

# CLEVELAND AREA TI-994/A USER GROUPS NEWSLETTER MARCH, 1990

OFFICERS	NORTHCOAST	TI-CHIPS	MEETING DATES
CO-PRESIDENT	STEVE BAGSTED 1-733-5977	MATT ANDEL 676-9759	NORTHCOAST 1:30 P.M. TI-CHIPS 10 A.M.
CO-PRESIDENT	BOB KAGY	GLENN BERNASEK 238-6335	EUCLIDIAN ROOM N.ROYALTON LIBRARY
TREASURER	FRANK JENKINS 283-8526	LIN SHAW 235-3912	EUCLID SQUARE MALL STATE RD & 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 FEBRUARY 17, 1990 MARCH 17, 1990 APRIL 21, 1990 MAY 19, 1990 JUNE 16, 1990 JULY 21, 1990
SECRETARY	CHUCK POULIN 731-6473	DENNIS LIKENS 842-9627	
LIBRARY(DISK)	MARTIN SMOLEY 1-257-1661	HARRY HOFFMAN 631-2354	
TAPE & MODS)	TOM NELLIS 475-4067	JOHN PARKEN 331-2830	
HARD COPY)	DICK ALDEN 1-352-9172		

John Parker wrote a letter to Computer Shopper protesting their discontinuing the "Classic Computer" section from their magazine which we have published in this issue. We even noticed this past month that they did not publish the user group listings this past month. Evidently the new publishers have chosen to ignore several million "home computer" users and feel that only those with "business systems" are buyers. I know that I personally have spent close to \$1,000 in the past two years on printers, a modem, disk drives, diskettes and printer ribbons, and I am only one person out of 150 of our membership. In an announcement on Genie, Computer Shopper let it be know that it didn't matter how many letters of protest they would receive, the Classic Computer section was a thing of the past.

With this in mind, you may want to think twice before renewing your subscription to this magazine, especially since a couple of alternatives are on the horizon. Those of us who were listed in the User Group area of Computer Shopper received a letter recently from the Computer Buyer's Guide, a smaller version (I understand) of Computer Shopper, especially when it was just starting. Computer Buyer's Guide offered to step in and print articles, meeting information, whatever for the Classic Computers. A couple of people on our newsletter exchange list called the Computer Buyer's Guide and were very well received. It seems that Barry Traver has submitted an article for their April 1990 issue. I believe this publication is only \$1.95 per issue, considerably less than Computer Shopper. Should you be interested in obtaining additional information, the address is 2 Riverchase Office Plaza, Birmingham, AL 35244. Their phone # is 800-366-0676. I would urge you to watch for the April issue and consider subscribing.

Also, Asgard News has decided to go bimonthly and has invited Barry Traver to be a regular contributor. When this

little magazine came out, it was only 12 pages. The last issue was almost twice that large. I only hope if you subscribe you have better luck than I. I gave Ron Markus my money for a subscription in October of last year. Despite Ron's efforts on my behalf (several phone calls and letters), I got a card stating that if I had renewed my subscription, I would be getting the latest issue of Asgard News instead of the post card. My subscription had expired before I got my first issue! Finally, success, and I got my first issue this past week! Hopefully they will come regularly now.

I also downloaded from Genie an advertisement by Barry Boone, with examples, of a program he has developed so that you can use the .GIF format (high resolution pictures that are only available on the GENEVE or TI's with Digit Cards) for the TI99/4A in Artist Format. Of course, the resolution is not the same, but it isn't bad either. I don't have any such utility on my Leading Edge that will allow me to view .GIF files. Barry is asking \$15.00 for this program plus \$2.00 S&H. His address is: Barry Boone, P.O. Box 1233, Sand Springs, OK 74063. I ordered one today.

```

:-----:
:                               :
:                               :
:                               :
:                               :
: TI-CHIPS EXECUTIVE NOTES..... 2:
: NORTHCOAST EXECUTIVE NOTES..... 2:
: UPGRADE PATH FOR TI - STEVE BAGSTAD - NORTHCOAST..... 2:
: FUNNELWEB 4.2 - CHARLIE GOOD - LINA UG..... 3:
: TI-BASE TUTORIAL - MARTY SMOLEY - NC..... 5:
: CRAZY XB - WES RICHARDSON - NC..... 7:
: TI-BASE COMMENTS - MARTY SMOLEY - NC..... 9:
: THE MISSING LINK - ANNOUNCEMENT FROM TEXARENTS..... 9:
: LETTER TO COMPUTER SHOPPER - JOHN PARKEN - TI-CHIPS....10:
:-----:

```

TI-CHIPS FEB 17, 1990

With the incimate weather, members were arriving late which delayed calling the meeting to order. President Matt Andel got the ball rolling and the minutes for January's meeting were read by Vice President Glen Bernasek.

Lin Shaw gave his treasurer's report. The report was \$907.15 in the bank with INTEREST! This was after \$47.13 for the newsletter, \$63.92 for the library. After this report, it was suggested members think about the group buying a printer. After a brief discussion of rather we would buy a used or new printer, it was decided to buy a new Panasonic KXP 1180 from Ron of Rancharged Computers.

John reported we now have 87 modules in the library. Also the membership is now 53 members! He also wrote to Computer shopper to question the listing of why our group was not listed in their publication.

Harry reported we now have many more TIPS graphics disks in the library and some new utility disks. He stated that some of the disks he copied for people have had some problems. If you have a problem with a disk from the library notify Harry so you can get a new one.

The 1990 elections were held during this meeting. All the previous officers held on to their position. A new secretary was elected, Dennis Likens. I joined TI-CHIPS in Sept 89 and this is the first group I've belonged to. I moved to Cleveland from Hawaii Mar 1989 and I'm active duty Coast Guard. I've been using the 99 since 1983. I know that Mary's shoes will be hard to fill but I'll do my best. Thanks Mary for your devotion to the club and for a job well done.

