

CLEVELAND AREA TI99-4A USER GROUPS NEWSLETTER

JULY/AUGUST, 1988

OFFICERS	NORTHCOAST	TI-CHIPS	MEETING DATES	
PRESIDENT	MARTIN SMOLEY 1-257-1661	GLENN BERNASEK 238-6335	NORTHCOAST 1:30 P.M.	TI-CHIPS 10:00 A.M.
VICE PRESIDENT	ERNIE MALNAR 289-7742	RUSS SHIMANDLE 1-887-5330	EUCLIDIAN ROOM	NORTH ROYALTON LIBRARY
TREASURER	JIM NEKEEL 286-3179	LIN SHAW 235-3912	EUCLID SQUARE MALL	STATE ROAD & RT 82
MEMBERSHIP	CHUCK POULIN 731-6473 361 E. 280TH ST EUCLID, OH 44132	JOHN PARKEN 331-2830 4172 W. 217TH ST. Fairview Park, OH 44126	THIRD SATURDAY	THIRD SATURDAY
SECRETARY	CHUCK POULIN 731-6473	MARY PHILLIPS 582-4009	JULY 16, 1988	
LIBRARY(DISK)	MARTIN SMOLEY 1-257-1661	MARK McCAULEY 235-8888	AUGUST 20, 1988	
(TAPE & MODULES)	TOM NELLIS 475-4067	(TAPE) JOHN PARKEN 331-2830	SEPTEMBER 17, 1988	
(HARD COPY)	DICK ALDEN 1-352-9172		OCTOBER 15, 1988	
			NOVEMBER 19, 1988	

Remember, this will be your last issue until September! Have a nice summer and get ready to take your TI to new depths this winter.

A couple of comments about what Dennis Faherty is doing with the new TI-BASE. As mentioned last month, he is making a copy available to UG's for review and raffle. As you will recall several years ago, NAVARONE was going to let UG's review and preview new products and it was a disaster. Even tho the first program they sent out, Paint a Print, was in a module, people were dumping it to disk and then bragging of doing so. I guess you can see that stopped in a hurry. Mr. Faherty has given us a chance to prove we are not all bandits and get some much needed feedback for his project.

As you will see with Marty's quick overview, this program is like no other we have ever had for the TI. It is not for the faint hearted either. I do not consider myself a novice user, yet TI-BASE really threw me in the few days I had it. I knew immediately it was totally beyond my scope to put it thru it's paces. From the comments that are already starting to sift through the newsletters, this is indeed a powerful new program and because it is so totally different, the average person cannot use it with the documentation provided. We are going to have to have help from people like Marty who has a background with dBASE and others who have the patience and fortitude to break the initial ground for us. Marty is planning on demoing this at the August meeting at which time, per our agreement with Mr. Faherty, it will be raffled to a member. The price for ordering through a group is only \$19.95 plus \$1.50 S&H. A total steal compared to comprable software for any other machine! I hope we as a group do not disappoint Mr. Faherty and pass this program around without paying for it. If this happens, it will be a long time before anyone else with use this same method. We at NorthCoast consider it a great opportunity and will do our best to see that everything stays on the up and up.

You might want to make a quick turn to the back of the newsletter to read Glenn Bernasek's proposal that we host

the Ohio Valley Conference next year. This does not mean that we want to "take over" after Lima did just a superb job, but rather that it might inspire each of the Ohio groups to take turns in sponsoring such a conference and that in 3-4 years it would come back around the state. If you talk with any of the Cleveland people who went down to Lima, I think you will find them totally in favor of the idea and as enthusiastic as Glenn about the possibilities. Lima made it very clear that if another group would want to do this next year, it would be OK with them and if no one else stepped forward, they would do it again. We would follow their format and try as much as possible not charge anyone for anything, user groups, or vendors so that it would truly be a conference or get-together than a money-making operation.

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"If you do something long enough you may eventually get it right." At this meeting I moved the demo as close to the beginning of the meeting as possible. I think it was the best position for it. It's hard to tell because Paul Newmeyer's demonstration on the Forth Library Disks was so good it probably could have been held in a broom closet and people would have packed in with the brooms to get a look at this amazing but previously hidden part of our library. The demo was clear and informative. It displayed some of the sound and graphics capabilities of Forth and also highlighted its speed. Paul also showed us how to load Forth using a system disk, and how to use the Editor and several other features of this language. I can't say enough about how great the demo was but, the demo was the smaller part of Paul's contribution to the club. As we all learned at this meeting Paul has completely organized the Forth section of the library. "And!" he has created Menu Driven Load Programs for disks that were previously inaccessible to most of us. This means that even a Forth illiterate like myself can run much of the Forth programming we have in the library. Next, and equally as important are the catalog pages. Paul has given us a complete library catalog section covering Forth. There are more than two dozen page in the section. Each page covers what can be found on a Forth disk and goes into detail on how to load and run that piece of software. Every page is an education. If you think about this complete picture, the great demonstration, completely revamping and organizing the Forth library disks, and producing a complete section for the library catalog, Paul has given us a Forth library which is unequalled by any other club, anywhere. We all got a real education at this meeting and I will try to get Paul back for another Forth demo late in the fall of this year. We only had about twenty to twenty-five people attend this meeting. When the weather isn't quite so beautiful and our attendance jumps to forty-five or fifty members, we should have Paul's demo again. I think that Paul should re-run this demonstration (with update) for the largest possible number of people (it's that good).

VOLUNTEERS

After heaping such praise on Paul Newmeyer for the great demo he gave, this is going to sound like a bunch of mush. But I must give more praise to another member, the one person in our group who does more and gives more than the rest, Deanna Sheridan. She puts an unbelievable amount of work into the newsletter, the disk library, and literally every other part of our group. You may think, "we all know that", or "why is he making that statement under volunteers". Well I'm going to tell you. Deanna works as hard as she does partly because she wants us to have one of the greatest user groups in the country. She is not alone in this thought. Many of the people who volunteer on a regular basis feel the same way. What we need to accomplish this is complete volunteerism by the membership. This does not mean that everyone must be involved in everything, but everyone (and I mean everyone) must be involved in something. We have a large number of volunteers presently working on the disk library, however, everything also is wide open. You can jump in anywhere. We need as many of our new members, with

basic systems, as possible to jump into the main stream of activity. I'll give you several examples where being a beginner or having just a basic system would not hinder your ability to help greatly. Tom Nellis has trouble getting to the meetings during the summer. One or two members could volunteer to help handle the tape and cartridge library with Tom and bring it to the meetings. Next, we can always use articles for the newsletter. We can create a basic system corner in the newsletter where beginners could supply articles. You could write short programs in basic or extended basic or review programs or cartridges from our library. If you don't have a printer with your system, you could type the article on a typewriter or print it out by hand. We will see to it that your article gets into the Newsletter. This is very important. We need a beginners, or basic system SIG (special interest group). We have had members with basic systems make the statement that they would like to see a special interest group for basic systems. I hate to say it, but that attitude is just not going to get the job done. We need people to stand up at the meetings and say "I'm starting a special interest group, and I'd like anyone who is interested to contact me now!" You can set up a name list right after the meeting, or you can go out in the hall and do it immediately. What I'm driving at is the well known fact that if you wait for someone else to do it, it may never get done. The same thing goes for volunteering for anything that might cross your mind. We all have phones, and we all live in the same part of the country. Call some other member and get some ideas going. You will be surprised how well things can work out. At the beginning of this section I started out by telling you how much Deanna does and possibly why. I'd like to finish that thought. I'd like to see every member of our club involved in some manner that at least slightly exceeds the passive membership status, I'd like to see our newsletter filled with articles written by our members, and I'd like to see Deanna get a well deserved rest for a change.

THE NEXT NORTHCOAST MEETING

At the next meeting Steve Weinkamer will demonstrate EZ Keys. This is one of the software packages designed to enhance your keyboard and reduce the number of key strokes you must make in order to execute a command. We will again run the demo as early as possible and do the question period and club business toward the end of the meeting. Note: Don Owen said that he expected to have the Forth section and another page of freeware ready to hand out to catalog owners at the next meeting. As you may or may not know, the Disk Library is no longer brought to the meetings for copying. This has worked out well because we no longer have the massive amount of copying we had in the past. If you want a copy of certain library material, we have copy order forms you can use, or print your request on a piece of paper with your name and address. You can give this to me at a meeting or mail it to my home. I can give you the copies you request at the next meeting or I can mail them to your home. If you do not have one of our sheets giving postage costs for mailers, check with me by phone.

See you all at the next meeting. Marty

**TI-BASE - From INSCEBOT
REVIEW By Martin Smoley
NorthCoast 99'ers - June 25, 1988**

I received the copy of TI-Base which was sent to the NorthCoast 99'ers from Deanna at the June meeting. The reason I received it for evaluation and review was because I mentioned that I had some knowledge of dBASE. I hope that I am not doing TI-Base a dis-service by trying to make a judgement of its ability in the one week between the meeting and the newsletter deadline. The reason for the rush is because we skip the July newsletter, so it was now or the August print. The only reason I am boring you with this rhetoric is because I plan on starting a tutorial on TI-Base with the August newsletter. NOTE: I intend to say a lot of good and bad things about this program. I do think that the program has unbelievable potential and I hope that the criticism will help guide it in a beneficial direction.

TI-Base Review: The first thing I dislike is the manual. You need to have a previous knowledge of dBase to be able to jump right into TI-Base. If you don't, you will have to do a lot of experimentation while reading the manual to pick up the gist of the language. Now for the Manual, the Tutor and the On-Line Help, which are all the same information. The Tutor and On-Line Help should have been discarded, and the Manual should be three times its present size. If the printing costs are too high, then throw away the paper the manual is printed on, and put the whole thing on disk, but in D/V 80 files. No matter how the manual produced it needs three or four times as many examples as it presently contains. These examples should either be printed, or in a form which can be easily printed by the user. You need this on the table next to you. When you are having a programming problem and you press AID, the process seems slow and after several screens come up for you to read and the program comes back you are more confused than ever. The memory space and programming needed to perform this function would be better used in the area of printer functions. That brings me to my next dislike. "PRINT". When a data base is in use and a PRINT ALL type command is issued everything works perfectly. This is not the case when you are trying to print specific data from certain fields while running from a command file. Either TI-Base gets confused, or I just haven't figured out the proper wording to tell the program what I want, but it spits out junk, then locks up the console and wipes out all the data files I have on disk. What the program needs is a SET PRINT ON/OFF to send everything that comes up on the monitor to the printer. This could also be a TO PRINT type command to be used in command files. Also, I feel it is a big help to have a hard copy of the status and structure, so that is another print function I think should be added. While the word copy is in use, at some time or another TI-Base needs a copy function that will export and import to and from ASCII D/V 80 files. This would allow you to copy the data from a name and address file in TI-Base to a file usable by TI-Writer, and vice-versa. The last gripe I have with TI-Base (for this issue) is that it loads too slow. I don't see any reason why the program couldn't be saved in Program Image, instead of Dis/Fix 80 to speed up the initial load.

