THE GUILFORD 99'ER NEWSLETTER

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The Guilford 99'er Users' Group Newsletter is free to dues paying members (One copy per family, please). Dues are $12.00 per family, per year. Send check to P.O. Box 21691, Greensboro, NC 27420. The Software Library is for dues paying members only. (Herman Geschwind, Editor)

OUR NEXT MEETING

DATE: FEBRUARY 4, 1986. TIME: 7:00 PM PLACE: Glenwood Recreation Center, 2010 S. Chapman Street.

The subject of our February meeting will be an overview and introduction to MULTIPLAN (See related article in this newsletter). The second part of the meeting will be a tutorial on TI WRITER. This session will last for approximately 45 minutes and will cover the EDITOR. In a similar fashion at the following meetings we will cover FORMATTER and UTILITIES.

THE ORPHAN CHRONICLES

by Ronald G. Albright, Jr. M.D.
a review by Herman Geschwind

Christmas Eve turned out to be quite a day. Not only did UPS deliver the eagerly awaited GRAM KRACKER from Millers Graphics, but the mailman also brought The Orphan Chronicles, likewise published by Millers Graphics.

It turned out to be a long night, watching the KRACKER writing my extensive and precious cartridge collection to disk and avidly reading The Orphan Chronicles more or less at the same time. In either case it was a lot of fun.

With his book Ron addresses two types of TI users, those like myself who stayed with the TI and remained active in the TI users community and on the other hand those who were more easily discouraged and gave up.

For those of us who are still active, Ron's book makes fascinating reading with an amazing amount of detail as to why certain things happened and what is going on now.

When Ron describes how he and a number of others heard about The Black Friday, their personal reactions to the "bad news" and what they did in the first few days thereafter is certain to strike a responsive chord. For myself I can only say, "Gee, so I was not the only one that felt that way..or reacted in such a fashion."

The book not only covers the corporate history and machinations of TI and the 99/4 - 99/4A, but it also covers in great detail such ancilliary players as the IUG and 99er Magazine.

Ron comes down particularly hard on Charles LaFara and the IUG and here is where Ron and I might disagree in our judgment. Certainly, I was an IUG member right from the moment when I bought my first console and I renewed my membership almost up to the point when the IUG went under. I never had any illusions that the IUG was anything but a commercial venture much the same as the book club of which I am a member is not a "Club" and the automobile association is not an "association". I still feel that for my membership fee I received good value and I learned a lot from the programs that I obtained from the IUG library for what I thought was a very reasonable amount of money (let us remember what outrageous price TI was charging in

those days to see that $3.00 per program seemed to be quite a bargain!).

The "Enthusiast" magazine made good reading, particularly Paul Gronos' column, even though the subject matter that he covered was way over my head (then). While the IUG might not quite measure up to Ron's standard of user group purity, I for one am not sorry for the money that I spent and I did not begrudge Charlie the fact that he made a living that way. But that is my opinion.

While Ron comes down hard on the IUG, he is comparatively lenient in his evaluation of HCM. To inject a personal note again, I feel a lot more negatively about HCM than the IUG. When the 99er Magazine failed to appear in December, and then again in January, February and March, and then made its debut as the HCM I really felt let down and cheated. For me it was downhill with the HCM ever since. I still have a subscription to this magazine but it is very unlikely that I will renew. To me it seems that Mr. Kaplan and his crew went into a deep sleep as far as the 99/4A goes starting with the fall of 1983 and judging by their coverage nothing of importance has happened since.

For the second group of readers Ron offers an excellent "Survival Manual" for what to do to get the most value out of your computer investment in spite of the fact that the machine might be an orphan. The tips and recommendations that Ron gives are excellent, the only problem being of how to reach the thousands of "closet computer" owners with this book.