Les Israel did a demo of a MORSE CODE tutorial. This program will display the dits and dahs of the character you type in, the hex code and also does the sound. It covers all characters, numbers and punctuation. You novice ham ops might find this one of intrest.

Les Kee demonstrated a Pac-Man type game where you have to clear the screen of dots. While you are maneuvering all over the screen, you<sup>2</sup> chompper is leaving a trail which you cannot cross. So so block yourself in.

Curtis Gaud won the raffle of 10 fun filled disks. This will keep him busy while winter drags on. Til the next meeting, ALOHA.

Respectfully submitted,  
Dennis Likens

---

#### EXECUTIVE NOTES - NORTHCOAST

Last month's meeting was quite an interesting change- I counted up to about 55 people present at the peak time of about 2 pm. If you weren't there, you missed two exciting opportunities: one, the first SWAP MEET I can remember us having and two, a change to keep Marty busy with copying LIBRARY DISKS. I'd guess we had about 15 people selling things all together- some seemed to sell quite a bit, others not so much. Basic consoles and modules did not exactly seem to be hot sellers, but quite a variety of other hardware (cards, monitors, drives, cables, etc.) seemed to

move pretty well. But by far the busiest was Marty, who began copying disks at about noon and didn't wrap up until after 4 pm. I couldn't even guess how many disks he ended up copying, but he was at it continuously. I'm typing these notes on the Word Processor part of FunnelWeb 4.21, the latest version in the library, and it's quite an improvement from the considerably older version (3.3) that I had not updated in some time. If you haven't used the library recently, look over your listings and PUT IT TO USE! We did manage to line up a tentative schedule for the next three meetings- I will demo my now operational Geneve system at the next meeting (March); Bob Kagy will demo his hard disk system in April; and Wes Richardson will demo some basics of assembly in May (giving him an extra month!). Please feel free to call or collar one of us at the meeting if there is any particular topic you would either like to present or have presented. After all the disks that were copied out of the library, lots of people should (I hope) now have things they have discovered to be helpful/fun/whatever, and maybe you could enlighten the group. For now, Bob and I agreed that I will generally write our executive notes, and we will alternate meeting responsibilities.

For the upcoming meeting, I will demonstrate my relatively primitive GENEVE system...see article elsewhere in the newsletter. Hopefully we will have the club system there also, so perhaps we can try a few things side by side for comparision. See you on March 17 at 1:30!!

Steve

---

#### One Upgrade Path for the TI

A User's Experience with the Myarc Geneve 9640  
by Steve Bagstad, February 22, 1990

As a regular user of word processing and Multiplan programs, I long ago realized several things: my trusty TI's 40 column display, keyboard, and operating speed left much to be desired, especially on looking at typical 'office' type systems one often sees. After reading A LOT, including an excellent article in Asgard News, Vol1#4 (date unknown) about possible upgrade paths for people wanting to keep their TI systems, I came across a Geneve at what I thought was a good price and decided to take the plunge. The Club demo to be done in March '90 will show the system, but I also wanted to outline my experiences, both good and not so. I am certainly no expert on the Geneve, so if I make any glaring errors, I hope someone will straighten me out so I can correct in a future article. Anyway, here goes...

I brought my new computer home from the Lima TI Fair about 9 months ago. To briefly explain, it is a computer on a PE-box card, installing in your PE-box in place of the flex cable interface card in Slot 1. Included are 640k of RAM, keyboard, manual, and software. The Geneve has built-in connections for video, joystick, keyboard, and a mouse. The TI 32k card cannot be used and must be removed. Existing RS232 and disk controller cards are still used. As there are no cartridge slots, all these must be put onto disk with the utilities provided; these worked poorly for me, and this difficulty was resolved with another TI's Gram Kracker. A final hardware note is that there is

nowhere to attach the Speech Synthesizer- since I do make some use of that, I bought the Rave99 Speech adapter card, which went into my PE-Box without even a hint of a problem.

It took no time at all to realize on startup that I had a real problem. My composite color monitor's output was AWFUL with the Geneve. Text was nearly unreadable. However, I did understand that an RGB monitor was really required for 80 column use, so I had resigned myself ahead of time to a new monitor. After not inconsiderable agony over best price/performance, I mail ordered a Maganvox 8CM515 which seems to be a good choice. While this was going on, I also discovered another 'interesting' problem; for some reason, I was having problems with WRITING to my floppy disk drive. I put the Geneve aside temporarily until the monitor arrived.

With the arrival of the monitor came another difficulty. Although it came with all kinds of cables, including one for the TI, none of them fit the Geneve's video output plug. This one was eventually resolved with help of some local people who also had Geneve systems, and now my video was set. I have heard some people complain about Myarc, and although I'm sure they're not perfect, they were pretty good for me. After one ineffective return of the computer for the disk writing problem, they sent me a new Geneve at no charge which now works fine. They also updated all my system software for my submission of blank disks. I just installed an upgrade to the keyboard that has made the system pretty well in fine shape now.

After all this, what do I think? It certainly was a long way from painless, but I really like what I now have. Compared to my TI, I have gained: a professional quality keyboard, a nice quality 80-column color monitor, lots of available memory (part of which can do things like print spooling and RAM disk), and perhaps best of all, and (that I know of) an increased operating speed not available in any other way. I have found excellent software compatibility with my TI stuff, finding only occasional programs (and none I couldn't live without) that don't seem to like the Geneve in TI emulation mode. The DIJIT 80-col card demo'd at our January meeting doesn't come cheap, and it doesn't really address the speed, memory, or keyboard 'problems' that the Geneve helps. Again, I will try my best to demo it and answer questions at our March meeting and let you draw your own conclusions. Now perhaps a new disk drive(s),....

