with Sprite graphics? Dig out the Extended Basic manual and give it a try, It's not difficult, and you can produce beautiful results quickly. Does it figure your taxes? Calculate how much paint you need to do the house? No, but there are plenty of programs that we all already have that will help with those problems.

You get the idea!

We at C.D.N.N.I. are looking forward to renewing acquaintances with these "lost and undervalued" programs and files. Please come and join us in having fun and rediscovering our TI universe!

But I now have a second computer, you say. I say "What does that matter? I have had other systems almost from the beginning: an Atari 800XL; a Lazer 128 (Apple II clone); and now a 40486 PC. Do you only watch one type of TV program? Listen to only one class of music? Read only one kind of book or magazine? Pursue only one kind of outdoor activity? Maybe so. I don't! And I think I enjoy life a lot more that way.

Hey, come on over to the playroom! The door's open, so come on in. Let's start SQUEEZING and keep squeezing till we have gotten all of the juice and enjoyment out.

See ya there!

Dick Beery.

## WORD PROCESSING PART 3

THANKS TISHUG

by Col Christensen Brisbane User Group

Part 3 covers file saving files to disk, loading them from disk and printing text files from the memory buffer. All these are performed from the Command made with simple two-letter commands. We also look at some of the Formatter dot commands.

## FILE HANDLING

## PRINTING FILES

PF is the command to send the text in the memory buffer to a printer. You are prompted for a devicename for your printer. Valid devicenames normally used are PIO (Parallel Input/Output) if you have a parallel printer or RS232 if using the less common type of printer with a serial input. In this discussion I shall use the devicename, PIO, as hardly anyone today is using a serial printer.

So for printfile devicename, making the entry, PIO, followed by (ENTER) will print out the whole of the text in memory just as it would appear on the screen except for printer codes. The topic of printer codes will be covered in a later issue.

But the WP is more versatile than just being able to print out the complete text buffer. You can direct the printout to cover a specific part of the whole file by preceding the devicename with numbers or letters. The following are valid input for the devicename, PIO.

1 50 PIO prints only lines from 1 to 50.

48 E PIO prints lines 48 through to the end of the text. Remember the "E" represents the last line number.

L PIO prints the line numbers as well as the text but only the first 74 characters of text on each line. A line would normally be up to 80 characters long but the other 6 are taken up by the 4 digits of the line number and the two spaces following it.

L 33 46 PIO prints (can you guess?), yes, the lines from 33 to 46 including the line numbers. Amazing?

F PIO prints the text in fixed 80 format. One use for this function is to edit an assembly object code file and to save it back to disk by using a disk filename instead of a printer devicename. WP text files are normally saved as VARIABLE length records.

<u>C PIO</u> strips out any control characters like carriage returns, line feeds or new page before printing. I have never used this so I must try it out. Maybe you can think of a good use for it.

## DELETING FILES

P purges all text in the memory buffers if you answer "Yes" to the prompt. You then have a clean slate again to start on.

DF for delete file appeared in the TI-Writer Editor so that particular disk files could be deleted. Its function has been greatly superceded and enhanced in Funnelweb's word processor to become a SD (show directory) command. You need to consult the Funnelweb docs to discover all its finer points of disk and file management.

## SAVING AND LOADING FILES FROM DISK

Yes, SF is the abbreviated command name for this utility. A prompt then requires the devicename to save the file to. There I go again. I am sure a preposition is not the correct thing to end a sentence with. There are additional refinements in this command like those above for printing files. You can save parts of your text by preceding the devicename with line numbers. Here are some valid entries:

DSK1.FILENAME 1 108 DSK1.FILENAME 26 E DSK1.FILENAME

To load a file, type LF on the command line and then at the prompt the pathname to the file on disk such as:

DSK1.FILENAME

16 120 DSK1.FILENAME loads in just those line numbers from the disk and stores them in the memory buffer numbered from line 1, of course.

0 40 DSK1.FILENAME 100 E DSK1.FILENAME

Things now get deeper. You can merge a disk file with what is already in memory with:

10 DSK1.FILENAME merges all of DSK1.FILENAME and places it after the existing line 10 and before the existing line 11. Obviously the old lines 11 onwards will now have much higher line numbers.

E DSKI.FILENAME merges all the disk file at the end of the existing file in memory.

O DSK1.FILENAME merges all the disk file at the beginning of the existing file in memory.

And deeper yet! Merge PART of a disk file into the existing text with:

14 50 64 DSK1.FILENAME. It should be no trouble to work that one out if you remember that the first number is the line in the current memory buffer after which the insertion is to be made.

## SEARCH

This group allows finding a particular "word" or replacing it with another.

FS (FindString) is followed by a prompt to input the string or word for which a search is to be made. The string must be preceded by a slash and followed by a slash. For example, to find the string "word processor" your entry would be /word processor/. The search is case sensitive and will not find a string in upper case (WORD PROCESSOR) when the input is in lower case (/word processor/). After pressing <ENTER>, the text will be searched from the position of the cursor onwards. If you want the whole lot to be searched, do a Show Line I first to get the cursor to the beginning. The search will end if successful with the cursor over the first character in the first matching string found. If not successful, the cursor vill appear after the end of the last line of text.

RS (ReplaceString) requires an input of the string to be searched for as well as the string to replace it with. An input such as /RSI/Repetitive Strain Injury/will replace the abbreviation with the full name for the "affliction". But when the cursor appears over the first occurrence of the string "RSI" this list of prompts can be seen on the command line —

## Yes, No, All or Stop?

So type

Y to replace this one and find the next.

 $\overline{\mathbb{N}}$  to ignore this one and go on to the next.

A to replace all occurrences of the string.

 $\overline{S}$  to stop and escape to the edit mode.

NOTE WELL. If in the word-wrap mode with the solid cursor, all string replacements will be accompanied by automatic reformatting of that paragraph using the current tab settings. This can be disconcerting if a particular replacement is in a section of your work that has been set out in tabular form. Reformatting will close it all up to just one space between each item. To overcome this, turn word wrap off before making the change in that section.