Again, as a survival manual it does an excellent job of listing sources of supply, both hardware and software plus many bulletin boards (reasonably complete) and users groups. Appendix B is a brief annotated bibliography of books relating to the TI 99/4A. Since many bookstores now have cut back on computer books in general and 99/4A related books in particular, this listing is a great aid to find those titles needed for the TI library while chances are good that the book might still be in print. What adds to the value of this listing is that Ron and Barry Traver briefly review each title which is a great assist in separating the wheat from the chaff.

As I said, The Orphan Chronicles make fascinating and stimulating reading and we should thank Ron Albright for putting it all together in 172 pages. We also should give Craig Miller a vote of thanks for making this book available to a much wider audience than Ron ever intended. The first printing does suffer a few lapses in grammar and spelling in places but a second printing should take care of that.

The Orphan Chronicles. Ronald G. Albright, Jr. M.D. ISBN 0-931831-01-06. Published by: Millers Graphics, 1475 W. Cypress Ave., San Dimas, CA 91773. $9.95 + $2.00 S+H

TI SHOPPER
by Bob Carmany

It looks like everyone is jumping on the "GRAM KRACKER bandwagon". Ever since Craig Miller introduced his product, clones have appeared at a remarkable rate. Now available is a series of products from MECHATRONIC GmBH of West Germany that include another GRAM KRACKER clone. All of these products are handled by Technical Application Product Engineering, 1439 Solano Pl., Ontario, CA 91764. Incidentally, they are priced somewhat below the listed suggested retail prices (which will be in parenthesis).

GRAM KARTE is a PEB plug-in clone of GRAM KRACKER without a lot of the enhancements and conveniences of the MG product. It has a 128K capacity and up to three maybe installed in your PEB. The price tag on this one is a little steep -- $249.50.

Also available is Extended Basic II+ Cartridge for $79.95 ($99.95), a 128K RAM card for the PEB for $159.95, a 128K stand-alone with Centronics print spooler for $149.95, a true "Mouse" for $98.00, an EPROMMER for $129.50, a 2.8K floppy disk drive for $199.95, and 80 Column card for $200.00, and a GPL listing book for $17.95. If you are interested in any of these products, contact TAPE, Ltd at the above address for further information.

Again, for those of you in search of bargains in cartridge-based software, check the current issue of MICROpendium. TEX-COMP has some offerings that might be of interest. They are still running a series of educational packages (they are scattered throughout the magazine) and there are several other advertisers of note (ie TENEX, Specialist In, etc.). It should be noted that Specialist In had stand-alone disk controllers available a couple of months ago, too.

Now, for a short bit of editorial digression. While TEX-COMP may have some good prices on some of their products, the ethics of the company leave much to be desired. Right after TI released TI Forth to the Users' Groups without charge, TEX-COMP started selling it for $32.00+. As if that wasn't enough, they recently offered DM 1000 as a premium in one of their

offers despite the fact that the Ottawa Users' Group holds the rights to the program. The latest in this series of "transgressions" involves the TEX-COMP offer of Danny Michaels' SCREEN DUMP program as a premium with the CORCOMP LOAD/INTERRUPT switch. Take all of this into consideration when it comes time to order --- price may not be the only thing to look for!! And, these are not the first complaints of this type involving TEX-COMP. Enough editorializing!

MICROpendium is also offering a listing of "freeware" for $1 (or $.50 and a self-addressed postpaid envelope). Probably included are an XB loader for TI Forth, Danny Michaels' programs, and several other programs of note. Most of them require either sending an initialized disk or disks and a small donation to the author if you are satisfied with the program would be nice. It is one way to keep the high quality programs coming!

TIPS AND TECHNIQUES ON TI MULTIPLAN

By Steve Zimmerman

At several user group meetings, I have heard quite a variety of questions about one of TI's most powerful software packages, TI's Multiplan spreadsheet program. Many people seem to be interested, but there are also questions on the uses of Multiplan and the techniques needed to get Multiplan working for you.