-----  
FUNNELWEB VERSION 4.2, IN 40 AND  
80 COLUMNS  
NEW FEATURES REPORT BY  
CHARLES GOOD  
Lima Ohio User Group

Dated Nov 14, the first release of Funnelweb v4.2 has been sent by Tony McGovern to his regular correspondants and to those who recently sent him a fairware donation. Originally, Tony was planning to completely rewrite an 80 column version of FUNNELWEB from scratch, making its coding more 'elegant' and compact and giving it the new name of WHIPBIRDS. However, such a rewrite would have made WHIPBIRDS largely incompatible with previous versions of FUNNELWEB with respect to previously created user lists and system configuration (SYSCON) data. So Tony has put

WHIPBIRDS on hold and has incorporated some of the new features he planned for WHIPBIRDS into the latest

#### DISK REVIEW:

The enhanced disk directory available to 80 column users (Geneve, AVPC card, or Mechatronics 80 column peripheral) since last summer as file QDAY has been renamed DISK REVIEW. It comes preconfigured in one of the FWB central menus and now comes in both 80 and 40 column versions. Yes, now 40 column users can make use of this new VERY POWERFUL utility. With the 40 or 80 column DISK REVIEW you can bring up a disk directory and move the cursor next to a file name. You can then press "R" and run the software! This includes assembly language software that reads as PROGRAM or DF80 on the disk directory and extended basic software (if you have the XB module plugged in) that reads as PROGRAM or IV254 on the disk directory. The only thing you can't run this way is TI BASIC software that won't run from extended basic, such as PROGRAMs using TE2 speech.

Using either 40 or 80 column DISK REVIEW, you can protect, unprotect, delete, rename, and copy (a feature not previously found in QDAY) the disk directory file next to the cursor. File copy requires more than one drive. You can examine the contents of the disk header sector (sector 0), and you can examine each of the file header sectors. You can print a disk directory to a printer, or to a DV80 disk file name. When printing to a disk file, the file is opened in APPEND mode. This allows you to chain successive disk directories into one large text file which can serve as a reference data base to quickly show you the contents of your entire disk library. These features allow you to use DISK REVIEW for many of the things you would usually have to do from a disk manager.

With the 40 column DISK REVIEW you can load ANY KIND OF FILE into a 17K buffer for VIEWing on the screen. If the file fills the buffer, the file continues to load and overwrites the contents at the beginning of the buffer. You can load the whole file in at once, or page it in one screen of text at a time, or one file record at a time. PROGRAM files loaded this way are displayed simultaneously in both ASCII and Hex. The display resembles what you see with a sector editor. The most useful use of this VIEW feature of DISK REVIEW is the viewing of DV80 text files. You can take the DOC file of a piece of software and read it on the screen without having to make a hardcopy. Then you can go back to the DISK REVIEW disk directory and R(un) the software. The 17K buffer will accomodate about 60 disk sectors of text before it starts to overwrite itself. Once in memory, you can print the file to a printer in whole or in part. You can mark the buffer text in two places and print to a printer or disk file only that part of the buffer contents between the marks. This allows you to make a small DV80 file containing only part of the text of a larger DV80 file.

With the 80 column version of DISK REVIEW there are two 64K VIEW buffers, the second available only if you have 192K of video RAM installed. This is an easy option with the AVPC card. It can be done, but not easily, on a Geneve. You can put text in each of these buffers and display either buffer on the screen, alternating back and forth between

either buffer and the disk directory. You can also display both buffers simultaneously, scrolling them both up and down and printing all or parts of either buffer. Text in each buffer stays in memory for instant recall without disk activity until you exit DISK REVIEW. The 40 column DISK REVIEW has only one text buffer, and text does not remain in memory when you go back to the disk directory.

#### REVISED EDITOR:

The text and assembly program 40 and 80 column editors have been rewritten internally to allow much faster move lines, copy lines, delete lines, and reformat. MOVE LINES no longer causes a TEXT BUFFER FULL condition. Because of the increased speed of reformat, it is now unlikely that characters will be dropped at the end of lines using the 40 column editor, slightly more likely with the 80 column editor. Text buffer capacity has been increased slightly. When editing, you can alternate back and forth between two different sets of tabs using ST (swap tabs). T displays the current set of tabs, ST displays the alternate set. Both sets of tabs are saved on disk when the file is saved with SF. In the 80 column editor the tabs can optionally be displayed on the bottom ruler.

A new feature has been added to the assembly source code editor (the E/A editor) that is useful for creating new assembly code, or typing in an assembly listing from a newsletter or Micropendium. You can, optionally, keep the alpha lock off and type everything in using lower case, using SHIFT for upper case as desired in the comment portion of each line of code. When you press <enter> after typing a line of code and its comment the code automatically becomes upper case letters as is required for source code, while the comment remains just as you typed it in a mixture of upper and lower case. This makes comments much easier to read and to distinguish from the actual source code when viewing a source code listing.

In the 80 column ShowDirectory, you can bring up a second directory without having to exit SD to the editor and then reboot SD. In the 40 column SD you still have to back out and then reboot SD to see another directory.

#### PATH NAME CONFIGURATION FOR HARD DRIVES ETC:

When configuring FWB v4.2 you have the option of designating a path name for all files. When set, path name configuration deactivates boot disk tracking and whatever drive numbers you choose to designate for the TIWriter and EA central menus. Path name choices are WDS1.FWB. or RD. or DSKR. or HD. if you choose this option. If you are using a hard disk WDS1.FWB. allows you to have all the Funnelweb files, including user configured software, as files in the same subdirectory. This leaves DSK1. emulation available for other purposes. Using RD. you can put all your Funnelweb files on a Myarc randisk. I think DSKR. works with a Foundation card. Once Boot path is set, the rest of the configuration process just needs file names. Funnelweb will automatically insert the boot path name in front of the file name when searching for the file.