## TEXT FORMATTER

The text formatter is a program loaded separately which allows the printing of a text file according to the formatting commands that are imbedded in the text file. These commands in the text file referred to as dot commands are the ones that set the current left and right margins, paragraph indentation, page length and line spacing etc. for printing.

When the formatter program is loaded, the first prompt asks for the INPUT FILENAME. This is the name under which the text file had been saved and will be the name of the file you want to print.

The second prompt of PRINT DEVICENAME will usually be answered as PIO.LF unless you have a serial printer. Then RS232.LF will be the devicename but consult your printer manual in case some special band rate is needed in the serial devicename. In either case the formatter itself will issue line feed commands to the printer at the required places. To all the other prompts on the formatter screen, just press (ENTER) for now to accept the defaults shown and printing should begin.

## THE FORMATTER COMMANDS

The formatter commands, are always in upper case and preceded by a dot (hence the name dot commands) and placed at the appropriate positions in the text on a line by themselves. More than one command can be placed on a line. There needs to be only one dot used only at the beginning of a line and each command must be separated by a semicolon. e.g. The very first line in a text file might have the following formatter commands:

## .LM5; RM75; IN+5; FI; AD; PL56; CE2

It is also permissible to leave spaces between the command and the number parameter following it, such as-

.LM 5;RM 75 etc. The following explanations will throw some light on how these commands will influence the final printed output.

## FORMATTER TEXT DIMENSION COMMANDS

## LEFT MARGIN

LM 6 sets the left margin at column 6 on the page.

LM +5 adjusts the left margin invards 5 columns more than the previous setting.

1M-5 adjusts the left margin outwards 5 columns less than the previous setting.

## RIGHT MARGIN

RM 70 sets the right margin at column 70 on the printed page.

RM +5 adjusts the right margin outwards 5 columns more than the previous setting.

RM - 5 adjusts the right margin inwards 5 columns less than the previous setting.

## INDENT

IN 8 indents the first line after a Cr (carriage return) to column 8.

 $\frac{IN+10}{IN}$  sets the indentation to 10 columns inwards from the current LM setting.

 $\frac{IN-5}{2}$  sets indenting to 5 columns less than the LM setting.

## LINE MANIPULATION

 $\overline{FI}$  (Fill) puts as many whole words as possible on each line to fill within the left and right margin limits.

 $\frac{NF}{of}$  (No fill) cancels the FI command and prints the part of the document following the NF exactly as it would appear on the screen.

AD (Adjust) in conjunction with a Fill command spreads the spacing between words so that the printed text reaches the right margin exactly. Lines ending with a Cr will not be adjusted nor will they need to be. The formatter cannot differentiate between printer control codes placed within the text and ordinary text, so adjusted lines containing control codes may not completely reach the right margin.

NA (No adjust) cancels the adjust command and the printout following it will have raggedy ends.

## LINE SPACING

LS 2 causes printing on every second line only.

## PAGE LENGTH

 $\frac{PL\ 60}{PL\ +5}$  prints 60 lines then starts a new page.  $\frac{PL\ +5}{PL\ +5}$  adjusts the page length relative to the previous setting  $PL\ -4$  as above

## BEGIN PAGE

BP forces a new page break. The current PL value is then restored and countdown starts again.

## INTERNAL FORMAT COMMANDS

## CENTRE TEXT

 $\underline{CE}$  centres the next line between the current left and right margins.

CE 3 centres the next 3 lines.

## SPACE

SP leaves one blank line on the printed page. SP 5 leaves 5 blank lines.

The above will cover the basic intricacies in using formatting commands to manipulate the way in which some text is printed. Remember two things:

- 1. The Tab settings govern the way the text will look on the screen and the dot commands in the text will control the way the text is printed.
- 2. On a line of formatter dot commands, an INdent with + or relative positioning, relates to the last mentioned LM setting. On a line like the example earlier where many dot commands are placed, it is good practice to place an LM first if making changes to this margin.
- I guess by now you have discovered what the given one-line formatting example above will do.

In Part 4, I shall introduce Formatter commands and other methods to induce underlining, overstriking, transliterates, page identification and more file management.

## LEARN TO KNOW YOUR TI LESSON 1 with Percy Harrison

THANKS TISHUG

Providing time permits I intend to run a series of lessons extracted from a publication by DATAMOST titled "Kids and the TI 99/4A" which will start with the very basics of the TI and work through to a reasonably high level of use. Contrary to the original title of this book, the lessons will be beneficial to both young and old alike who do not have a very good knowledge of the TI or Programming on the TI.

LESSON 1 NEW, PRINT, REM, and RUN

## GETTING STARTED

Turn on your computer. You will see:\_

READY--PRESS ANY KEY TO BEGIN

Press a key. You will see a menu that says:

PRESS

1 FOR TI BASIC

Press key "1." You will see:

TI BASIC READY

>

and a flashing square on a blue screen. This square is called the "cursor." When you see it on the screen, the computer wants you to type something.

"Cursor" means "runner." The square runs along the screen showing where the next letter or character you type will appear.

## TYPING

Type something on your keyboard. What you type shows on the TV screen.

## COMMAND THE COMPUTER

Try this. Type: GIVE ME CANDY

and press the ENTER key. The computer says:

\* INCORRECT STATEMENT

and sounds a tone from the TV.

(Be sure that you have the TV sound turned up.)

The computer understands only about 80 words. The words are called "key words." You will need to know which words the computer understands.

Here are the first commands to learn:

NEW PRINT REM RUN

## THE NEW COMMAND

Type: NEW and press ENTER.

NEW empties the computer's memory so you can put your program in it. It also erases the TV screen.

### HOW TO ENTER A LINE

When we say "enter" we will always mean to do two things:

- 1) Type a line
- 2) then press the ENTER key.

Enter this line: 10 PRINT "HI"

The " marks are quotation marks.

To make quotation marks:

hold down the FCTN key and

press the key that has the P and " on it.

(Did you remember to press the ENTER key at the end of the line?)

Now line number 10 is in the computer's memory.

It will stay in memory until:

you enter the NEW command

or you turn off the computer

or you press FCTN QUIT (more in a later lesson)

Line 10 is a very short program.