Stated simply, Multiplan is a worksheet (like an accountants pad or a tablet) with rows and columns. One of the powers of Multiplan is that the sheet does not have to be added up by hand! Multiplan will add up rows or columns of figures for you (once you tell it just what you want it to do). This may not seem like a lot, but I got started in Multiplan because I hate to add up 60 to 80 columns of figures, with 20 to 22 numbers in each column, every month. Moreover, when I did this with my trusty 10-key adding machine, the columns seldom balanced with each other.

Multiplan also has logical operators, just like BASIC and Extended BASIC. You can use IF/THEN/ELSE and other logical operators to avoid error messages and to cross check and validate your work. With all the built-in functions, Multiplan is one of the most powerful tools now available for the TI. Getting started in Multiplan is very simple. FIRST, make a backup copy of your system diskette! You will also need a formated diskette for data storage, so initialize one when you back up your TIMP system diskette.

The first, and possibly one of the least-known tricks, is choosing your screen color. After you plug in your Multiplan command module and select Multiplan from the master list, you see a screen which tells you to INSTALL PROGRAM DISK..PRESS ENTER KEY TO LOAD. BEFORE you press the enter key, you can choose one of 12 color combinations. This is done by stepping through the combinations with the space bar. Once you have one you like, THEN press ENTER. You can't change this once you are in the program. To select another set of colors, you will have to QUIT (after saving any work you want to keep) and then restart.

Multiplan will then load and display the basic Multiplan screen. This shows the window you are in (on the upper left, R1), the row numbers and column numbers (across the top and down the left side), the cell pointer (which highlights the active cell--the one you are in now), the command line, and so on. Commands may be selected in one of two ways: by stepping thru the command line with the space bar and pressing ENTER when the command you want is highlighted, or by keying the FIRST letter of the command. Usually, keying the first letter is much faster.

The first command I use is the Opt command, for Options. I normally set recalc to NO, as otherwise there will be a delay after a value is entered into a spreadsheet while the sheet is recalculated. With small sheets , this may not be a problem, but with the size sheets I use (300-400 cells, and 95-99% of available memory used), it takes 2-3 minutes for the sheet to recalculate. This takes A LOT of time. It's much easier to set recalc to NO, enter your values, and use fctn 8 to recalculate after all new values are entered. DO recalculate before you print a sheet! Multiplan will automatically recalculate the sheet when you SAVE it, but DOES NOT before you print it! So, if you have entered new values with recalc set to NO, and then print the sheet BEFORE you SAVE it, your printout will NOT have correct values in it!

Another useful command is the NAME command. Briefly, this allows you to assign a name to a cell or range of cells. This is needed to use the Xtern (external) feature (about which more in a future column), but can be useful in that you can NAME a range of cells (for example, SALES), and then use the name in a formula. This may be easier than referring to the range by row and column numbers. SUM(Sales) is easier to enter (and to understand!) than SUM(R2C3:R4C35)!

PROGRAM PLANNING

by Bob Carmany

It is once again the time of year that we need to plan our programs for the coming months. I'm sure that there are those of you who would like to see a specific application or group of specific programs demonstrated or presented at our monthly meeting. Now is the time to speak up! If you have suggestions as to what you would like to see at our monthly meetings, please see me at this meeting! Remember, it is your Users' Group!

Also, if you would like to present a program yourself, please feel free to contact me at the meeting and we will see about scheduling it at the earliest possible time. I know that I would really appreciate any ideas for programs and any participation from our membership.

GOLDEN BYTE AWARDS
by Randy Ainsworth

Since we are at the end of another year, I feel it necessary to give out some awards to those TI-related companies and individuals who make our computing so much fun.

A heap of thanks to those software and hardware companies who advertise in the TI publications but give no phone number or address, thereby making it real easy to obtain any substantive information on their products.

The OPEN WALLET SURGERY award goes to Tex-Comp for selling freeware programs and letting you spend your long distance dollars listening to a recorded advertisement. This is just the kind of dealer we all need!

Thanks to all the authors of the various terminal programs that require the user to hold down at least 3 keys to do simple commands. There's nothing that gives me a better feeling than being online long distance and having to page through 45 pages of documentation to find out how to perform a simple task. Ever heard of KEEP IT SIMPLE STUPID?