#### "ON THE FLY" RECONFIGURATION:

When exiting Funnelweb from either of the central menus you press FCTN/9 (BACK). You need to know this, since there is no screen prompt to suggest that FCTN/9 does anything here. If you answer "N" to the resulting QUIT? prompt you are then given the opportunity to temporarily load a different character set into memory, change the editor printer default name, and change the TI Writer and EA central menu drive numbers. These changes are not permanently read back to disk but they do remain in effect until you exit Funnelweb.

#### OTHER SMALL CHANGES:

Files in all disk directories are no longer marked by pressing a number. Instead you move the cursor next to the file name with the arrow keys (EX or FCTN/EX) to perform some action on that file. It is only really necessary to mark a file (with space bar or "N" or <enter> depending on where you are within Funnelweb) if you want a DV80 or DF80 file to be the workfile name that appears in the editor when you LF or SF.

You can now protect and unprotect with QUICK DIRECTORY, which you can access from most places in Funnelweb with FCTN/7 (AID).

When booting DF80 software from the LOADERS menu, or with R(un) from DISK REVIEW and you have put all the files into memory, you have to blank the next DSKx prompt off the screen with spaces or with ERASE before you press <enter> in order to display the START name. If you press <enter> without doing this you get an error. You can recover from this error with REDO. Then press ERASE and then <enter> to display the START name.

The FORMATTER is now an independent LOADER #2 file not linked directly to the rest of the Funnelweb environment. This means you can use other formatters, such as the one that comes with Art Green's "TI-Writer v4.2" instead of the formatter that comes with Funnelweb. Rename the alternate formatter files FO, FP, etc and put them on the funnelweb disk or subdirectory.

Screen layouts for the 80 column DISK REVIEW and SHOW DIRECTORY have been improved, compared previous versions of 80 column funnelweb.

You can no longer delete files from the EDITOR command line, although the prompts on the FILES submenu on the command line say that you can. File deletion is now done from within the EDITOR using SHOW DIRECTORY.

#### CONCLUSIONS:

New features are found throughout the new Funnelweb. 40 column users especially will love the new very powerful features available to them in DISK REVIEW. DISK REVIEW is a major new piece of software, not just a minor update. If you use it you should send Tony an additional fairware payment over and above what you have already paid for other parts of Funnelweb. How much additional? Well, DISK REVIEW is comparable to the latest versions of John Johnson's BOOT, maybe better. You can consult ads in recent MICROPENDIUMS for the asking price of BOOT.

**TI-BASE - From INSCEBOT  
TUTORIAL 16.1.1 By Martin Smoley  
NorthCoast 99'ers - Feb. 17, 1990  
Copyright 1990 By Martin A. Smoley**

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

```
* ~~~~~
*                               3LBLSWD/C
CLOSE ALL
USE TNames
MOVE
SET LSPACE=800
CLEAR LOCAL
SET HEADING OFF
SET RECNUM OFF
LOCAL WD N 3
REPLACE WD WITH 1
WHILE .NOT. (EOF)
WHILE (.NOT. (EOF)).AND. (WD<3)
DISPLAY WD
MOVE
IF .NOT. (EOF)
REPLACE WD WITH WD + 1
ENDIF
ENDWHILE
DISPLAY WD
DOCASE
CASE WD = 3
DO 3ACROSS
BREAK
CASE WD = 2
DO 2ACROSS
BREAK
CASE WD = 1
DO 1ACROSS
BREAK
ENDCASE
REPLACE WD WITH 0
DISPLAY WD
ENDWHILE
SET HEADING ON
SET RECNUM ON
CLOSE ALL
RETURN Copyright Martin A. Smoley 1990
* ~~~~~
```

Actually, this set of CFs prints three, two, or one label across at the end of the Db, depending on where the (EOF) falls, but I'll get into that later. Let's start at the top with 3LBLSWD. This is the main CF. It drives the other three CFs. As you can see I am using my favorite Db, TNames. You should recall from last month that record zero in TNames contains some heading data. Because I don't want to make a label of that, the first command after the USE is MOVE. This gets me to the first real name and address. This set of CFs will need some extra room for storage so I am expanding the local space from the normal 256 to 800. The next phrase (CLEAR LOCAL) is required by TI-Base to register the SET LSPACE=800. Without the CLEAR LOCAL, LSPACE will remain set at 256. This task should be done as close to the beginning of your CF as possible, because CLEAR LOCAL also does what it says. When invoked it throws away everything you previously had in every local.

```
* ~~~~~
*                               3ACROSS/C
MOVE -2
LOCAL L1A C 35
REPLACE L1A WITH "          ";
          | " Exp. Date: " | XP
LOCAL L2A C 35
REPLACE L2A WITH TRIM(FN) | " ";
          | MI | TRIM(LN)
LOCAL L3A C 35
REPLACE L3A WITH SA
LOCAL L4A C 35
REPLACE L4A WITH TRIM(CT) | ", ";
          | ST | ". " | ZP

MOVE
LOCAL L1B C 35
REPLACE L1B WITH "          ";
          | " Exp. Date: " | XP
LOCAL L2B C 35
REPLACE L2B WITH TRIM(FN) | " ";
          | MI | TRIM(LN)
LOCAL L3B C 35
REPLACE L3B WITH SA
LOCAL L4B C 35
REPLACE L4B WITH TRIM(CT) | ", ";
          | ST | ". " | ZP