## THE NUMBER ZERO AND THE LETTER "O"

It is easy to get zero and the letter "0" mixed up.

The computer always writes on the screen like this:

the zero like this:

zero

letter O

and the letter O like this:

These lessons write zero like this:

zero

Be careful to type zero, not "O," for numbers:

right

10 PRINT "HI"

wrong

10 PRINT "HI"

## WHAT IS A PROGRAM?

A program is a list of commands you wish the computer to do.

The commands are written in lines.

Each line starts with a number.

The program you entered above has only one line.

## HOW TO RUN A PROGRAM

A moment ago you put this program in memory:

10 PRINT "HI"

Now enter:

RUN

(Did you remember to press the ENTER key?)

The <u>RUN</u> command tells the computer to look into its memory for a program and then to obey the commands it reads in the lines.

Did the computer obey the <u>PRINT</u> command? The <u>PRINT</u> command tells the computer to print whatever is between the quotation marks onto the TV screen.

The computer printed: HI

## EXTRA STUFF WHILE THE COMPUTER RUNS

The screen turns green while the program is running.

After the program is done, the computer prints

\*\* DONE \*\*

and then the screen turns blue again.

### A LONGER PROGRAM

Clear the memory with NEW

(Did you remember to press ENTER afterwards?)

Enter this program:

1 REM PROGRAM 2 2 PRINT "HI" 3 PRINT "FRIEND"

This program has 3 lines. Each line starts with a command e.g. REM PROGRAM 2

Enter

RUN

What the program does:

line 1 The computer skips this line because it is a REM.

Line 2 The computer prints HI

Line 3 The computer prints FRIEND

The REM command lets you put little notes to yourself in the program. REM means "remark" or "reminder."

In line 1 we use  $\frac{REM}{2}$  to give a name to the program. The name is "PROGRAM  $\frac{1}{2}$ ."

The computer does the commands in the lines. It starts with the lowest line number and goes down the list in order.

## HOW TO NUMBER THE LINES IN A PROGRAM

Usually you will skip numbers when writing the program.

Like this:

10 REM PROGRAM 2 20 PRINT "HI"

30 PRINT "FRIEND"

It is the same program but has different numbers.

The numbers are in order, but some numbers are skipped.

You skip numbers so that you can put new lines in between the old lines later if the program needs fixing.

## Assignment 1:

- 1. Use the command NEW. Explain what it does.
- Write a program that uses <u>REM</u> once and <u>PRINT</u> twice.
   Then use the command <u>RUN</u> to make the program obey the commands.
- 3. What is the difference between "entering" a line and "typing" something?
- 4. Write a program that will print your full name.
- 5. Run it.
- 6. Erase the program from memory and the screen.
- 7. Try to RUN it. What does the computer say? Why?
- 8. Why do you usually skip numbers when writing a program?

Have fun, more next month.

0

## A GREAT PROGRAM

THANKS BLUEGRASS

by Dan Bicher February 19, 1994

wanted to start using a NEW checkbook program (doing it on a computer is the only thing that keeps me interested enough to do it). While by far the best checkbook program in the world is by MicroSoft for Windows, I wanted to use my TI to prove to myself and the rest of the world that the TI can do everything the average user needs (although you may have to use a bit more perseverance).

Barlier I had looked at all the checkbook programs offered on the Internet for download and found ALL of them very lacking! I noticed in an old Texaments catalog a program that ran out of TI-BASE called Check Track.

With the recent Texaments move, I had some problems getting a hold of Steve L. (Free plug: Steve L. of Texaments returned every call in a very quick fashion, a true rarity in the TI (heck, for any computer) computer market!)

Anyway, in the mean time, I contacted Bill Gaskill (the author of Check Track). Bill said that he had a much better program called Check+ that was written in Extended BASIC. He even sent me a copy!

As with any sophisticated program, it took some study and some set up. This program is a small scale accounting system that will classify expenses, compare budgeted to actual amount, allow separate income and checking account... The whole thing is quick, well behaved, and menu driven.

The manual that came with it was VERY professionally done (as with any of the projects that Bill has done). The program is also very professional in quality in every respect! The only time I had to "get under the hood" (I guess since the software is written in XB (unPROTECTED), you could say it comes with source code) was to modify the code to work with my hard drive. This might have been avoidable if I would have used the DSKI emulation file, but instead, I wanted everything in its own subdirectory.

This program gets an A+ rating from me. This is shareware, but isn't very usable without the manual. I would

con'td on page 11

## TI-Bits Number 4

by Jim Swedlow, CA USA

[This article originally appeared in the User Group of Orange County, California ROM]

## A LETTER FROM FRANCE

THANKS TISHUE

I exchanged letters with a TI owner in France. His English is not perfect but what he had to say is worth repeating:

"You asked me about the TI-99/4A support in France.

"The support is now very weak. The only magazine dedicated to the 4A will stop with the next issue because many TI users brought French computers over the last 3 years, often to get French educational software for children. This magazine has published fine programs, especially for assembly programmers.

"Before the Texas Instruments departure of the home computer market, the 4A was the best seller here. Many teachers used French version of TI-LOGO II. People from the French division of TI told me their division was leader in Europe, even before England division. (Over than 100,000 consoles sold in France, 70,000 in England). They had been very disappointed."

## QUOTES OF THE MONTH

"The car of the future must be a car for the people ... the market for a low priced car is unlimited."
---Henry Ford (1863-1947)

"When you call me that, smile!"
---Owen Wister (1860-1938)
from "The Virginian"

## PROGRAMMING TIP

Suppose you are writing a program that does a great deal of printing. There is a bug somewhere in the middle of the printing instructions. Every time you try and find it, however, you must wait while your printer wastes a lot of paper getting to the problem. What to do? If your printer is PIO, try substituting RS232.BA=9600. Unlike the parallel port, the serial port does not wait for a ready signal to return from your printer. So all of your print instructions will go out thru the RS232 port into thin air until you find your problem. Setting the baud rate at 9600 speeds things up (if you do not specify a rate, your TI will use 300 - much slower).