Now The Good Points: The first thing I'd like to say here is that I think the creation of this program, and the introduction of dBase type theories to the TI environment, gives us a wonderful and powerful new tool. I feel this is the beginning of a new language for the TI. Those of you who have some knowledge of dBase know what I mean. For everyone else I will try to explain later. For now I'd like to start at the top. Remember that I have some knowledge of dBase and this is a review not a tutorial. After firing up TI-Base I was able to create several databases without any real problems. Merely typing CREATE DSK2.NAMES will start the process for you. You will then jump to a screen where you can enter Fieldnames, Field Type, Width, and Decimal Places. When you have entered the information you want, you press FB and the database is set up for you. You are then asked if you want to enter data into this database now. If you answer N for No, you will be returned to the dot prompt (which is a blank line from which commands are typed). At this point the database named NAMES has been created, and can be used by typing USE NAMES on the dot prompt line and pressing enter. When a database is in use it's name, size and the record number you are presently in will be displayed across the bottom of the screen. After you have performed this task a few times it will seem very easy. This alone is a good point, but here is the terrific part. You can have up to five data bases open at the same time. "I have tried three and it works fine." This means you can have a name and address database that can be connected to or used with as many other databases as you wish. When you add to this the ability to do a multitude of math functions (add, subtract, multiply, divide, exponentiation, and many more) you can find files which are related to your name and address file, make changes and updates, and store all or part of the results. Why am I so excited about these features. First, you never get everything into a database you want the first time around. If you did, it would be such a mess you couldn't work with it. This allows you to create new databases to hold your afterthoughts, and relate them to the original database as if they were part of the original idea. After you have created what you need, the use of IF statements and mathematical equations will allow you to extract data with more power than has been available before. TI-Base has in its arsenal of programming weapons (IF, ELSE, ENDIF), (WHILE, ENDDWHILE) and (DOCASE, BREAK). Couple this with arithmetic, character function (concatenation and trim), logical and boolean-logic, and the use of DATE, and like I said, you have the beginning of a new language. I am really not familiar with TI-Artist, but I would guess that when it first came out it had bugs and people probably complained that it didn't do this and it didn't do that. Today TI-Artist is known by all and used by a very large number of people. Well I predict that TI-Base will be much bigger and more well known. The ability for this program to export and import data to a delimited ASCII file will be developed, if not by Inscebot, then by someone else. This type of file can not only be used by TI-Writer or FunnelWeb, but can be transported to MS-Dos machines where they can be used with word processors like Wordstar and they are the same as files which can be imported and exported by the real dBase. If the company you work for uses dBase, and you haven't learned how to use it yet, you could pick up a copy of TI-Base andinker with it at home. Believe me this would not make you an experienced dBase user, but it would give you some idea what is going on and you wouldn't feel like such a dunce when someone is attempting to show you what they are doing at work. And! TI-Base is only \$24.95

Check this column again in August. Marty.

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EXECUTIVE NOTES - TI-CHIPS

Thirty-one people came to the North Royalton Library on a gorgeous June day for the Chips meeting. This was better than average attendance.

The members who had attended the Lima Users Group conference were full of praise for the whole event. It was well organized and drew between 200 and 300 people from a wide geographical area. It has occurred to many that a similar conference could be just as successful if held in the Cleveland area. Anyone with ideas for possible meeting sites should contact Glenn Bernasek.

John Parker was very enthusiastic about the response he has received to membership advertising. He encouraged everyone to continue distributing flyers in grocery stores and other places where people congregate. John also received notices about several systems which are for sale. Contact John if you are interested in any of these systems.

The Club's tutoring project got off to a good start last month. John and Frank Bady were on hand to help on the library's two computers. About ten persons stopped in between Noon and 1 p.m. There are some parts and repairs needed for the equipment, but they seem to be minor. After a long absence, it's good to see the equipment in daily use again in the children's area of the library.

Matt Andel demonstrated a light pen which comes with a disk of programs to use with it. The pen recognizes contrast between a white patch on the screen against a black or dark background. Plugged into the joystick port, it eliminates the need for keyboard input.

Les Kee explained two more Ex-Basic routines. He used "input" and "call key" in a program which converts letters to their corresponding ASCII codes. Thank you again, Les.

Another raffle was held this month. The prize was a choice of a BASIC tutor cassette or ten "loaded" disks. The winner was Ken Lewis, and he chose the disks. Congratulations!

Glenn will continue to send out postcard reminders about the monthly meetings. If you do not feel you need "reminding", contact Glenn about taking your name off his list. Thanks!

MARY PHILLIPS, SECRETARY

TI's, PC's and Mattress Tags
by Jim Nekeel
NorthCoast 99er's - Cleveland, Ohio

Conditions that attracted many of us to the 99/4A computer are now similar with the IBM PC clones. I'm talking low price, good software base, flexible operating system, et cetera. However, there are a few other things that must be considered. I will mention just two here.

Consider the manufacturer of the computer. Is the firm reputable? Will they be around in the years to come to be able to support your investment? Obviously IBM, Compaq, Radio Shack/Tandy (how did a leather company get into computers) will be around. But these are not the guys who offer the attractive prices. It's the overseas importers who are offering the cheap system prices. When was the last time you were able to use an 800 number to call Taiwan, Japan, or Korea? For that matter, when was the last time you called over-seas period? Texas Instruments is still supporting their product and you can still call them at

1-800-TI CARES.

Secondly, consider EMI (electro magnetic interference). Chances are good that the cheaper components or system you are buying will lack the FCC certification of reduced EMI. Importers are breaking the law by selling uncertified clones, and you, as the purchaser, are equally liable to penalties if you buy an uncertified product. Some would argue that purchasing uncertified equipment is a victimless crime akin to tearing off the mattress tag that reads "Do not remove under penalty of the law."

Decades ago, unscrupulous mattress manufacturers cut corners by filling their products with a variety of unsavory substances. Public health legislation resulted in the tag that assures you that you're not sleeping on unsterilized horse hair or worse.

Today's FCC regulations are intended to reduce or at least control the level of EMI background radiation that threatens to sink our electronic civilization in a swamp of electrical noise. A poorly shielded and filtered PC clone can obliterate lower-channel VHF TV and FM reception on nearby receivers, and worst-case effects of a few thousand noisy PC's on, say, aircraft instrument-landing system performance are unpredictable and unpleasant to contemplate.

By ignoring FCC certification requirements, scofflaw overseas manufacturers of PC clones and components prove that they are un reputable. By shipping the poorly designed and built clones, they can further reduce their already low manufacturing costs. With few exceptions, law abiding domestic manufacturers of PC clones and accessory boards cannot economically compete against these illegal imports, and American worker lose electronics manufacturing jobs.

Like EMI emitted from uncertified PC clones, the victims of these imports are out there. They're just invisible, that's all.

Aren't you glad that you bought from a reputable company and that the 99/4A has the FCC certification?

JOHN JOHNSON'S BOOT V4
AN OVERVIEW by Charles Good - Lima - April, 1988

A version of John Johnson's MENU program called BOOT has been written especially for the Genial Computerware Horizon Randisk eprom. BOOT is in the public domain, is now in version 4, and has been MUCH IMPROVED since I originally reviewed the Genial Horizon eprom in the November issue of BB&P. The comments about BOOT V4 which follow should be of general interest because you do not need either the Genial eprom or a Horizon Randisk to use BOOT. If necessary, BOOT will do its stuff using just a basic SSSD one-drive disk system. As a means of displaying a powerup menu of selectable goodies at the push of a button, BOOT is in some ways easier to use and configure than either FUNNELWEB or a GRAN KRACKER.

BOOT will display a menu that allows you to do the following, usually with just one keypress: 1- Show on the screen or print to a printer or disk file a directory of any disk in any drive or any Horizon Randisk set at any CRU address. Some prior versions of MENU or BOOT only worked with Horizons at CRU 1000.

2- View or print to your printer any D/V80 text file.

3- Run any program that lists as "PROGRAM" in a disk directory from any disk or randisk at any CRU address using any drive number from 1-9. If it is an Extended Basic, or TI-Basic program, you need to have the IB module plugged in.

If it is an EA85 program, BOOT does NOT need the EA module to run these. To RUN any PROGRAM you can either type in DSKx.FILENAME, or mark the PROGRAM on the disk directory and then automatically run it, or select one keypress PROGRAM loading and execution from a menu of up to 15 user configurable choices. Previous versions of BOOT only allowed 6 user configurable menu choices and would only run PROGRAMS from Horizons set at CRU 1000.

4- Run the installed cartridge.

5- Run the CorComp disk manager.

6- Cycle through 48 foreground/background color combinations.

7- Switch from GROM to a ROM cartridge if you have a SUPERCART or GRAN KRACKER.

8- Go to TI BASIC by pressing "B" without the need to reset the computer and go through the title screen and power up menu.

9- Display the time if you have any of the currently known real-time clocks (such as the CorComp clocks). This display occurs automatically as soon as BOOT is booted.

Configuring the user-selectable options of BOOT used to be cumbersome, requiring either a sector editor, or reassembly of the source code. Configuration of BOOT V4 is VERY EASY. All you do is press BEGIN (PCTN 5), and you get a display of each menu item, as it would be displayed on the screen, and the PROGRAM file name that is booted by this configurable menu item. Just type over what is all ready there (up to 15 characters for the menu display) and press enter. The cursor is now on the disk file name that is booted by the first configurable menu item, so just type over that (DSKx.FILENAME) and press enter. The cursor is now on the screen display of the second configurable menu item which you can configure in the same way, etc. When finished typing in screen displays and file names, press BACK and then any other key, and your configuration is automatically saved back to BOOT in whichever drive or randisk BOOT came from. What could be simpler! This procedure is much easier than configuring the user lists of FUNNELWEB. You can, of course, RUN either the LOAD or UTIL1 portion of FUNNELWEB from BOOT.