MOVE
LOCAL L1C C 35
REPLACE L1C WITH "          ";
          | " Exp. Date: " | XP
LOCAL L2C C 35
REPLACE L2C WITH TRIM(FN) | " ";
          | MI | TRIM(LN)
LOCAL L3C C 35
REPLACE L3C WITH SA
LOCAL L4C C 35
REPLACE L4C WITH TRIM(CT) | ", ";
          | ST | ". " | ZP

PRINT (f)
PRINT L1A,L1B,L1C,(LF)
PRINT L2A,L2B,L2C
PRINT L3A,L3B,L3C
PRINT L4A,L4B,L4C,(LF)
RETURN Copyright Martin A. Smoley 1990
* ~~~~~
```

This month I can't seem to find the time to write a wordy tutorial, so I threw this together. I find it much easier to whip up some CFs then to write a long explanation of some programming function. I have had several questions, over time, about printing two or three labels across. Because there are many new users of TI-Base I'm going to take another shot at it. This set of CFs will print three, two or one across with some modifications.

\* 2ACROSS/C

```

MOVE -1
LOCAL L1A C 35
REPLACE L1A WITH "          ";
      ; "   Exp. Date: " ; XP
LOCAL L2A C 35
REPLACE L2A WITH TRIM(FN) ; " ";
      ; MI ; TRIM(LN)
LOCAL L3A C 35
REPLACE L3A WITH SA
LOCAL L4A C 35
REPLACE L4A WITH TRIM(CT) ; ", ";
      ; ST ; ". " ; ZP

MOVE
LOCAL L1B C 35
REPLACE L1B WITH "          ";
      ; "   Exp. Date: " ; XP
LOCAL L2B C 35
REPLACE L2B WITH TRIM(FN) ; " ";
      ; MI ; TRIM(LN)
LOCAL L3B C 35
REPLACE L3B WITH SA
LOCAL L4B C 35
REPLACE L4B WITH TRIM(CT) ; ", ";
      ; ST ; ". " ; ZP

PRINT (f)
PRINT L1A,L1B,(LF)
PRINT L2A,L2B
PRINT L3A,L3B
PRINT L4A,L4B,(LF)
RETURN Copyright Martin A. Smoley 1990

```

\* 1ACROSS/C

```

LOCAL L1A C 35
REPLACE L1A WITH "          ";
      ; "   Exp. Date: " ; XP
LOCAL L2A C 35
REPLACE L2A WITH TRIM(FN) ; " ";
      ; MI ; TRIM(LN)
LOCAL L3A C 35
REPLACE L3A WITH SA
LOCAL L4A C 35
REPLACE L4A WITH TRIM(CT) ; ", ";
      ; ST ; ". " ; ZP

PRINT (f)
PRINT L1A,(LF)
PRINT L2A
PRINT L3A
PRINT L4A,(LF)
RETURN Copyright Martin A. Smoley 1990

```

So if you have something in TEMP1, TEMP2, etc. and you do a CLEAR LOCAL, poof it's all gone. The rest of this CF is very confusing. I understand what I am doing, but I still get confused every time I think about it for more than a short time. I know that some of you will look at this section and not be confused, but for those of you who are confused, I wanted you to know that you are not alone.

When we get to the End Of the File (EOF), there may only be one or two labels to be printed, not three. "I know you think (Who cares!); but this is a programming tutorial." Therefore, after TIB does a complete print of 3 labels across, I want to see how many names are left before the EOF. "Without following my CF, think about that for a minute." OK, let's go. The big, or outside WHILE is simple. It keeps looping until it finds the EOF. The big WHILE keeps the whole CF going. The little WHILE loop is looking ahead for the EOF. WD is the local I chose to hold the number of labels across or to the EOF. Because TIB is already looking at a record we will start with 1, hence REPLACE WD WITH 1. If we make 2 MOVES, that will mean we have encompassed 3 records, the one we are looking at and two more. The WHILE reads, WHILE (.NOT.(EOF)).AND.(WD<3). This means that the largest WD can be and still go through this WHILE is 2, but if WD equals 2 going in it will still be 3 coming out. What I am actually after is the knowledge that we have 3 records and that WD equals 3. So let's say WD equals 1 as we move into the WHILE. "I DISPLAY WD so I can see what it is." The MOVE tries to take us to the next record. If there is another record, we will not hit the EOF and 1 will be added to WD. WD now equals 2. As we hit the ENDWHILE we loop back to the WHILE statement. Because WD equals 2 we go through the WHILE one more time. Inside the WHILE we MOVE to the next record and if we have not hit the EOF, one more is added to WD. WD now equals 3 so the WHILE will not execute again. Instead we drop down to the DOCASE. "I used DOCASE instead of IFs because I needed some practice with DOCASE." Because WD equals 3 the first CASE will DO 2ACROSS. Because we have MOVED twice in the process of getting here the first thing to do in 2ACROSS is back up 2 MOVES to where we started. The rest of 2ACROSS merely sets up locals, gathers up the names and addresses and prints the labels, three across. The line near the bottom "PRINT (f)" should be removed. I use it to set my printer to Condensed Mode. That way I can test this CF on regular paper. I don't have three across labels. After the print we return to the DOCASE and fall through to the ENDCASE where WD is set to 0. The ENDWHILE sends us back to the first WHILE and because we haven't hit the EOF we go through again. This time we are still looking at the last record that we printed, not the first record to be printed, that is why we set WD to 0 instead of 1. This means that while we are inside the WHILE we will go forward three MOVES, and while printing we'll drop back two. That keeps us in the grouping of three records we wanted. Now let's say we printed thousands of labels (three across), and we approach the EOF. We finished a print and there are two records left. We hit the WHILE with WD set at 0. The first MOVE moves us off the old group of three to the new group and doesn't really mean anything, but WD is incremented to 1. Remember we had 2, that is the one we are looking at and only one more. WD now says 1. We go around one more time. We move to the next record, but we have not smashed into the EOF, so the IF statement adds 1 to WD, which now says 2. We go around one more time even though there are no more records. We enter the WHILE and try to MOVE. Now we see the EOF. This shuts off the IF and 1 is not added to WD. WD remains at 2. Therefore, when we go through the DOCASE, CASE 2 will be taken and 2ACROSS will be run. 2ACROSS will back up only one MOVE and two labels will be printed. As TIB goes back to the main CF we have hit the EOF and no more moves will be made. This EOF finder will work with three, two, or one record remaining between the last print and the EOF. I left several DISPLAY WD statements in the CF to show where I had trouble. I actually took several more out to save page space.