## MORE QUOTES

"Only those who attempt the absurd achieve the impossible."
---Anon

"The technique is wonderful. I did not even dream it would be so good. But I would never let my children to come close to the thing. It is awful what they are doing."

----Vladimir Kosma Zworykin (1889)
Developer of television
on his 92nd birthday.

## AN INTRODUCTION TO PRINTERS

If you are thinking about buying a printer, beware. Your choices are many as are the pitfalls.

First, you will need some things other than a printer. You need an RS232 card (stand alone or one for your P Box) and a cable. Most printers with a Centronics parallel port that will work with a standard cable (available from the houses that still support the 4A - Tenex, Tex-Comp, etc).

But which printer to buy? Epson? Star? Gorilla? Tandy? What kind? Dot matrix? Daisy Wheel?

First, lets look at the two basic types: daisy wheel and dot matrix (the others are probably out of your price range). A dot matrix printer is five to ten times faster and much more versatile. A daisy wheel gives you letter quality print while the dot matrix gives draft (poor) and 'near' letter quality (better). A tractor feed usually comes with a dot matrix printer but can be an extra cost item with a daisy wheel printer.

If 90% of your work is correspondence and you need top quality in its visual presentation, a daisy wheel is probably for you. Otherwise, for listing programs and all the other things that a printer can do, a dot matrix printer is the better choice.

Having narrowed the field, you still have to pick between the many models on the market. There are no standards in the world of printers for command structures (the codes your computer sends to the printer to tell it what to do). About the only codes two that are close to universal are Carriage Return and Line Feed. After that, anything can mean anything.

There are two 'de-facto' standards. The first is IBM. When big blue made a printer for its PC, it used a character set and command structure completely different than ASCII and just about every printer on the market. Alas, what will work with an IBM PC will NOT work on the 4A, so IBM compatibility is useless (unless you plan to defect).

The other quasi-standard is Epson. These folks developed a rather comprehensive instruction set (including graphics protocols) that some other manufactures and many software manufacturer followed. The TI impact printer is actually a bottom of the line Epson MX80. Most of the graphics programs for the TI will work with Epsons. Some of them support other printers, others do not.

A number of manufacturers make printers that follow Epson commands. Most Star (Gemini 10X, SG10, etc) and Panasonics do while the Axiom, Tandy and Banana printers do not.

Here are some suggestions to help you choose. First, see what your friends have and what they think of it. Then, in the store, have the salesman show you the draft and near letter quality print fonts. Note how long it takes to print a page (200 cps - characters per second - means different things depending on who is writing the advertising, I mean specs). Look for true descenders (is the loop below the 'g' below the line?) and the difference between the zero (0) and the letter (0). Make sure you can return it if it does not workout.

Plan to spend at least \$200 (if you are buying a new printer). Any of the bargains below that normally do not have the features you will need.

My printer? A Star Gemini 10X. Its about 85% Epson compatible and has been a faithful companion.

## ANOTHER PROGRAMMING HINT

When working on a program, you save it to disk often just in case your system locks up, etc. To save time, use a working name of <A> for these frequent saves. This saves up to nine key strokes. Also, if you have a load program that reads the disk directory, your working program will be at the top of the list.

Enjoy!

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## FUNNELWEB 40 COLUMN EDITORS VER.5.00 PART 1

Part 1 -- General Features

THANKS TISHUG

## (1) Introduction

The latest development in the Funnelweb system for the T199/4A computer is an extensive rewrite of the 40-column system editor. For better or for worse it remains as compatible with the original TI-Writer and Editor Assembler editors as can be managed, with some lessons from experience, since these have been a good match to the capabilities of the basic T199/4A system. The new editor comes in several versions.

- o a minimal version with all basic functions, updating the previous Vn 4.40 issue.
- o a second form which incorporates multilingual features previously available only in an incompatible form in the European version of TI-Writer. It also has All-Characters mode which allows use on screen of the full 8-bit IBM PC character graphics set (as supported by most modern printers), and provides pathname support for hard drive users also. See FWDOC/ED42 for specific details.

These 40-column editors may be used on 80-column systems as well (TI99/4A and Geneve) but the 80-column version (issued separately) is dual mode and will serve as a superior 40-column editor as well, with much superior SD functions. As in all previous versions, it does not depend on any given manufacturer's specific hardware extensions and may be run on a minimal system as long as it can load Funnelweb, the original TI-Writer or Editor Assembler modules not being necessary. In particular it is compatible with the Extended BASIC module.

This part of the documentation covers general features while the second part reviews command line and control functions in more detail. A third part describes the features and limitations of the alternative version (/AEH) of the editor. Those not already familiar with Funnelweb or II-Writer should consult II's original manual (which remains II copyright material and may still be available from II in the US at final clearance prices), or else various User Groups have tutorial material or experienced users willing to assist. These documents will concentrate on changes from the original II-Writer.

The editor is identified internally as Vn 5.00 but loads with no problems from Vn 4.40 of Funnelweb. At this stage in the history of the TI99/4A there is no longer any grand plan to issue a full update of Funnelweb, but as individual parts are updated they will be so identified.

## (2) File Descriptions

This supplementary package contains editor and auxiliary files, and various utility programs. The character files other than CHAROL may turn up in archived form. If more than one file fits the category an asterisk is used as wildcard in the name. Entries followed by a "\*" have been revised for the Jul/04/93 issue.

ED, EE -- Baseline editor program files.
ED/AEH, EE/AEH -- Program files for enhanced editor. See FWDOC/ED42 for details. \*
HELP4\* -- Help files in program file format with \*
an alpha character.
CHAR\*1 -- Character files for Euro-Writer mode.
CHAR\*\* -- Full 8-bit character files for All-Chars version (\* numeric).

F4TX\*E -- Command text language files for Euro-Writer and All-Chars.
INSTALL/ED -- Configuration utility program.
CONFIG/40 -- Fully annotated configuration file.
CON/ED -- Abbreviated configuration file.
4PRINTFILE -- Sample help file prototype.
HELPMAKE40 -- Help file construction utility.
CHRCOAL/S -- Typical source file for PC character sets.
CHARUTIL -- Character file analysis utility.
FWDOC/ED40 -- This file.
FWDOC/ED41 -- Command and control details. \*
FWDOC/ED42 -- Enhanced editor special features. \*

The ED, EE, FWDOC/TIWR files from your Vn 4.40 Funnelweb distribution disk(s) are now obsolete, as is the part of FWDOC/EASM describing edit functions.