BOOT allows for boot disk tracking. It knows the drive name and number from which it was loaded. If you specify a wildcard (*) in a configuration file name as DSK0.FILENAME, BOOT will go back to the drive that contains BOOT to load the file. Configured filenames can be up to 30 characters, and BOOT will support hard disks with filenames such as WDS1.DIR1.DIR2.DIR3.FILENAME.

BOOT is an assembly program file that can be loaded from the E/A module option 5 or from extended basic using the accompanying IB loader program. If you have a Horizon Randisk with the Genial Computerware eprom, you can type CALL BOOT from either basic, or configure the randisk to automatically load BOOT as soon as you turn on the computer.

The major advantages of BOOT v4 over previous versions are super easy configuration and the ability to boot software from literally any drive or any Horizon Randisk irrespective of randisk CRU setting. Boot is also said to be compatible with the Grand Rom randisk. The major limitation of BOOT is that it will only run PROGRAM files. You can't load long Extended Basic programs that list in a directory as I/V254 and you can't load D/P80 assembly code.

If you want instant menu access to a list of programs, combined with some disk manager functions, then BOOT deserves serious consideration. It is especially useful with Horizon RANDISKS. If you have only floppy drives you

might consider putting a copy of BOOT on each of your commonly used floppies. User groups (not individuals) can obtain BOOT V4 and its extended basic loader from the Lima User Group. Send a disk and postage paid return mailer to P.O. Box 647, Venedocia, OH 45894.

PLUS!

Comments by Deanna Sheridan - NorthCoast 99ers - Cleveland

I have had a disk simply called "PLUS!" for a couple of months now. Jack Sughrae, the author, sent it back in April when I was still buried under 1040 tax forms. Then came getting the library back in shape, etc. In the meantime several other newsletters and MICROpendium have had reviews. Sometimes you are not sure they are all talking about the same piece of software. This is because there are so many features to PLUS! that each reviewer picks out his/her favorites and concentrates on those features. This is because there are almost 60 files on the disk from which to choose.

There are four files of documentation. These not only tell you about the programs on the disk, but are also tutorials on how to use the transliterate command and graphics within TI-Writer/Funnelweb. Since that could be intimidating to a lot of users, we are publishing a tutorial by Mark Armstrong of the Bluegrass Computer Society on transliterates. Then we will followup with a review of that part of PLUS!

This month I will concentrate on the non-wordprocessing programs on this disk. Taken alphabetically: 3/COL is a program that will print a catalog of your disk in three columns the size of a disk jacket. This can easily be taped on the jacket for instant reference. There is a space to include the current date, and you can customize it with your own name. I had difficulty with the line spacing on my new NX1000 and had to get out my printer manual to make a minor adjustment. The NX1000 acts more like an EPSON than a Gemini10X (Jack's printer).

BANNER: Prints banners in four sizes and even though it uses the ASCII code of the letter as in a lot of banners, you can change the shape of your text. A second option is included and a utility for creating your own style alphabet which makes it very versatile.

GOTHIC: You can print messages or letterhead in a very attractive GOTHIC alphabet. There is a similar alphabet somewhere in the library, but I don't believe it supports numbers.

CAT: Displays a graphic disk catalog on screen.

DESKCAL: Create a monthly calendar with space for notations for appointments, special events, etc. Not fancy, just practical.

IG1PAY: A "just for fun" program that turns your text into Pig Latin.

INSTADUMP: A simple screen dump which can be added to programs.

INSTALABLE: Type the name and address and tell how many copies you would like.

INSTAMAIL: A "quick and dirty" mailing list program.

INSTAPRINT: You can print D/V80 files without loading TI-Writer.

MAX-RLE: I think this was included because Jack likes graphics. It is the same as we all ready have in the library. He also included a nice RLE of Mickey Mouse.

MULTCOLUMN: This is Jack's version of the two-or more

column program I use all the time for the newsletter. There is a .TL file which automatically sets margin, page length, and everything that is necessary to use the MULTICOLUMN program.

PLUSVIEW! An on-screen overview of the PLUS! disk. You could take this file and customize it to almost any type of presentation and a nice accompaniment for a seminar, speech, etc. This utilizes some of the CALL SUBPROGRAMS from Jim Peterson's Nuts & Bolts disks.

SETUP! A program to initialize condensed, italics, doublestrike, whatever for your Gemini or Epson compatible printer from a menu.

SMALLIFY/1 & 2: Two programs which will remove REMS and other extraneous items from a program, combine them into less lines, etc. to make a smaller and faster-running program.

YEARLY/CAL: Print a yearly calendar. **TEENYPRO** and **TINYTEENY:** Two programs to print in superscript on narrow paper. One will print on an adding machine roll. Make notes to yourself or do little pocket-size booklets.

We haven't even started to touch on the word processing helps on this disk. Read Mark Armstrong's tutorial on transliterates and we will present the second half, and I think the best, of this disk next month. Jack is asking \$10 for this versatile program. It is in the Cleveland libraries or can be ordered directly from Jack Sughrue, Box 459, East Douglas MA 01516.

USING TI-WRITER INCLUDE FILE AND TRANSLITERATE COMMANDS

Part One of Two Parts

By Mark Armstrong

BLUE GRASS 99 COMPUTER SOCIETY - JUNE, 1988

PLUS! is a fairware disk by Jack Sughrue of the N.U.N.C.H group. The purpose of this discussion is to review the Include File (.IF) and Transliteration (.TL) commands and the Special Character Mode of TI-Writer. TI-Writer, hereinafter referred to as TIW, is used generically and includes the original TI-Writer and its progeny, BA Writer, TK Writer, and PW Writer.

I. INCLUDE FILE COMMAND

After text is created in the Text Editor, it can be printed through the .PF function of the Text Editor or through the Formatter. Certain TIW commands are effective only when the document is printed through the Formatter; e.g., margin commands such as .LM and .RM. These formatter commands include the Include File (.IF) command. The TIW manual presents the .IF command as being primarily for the purpose of enabling the user to print documents which exceed the size of the print buffer. The procedure for using the .IF command is to create a calling file which will call text files to be printed through the formatter. Program control is passed from the calling file to the text file. Control returns to the calling file after the text file has been printed.

For example, each chapter of a book could be a separate text file the size of each in excess of the print buffer. To print all the chapters, it is only necessary to create a calling file:

```
.IF DSKn.CHAPTER1
.IF DSKn.CHAPTER2
```

```
.IF DSKn.CHAPTER3
.IF DSKn.....
.IF DSKn.CHAPTERN
```

Even though several files are to be printed, the Formatter treats the calling file and the text files as one file. Formatter commands can be included in the calling file or in each text file. If the formatter commands are placed in the calling file, these commands will control the printing of the text files:

```
.LM 10;RM 70;PI;AD;IN +10
.IF DSKn.CHAPTER1,
.IF DSKn.CHAPTER2
etc.
```

The margin, fill, adjust and indent commands contained in the calling file control the printing of the text files unless the called text file contains other formatter commands. When the called text file contains formatter commands, printer control passes from the calling file to the text file, and the printer executes in accord with the formatter commands contained in the called text file being printed. After the text file is printed, printer control automatically returns to the calling file.

For purposes of this discussion, it is important only to note (1) that, as in the TIW manual points out, the Formatter treats the calling file and the text files as one document and (2) that printer control returns to the calling file after the text file has been printed. Although not mentioned above, it is also of equal importance to note (3) that the calling file can contain text to be printed in addition to the .IF commands. PLUS! makes use of these three (3) facts to pass printing control to a text file which contains only printer control codes and no text. These printer control codes can be created in advance and are then available as the need arises.

The initial concept of PLUS! is to create a callable text file of printer control codes, which will be called by a calling file, which will contain text. Thus, the printing of the text in the calling file can be easily and exactly controlled through the printer codes in the called text file. This arrangement turns the .IF command on its head, i.e., the calling file becomes the text file and the text file becomes a printer control file. As we shall later see, the implementation of this, the arrangement works quite well because the formatter treats both the calling file and the text file as a single document and printer control returns to the calling file after the called text file is read by the Formatter.

II. TRANSLITERATE COMMAND

The second TIW command used by PLUS! is the Transliteration (.TL) command. One method of addressing printers is through decimal numeric codes. For example, in Basic, the program line, PRINT #N:CHR\$(27)&CHR\$(15), will cause an Epson printer to print text in a Compressed Mode, ie., 17.16 characters per inch. These printer codes are often referred to as Escape codes because the code is usually preceded by Chr\$(27), called an Escape code, which is nothing more than a signal to the printer that a printer command is being sent. Some Escape codes do not require CHR\$(27) to be sent. For example, on an Epson printer, sending CHR\$(15) alone, ie., PRINT #N:CHR\$(15), Will

activate the Compressed print mode. In this case, however, sending an Escape code, even when not required is not only acceptable, but many informed programmers feel is preferable, coding. The matter is left to the user's discretion; however, including an Escape code is quite helpful in decoding .TL commands.

An Escape code cannot be sent in a normal text line in TIW. Rather, printer commands are sent to the printer using the .TL function of the TIW. Every print character has been assigned an ASCII code. For example, the ASCII code for uppercase A is decimal 65. The effect of this assignment is to cause the printer to print an uppercase A when it receives ASCII code 65. The assignment of ASCII codes to characters is purely arbitrary. There is no inherent reason why ASCII code 65 was assigned to uppercase A. The function of the .TL command is to re-assign the ASCII code. For example, ASCII code 65 could be reassigned from uppercase A to CHR\$(27)&CHR\$(15). After this reassignment occurs, when the Formatter comes across an uppercase A in the text file, the Formatter sends the Escape code to the printer rather than an uppercase A. Note that the reassignment occurs in the Formatter and not in the Text Editor. Thus, in the Text Editor, an uppercase A can still be entered. When the text file is being printed through the Formatter, the reassignment is made and ASCII code 65 is reassigned from an uppercase A to CHR\$(27)&CHR\$(15).

The reassignment of the ASCII code is done through the CHR\$(27)&CHR\$(15), the following text line is created:

```
.TL 65:27.15
```

Of course, ASCII code 65 would not be transliterated into a print command because this would cause the Formatter to send a print command rather than an uppercase A. This would, for example, make an article on American Ardvarks difficult to read. For this reason, little used characters are usually transliterated, eg., the tilde, ASCII code 126.