I am eternally grateful to Quality 99 for rewriting freeware programs and selling them for outrageous prices. That's the kind of thinking that will keep the TI market strong.

And let's not forget Compute magazine for their extensive coverage of the TI. I know there's nothing I enjoy seeing more than programs written for console Basic. We truly need more loan amortization programs and "catch the balloon" games.

Finally, a special award for creativity must go to the staff member at Home Computer Magazine who's job it is to make up the Letters to the Editor in each issue. I get the biggest kick out of reading about people who sold their TI's to "upgrade" to a Commode or Atari. And there are always plenty of letters telling that "I think that HCM is the best magazine on the market". Keep up the fine work of rehashing old programs....love that bi-monthly or so publishing schedule. Now that's what I call solid support!!

ZORK TEXT FILE
contributed by Bob Carmany

Here are some tips that appeared in one of the "older" issues of MICROpendium. If you have the game ZORK I and are not overly impressed with the screen color while the game is running, here is a "fix".

The first program is the "fix" for the Assembly Language version of the program and the second is for the Extended Basic version. We would suggest using a copy rather than the original in case something goes wrong. Simply type in the appropriate program for your version (either AS or XB). Line 120 in both programs contains the color definitions. Simply change "F0" in the XB version to the background and foreground colors of your choice (CHR$(240) is the equivalent in the Assembly Language version). Once you have made the appropriate changes, put your COPY of ZORK I in drive number one and RUN the program. That's all there is too it!!

The third program will allow you to RUN ZORK I with the LOAD AND RUN option of the Editor/Assembler cartridge without having to type in the filename. After you have made your color changes on the Assembly Language version, put your copy in drive number one and RUN that program.

incidentally, here is a list of the 16 colors and their hexidecimal codes: Transparent 0; Black 1; Medium Green 2; Light Green 3; Dark Blue 4; Light Blue 5; Dark Red 6; Cyan 7; Medium Red 8; Light Red 9; Dark Yellow A; Light Yellow B; Dark Green C; Magenta D; Gray E; and White F. Good luck!!

```
100 OPEN #1:"DSK1.BOOT1",DISPLAY ,FIXED 80,RELATIVE
110 LINPUT #1,REC X:A$ :: PRINT X :: P=POS(A$,CHR$(7)&CHR$(244),1):: IF P THEN
  PRINT "THIS IS IT";A$ :: GOTO 120 ELSE X=X+1 :: GOTO 110
120 A$=SEG$(A$,1,P)&CHR$(240)&SEG$(A$,P+2,80):: PRINT #1,REC X:A$
130 CLOSE #1
```

```
100 OPEN #1:"DSK1.BOOT",DISPLAY ,FIXED 80,RELATIVE
110 LINPUT #1,REC X:A$ :: PRINT X :: P=POS(A$,"07F4",1):: IF P THEN PRINT "THIS
IS IT";A$ :: GOTO 120 ELSE X=X+1 :: GOTO 110
120 A$=SEG$(A$,1,P+1)&"F0"&SEG$(A$,P+4,80):: Q=POS(A$," ",P):: A$=SEG$(A$,1,Q-
&"8"&SEG$(A$,Q-5,80):: PRINT #1,REC X:A$
```

ZORK BOOT FILE

```
100 OPEN #1:"DSK1.BOOT1",RELATIVE,FIXED :: X=170
110 LINPUT #1,REC X:A$ :: IF ASC(A$)<>54 THEN X=X+1 :: GOTO 110
120 LINPUT #1,REC X+1:B$ :: PRINT #1,REC X:"1"&SEG$(A$,2,2)&"F" :: PRINT #1:A$
: PRINT #1:B$ :: CLOSE #1 :: PRINT X
```

FORTH FORUM

by Bob Carmany

This month we are going to continue with disk utility screens for Wycove Forth. You can add these to the three that we published last month to aid you in disk management.