Special Note: I've said this before and I must say it again. I am very sorry but I do not have the time to answer letters. This pertains to both TI-Base and the Disk Library. I seem to have less time every month, not more.

Continued Next Month.

# CRAZY-XB

by WESLEY R. RICHARDSON  
NORTHCOAST 99ER'S, CLEVELAND, OH

The purpose of this article is to describe how an Extended BASIC (XB) program is stored on disk and how a program can have line numbers out of sequence, or even have hidden lines, yet still run properly. The intent is inform programmers so they can attempt to restore programs which have been altered. I recommend the use of formats in any programming language which conform to the specified protocols.

The program CRAZY-XB1 is a very simple program which prints 'LINE 40' 'LINE 50' and so on to the screen. The listing for CRAZY-XB2 shows how the program can be altered to have descending line numbers. Note that line number 7 is for two different instructions. The listing for CRAZY-XB3 would appear that only line 10 is in the program, yet when CRAZY-XB3 is run, it will function exactly like -XB1 and -XB2.

```
10 REM CRAZY-XB1
20 REM WESLEY R. RICHARDSON, FEB 1990
30 REM NORTHCOAST 99ER'S, CLEVELAND, OH
40 PRINT "LINE 40"
50 PRINT "LINE 50"
60 PRINT "LINE 60"
70 PRINT "LINE 70"
80 PRINT "LINE 80"
90 PRINT "LINE 90"
100 END
```

```
10 REM CRAZY-XB2
20 REM WESLEY R. RICHARDSON, FEB 1990
30 REM NORTHCOAST 99ER'S, CLEVELAND, OH
 9 PRINT "LINE 40"
 8 PRINT "LINE 50"
 7 PRINT "LINE 60"
 7 PRINT "LINE 70"
 6 PRINT "LINE 80"
 5 PRINT "LINE 90"
100 END
```

```
10 REM CRAZY-XB3
```

To understand how these programs work, we must first look at the Extended BASIC representation for the program. If you refer to the CRAZY-XB1 ASCII code sector listing, you will see that the lines are listed in reverse order. The listing has line 90, then 80 and so on, ending with the CRAZY-XB1 statement. Note that if you edit a line or add a line, then that line gets moved to the

beginning of the file. If line 40 is edited, then it will be in the file before line 90. If you edit a program and simply save the program, the lines as listed on the screen will be in proper order, but internally they will be quite mixed. If you have a program, for example PROGNAME1, in which you have made several changes, the lines can be re-ordered by the following steps:

- 1) SAVE "DSK1.PROGNAME2",MERGE
- 2) NEW
- 3) MERGE "DSK1.PROGNAME2"
- 4)SAVE "DSK1.PROGNAME3"

I suggest using different filenames in case you make an error, then you can recover using the original file. When creating a program, do all of you debugging and modifications and when your program is finished, then use the MERGE routine to organize the internal program lines.

Now that we understand the BASIC lines can be out of order in the file, how do we modify the line numbers? If you refer to the CRAZY-XB1 hex code sector listing, we will see how XB keeps track of the line numbers. In the first row, locate the 0064, that is line 100. Also in the first row is 005A, that is line 90. We can see the old line numbers in hexadecimal and decimal.

OLD LINE #		NEW LINE #	
HEX	DEC	HEX	DEC
0064	= 100		
005A	= 90	0005	= 5
0050	= 80	0006	= 6
0046	= 70	0007	= 7
003C	= 60	0007	= 7
0032	= 50	0008	= 8
0028	= 40	0009	= 9
001E	= 30		
0014	= 20		
000A	= 10		

Using a sector editor, I changed the old line number hex values to those indicated under new. If you examine rows one, two and three in the CRAZY-XB2 hex code sector listing, you will see these changes. But wait, how can the program still work? Extended BASIC executes instructions according to memory location, not to line numbers. When we list the CRAZY-XB2 program, it appears on the screen as I listed it previously. If you try to edit the program by typing 10 then FCTN X, you will be able to see lines 10, 20 and 30, but when you go to line 9, the old line 40, XB will tell you "LINE NOT FOUND." The program will still run correctly.

If we make one more change, we can hide some lines. By changing the sector row one value of

...CRAZY-XB

0064 for line 100 to a value like 0001, you will produce CRAZY-XB3. Now only line 10 can be viewed when listed, but the program still works fine.

Line numbers in XB range from 1 to 32767, or hex 0001 to 7FFF. If we change the line number to a value in the range of 8000 to FFFF, it will cause a BREAK in the program when that line is executed. For example, if the program reached the line number 83E8, the line number would then have the value of 8000 subtracted, leaving 03E8 and the message "BREAKPOINT IN 1000" would be displayed.