If the first concept of PLUS! is to use the .IP command to transfer print control to a text file, the second concept is to transliterate ASCII codes in a callable text file. Thus, when the calling file is printed through the Formatter, a printer code will be sent to the printer according to the transliteration which is made in the called text file. PLUS! requires the first line of the calling file to contain the .IP command. The Formatter then first reads the called text file containing the transliterations. After the called text file is read by the Formatter, printer control is returned to the calling file. Then when the formatter reads the ASCII code in the calling file which was transliterated in the called text file, the corresponding print control code is sent to the printer. The Formatter does not print the transliterations in the called text file because the .TL commands are formatter commands which are not printed. The use of multiple print commands is not prohibited by the transliteration command. Thus, by including all the necessary ASCII codes in the .TL command, underline can be combined with compressed print.

III. SPECIAL CHARACTER MODE

As noted above, only little-used characters are usually transliterated. Using the Special Character Mode of the TIW gives 32 ASCII codes which can be transliterated without sacrificing any characters.

The Special Character Mode permits access to ASCII

codes 0 through 31. The characters assigned to these ASCII codes are non-printable characters and which would not otherwise be available for transliteration. For example, ASCII code 28 is a File Separator. Unlike the uppercase A, there is no File Separator character which can be entered in the Text Editor that when read by the Formatter could be transliterated into a printer code. Access to these non-printable characters can be made because characters typed in the Special Character Mode have decimal 64 subtracted from the ASCII code for codes in the range of 32 through 127. Thus, 64 is subtracted from uppercase A, ASCII code 65, to yield ASCII code 1 in the Special Character Mode. The Special Character Mode is accessed by pressing Control U. Entry into the Special Character Mode is confirmed by the transformation of the cursor from a blinking block to a blinking underline. After the Special Character Mode is accessed, any character with an ASCII code in the range of 32 through 127 can be pressed. Characters in this range are the full set characters found on a QWERTY keyboard; eg., upper and lowercase letters, numbers and symbols. The Special Character Mode is deselected by pressing Control U again.

There have been several articles discussing the use of the Special Character Mode to send print control codes. Recall that the printer command for condensed printing is CHR\$(15). This command can be sent to the printer using the Special Character Mode by pressing Control U, followed by Shift 0 and Control U again to deselect the Special Character Mode. 64 is subtracted from the ASCII code value of the character entered. Thus, when uppercase O, Shift 0 (ASCII code 79), was entered the ASCII code sent to the printer was 15 (79 less 64). Sending ASCII code 15 is the same as printing CHR\$(15) in a BASIC program. Indeed, sending CHR\$(15) is the way ASCII code 15 is sent by BASIC.

The Special Character Mode can also send an Escape Code. In the case of compressed print, the sequence of keystrokes would be Control U, Function R (left bracket), Shift 0, Control U. The ASCII value of the left bracket is 91 which is less 64 equals 27. As stated above, the ASCII code 79 of uppercase O less 64 is 15. Thus, ASCII codes 27 and 15 are sent to the printer. Even when the Escape code contains an ASCII value greater than 31, it can be sent in the Special Character Mode. For example, the Escape code for Expanded print is CHR\$(27)&CHR\$(71) or ASCII codes 27 & 71. ASCII code 71 is the ASCII code for uppercase G. To send a double strike code using the Special Character Mode, press Control U, Function R, Control U, Shift 6. The first Control U accesses the Special Character Mode, Function R returns the left bracket character, ASCII code 91, the second Control U deselects the Special Character Mode, and the ASCII code for uppercase G is 71. When the Formatter reads this line, it receives and sends ASCII code 27 to the printer. This code signals the printer that the next ASCII code received is ASCII 71, uppercase G, and thus, the print command for double strike is received by the printer. The use of multiple print commands is not prohibited by using the Special Character Mode. By appropriate keystrokes, double strike can be combined with condensed.

PLUS! advances the use of the Special Character Mode by combining it with the Include File and Transliteration commands. The fourth and final concept behind PLUS! is to transliterate ASCII codes 0 through 31 into print control codes. The transliterations are placed in a text file which is called through the Include File command. Print control

is returned to the calling file. When the Formatter reads a transliterated character, it sends the printer control code as defined in the previously called text file. The transliterated print codes are accessed in the calling file through the Special Character Mode. The primary advantage of PLUS! is to send multiple print commands to the printer with a minimum of keystrokes. In addition, because the transliterations and print commands are on a text file, they need only be created once. They may also be created in advance with as much complexity as desired. Accordingly, complex and customized document formats can be created. These document formats can be accessed with a minimum of keystrokes.

DETAILED DISK REVIEW OF THE MONTH-
ZODIAC WHEEL OF FORTUNE
by John Balakowski

The ZODIAC Wheel of Fortune, together with several other related programs, are the topics for review in this month's newsletter. All of the programs, written in Extended Basic, are in the club's library under a diskette with the heading ZODIAC.

What does every man, woman, and child in the world have that can be utilized in a TI-99/4A program? Using the ZODIAC Wheel of Fortune program, the answer is simple: their birthday can produce colorful graphics and yield some interesting data. This program, premiered at the April 1987 TI Faire in Boston, is a fine example of what can be accomplished when a user's group works towards a common goal.

The program auto-loads when one selects the extended basic option from the main menu. Once loaded, the user is greeted with a colorful moving wheel of twelve sprites, each representing one of the signs of the Zodiac. Holding down the enter key prompts the user to enter his/her birth month, day, and year (optional). The program then analyzes the data it's been provided, first giving you the zodiac sign that you were born under and then selecting what the symbol is from the sprites moving along in a column on the right hand side of the screen. Assuming that the birth year was provided, the TI then determines what sign the transit of Jupiter was in when you were born. Astrologically, this is important, for when that sign next occurs in conjunction with your Zodiac sign, you will experience a lucky cycle in your life. The program will display when the next period will be; don't be discouraged, some of these periods are quite a few years in the future. (By the way, if the sign you were born under and the transit of Jupiter are identical (a rare occurrence), you are a lucky person all of the time; of all the people that tried the program at the Faire, only one had the exact match).

The program is not over yet. It now searches a huge (208 sectors) file (called DATES) for a significant event of fortune that occurred (or will occur) on the day and date (not year) of your entered birthdate. While searching, another set of sprites are displayed depicting a disk, the P.E. Box and the word DATA flowing from the disk to the P.E. Box. A five line data statement informs you of the events which occurred on your birthdate. The final prompt of the program asks if you want a printout of the data you have been presented with. There are no imbedded printer codes within

the program, so there is no reason why it shouldn't print with any TI compatible printer. After either choosing or not choosing a printout, the program automatically returns to the title screen awaiting another "go-around".

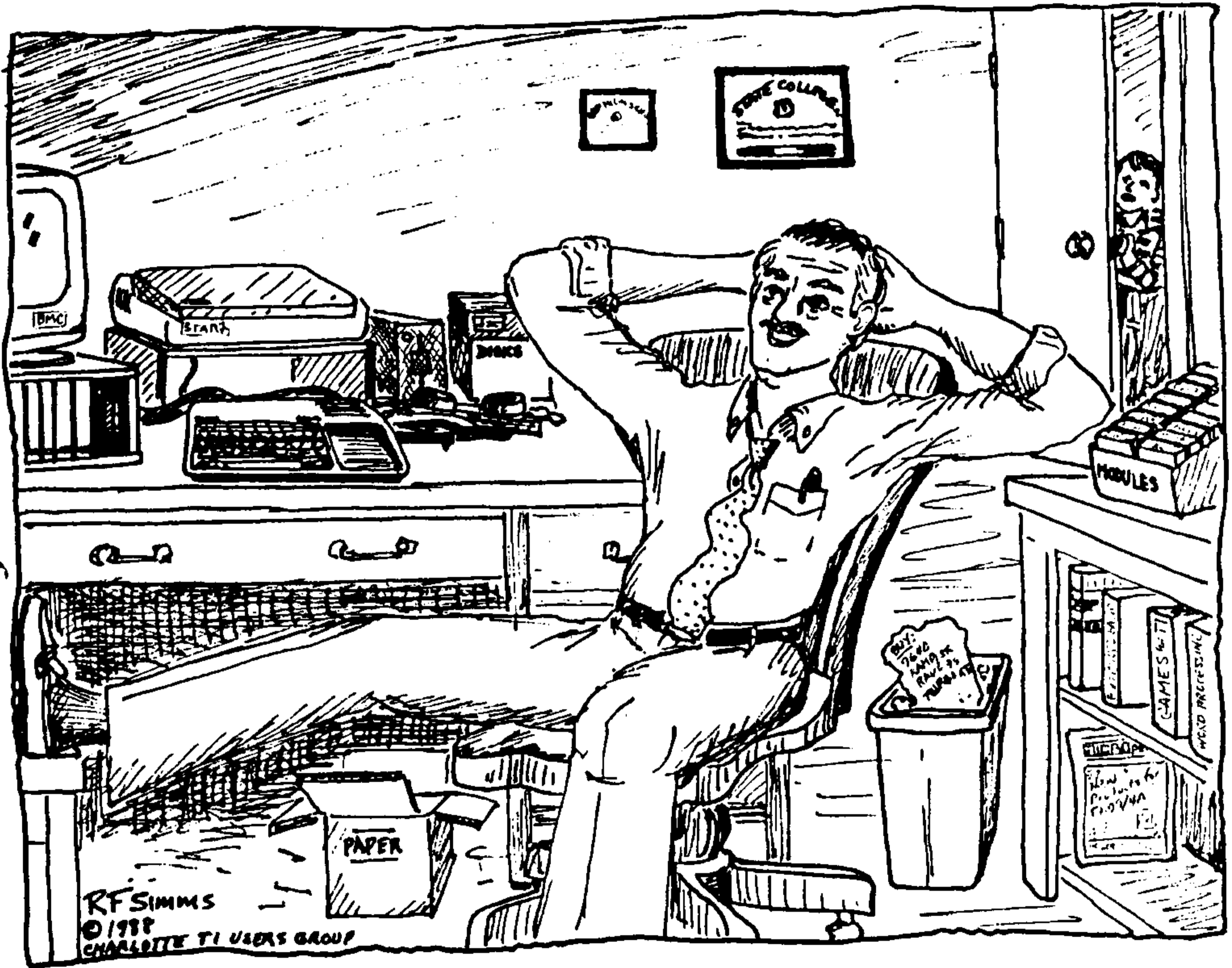
The key to making the ZODIAC program work is the data base. Credit for the creation of this base must be given to the members of the NUTMEG TI 99er's User's Group. Each volunteered to research or create data statements for a particular month. Once the data was gathered it had to be inputted into a data base which could be accessed by the ZODIAC program. It was decided to use TI-Writer as the most convenient mechanism for creating the data base. In order to do so, and prevent words from being fragmented when displayed on a 28 column screen, it was determined that the right tab setting in TI-Writer be set at 27 (zero being the first column) before the entering of data. As a practical matter, it was also decided that no more than five lines of data per date could be legibly displayed on the screen. Therefore, each day within a given month occupied five lines on TI-Writer (eg. the fifth of January data started on line 21 and ended at the end of line 25). For consistency, all months were assigned 31 days of line items, even if they didn't need them. The twelve data files (all were named with a three letter name, ie. JAN, FEB, MAR etc.) were copied onto a single disk. Aaron West, a user's group member, created a program called CONVMONTHS that takes each of the 12 D/V 80 files constructed by TI Writer and merged them into a single D/V 28 file called DATES. This format lets the ZODIAC program call up five lines of data at a time, each containing data relative to the person's birthdate. This program is included on the ZODIAC disk for the use by others that may want to create a data base of their own. The ZODIAC program now worked as advertised and accessed and displayed on the screen the correct data - but only the capital letters were displayed! It turned out that because of the large number of sprites utilized the lower case letters were redefined as sprites and not displayable. Again Aaron came to the rescue with his program CONVERT which took the DATES file and converted it to upper case letters throughout. This program is also included on the ZODIAC disk.