The first of the four screens provides the means to format a disk through the use of the FORMAT word. For example, to format a disk in disk drive 1 as single sided, single density, and 40 tracks you would type in the following:

```
1 0 40 1 FORMAT
```

The second of the screen (#33) sets up the diskette header sector (#0). If anyone is interested in the documentation on a line-by-line basis, I have a copy and will gladly make it available on request.

Screen #35 is used to either set or reset the disk protection and screen #36 is used to get the information from the file directory in the disk header sector.

Next month, we will continue the series with the last six screens which will include one read and one write screen, a screen to store file directory information and a two drive back-up program.

Without further delay, here are the four screens for this month:

SCREEN #32

```
 0 ( Format Disk )
 1
 2 ( FORMAT : Format a diskette --
 3   warning -- uses >CA4 bytes
 4   starting at the pab block )
 5 ( Note: to indicate single sided or
 6   single density use 0 not 1 for
 7   use with all controllers. )
 8 : FORMAT
 9   ( disk# density #tracks #sides - f)
10   >8351 C! ( Set # of sides )
11   >834D C! ( Set # of tracks )
12   >10 * + >834C C! ( Set density )
```

SCREEN #33

```
 0 ( Set up diskette header sector 0 )
 1 ( Total #sectors must be /8 )
 2 ( Use 1 for single sided / density )
 3 : SET-SECTOR-0 ( disk# density #trks
 4   #sides copy-prot? adr len -- f )
 5   PAB@ 256 >FF VFILL
 6   PAB@ 17 BL VFILL
 7   PAB@ SWAP RAM->VDP
 8   IF >50 PAB@ 16 + C!VDP ENDIF
 9   OVER OVER * >R
10   PAB@ 18 + C!VDP
11   PAB@ 17 + C!VDP
12   DUP PAB@ 19 + C!VDP
```

```
13   PAB@ >834E !  ( Define buffer )
14   >111 DISK-DSR
15   1 ?DISK/DSR ;
16
17 ( Clear out contents of sector 1 --
18   used for directory pointers )
19 : CLR-SECTOR-1  ( disk# -- )
20   PAB@ 256 0 VFILL
21   1 SWAP WDS 14 ?DSRERR ;
22
23        -->
24
25
```

```
13   R> * 9 * DUP PAB@ 10 + !VDP
14    9 PAB@ 12 + C!VDP
15    >4453 PAB@ 13 + !VDP
16    >4B PAB@ 15 + C!VDP
17    8 / 36 + PAB @20 +
18    SWAP 0 VFILL
19    3 PAB@ >38 + C!VDP
20   0 SWAP WDS ;
21
22
23
24
25
```

SCREEN #35

```
 0 ( Set/reset file prot status )
 1
 2 ( SET-PROT : set protection on file )
 3 : SET-PROT
 4   ( disk# 1=on/0=off adr len -- f )
 5   PAB@ >834E !
 6   PAB@ 10 BL VFILL
 7   PAB@ SWAP RAM->VDP
 8   IF -1 ELSE 0 ENDIF
 9   >834D C!   >834C C!
10   >112 DISK-DSR >20 ?DISK-DSR ;
11
12 : [PROT"]
13   ( disk# 1=on/0=off adr len [PROT"]
14     filename" -- )
15   SET-PROT 14 ?DSRERR ;
16
17 : PROT"
18   ( disk# 1=on/0=off PROT" filenme" )
19   [ IMMEDIATE ] STATE @
20   IF [COMPILE] " COMPILE [PROT"]
21   ELSE IN" [PROT"] ENDIF ;
22
23
24
25
```