The minimum requirement on your funnelweb working disk is ED, EE (or another pair renamed to this) for default only use of the editor, with help files as desired. For non-English (Euro-Writer or All-Chars) usage, add character and command text files as needed. The language and character files sets are not all complete. This reflects both my limited language abilities and the level of interest in Funnelweb from those parts. German and Swedish are complete, and French largely so. Dutch has some English terms left, but I am assured most Dutch users are familiar with them. Italian is incomplete, and Spanish has not even been considered. It may be that some national language users will prefer to use English command text, in which case the UK file should be copied to the relevant filename. Please contact me if you are able to help with further development of non-English command text files.

## (3) Editor Modes and Load

The Funnelweb system editor supports two main modes, Word Processor and Programmer's Editor, from the same set of files. The choice is made implicitly from the alternate main Funnelweb selection screens, but may be intercepted and reset at load time. FWDOC/ED41 gives more details of the internal program modes for each of these.

The editor files ED, EE are funnelweb Option 1 program files, as is permanently configured in Funnelweb itself. This means that the main menu may be used to load any other editor (or other program) in this form and name. Going the other way, the Loaders screen may be used to load the files. If <cr>> etc are to be visible in the word processor, Option 1 should be used to refresh the character set unless it is configured or forced to load another character file.

## (4) Character Sets

The baseline editor uses the character set Cl or C2 as loaded by the Option 1 loader path, while the enhanced editor gives further possibilities. Whatever the character set, the >IF pattern (the edge character in BASIC) is always redefined as the solid mid-line for use as a distinctive screen divider in freeze mode. The cursor of the moment is the >IE pattern. The editor files must be loaded from Funnelweb under a 2 letter filename for character, language, and help files to be found.

The enhanced editor in its special multilingual modes loads new sets of characters, as described in FWDOC/ED42.

## (5) Help Function

A series of help screens may be invoked from the main command line. The help screens are loaded from disk as program files direct to YDP screen memory to speed response and the number is limited only by the filename series. The filenames expected are HELP4A, HELP4B and so on. A set of useful help screens is provided, with more being added for your selection. Some of these will be useful only with All-Chars mode.

The content of the help screens is completely at the user's discretion and a sample original file is included. Help files are prepared as a 24 line by 40 column DV/80 file with the Editor and converted to program file format using HELPMAKE40. The help file loader in the Editor starts with HELP4A unless it has been turned off by INSTALL/ED from the CONFIG/40 specification. If one of the series is not found the loading terminates. Pressing <A> pages forward, <Q> pages back and <esc> exits the Help mode. Re-entry to the sequence is at the screen last viewed on the previous invocation of Help.

The selection of help screens as supplied in this package have the following contents:-

HELP4A -- part 1 of a list of Editor functions with keys to use.

HELP4B -- part 2 of this list.

HELP4C -- summary of Formatter dot commands

HELP4D -- details of Editor extended PrintFile options

HELP4E -- illustration of box drawing characters for

All-Chars mode HELP4F -- other 8-bit characters for All-Chars classified by type HELP4G -- list of All-Chars 8-bit characters in ASCII

order

HELP4H -- Editor Assembler quick reference part 1 for TMS-9900 op-codes

HELP41 -- continuation as part 2 of op-code list HELP4J -- Editor Assembler quick reference part 3 for system addresses and colour table.

## (6) Show Directory Functions

The Show Directory screen is much the same as in previous Editors. The filename and detail display on each line is similar to that in DiskReview except that no check is done on program file type. Fractured files are indicated by an asterisk. Print Directory now uses ctrl-P> and goes to the DirectoryPrint device. This is initialized at load time to the Printfile device but maintained separately after that. restored and <U>nprotect of files now use these more obvious keys. Pressing <T> marks the Display/80 file under the cursor bar in the directory as the LoadTemp file and pressing <space> marks the Workfile and pressing <0>riginal restores these to their values at entry to SD. Exit from SD is by <ctrl-=>.

A one way paged file view function is implemented using <V> when a Display/80 file is between the cursor bars and can scroll through files of indefinite length. The SD screen shows the diskname, sectors used and sectors free counts and the number of bytes remaining in the text buffer. This includes the effects of buffer encoding and Euro-Writer will give a lower figure than 7-bit modes on the same file. The empty buffer value may change with future revisions.

## [7] New Load/Save Functions

The Load/Save module now has code which performs extensive validation tests on incoming tab records from any mode into any mode. Loading and saving of text records bypass DSR search and goes directly to the opened DSR for improved speed. A line count is at the upper right of the screen. Changes under user selection are in the option codes for Printfile.

- M -- sets PF to output the file in DisFix/128 TI file format with MS-DOS end of line <cr><lf> separators and <ctrl-Z> end of text marker.
- U -- does similarly for Unix format with <1f>
  separators and <ctrl-D> at end of text. M and U
  both cancel the L option for line numbers.

- p -- if a printer start-up control code sequence has been installed this will be sent to the print device before any text records.
- Q -- if a printer reset control code sequence has been installed this will send it to the print device after all text records have been output.
- A -- opens the DV/80 output file in Append mode.
  This will help editing or construction of very long files.

There is no provision for external files in the M/U formats to be read in directly and external conversion programs will be needed to produce DY/80 files first for loading by the Editor. For information on the other PF options carried over from earlier editions, consult the help file for a brief account, or else the II-Writer manual.

## (8) Configuration of ED

The program INSTALL/ED (program file - FW option 2) allows a range of initial options to be installed in ED from a DV/80 text file. CONFIG/40 is such a file and is its own documentation. Keep for reference, but a cut down version such as CON/ED will do just as well. The baseline editor ignores all references to language selection.