In the hex code sector listing for CRAZY-XB1, in lines 1 to 3, there are 2 byte or four digit numbers such as 373B, 373E, 374A, and 3756, after each line number. These refer to the memory location for the XB instruction. The difference between adjacent values is the number of bytes used for the XB instruction. The format for each instruction is XXYYY.YYY00. The XX is the number of bytes used for the instruction, not including the 00. Since the maximum value which can be represented is FF, the longest line length in XB is 255 bytes. Depending upon the statements which you use, this 255 byte length can have different ASCII lengths which you see when entering an XB program. The XB statements are stored in token format, for example PRINT is 9CC7. The word PRINT takes 5 ASCII bytes, but to XB, only requires 2 bytes to store 9CC7.

Some information such as the text contained in print statements is in the same format when saved to disk. For example the characters LINE 50 are stored on disk in the readable form as shown in line 7 of the ASCII code sector listing for CRAZY-XB1.

The third format which XB uses on disk for program files is for CALL statements. Memory must be reserved for variables and CALL statements. One way to find the tokens for each of the XB commands is to write a program using each of the commands on a separate line, and then look at the hex codes using a sector editor. Be sure to use the MERGE technique listed above if you wish to keep the sequence of lines in order when the program is saved to disk.

As I indicated earlier, I do not agree with using hidden instructions or hidden machine language code in XB programs. If you encounter one of the modified programs, perhaps now you will have some idea about how they were modified and the meaning of the values of an XB program stored on disk.

CRAZY-XB1 - ASCII CODE SECTOR LISTING

```

=====
. + 7 9 7 . 7 . . d 7 ; . Z 7 >
. P 7 J . F 7 V . < 7 b . 2 7 n
. ( 7 z . . 7 . . . 7 . . . 7 .
. . . . . L I N E 9 0 . .
. . . L I N E 8 0 . . . . L
I N E 7 0 . . . . L I N E
6 0 . . . . L I N E 5 0 . .
. . . L I N E 4 0 . # . N O
R T H C O A S T 9 9 E R ' S ,
C L E V E L A N D , O H . !
. W E S L E Y R . R I C H
A R D S O N , F E B 1 9 9 0
. . . C R A Z Y - X B 1 . . ?
. . . . . R A Z Y - X
B 1 . . . . .
. . . . ( . . . . .
    
```

CRAZY-XB1 - HEX CODE SECTOR LISTING

```

=====
002B 3739 3712 3707 0064 373B 005A 373E
0050 374A 0046 3756 003C 3762 0032 376E
0028 377A 001E 3786 0014 37AA 000A 37CC
028B 000B 9CC7 074C 494E 4520 3930 000B
9CC7 074C 494E 4520 3830 000B 9CC7 074C
494E 4520 3730 000B 9CC7 074C 494E 4520
3630 000B 9CC7 074C 494E 4520 3530 000B
9CC7 074C 494E 4520 3430 0023 9A20 4E4F
5254 4843 4F41 5354 2039 3945 5227 532C
2043 4C45 5645 4C41 4E44 2C20 4F48 0021
9A20 5745 534C 4559 2052 2E20 5249 4348
4152 4453 4F4E 2C20 4645 4220 3139 3930
000C 9A20 4352 415A 592D 5842 3100 AA3F
FF11 0300 0000 0600 01C3 5241 5A59 2D58
4231 2000 0000 0000 0100 0000 0000 0000
0000 0000 0028 0000 0000 0000 0000 0000
    
```

CRAZY-XB2 - HEX CODE SECTOR LISTING

```

=====
002B 3739 3712 3707 0064 373B 0005 373E
0006 374A 0007 3756 0007 3762 0008 376E
0009 377A 001E 3786 0014 37AA 000A 37CC
028B 000B 9CC7 074C 494E 4520 3930 000B
9CC7 074C 494E 4520 3830 000B 9CC7 074C
494E 4520 3730 000B 9CC7 074C 494E 4520
3630 000B 9CC7 074C 494E 4520 3530 000B
9CC7 074C 494E 4520 3430 0023 9A20 4E4F
5254 4843 4F41 5354 2039 3945 5227 532C
2043 4C45 5645 4C41 4E44 2C20 4F48 0021
9A20 5745 534C 4559 2052 2E20 5249 4348
4152 4453 4F4E 2C20 4645 4220 3139 3930
000C 9A20 4352 415A 592D 5842 3200 AA3F
FF11 0300 0000 0600 01C3 5241 5A59 2D58
4232 2000 0000 0000 0100 0000 0000 0000
0000 0000 0028 0000 0000 0000 0000 0000
    
```



I have a couple things to say that I hope will be helpful or encouraging. TI-Base is probably one of the cheapest learning tools you will ever find. The commands TI-Base uses, such as WHILE;ENDWHILE, DOCASE;ENDCASE and DO, are almost exactly the same as you will find in dBASE on the big machines. The language of TI-Base is also very much like PASCAL, both on our 99/4A and on the big machines. When I first started writing TI-Base tutorials people were amazed that I could pick up this new database program and understand it so easily. It was easy for me because I had already learned dBASE III and PASCAL. If you learn TI-Base you will either be able to use that knowledge at work someday or help your children or grandchildren when they are trying to use similar languages at school. It might help you to pick up one of the beginners dBASE books at a local bookstore, but I should warn you that the dBASE book will probably cost you more than TI-Base did in the first place.