SCREEN #36

```
 0 ( Get file directory information )
 1 : FILE-INFO
 2   ( adr len disk# -- f
 3   or -- #data-sectors flags
 4   #recs-per-sector eof-offset
 5   rec-len #recs-or-sectors 0 )
 6 ( *warning* some data only valid for
 7                certain types of files )
 8   >834C C!   0 >834D C!
 9   PAB@ DUP >834E ! !PN>VDP
10   >8320 DUP >8350 C!
11   >14 DISK-DSR >20 ?DISK-DSR
12   -DUP IF
13     SWAP DROP
14   ELSE
15   2+ DUP @ SWAP 2+ DUP C@ SWAP 1+
16   DUP C@ SWAP 1+ DUP C@ SWAP 1+ DUP
17   C@ SWAP 1+ DUP C@ SWAP 1+ C@ 256
18   * +
19   ENDIF ;
20
21 ( Flag byte has 7:1=var/0=fix, bit 3
22   1=prot/0=unprot, bit 1:1=internal/
23   0=display, bit 0:1=program/0=
24   data )
25
```

UTILIZING THE MERGE FORMAT

by R.Petrocone

Part I

The merge option of TI Extended BASIC opens up the possibility of doing many things far from its original purpose. Using the merge format to send programs via modem was until only recently, the only way by which a remote computer could send a program on its own. We have also seen it used as a way to convert text files to programs allowing users to write programs on word processors and later converting them. These are not the only uses of the merge format, it can also be used to enable one program to in effect, write another program.

This can be very useful, especially when you have to type the same command many times with different variables such as, CALL SOUND'S, DATA, CALL CHAR etc. By utilizing this format, a person would only have to type in the variables and the computer would write the line numbers and the command by itself.

FILE STRUCTURE

The first step in creating a merge format file is the open statement. Merge format files must be DIS/VAR 163 type files. An example open statement is:

```
OPEN #1:"DSK1.FILENAME",VARIABLE 163
```

CONDENSED CODING

In the merge format, most Extended BASIC commands are represented by one ASCII character between 129 and 254. In order to write files in the merge format it is necessary to know these codes. You may generate a list of the merge format codes by typing in the following program:

```
100 OPEN #1:"DSK1.CODE",VARIABLE 163
110 LINE=128
120 FOR T=129 TO 254
130 LINE=LINE+1
140 PRINT #1:CHR$(0)&CHR$(LINE)&CHR$(T)&CHR$(0)
150 NEXT T
160 PRINT #1:CHR$(255)&CHR$(255)
170 CLOSE #1 :: END
```

When you run this program it will create a merge format file containing all the condensed format codes. After running it, type NEW and then MERGE DSK1.CODE When the drive stops and you list the program you will notice that there will be one command or character per line, the line number will be the ASCII code of that command or character. Please note that the following lines will not be used and should be deleted.

WRITING A LINE OF CODE

The first part of a line of code is logically the line number. The line number is given by two CHR$ statements, the first one gives the number of 256's in the line number and the second gives the number of ones.

```
EXAMPLES: CHR$(0)&CHR$(100) LINE 100
          CHR$(1)&CHR$(24) LINE 280
          CHR$(3)&CHR$(2) LINE 770
```

Next you must write the command you wish to use by using the CHR$ of the ASCII value as generated by the program given earlier.

If the line you are coding requires that you use variable names then they must be enclosed in quotes. Suppose you wanted to enter the following line: 100 PRINT A You would enter:

```
CHR$(0)&CHR$(100)&CHR$(156)&"A"&CHR$(0)
```

This brings up another factor, you will notice that there is a CHR$(0) at the end of the line, this is a indicator which tells the computer that it is the end of the line and should be at the end of all lines of code.

Strings which would normally be quoted in Extended BASIC are also handled specially. Before the string to be printed you must enter two CHR$'s, the first, being CHR$(199) and the second being the length of the string that follows. The same also applies to all numeric constants with the exception that the first CHR$ should be CHR$(200) and not CHR$(199). Note that both constant and string are place in quotes.

EXAMPLE: 1 PRINT "YES",RR You would enter:

```
CHR$(0)&CHR$(1)&CHR$(156)&CHR$(199)& CHR$(3)&"YES"&CHR$(179)&CHR$(200)& CHR$(2)&"RR"&CHR$(0)
```

The final exception is when you have line numbers within a line, for example in GOTO's, GOSUB's etc. To include a line number like this you must first identify the coming line by TYPING in CHR$(201) and then you enter the line as you do a regular line number.