## (9) Printing

The usual funnelweb modification of the Formatter, or other alternatives such as the RAG formatter, will work as before with 7-bit files. Printer codes to set national character sets will depend on your particular printer. All-Chars files should print directly from the Editor to printers (most nowadays) that support the PC character graphics set. A rewrite of the Formatter would seem to be in order at this stage, using the existing II-Writer manual as base specification in the absence of original source code, but life seems just too short with too many other things to do.

The existing Funnelweb Formatter functions with the following enhancements over the TI original.

- (i) The printer device-name is preconfigured in the main FW/LOAD program by CF/CG and may be changed to suit your convenience.
- (ii) The Formatter will display the filename last used or marked. If it cannot locate a name then the utility pathname set in FUNNELWEB with CF/CG becomes the default.
- (iii) The <fctn-9> key now returns directly to FUNNELWEB's central menu screen. The Formatter does not need to reload from disk if reselected immediately.
- (iv) Pressing AID ¿fctn-7> invokes a directory routine similar to QD. file Qf is loaded if present on the boot disk when the Formatter first loads for this to be available. File marking is active, but is not apparent until the workfile name is edited: <enter> is not enough but even a cursor movement will do.
- (v) The Formatter may now have 4 disk files open at the same time.
- (vi) The FO/FP files load purely as an Option 2 (Editor Assembler 5) program and another Formatter program in this form may be substituted.

## (10) Fairware Notice

This program is distributed as FAIRWARE. Consequences of its use are entirely the responsibility of the user. The files as sent out are not crippled in any way, unlike the frequent and unpleasant custom in the PC world. The usual FAIRWARE conditions remain in force for this extension of the FUNNELWEB system. If you do not think it is worth supporting or do not bother to, then be honest and do not use it, but at the very minimum please show your appreciation of the free trial by passing it on to others who may.

## (11) Final Words

Please report any bugs found, or send suggestions. The existing functionality is very close to the limit that can be squeezed into standard T199/4A hardware. If something is added other things may have to give.

WARNING - the Myarc HFDC when used as a floppy disk controller is known to corrupt files when multiple fractures occur. At least some DSR ROMs for 80-track operation of Myarc FDCs are known to get wrong last sector allocation in files. The Funnelweb Editor cannot correct for either of these equipment faults.

CONTINUED NEXT MONTH

recommend that if you want to try the software, you send at least twenty-five dollars to:

Bill Gaskill 2310 Cypress Court Grand Jct., CO 81506

## CONNI HAPPENINGS!!!!!

Exciting plans have been made for the upcoming CONNI TI meetings. Do plan to attend and gain more knowledge and skills about using the programs that are available for your TI.

Each member that was present at the April meeting was ask what he/she would like to learn about a program they had but have not used or one that they would like to own.

The following schedule has been set up for you, the CONNI TI USER.

MAY - Multiplan - Bring 2 SSSD disks in the MP format. George Seibert will conduct this session and help you get a format established to serve your needs whether it be a business problem or just a schedule for maintaining apartment rentals, etc.

JUNE- Modems - Dick Beery Assembly Language Editor by Karl Romstedt

JULY- Sector Editing by
Harley Ryan
AUGUST- Logo by John Pakins
SEPTEMBER- First Draft and
Final Choice by Jean
Hall

OCTOBER- TI Base/D Base by Dick Beery

CONNI DEATH

FRED TIETZEL, a former CONNI member, moved to CO several years ago and our president, John Parkins has

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

just been informed of his death by a heart attack. Our condolences are with his surviving family

members.

pay Tony McGovern 215 Grinsell St. Kotara, NSW 2289 Australia

FUNNELWEB EDITOR v5 WHAT'S NEW by Jerry Keisler Obtain Charles Good for \$2 PO Box 647 from-> Venedocia OH 45894

ADDED CHARACTER SET is in ALL CHARACTERS language mode. When using ALL CHARACTERS you can only print from the editor. Use PF. You must instruct your printer to use the IBM character set. Change files ED/AEH and EE/AEH to ED and EE for this mode. If you want to send a file with added characters to someone who may not have FW v5, first print file (PF) back to a filename using C DSKn.filename to strip the ADDED CHARACTERS.

THANKS HOCUS FOCUS

## ADDED EDIT MODE FUNCTIONS

```
<c-Q> pages up like f-6.
```

<c-A> pages down like f-4.

<c-2> moves cursor to end of current
line.

<c-H> shows first page of file.

<c-J> shows last page of file.

<c-B> breaks line in all modes, no
cr's with enter like f-2.

<c-R> rejoins what <c-B> broke.
spaces and cr's trimmed from
inserted material. <c-1> used
immediately restores.

<c-N> inserts new line.

<c-F> freezes bottom of screen under cursor.

<f-=> moves marked line to top of
 page. If confused goes to line
1.

 $\langle c-0 \rangle$  returns to Original line after  $\langle f-e \rangle$ , RS and FS.

<c-,> toggles IBM 8 bit characters
 with a beep. Will not print thru
 formater. Set printer to IBM
 mode and use <PE> in command
 line. Use f-SDEX to move or
 spaces.

<c-,> + <c-u> addes more characters.

Added editor for assembler functions not covered here. But there are lot of improvements for E/A and C programers.

## ADDED CHARACTER SET ctrl-, set

IBM TH+ Lui two line

KEY abn | ifcdeghmj
IBM βΓεηθμπΕστΦφΩ
math

others
KEY ! - # \$ % o ' " & ' \* ( )
IBM i i i h h n n n o o a a α ¬ i "

KEY . / Z y p k IBH « » · • ≡ 6

ctrl-, + ctrl-u set

KEY CDEFNO' QGBHIJP

KEY KLMSTUYAVWZX IBM JI11000000009

KEY QR[]^

pay Tony McGovern 215 Grinsell St. Kotara, NSW 2289 Australia

## FUNNELWEB EDITOR v5 WHAT'S NEW by Jerry Keisler

Obtain Charles Good for \$2 PO Box 647 from-> Venedocia OH 45894

We now have 3 editors: a new 7 bit editor (handles normal TI writer files), a new editor/assembler editor and an ALL CHARACTERS/EUROPEAN HODE using an 8 bit editor. 40 column editor covered here. 80 column system, I have non.

The new editor and formatter load into the current v4.4 Funnelweb system.