If you notice the ZODIAC program when it is prompting you for your birth month, date and year, you will see that the cursor changes it's configuration: once to the letters CT and a second time to a map of the state of Connecticut. Creating the cursors and instructions for how to imbed them in any IB program is stored on the ZODIAC disk as CURS.

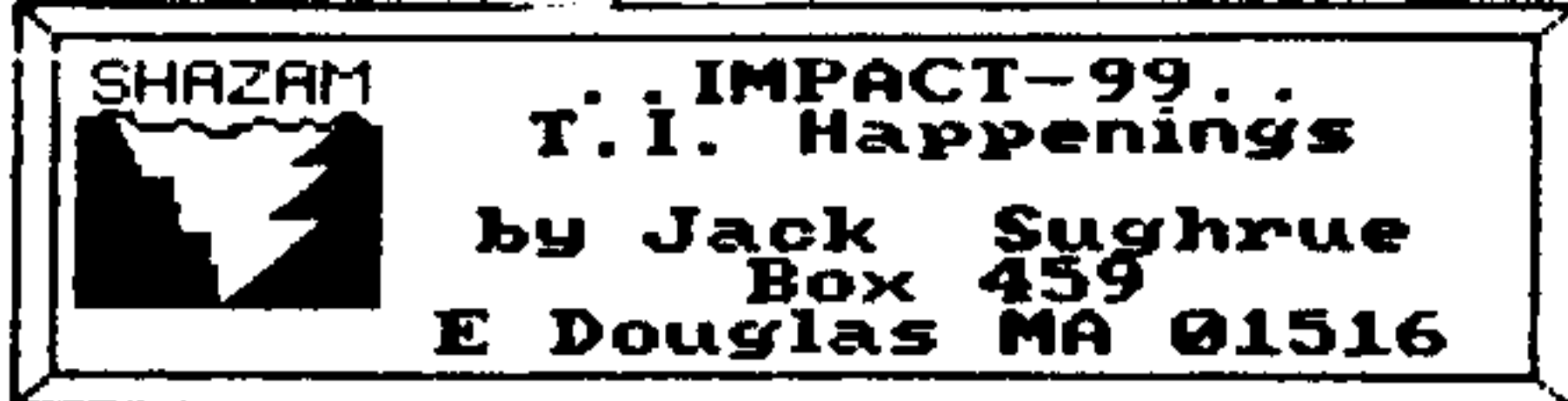
Finally, we have received inquiries as to how data lines within the data base DATES may be changed to suit different individuals. I can see where, with the proper set up, some interesting data may be of great surprise to an unsuspecting user. A short program called CHANGEIT has been developed to do so and is on the disk. Please remember to NOT have the write protect tab on the disk when you use it. As can be seen from the above, quite a bit of work went into the creation of all the programs on the ZODIAC disk. In addition to some frustrating times, it was also fun to develop. This program is distributed as Fairware in an effort to raise funds for the group. If you are interested, please send \$6.00 to the NUTMEG TI-99er's, C/O Janet Ryan, 10 Jolly Road, Ellington CT 06029. I know that you will be satisfied with it.

THE TYPICAL TI USER

Ali Ulgen, a member of the NorthCoast 99ers in Ohio, did a survey last year of TI owners, which 753 forms were returned, from 73 groups. The results are out, and they simply give a picture of what TI owners are like. We thought it would be interesting to show what the "typical" TI user is like, according to the survey results. Mind you, this is not a scientific illustration.



He is a he, over 45 years old, with a high school and a college degree. He is a self-employed, or professional man, who uses a computer to some extent at his work. He owns two TIs, one of which probably IS at work. But only one of his systems is fully expanded. And that one has the standard TI equipment, 32K, TI controller, and still has one SSSD drive in it, with a second drive external. He owns no hard disk, RAM disk, 9640, Turbo XT, Rave 99 keyboard, mouse or any body else's peripheral card, and probably doesn't plan to buy any of them. His printer is a Star, most likely a Gemini. He did graduate to a monitor some time ago, and picked up one of the less expensive BMC's—but only for one of his computers. The other still has a TV hooked up to it. On his shelves are quite a few disks, and more than twenty-five modules. Some of those modules are games, for he still likes to shoot spaceships and capture treasures. Outside of that, he uses his TI for word processing, doing letters and other small tasks with it. More and more, he is trying to find ways to organize his life with that "perfect" database, which he hasn't really found yet. He programs some, mostly in Extended BASIC, but has never had the nerve to put it on the fairware market. His kids are waiting to use the computer for some of the educational and game cartridges he bought back when he justified the computer by saying it would help the children in school. Once in a while he gets on the telephone, spends an hour or so with a friend and transfers a program over his slow modem. More and more of his friends are online with a national electronic service, so he is thinking about it himself. Tonight, he will go to his user group meeting, which he wouldn't think of leaving—it's his lifeline to continuing enjoyment of his TI.



A "LITTLE" FAIR

I had an interesting TI experience a couple weeks ago. In a way it was unexpected, though I certainly don't know why.

The event was the Free TI Fair in Lima, Ohio. It was sponsored, organized, and run by a dozen or so men who comprise the Lima User's Group.

The EVENT was the best TI faire I have ever attended, and it succeeded beyond everyone's wildest dreams. (There were between 350 and 400 who attended, about the same number who attended the N.E.Fayuh this year.) But it was not the numbers, alone, that made Lima such a success. Nor the fact that the participants came from all around the U.S. (Chatting with me at my table were people from Louisiana, Kentucky, West Virginia, Massachusetts, Pennsylvania, Canada, Indiana, Illinois, New York, Michigan, and many others I can't recall.) And Lima was an event that did not get the usual hoopla and hype that often attends the big fairs in Chicago, Boston, Dallas, L.A., Las Vegas, etc.)

What really made this a great success was the fellowship. Everybody was there for a good time. There were no luminaries (in the sense that superstars were created for the occasion), though there certainly were a lot of talented and interesting people demonstrating and sharing. I guess "sharing" was the secret word. Though I listened to a lot of people that day, I did not hear a single complaint. No one talked negatively about anyone else. There was no deviousness; there were no ripoffs. Instead, there were positive vibes rippling throughout the halls of ivy the entire day. Lima gave to all who attended a real TI charge.

The place - Ohio State University, Lima Campus - had to be physically the most ideal place for such goings-on. The huge, clean, artistically beautiful hall provided more than ample room for all the user groups and vendors. It was light and airy and devoid of the squeezing crunch so common to these fairs. The classroom/auditorium had a podium, comfortable seats, a large, easy-to-see monitor, and excellent lighting. The food service, the clean tables to eat at (far from the madding throngs), the additional service machines, all added to the enjoyment.

And the day! It was a perfect, blue-sky, warm Ohio spring day. Attendees drifted in and out the the main building to stroll around the beautiful campus or sit on the numerous benches in sun or shade and delight in just being there.

It was grand! It was recuperative therapy just participating in all that had been provided.

What had been provided?

Everything!

The small Lima group had provided all the tables any group (or individual) needed with ample outlets. They provided signs already up and in place at every single table. And complete systems in many cases, for at-table demos (which went on all day, too). These hosts seemed to be everywhere, on call, to provide the myriad tasks required of well-organized events.

There were excellent demos every half hour: things like Irwin Hott's remarkable setup of Tling for the blind. Jim Peterson's normally wonderful demo (this time his latest NUTS 'n BOLTS), Bud Mills's Horizon Ram, and so on. These events were announced through a system everyone could hear clearly, so there couldn't be a chance of missing anything. Plus, there were ample signs and posters everywhere of all the upcoming events.

For many who were so busy they couldn't fit all the demos in, the Lima Group again provided: FREE videos of the entire five hours of demonstrations and talks!

Not surprising. Everything else was also free. There was no admission charge, so people could come and go freely. There were no charges for tables for user groups, individuals, or commercial outfits. And these people could have as many tables as they wished. No charge, either, for the many signs. There wasn't a charge, either, for the raffles of soft and hardware drawn every half hour. The Lima entourage didn't even charge people for getting ANYTHING they wanted from the vast Lima library (probably one of the biggest in the country).

Two "World Premier" were made at the fair: the very latest 4.1 of FUNNELWEB sent directly by Tony McGovern and the newest DISK UTILITIES of John Birdwell. Charles Good, who acted as host of the affair, demonstrated both. Both disks will be released to the public soon.

Ohio seems to have more active Tiers per capita than any other state in the Union. For me to have an opportunity to go there and meet all these people with whom I had corresponded (some for years) was a thrill I did not want to miss: Charlie Good, editor of the marvelously unique (and decidedly eccentric) BITS, BYTES & PIXELS; Jean Hall, editor of the classy SPIRIT OF 99; Deanna Sheridan, editor of the fresh and informative CLEVELAND AREA TI99-4A USER GROUPS NEWSLETTER; Irwin Hott of CONNI (and his seeing-eye friend, Tonka); and, of course, Gentleman Jim Peterson, "Mr. T.I." There were many, many others I got to see again (people like the legendary Mickey Schmitt, who will probably become to TI Adventurers what Larry Bird has become to basketball).