Next: "It could be a bad disk drive." There are some things that you can do with TI-Base that will mess up a disk and lose your data, that's why I constantly tell people to make backups of all their data disks. However! If you seem to be constantly losing files and wrecking disks, it could be a bad disk drive. If you want to test for the possibility of bad drives just use DM 1000 to initialize several disks. After setting the sides and density of the drive enter a Yes to verify all sectors. The Disk Formatting should go very smoothly and as you watch the numbers count up on the screen all the little segments should seem uniform. If you see and hear a bunch of grinding and searching, something may be wrong. If you have more than one drive, try to format the same disk in the other drives to see if the same thing happens. Repeat this process with several disks. If one drive grinds and searches a lot or all the time it's probably bad. If it is a bad drive get rid of it immediately. TI-Base users generally keep the TI-Base system disk in one drive and their data disk in another drive. If TIB needs to access the system and can't because of a bad drive, it could very easily mess up the data files on the other drive because it has no system files to tell it what to do next. If the data disk is in the bad drive, TIB will still get lost and mess up the disk. In either case it is not TI-Base's fault. Complicated systems cannot function properly without good hardware. For any database situation, good or new disk drives are an absolute must.

Concerning disk drives this might help. Many of the NorthCoast members have purchased and are using MITSUMI 360KB half height floppy drives. These drives are low power so two drives can be placed in one box with a "Y" type power adapter to use the original power supply. They are also very quiet and fast. You can purchase MITSUMI 360KB drives from many different sources in COMPUTER SHOPPER Magazine for about sixty dollars each. The "Y" cable costs about \$3.50 and you'll need another ribbon edge connector for another \$3.95.

Good Luck. Marty

-----  
THE MISSING LINK  
Announcement from Texaments

I received a demo disk from Texaments of a disk that contains over 30 assembly language subroutines that replace the usual methods of accessing the computer display through XB. With these high-speed subroutines many text, cartesian graphic, turtle graphic, sprite graphic, windowing and miscellaneous peripheral operations can now be incorporated into any XB program. Novice and expert users alike will find these subroutines easy-to-use, and also fully explained in the 32-page manual included with The Missing Link.

According to Texaments, the Missing Link is an extension of the XB language that allows programmers to access the high resolution bit-mapped graphics and advanced text modes of the TI. Using the Missing Link, ordinary XB programs, without the aid of any additional hardware, can be written to take full advantage of these display modes.

Using the text operations found in The Missing Link, information can be displayed and input to and from the screen. Text can be displayed both horizontally and vertically with automatic word wrap in a window of any size. The character text size can be changed permitting up to 32 rows by 60 columns to be displayed on the screen. Different sized text can also be displayed simultaneously on the same screen.

A tremendous amount of bit-mapped operations are also available. With cartesian graphics, points, lines, circles and boxes that can be plotted on the screen. Turtle graphics can be used without the ink and color restrictions in Logo. Using the advanced sprite routines, up to 32 moving sprites can be defined and controlled simultaneously. Best of all, there are no limits when combining the advanced text and graphics capabilities on the screen.

In addition to its text and graphics operations, the Missing Link also contains some miscellaneous peripheral operations. These operations allow full color TI Artist and TI Artist PLUS! pictures to be displayed and saved to and from the screen. The Missing Link can also print full bit-mapped graphic and text screen dumps of a current display.

The demo sent by Texaments of the above program is very impressive. This should be a real development tool for programmers. The advertisement doesn't say, but I don't believe you would need The Missing Link to run a program using those routines as they would be incorporated directly into the program. The variety of display options with boxes, windows, etc. is amazing. They even had a TI-Artist picture on the screen while music was playing.

This can be ordered from Texaments for \$24.95 plus \$2.50 S&H, 53 Center St. Patchogue, NY 11772.

-----  
Jim Mekeel, 286,3179, has the following for sale:

TI 99/4A Computer Console with transformer and TV adapter. 16K Memory. Excellent condition. \$30.00

48K Memory Super TI 99/4A Computer. Full expansion memory already built into the console! PE box not needed for extra memory. All adapters and cables included. \$55.00

TI Extended Basic Module. Never used. \$30.00

Proto Board for Expansion Box with documentation and plans to build Clock/Calendar card, internal speech interface, FORTI music card, and more. \$25.00

Dear Computer Shopper:

It is with concern I write this letter and enclose it with my subscription renewal. Our computer group (The Cleveland Area TI/99ers) noticed that the TI section (TI Forum) has been missing for quite some time. At first the excuse of missed deadlines prevailed, but that proved NOT to be the case. If Computer Shopper needs to be told we miss our section, and we are displeased, this is to express that idea. When you own a computer that gets no advertising, to lose a media that has such wide distribution, is crushing.

I do not understand the logic behind your move. The people that buy things they see advertised in Computer Shopper are people who use computers. TI people use their computers. We buy disk drives, printers, monitors, chips, and modems, not to mention paper, printer ribbons, disks and labels. These items do not say IBM on them, but will work on all TI/994A computers.

Our two Cleveland area user groups, TI CHIPS and NORTHCOAST 99ers, do purchase items advertised in your publication. For just our area group, we have spent thousands in the past year with people that advertise in

your magazine. Just multiply this by the number of TI groups around the country and the world. You can see direct sales are large, but what about indirect sales through people's workplace. Please don't forget computer people for the most part do have a lot to say about what their employer buys and where it is bought. If a monitor can be purchased for \$299 why pay \$399. Most purchasing agents can understand that logic! We also have many people who play a dual role: IBM at work, TI at home, after all it is a home computer. Even when these people get their IBMs at home, they keep their TI.

Please don't forget where we all began; don't sell the little guy short (he may not be as little as you think).

This letter will be published in our Cleveland area newsletter, which is sent to other groups around the country and the world. The response to this letter will also be published. I believe in being fair.

I look forward to your response.

Sincerely,

John Parken  
Cleveland Area Users Groups

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



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

FIRST CLASS

*Exp date 9/0/07*  
*L.P.*

FIRST CLASS

*Strongsville Ohio*  
*44136*