The system loads and saves files faster and in general operates faster.

## ADDED COMMANDS FOR THE COMMAND LINE

- The command line shows current line number being loaded, saved or printed.
- $\langle T \rangle$  allows tabsets 1-3.
- <H > produces help screens that can be paged using <Q> and <A>.
  and exit using escape.
- <QQ> exits to Funnelweb. If you edited the file since the last save, you will be given a warning.
- LoadTemporary allows loading all or part of another file into the current file without changing the current filename. File may be marked in SD with <T>.
- <DP> allows the changing of the show directory printer name.
- <MK> Marks the file at the line number you indicate.
- <c-M> marks the file at the top line
  on the screen.
- <WC> lets you select a WildCard for
  FindString (FS) and
  ReplaceString (RS).
- < > blank line returns to the original exit point.
- <number> moves that line to the top
   of screen.
- <c-1> exits to the current top of
  page.
- <c-2> returns to the original exit
  point.

t top when usin split screen c-F.

- <c-Q> pages up.
- <c-A> pages down.
- <c-E> moves up one line.
- <c-X> moves down one line.
- <PF> PrintFile
  - <P PIO> sends printer start codes.
  - <Q PIO> sends printer stop codes.
  - <P Q PIO> sends both, as
    configured.
  - <F DSK1.0> saves DF/80 to DSK1.0.
  - <A DSK1.F> appends to end of DV/80
    file DSK1.F.
  - <M DSK1.F> saves to DSK1.F in
    DF/128 using MS-DOS format.
  - <U DSK1.F> as DF/128 in UNIX
    format.
- <RS/FS> ReplaceString FindString.
  use one, two or three numbers.
  - 2 numbers = start and finish column.
  - 1 or 3 numbers, first =
     occurrences to skip.
  - <c-O> returns to start position.
  - Delimiter can be any key (-/ab etc). Delimiter can not appear in search string.
  - <WC> wildcard can be any key.

<SD> all new format. Also tells
bytes left in editor.

PRINTED FROM EDITOR USING IBM CHAR SET & ALL CHAR EDITOR.

Set KX-P1180 printer to c-u+f-r+c-u+t+c-u+s-A+f-r+c-u+6. FW v5 on Oct DOM.

WELL TO BE TO B

## PROGRAM OF THE MONTH

## by Bob August

This months program is a reprint from our November, 1991 newsletter. I couldn't think of anything to write a program for, so you get this. If you would like a program to do something for you, let me know and I will write it for you and share it with our members.

The program won't help you balance you check book or figure your taxes. But it does show you a little bit about programming. You will also like it because the program is short and you can type it in, in no time at all.

The first program is in Basic and the second one in Extended Basic.

## Hope you enjoy.

```
100 REM FILL UP MUG
110 REM IN TI BASIC
120 REM BY R.W. AUGUST
130 CALL CLEAR
140 CALL SCREEN(16)
150 CALL COLOR(2,7,1)
160 CALL COLOR(3,6,1)
170 CALL COLOR(2,7,1)
FFFFFF")
190 CALL CHAR(43,"00000000000
OOFFFF")
FFFFFF")
FFFFFF")
220 CALL HCHAR(1,1,61,10)
230 CALL HCHAR(2,8,61,3)
240 CALL VCHAR(6,5,42,18)
250 CALL VCHAR(6,18,42,18)
260 CALL HCHAR(24,5,42,14)
270 CALL HCHAR(5,5,43,14)
280 CALL HCHAR(8,19,42,4)
290 CALL VCHAR(9,22,42,11)
300 CALL HCHAR(19,21,42)
310 CALL HCHAR(20,19,42,2)
320 FOR DELAY=1 TO 500
330 NEXT DELAY
340 FOR I=23 TO 7 STEP -1
350 CALL HCHAR(1,6,48,12)
360 CALL VCHAR(3,9,48,21)
```

160 CALL HCHAR(1,1,61,10):: CALL HCHAR(2,8,61,3)170 CALL VCHAR(6,5,42,18):: CALL VCHAR(6,18,42,18) 180 CALL HCHAR(24,5,42,14):: CALL HCHAR(5,5,43,14) 190 CALL HCHAR(8,19,42,4):: CALL VCHAR(9,22,42,11):: CAL L HCHAR(19,21,42):: CALL HCH AR(20,19,42,2)200 FOR DELAY=1 TO 500 :: NE XT DELAY 210 FOR I=23 TO 7 STEP -1 220 CALL HCHAR(I,6,48,12):: CALL VCHAR(3,9,48,21) 230 NEXT I :: CALL VCHAR(3,9 ,32,4):: CALL HCHAR(5,9,43)240 CALL KEY(0,K,S):: IF S=0THEN 240 :: CALL CLEAR :: E ND

As you can see from the enclosure, I am really "having a ball" with funnelweb v5.0. I am truly grateful for the SSSD you sent me (Anyone reading this can have a stand alone SSSD disk with a fully functional Funnelweb v5.40 column editor that boots from IB by sending \$1 to the Lima User Group, P.O. Box 647, Venedocia OH 45894).

I was lining out a rather crude map by hand when it occurred to me that here was an opportunity to experiment with FWEB v5.0. So I produced the enclosed map. I found the HELP screens very useful for remembering the proper character to print a bottom left corner, etc.

The Mcgovern's state that the Forestter cannot be used with the IBM character sets and do not extend any promise that it will ever be rewritten to enable it to handle them. No problem! You can "forest" your PF file using printer codes very easily.

First I pre-set my printer for Margins etc. I copied the SSSD disk you sent me onto a DSSD disk, changed LDAD to LDADA and added the enclosed LDAD mini program which reminds you to:

TURN THE PRINTER ON! if it is not on line, and asks
PRE-SET FOR DRAWING? (Y/N). If N then it directly loads
FWEB...if Y then it sets: Clear the printer buffer; French
International Charset (I live in Quebec, a French speaking
Province); Left Margin; right Margin; Elete pitch ('cause I
like it!); Skip Perforation (6 lines); Epson Graphic
Character Set 1; and SINGLE Direction printing (bidirection
produces zigzag effect). Then it loads FWEB.