"How did all this TI excitement take place in the middle of nowhere?" as one of my friends who has never been to Ohio asked when I described the event.

Some background was definitely needed to explain this happening in this particular place.

Lima is a city of 48,000. When you drive straight

from the center in any direction for 15 minutes you are in flat farm country, a scattered house every few miles. It is a hundred miles to the nearest airport (Dayton) and many hundreds of miles from a lot of Ohio's biggest cities. (Ohio has Akron, Toledo, Cincinnati, Cleveland, Columbus and lots of other cities larger than Lima.)

The Lima Group formed in 1984 and, after almost four years, has 15 local members and five corresponding members. There are only family memberships with full privileges (home or away) at \$15. This entitles each member to a newsletter that contains ONLY new material. Disks of the latest PD and Fairware software are often mailed with the monthly issues. Several new disks of material are usually added to the library at each monthly meeting. They still have an active tape library over over 450 very full tapes for those members without drives. The Lima disk/tape catalog is descriptive, rather than just number and/or title, so you can get what you want without guessing.

Dr. Charles Good (paleobotanist and Associate Professor at the Lima Campus) is the spearhead of this very close, hard-working organization. He keeps in direct touch with active Tiers around the world. He, along with President Dave Azippl, organized the Lima Confab (which they call "The Multi-User Group Conference" but everyone else calls the "Lima TI Fair.")

This model user group is unusual in more ways than just bringing the mountain to Mohamed, so to speak. First and foremost, even after spending a weekend with them, I saw no signs of in-fighting, no struggle for power, no pretension. Everyone takes turn being president or another office. The libraries of disks and tapes and newsletters are kept at members' houses. Only a call is needed to pick up the whole shebang. So everyone gets to read all the newsletters (BB&P has a growing exchange.) or dub the tapes or copy the disks. Calls let members know what's new and available. Dropping off and picking up stuff at each other's homes just adds to the overall comradeship of this tight-knit group.

When I asked Charlie why Lima, as host of this event, didn't use it to make lots of money for the group, here is what he said:

"People and groups keep sending stuff to us. I really believe that this free exchange of software and other information is the way to keep our user groups alive and healthy.

"This same philosophy of minimal cost is why we

didn't charge for our conference. At many TI Faires across the country it seems to me that the organizers feel they are doing the attendees and exhibitors a favor by setting up the show. We feel that those who attend our show are doing US a favor by sharing with us their expertise and bringing to us in Lima their software and hardware to sell. So we will try to make it as convenient as possible for those who attend."

What an attitude!

TI PRIDE!

If what I saw of the people in Ohio is any test, the TI world is in good hands for a long time to come.

The really good news is that a second annual event is scheduled for next year. For those who can make it, I'd recommend going. If you can't make it, do the next best thing: join this great group by mail. It's one of the best TI investments you and the exchange librarian of your user group could make. (\$15 a year for the monthly issues and disks and lots more: Charles W. Good, Box 647, Venedocia, OH, 45894. And tell him IMPACT sent you.)

HELPFUL HINT OF THE MONTH

This is from the new ASGARD NEWS magazine (Asgard Software, P.O.Box 10306, Rockville, MD 20850 - quarterly - \$6 per year):

"Print Help For Gemini Users

"Do you have a Star printer?. To be more to the point - do you get ugly white horizontal lines on your screen dumps of GRAPHX or TI-Artist?"

Type in the following program, save it, and run it with your printer on before using your artist programs.

```
10 INPUT "TURN ON PRINTER AN
D PRESS ENTER..":A$
20 OPEN #1:"PIO",OUTPUT
30 PRINT #1:CHR$(27);"A";CHR
$(6)
40 CLOSE #1.
```

Problem solved. I load it before using MAX-RLE and dumping stuff for our newsletter. Just great!

FOR SALE

NUMBER MAGIC CARTRIDGE \$3.00
MINIWRITER II WORDPROCESSOR CARTRIDGE 15.00
CONSOLE WRITER WORDPROCESSOR CARTRIDGE 15.00
TEACH YOURSELF BASIC TAPES (2) 3.00
PARALLAX PRINTER INTERFACE WITH PRINTER CABLE 50.00
(WORKS WITH OR WITHOUT EXPANSION SYSTEM)

TI-CALC SPREADSHEET BOOK AND PROGRAM TAPE 10.00
TI PROGRAM RECORDER AND INSTRUCTION BOOK 18.00
HOME COMPUTER PROGRAM TAPES (2) 3.00
TYPWRITER WORD PROCESSING TAPE 7.00
CAR WARS CARTRIDGE 3.00

CALL JIM MEKEEL AT (216) 286-3179

CLOCK/CALENDAR/ANALOG-TO-DIGITAL CIRCUIT FOR THE PROTOTYPE BOARD

The circuit shown is that of the PUBLIC DOMAIN circuit which was designed by Gary Emmich of the Northern New Jersey Users Group. The circuit was provided as a kit by a MBP and has become known as the "MBP CARD". The circuit shown here was redrawn directly from the original included with this package. I do not assure you that it will function as you intend. You may use either the drawing and the instructions I've included or those which Gary Emmich constructed. There is a lot of software to support the circuit as well as some hardware to interface to the A/D port.

READ about the PROTOBOARD FIRST!
Install the (3) 74LS244 and (1) 74LS245 chip in the area at the bottom of the PROTO BOARD for complete interfacing to the PEB System Bus. Use sockets for ALL chip. Reference page 1 in the PROTO BOARD manual, specifically the right center of FIG. 1-1. The chip shown was a 74LS125, however before you install a 16-pin socket cut the small trace between pins 7 and 8. U10 (74LS368) will go here, and requires a 16-pin bed. Install the socket now. To adhere to Gary's schematic, you will have to make one more change to your PROTO BOARD, and that is to cut a trace which goes to pin-1 of the 74LS245 chip on the component side (from pin-15 of a 74LS244 to it's left). ALL terms that end in a "B" are Buffered and do not go to the edge connector of the PROTO BOARD. The term will either be in the ADDRESS DATA BUS line (shown in FIG. 4-2 of PROTO BOARD manual) or one of the two clusters of terms as seen in FIG. 3-1 or 4-1 in the same manual. No connections to the card edge connector will be necessary! Let's

keep it neat.

Install U5,6,7,8,9,11, and 12 sockets in locations most desirable for your application in the prototyping area (columns M thru V). Wire the +5 and ground to all chips first, and then put the address and data lines on next, finished off by the control and clock lines.

Build the +5 supply in the area shown in PROTO BOARD manual FIG. 5-1 and the 5 v. CLK "CKV" will have to be constructed in the prototyping area being sure to use +8 v. unreg. from pin 1 or 2 of the EDGE conn. (use the lead thru hole provided).

After the board is assembled, you should remove all boards from the PEB and do a "SMOKE TEST". If all is in order, then test the board with the minimum configuration needed, (a disk cont. and memory).

PARTS LIST *

2	U5,U6	-	74LS138	Decoder/Demux
1	U7	----	74LS93	4-Bit Bin. Ctr.
1	U10	---	74LS368	Hex Tri-St.Buf.
1	U11	---	74LS08	Quad 2-Inpt AND
1	U12	---	7555	CMOS 555 Timer
1	U8	----	ADC0809	8-Ch. A/D
1	U9	----	MM58167	Clock chip
1	XTAL	--	Crystal	32K Hz
2	Q1,Q2	-	Regulator	+5 Volt
1	BAT.	--	Lithium	+3 Volt
1	LED	--	LED, Red	
3	D1,2,3		Diodes	1N914
12	Cx-Cy		Capacitor	.1 Mfd **
1	C5	----	Capacitor	10 Mfd 35 V.
1	CT	----	Capacitor	22 Mfd
1	C3	----	Capacitor	4.7 Mfd 35 V.

* This list is for the CLOCK/CAL.& A/D circuit only. You will have to insert (3) 74LS244s and a 74LS245 into the PROTO BOARD first. See p.1 Fig. 1-1 in PROTO BOARD manual.

** This number will vary and will include C1,C2,C4, and one on each of the IC Vcc pins to ground.

Please familiarize yourself very thoroughly with the circuit, the PROTO BOARD docs and the board. You may be suprised what you can do!

Good luck!

A REAL TIME CLOCK FOR THE TI-99 4/A by John F. Willforth

The following is not my original circuit design (I have changed some things however). The credit must go to Gary Emmich and Tony Albanese of the Northern New Jersey Users Group. The circuit below is essentially 1/2 of the REAL TIME CLOCK and DIGITAL CONVERTER circuit they designed and distributed as PUBLIC DOMAIN. The circuit was later etched to a double-sided board, and a kit was distributed which became known as the MBP CARD. Last month I got a reprinted article from the TISHUG, written by John Paine which described the circuit he put inside his speech synthesizer to give the system a REAL TIME CLOCK. The circuit is the clock section of the one originally designed by Gary Emmich, and as such, because the schematic was reduced and not too easily read, and since it is public domain, I thought I would rewrite the article and redraw the schematic.

First the pin numbers to the left of ">--" are the pin numbers on the connector inside the speech synthesizer, those two marked "23" & "24" go to these two pins on the clock chip, and those to the right of the "--X" are the data bus also attached to the same connector inside the speech unit.