100 ! SAVE DSK1.LUAD 110 DISPLAY AT (12.4): "TURN P RINTER ON!" :: DPEN \$1:"PNO. CR" :: PRINT \$1:CHR\$(0):: CA LL CLEAR 120 PRINT "PRE-SET FOR DRAW! #6? (Y/X)\* 130 CALL KEY (5, K, S) 140 IF (K=89)+(K=121) THEN 16 150 IF (K=78)+(K=110) THEN 19 160 PRINT #1: CHR\$ (27); CHR\$ (6 4):CHR\$(27);CHR\$(82);CHR\$(1) ; CHR\$ (27); CHR\$ (108); CHR\$ (8); CHR\$ (27); CHR\$ (81); """" HR\$ (27); CHR\$ (77) 170 PRINT #1: CHRS 8); CHR\$ (6); CHR\$ (2) 1; CHR\$ (1); CHR\$ (27)

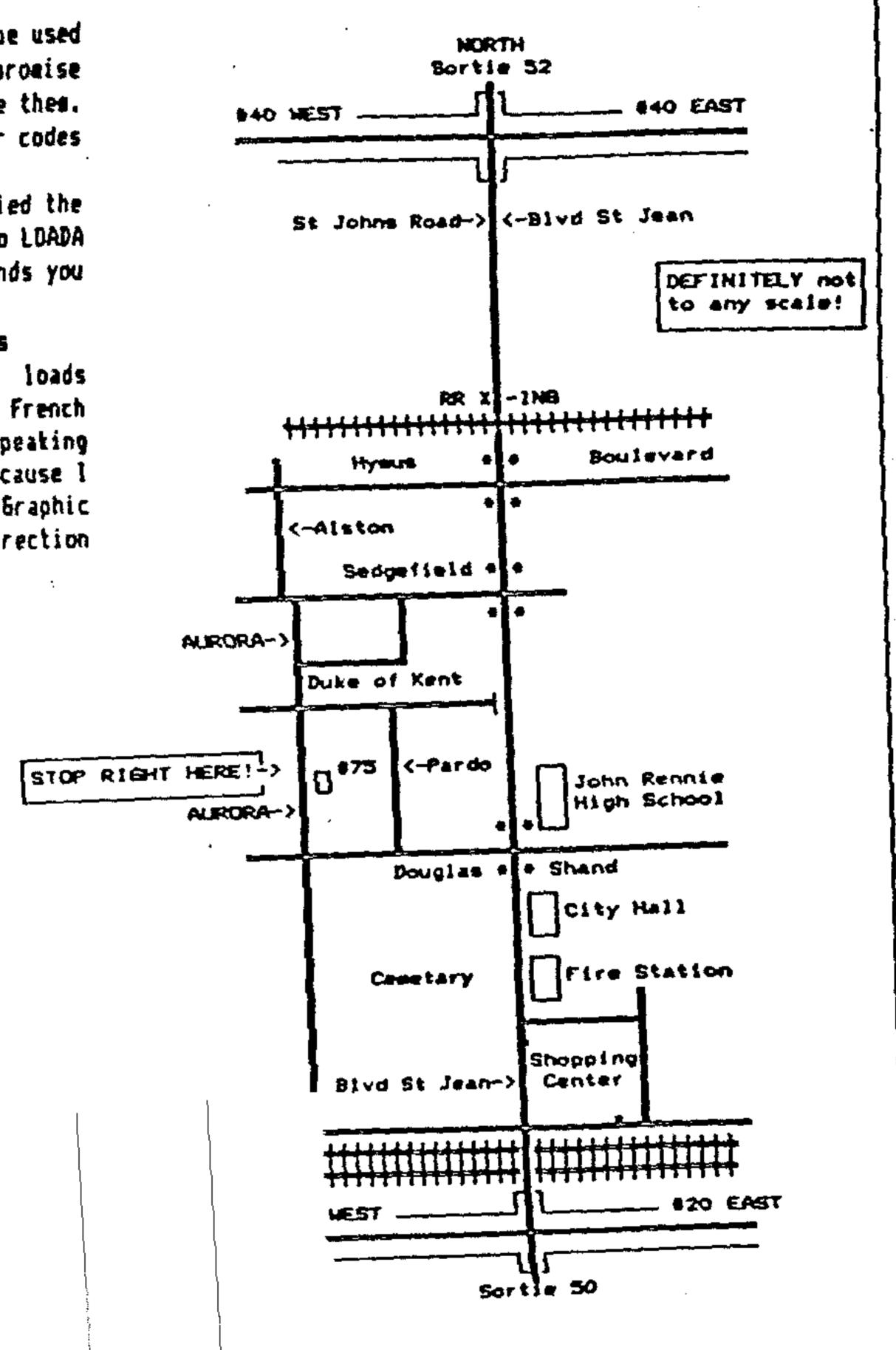
----

NOT the IBM set! is normal capabilities as there are many differences in the EPSOM/IBM codes ... EPSOM for Elete is ESC "M" and IBM is ESC ":", EPSOM ESC "P" for PICA vs IBM ESC "p" for PICA whereas ESC "p" in the EPSOM mode is for PROPORTIONAL SPACING! (BB&P editor's notes Proportional spacing is not available on all printers. When set it justifies the right margin. You don't need to use the Formatter to right justified.)

DO NOT set your DIP switches for IBM!!

To set for Epson Graphic Set 1 use ESC/"t"/1

To set for SINGLE DIRECTION printing use ESC/"U"/1



## MEETING DATES FOR 1994

## C.O.N.N.I. BOARD MEMBERS

<b>TRD</b>	SAT	URDA	V
			E 1

21	MAY	1994
18	JUN	1994
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17	SEP	1994
15	OCT	1994
19	NOV	1994
177	DEC	1004

Pres John Parkins	614/891-4965
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Spirit of 99 BBS	614/263-3412
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Jean Hall	614/885-4223
Bob DeVilbiss	614/891-0566

## MEETING PLACE:

CHEMICAL ABSTRACT
254Ø OLENTANGY RIVER RD
COLUMBUS OH
8:3Ø AM - 2:3Ø PM

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