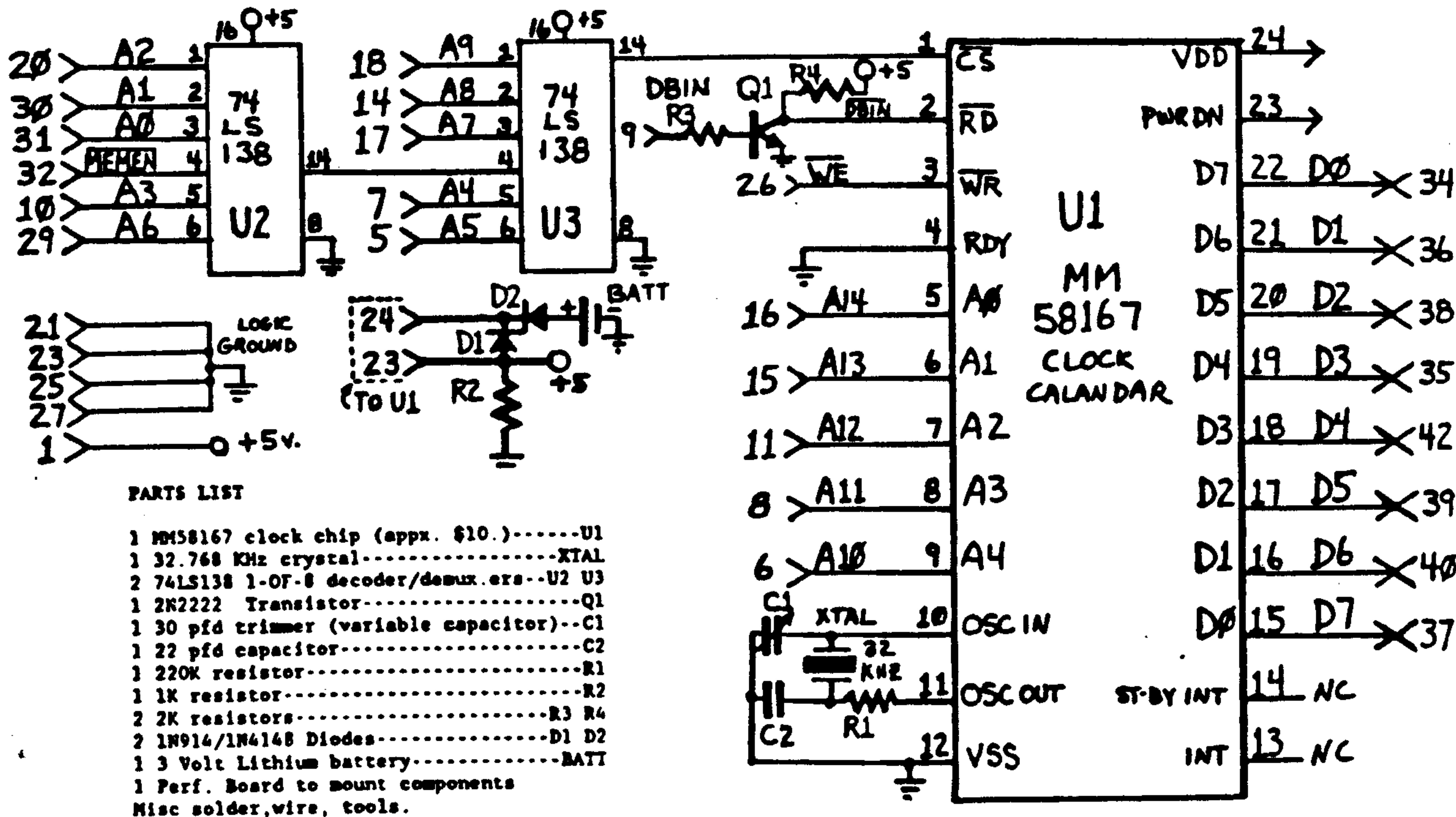
The circuit consists of two 1-of-8 decoder/demultiplexer (74LS138s), which decode the address lines to select the clock chip at -31168 to -31154 which select the clock functions, the MM58167 clock chip, the osc. circuit, Q1 to invert DBIN, and the battery back-up circuit. The entire circuit may be put on a small RADIO SHACK perf. board and installed inside the Speech Synthesizer.

John Johnson's MENU program accesses the clock automatically, I've included original CLOCKSET and TIME programs with this article. If you would like more information contact me at the following : call (412) 527-6656, R.D. #1 Box 73A Jeannette, PA 15644. Here are the addresses to peek and load (poke) and an xbasic command to reset the sound (the sound chip is at this address).

- | | |
|-------------------------------|----------------------|
| -31168 - Thousands of seconds | -31160 - Hours |
| -31166 - Tens & Hundreds | -31158 - Day of week |
| -31164 - Seconds | -31156 - Date |
| -31162 - Minutes | -31154 - Month |

* To reset sound.. "CALL SOUND(1,20000,30)"

* The data required by the above addresses is in "BCD" and will need converted.



```

10 REM *****
20 REM **                **
30 REM **  CLOCKSET    **
40 REM **                **
50 REM *****
100 REM THIS PROGRAM IS USED TO SET THE CLOCK.
110 REM THIS PROGRAM NEED ONLY BE RUN IF THE TIME DRIFTS OR WHEN BATTERIES ARE
    REPLACED.
120 CALL INIT
130 DEF SET=X+6*INT(X/10) ! CONVERTS DECIMAL TO BCD FOR OUTPUT TO CLOCK.
140 INPUT "MONTH 1-12 ":X
150 MO=SET
160 INPUT "DAY OF MONTH 1-31 ":X
170 D=SET
180 INPUT "DAY OF WEEK 1-7 SUN-1 ":DW
190 INPUT "HOUR 0-23 ":X
200 H=SET
210 INPUT "MIN 0-59 ":X
220 M=SET
230 INPUT "SEC 0-59 ":X
240 S=SET
250 CALL LOAD(-31164,S,O,M,O,H,O,DW,O,D,O,MO) ! SET CLOCK
260 CALL SOUND(1,20000,30) ! RESET SOUND GENERATOR
270 CALL CLEAR
280 STOP

```

INPUT DAY AND TIME
AND CONVERTS TO BCD

```

-----
10 REM *****
20 REM **                **
30 REM **    TIME      **
40 REM **                **
50 REM *****
100 REM THIS PROGRAM DEMONSTRATES HOW THE CLOCK IS ACCESSED BY A PROGRAM.
110 CALL CLEAR
120 DIM WK$(7),MO$(12)
130 DEF TIME=X-6*INT(X/16) ! CONVERTS BCD OUTPUT OF CLOCK TO DECIMAL.
140 FOR DW=1 TO 7
150 READ WK$(DW)
160 NEXT DW
170 FOR DM=1 TO 12
180 READ MO$(DM)
190 NEXT DM
200 DATA Sun,Mon,Tues,Wednes,Thurs,Fri,Satur
210 DATA January,February,March,April,May,June,July
220 DATA August,September,October,November,December
230 GOTO 380
240 CALL PEEK(-31164,X1,X2,X3,X4,X5) ! READ SEC. MIN. & HOUR X2&X4 NOT USED
250 X=X1 :: SEC$=STR$(TIME)
260 IF X1<10 THEN SEC$="0"&SEC$
270 X=X3 :: MIN$=STR$(TIME)
280 IF X3<10 THEN MIN$="0"&MIN$
290 X=X5 :: HR=TIME :: M$=" AM"
300 IF HR>11 THEN M$=" PM"
310 IF HR=0 THEN HR=12
320 IF HR>12 THEN HR=HR-12
330 HR$=STR$(HR)
340 TI$=HR$&" "&MIN$&" "&SEC$&M$
350 DISPLAY AT(6,11):TI$
360 IF X1+X3+X5=213 THEN 380
370 GOTO 240
380 CALL PEEK(-31158,X1,X2,D,X4,X5) ! READ DAY, DATE & MONTH
390 X=D :: D$=STR$(TIME)
400 X=X5 :: X5=TIME
410 L1$="Today is "&WK$(X1)&"day"
420 L1=INT((32-LEN(L1$))/2)
430 DISPLAY AT(2,L1):L1$
440 L2$=MO$(X5)&" "&D$&" 1988"
450 L2=INT((32-LEN(L2$))/2)
460 DISPLAY AT(4,L2):L2$
470 GOTO 240

```

ASSIGNS NAMES TO VARIABLES.

CHANGES INTO STRING FOR
DISPLAY PURPOSES

! DISPLAY TIME ON SCREEN
! UPDATE DAY & DATE AT MIDNIGHT.

! READ DAY, DATE & MONTH

CONVERT TO STRING & DISPLAY

PICTURE IT

A review by Deanna Sheridan, Northcoast 99ers, Cleveland

Late last fall I reviewed a program called "PRINT IT" which allows you to do limited desk-top publishing from TI-Writer. The author, Rodger Merritt, now has a companion disk called PICTURE IT. This disk has several nice utilities to spruce up your letters, add graphics to programs, etc.

As mentioned in the review of 1000 Words last month, PICTURE IT will convert TI-ARTIST instances for letterheads and other graphics from within TI-Writer/Punnelweb, etc. It basically uses the same method as the ART/CONVERT program by Anne Dhein. It uses Artist Instances and two instances can be combined for a full-width letterhead or picture. The conversion time for my favorite letterhead was about 10 minutes. However, it does not have graphics and only takes up the left side of the page. The documentation that comes with PICTURE IT states that a one inch full-page double density letterhead will take about 50 minutes. However, once it is done, it takes very little time to print when needed. When I had my SG-10 and tried the Dhein program, my printhead had a rat-ta-tat to it that bothered me and I had given up using it except on rare occasions. When I got my MX-1000, I decided to see if it affected it the same way. Much to my delight, it must use a different printing method, and prints out just like a normal screen dump. I cannot compare Rodger's program in printing method, since my SG-10 was long gone when I got this program.

In addition, PICTURE IT has a banner program which also utilizes Artist Instances. A conversion program will put them into PICTURE IT format so that you can include pictures with banners. The font for the Banner is the "BIG FOOT" font on CSGD and Artist companion disks. The disk I received from Mr. Merritt had several pictures all ready converted, so I do not know how long it takes to do this.

Another feature will display your instances on screen with an attractive border. A full-screen instance will use up all the available char definitions. Out of all the instances I tried, only a couple ran out of space. In fact, I used this program to display my Christmas graphics at the Lima Conference and more people inquired about "how I did that" than the graphics themselves.

You can also convert your instance so that it will run in an extended basic program, either as a sprite or not. Again, we have a quality program that does "lots of things" for an asking price of only \$10.00. This one is NOT fairware. It can be ordered only from Rodger Merritt, 1949 Evergreen Ave., Pullerton, CA 92635 (714) 990-4577.

TI-TEMPLATES

Review by Deanna Sheridan - Northcoast 99ers - Cleveland, Oh
Jan Knapp of St. Louis has released two disks for use by those who are doing genealogical work and a student organizer. These are different in that neither is a runnable program, but rather templates or forms for the specified tasks.

She didn't have any of the "fill-in-the-blanks" forms for tracking ancestors so she decided to create her own. There is a blank form and a sample filled-in form for each. They include a TREE, GROUPSHEET, LARGE GROUPSHEET, ADDRESS PAGE, SOURCE (where info was obtained), CENSUS, a bibliography of sources for those doing genealogical work. It looks like a real help if you are involved in such a project.

The second set of templates should have an overall wider appeal as they are aimed at the high-school student. These templates include: An ASSIGNMENT SHEET, which gives class, what the assignment, when due, with room for completion and notations on the side. Four class assignments can be listed on a page.

BOOK REPORT. This is a rough outline of the items you should be looking for as you read a book. If you make notations on this sheet, the book report will be a snap.

CALENDAR. This is just a blank page where you fill in the dates and month. There is room for several notations per day. Since this is a TI-Writer template, the month days could be inserted before printing.

CHORE CHART: This is the one parents will love. I think that Jan covered all bases because 99% of these are applicable to my 13-year old. Of course, if you can think of more, you can change the form to fit your needs.

There are several quick reference pages with elements of sentences, defining nouns, verbs, etc., a metric conversion chart, a list of important elements, the Dewey Decimal system, Library of Congress system, a multiplication grid, notes to yourself, a page for friends telephone numbers and addresses, a fact sheet on Presidents, the order of succession if a president dies or is disabled in office, a list of the 40 presidents and when they held office, a report outline, a class schedule, and things to do today.

I had my 13-year old look this over to see if he would scoff at the idea of my printing out this booklet for insertion in his notebook or not. I got a very favorable reaction, that it had some very useful forms that should help him remember. (Now, the trick is to get him to ACTUALLY utilize it).

Remember that these are templates in TI-Writer files and that you can customize them for other purposes if you wish, or if a form is "almost" but "not quite" what you need.

Both disks are fairware and Jan is asking \$8.00 apiece for them. They are in the Cleveland area libraries, or can be ordered from Jan Knapp, 2318 Ruckert, St. Louis, MO 63114. (314) 428-0752.

HAVE I GOT A DEAL FOR SOMEONE!

Deanna Sheridan - NorthCoast 99ers

A couple of weeks ago I got a 2400 baud modem which means I have very little, if any use, for my 300 model. If you have often wondered if you would like to enter the mystic world of telecommunications, but did not want to spend the money to find out, perhaps I can help.

At the moment you would not have any BBS locally where you could download software, but you are able to call "any" open BBS in the area and read messages, leave messages, etc. With the new TELCO, you can even sign on to IBM board that used to spit back garbage because of their opening screen graphics.

I have now managed to get my TI and Leading Edge to talk to each other. I have read about these projects, but they always want you to make some kind of cable, and that just isn't my bag. Instead, I took my TI cable, my IBM cable and connected them with a NULL MODEM. This little gismo reverses the two lines that make the TI and IBM cables incompatible. I used PROCOMM on the Leading Edge and tested both PAST-TERM and TELCO on the TI. ASCII files, of course, are very easy to transmit. As an experiment, I sent a TI archived file over to the LE via INODEM. I then sent it back to the TI with INODEM with another filename. Then unpacked it to see if it would run. Worked beautifully.

I will gladly make available my Anchor 300 baud with appropriate cable and disks of both TELCO and PAST-TERM to any member of the Cleveland groups. Since I belong to NorthCoast, I would like to give my own fellow members first choice, but people from Chips are welcome also. Each person can have it for a month then pass it on to another member. This should give you enough time to decide if this is your bag or not. Call me at 333-5986.

PRESIDENTIAL THOUGHTS

By Glean Bernasek
President TI-Chips

There are really on two items I want to discuss at this time. The first of which is how the TI-Chips' tutoring project at the North Royalton Community Library is going along. I stayed behind after our last meeting to observe what happens at our tutoring sessions. Once again, the weather was entirely too nice to expect very many people at our tutoring session. Therefore, I wasn't too disappointed to see only four people show up.

But what happened at this session "warmed the cockles of my heart." Not only was the interest there, but both Sarah Martinson and John Parke (both of the Chips) really showed knowledge and enthusiasm as tutors. Questions were asked, and answers were given. It certainly seemed that both tutor and student were enjoying themselves greatly. I know that this project will become more actively participated in once the weather becomes more conducive to indoor activities.

I have since informed the library staff that the TI-Chips intends to continue the tutoring sessions each month immediately after our monthly meeting. It looks like this is one project that is working out fairly well, and is demonstrating that not only is the interest there, but so is the enthusiasm.

HOW ABOUT AN OHIO VALLEY CONFERENCE IN CLEVELAND?

Speaking of enthusiastic projects, this brings me to the second item I want to discuss with you. That is none other than the possibility of the Cleveland Area TI-99/4A User Groups hosting a "1989 OHIO VALLEY 99/4A CONFERENCE." As I said in my report on the LIMA CONFERENCE, "I could not possibly recommend an event more highly! A multi-user group conference is just what the 99ers of Ohio and surrounding States need!" Hosting an event such as this would provide the Cleveland Area 99ers with an unique opportunity to obtain the latest TI-99/4A technology, from all around Ohio, right here in our own "back-yard!" How about that! No extensive (and expensive) traveling to distant conferences.

The commercial's over. If I haven't convinced you that we should, at least, think about holding a conference in 1989 for the Ohio Valley Users, then there isn't any point in going further. But, if I've been able to create some interest in a project such as this, then let's start a dialogue going. Now, before everybody gets bent out of shape, all I'm asking is that both Cleveland area user groups determine whether or not they want to get involved in this project to begin with. Judging by what the Lima 99ers were able to accomplish, we certainly should be able to do much the same with a greater sharing of the load. The question whether we want to get involved or not will be on the TI-Chips July meeting agenda, and a vote will be taken and reported to Deanna Sheridan (I'm suggesting Deanna because she is a natural focal point for both groups.) Some time in August, Deanna would advise both presidents of TI-Chips and the NorthCoast 99ers as to the collective decision of both groups.

If we collectively, by majority vote at our next respective meetings, decide to embark on hosting a "1989 OHIO VALLEY 99/4A CONFERENCE", then we could set up a conference steering committee comprised of representatives from both the NorthCoast 99ers and the TI-Chips to get the

ball rolling. At this point we could conceivably notify the Lima 99ers of our intentions, thereby avoiding a potential planning conflict by both area groups for 1989.

This project has tremendous potential! Let's at least talk about it and decide whether we're going to want to give it a shot or not.

ASK C.T.

By C.T. Tibs - Cleveland

Well, somebody out there finally thought I was for real! Following are some excerpts from a letter I recently received.

Dear C.T.:

I am sending the printouts of two programs. The basketball stats program is the very first workable program I ever did. You will see that I borrowed heavily from C. Regina's Programming Guide for the TI. It did everything we wanted, even though it would probably get a D- in a programming class.

The other is a single-entry checkbook program I used for a couple of years. With this program, I was able to print out my contributions, tax payments and other expenditure items, and have my return ready to go in half an hour.

Please feel free to choose one of these program, and tell me how "now" to write a program, or how it could be improved upon.

DMS - Cleveland

Dear DMS:

Both the Basketball stats program and the checkbook program were very interesting to read. However, DMS, as you said in your letter, "It did everything we wanted..." and "... I was able to print out ... ready to go in half an hour." The programs you sent to me do work! Therefore, they are, by virtue of their operability, good programs.

The real measure of programming "quality" is in the profit the program produces. That is, how much does it cost to do what it does? How much memory is used and how long does it take it to accomplish it's task? This is where the "economics" of computer programming comes in. Any program that does what you "want" it to do is a "good" program, but a "good" program can be made into a "better" program by doing a little HOUSEKEEPING.

For reasons of explanation, I will concentrate on the Basketball Stats Program you submitted. I noticed that you reset TPT, TPTM, TPTA and TPTS variables to "0" at several places and that the formulas: $TPG=TPG+PG(I)$, $TPTM=TPTM+PTM(I)$, $TPTA=TPTA+PTA(I)$ and $TPTS=TPTS+PTS$ are repeated throughout the routine. This is not only a RAM (Memory) waster, but it also takes time to redo an operation that needs to be done only once on command.

Subroutines containing variable reset and repeated formulations will conserve on memory usage and enable the program to run faster. As I had said, "... doing a little HOUSEKEEPING." will go a long way to create a working program that is better than just "good".

The best way to learn how to program efficiently is to

do so on very limited RAM. That is, the more memory available, the sloppier we tend to be in our programming skills. The 32K expansion is indeed a handy thing to have when we need data space, but we tend to let our programs get too long when we know we have "loads" of memory at our disposal. If you don't believe me, try programming a TI-55(II) or some similar programmable calculator. I guarantee you will become a housekeeping believer in short order.

I would like to make one last comment. Although your programs were written in Extended Basic, these programming techniques hold true no matter what language you use.

I could develop a tutorial using the programs that DNS kindly sent in, but it could possibly happen I wouldn't be addressing specific questions that others might have. Therefore, I'm going to leave this column in the format I had initially set up. If you are having any programming problems or your homemade/commercial program is giving you fits, let me know. I'd be glad to help in any way I can. Just write to: C.T. TIBS, 13246 Harper Rd, Strongsville, OH 44136.

LIBRARY NOTES

by Deanna Sheridan "Still Temporary Librarian"

Mark Woodward sent his freeware donation to Ross Madie of Australia for TI-990poly (an Australian version of our famous game). In return he received a nice letter of appreciation and copies of an American Version with the familiar street names and an English version with street names familiar to them. (See it pays to pay). Mark has

graciously donated copies of the American and English versions for the library.

As mentioned last month, the graphics group gave Mark McCauley \$15 to download graphic programs for them. Out of 4 archived disks we were able to retrieve about 12 full SSSD disks of RLE pictures, instances, some music, some games. We are going to distribute these disks amongst ourselves (we only contributed a little over \$2.00 apiece) and then put them in the clubs' libraries. See how much you could benefit by joining our group? Mark says he has used up all of that \$15, so I told him I would hit the group again next month for another \$2.00+ apiece. Where else can you get such a deal?

Bob Kaspar, our new Extended Basic Games sublibrarian turned in catalog pages for 6 disks this past month and they have been added to the library. Several other sublibrarians had disks to catalog and we hope to see them soon.

I cannot make policy decisions for the CHIPS groups, but if you purchase fairware programs or get some of the DEMO programs from EDU-COMP that are being distributed by TEX-COMP, we will gladly give you programs from the library for same. For example, EDU-COMP is selling these for \$3.00 apiece, and we would give you 3 disks of your choice from the library for same. As stated before, we are not using the \$1.00 copying fee as a money maker, but rather as a tool to obtain even more programs for our libraries.

There are more freeware programs that have come in also. Don't tell me there isn't anything available for our machine!! I saw in a newsletter that Punnelweb 4.1 was released on May 29 and is on all four telecommunications networks.

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

Pushcart 1880s
125



CHECK YOUR LABEL, THIS MAY BE YOUR LAST ISSUE!

TIME DATED MATERIAL!