EXAMPLE: 7 GOTO 1 Written like this:

```
CHR$(0)&CHR$(7)&CHR$(134)&CHR$(201)& CHR$(0)&CHR$(1)&CHR$(0)
```

CALL'S

When you go through your list of condensed codes you will notice that there are no values for the CALL's, CALL CLEAR, CALL COLOR, CALL CHAR etc. There is however, just a value for "CALL". In order to write a CALL statement you must treat the word after the CALL as a quoted string.

EXAMPLE: 1 CALL CLEAR You would enter:

```
CHR$(0)&CHR$(1)&CHR$(157)&CHR$(200)& CHR$(5)&"CLEAR"&CHR$(0)
```

CLOSING THE FILE:

When you are finished printing to your file, you should end it properly. Do this by printing CHR$(255)&CHR$(255) to the very end of the file, then CLOSE it. If you omit this, it will cause a error message when you merge the file but, it will still work.

EXAMPLE PROGRAM

The following is a short example program giving a practical usage. It allows you to write DATA statements having only to type the DATA.

```
100 ON WARNING NEXT
110 DISPLAY AT(10,1)ERASE ALL:"ENTER FIRST LINE NUMBER:" :: ACCEPT AT(10,25)BEEP VALIDATE(DIGIT)SIZE(4):LN
120 DISPLAY AT(12,1):"ENTER INCREMENT:" :: ACCEPT AT(12,17)BEEP SIZE(3)VALIDATE( DIGIT):I
130 DISPLAY AT(14,1):"ENTER FILENAME:" :: ACCEPT AT(14,16)BEEP VALIDATE(UALPHA, DIGIT )SIZE(10):FN$
140 OPEN #1:"DSK1."&FN$,VARIABLE 163
150 DISPLAY AT(2,6)ERASE ALL:"PRESS ENTER TO END" :: DISPLAY AT(22,1):"ENTER A LINE OF DATA:" :: LINPUT "":D$
160 IF D$="" THEN 190
170 PRINT #1:CHR$(INT(LN/256))&CHR$(LN-256$INT(LN/256))&CHR$(147)&D$&CHR$(0)
180 LN=LN+I :: GOTO 150
190 PRINT #1:CHR$(255)&CHR$(255)
200 CLOSE #1 :: END
```

CATALOGING LIBRARY

A Review by Herman Geschwind

For many of us with a sizeable program library the perennial problem is how to manage this library most efficiently: To find a program quickly or to find a diskette with sufficient free space.

There are a number of disk cataloging programs on the market to assist in this chore which can be classified by (1) the program language used, Basic/Extended Basic or Assembler, and (2) the method that is being used, Snap-Shot or Perpetual Inventory. Disk cataloging programs based on Basic or Extended Basic commonly have two defects: (1) the number of disks that can be cataloged is restricted by memory limitations to fifty or sixty and the number of files to 500 or so. Unless the program does a good job of error trapping the danger always exists that the last file that was read in was one file too many and the whole system crashes. (2) Disk catalogers written in Basic tend to be slow and as memory fills up, these programs really slow to a crawl. A sort of file names which should be part of such a program can take as long as an hour for 500 files.

To manage a disk library of more than a few disks really calls for Assembler. If a program is well written up to 1000 file listings can be accommodated without straining the capacity of memory or disk. Likewise, internal processing is fast and sorts are a matter of minutes rather than an hour.

In terms of organization, a "Snap-shot" program means that all disks have to be read in in order to obtain a sorted listing of files and disks. A "Perpetual" program means that the entire library will be recorded in a disk file and from then on it is only a matter of deleting and reading back in those disks where changes have taken place.

The disadvantage of the "Snap-shot" method is that for one it is rather tedious to read in disk after disk and then it puts quite a strain on the disk drive mechanism to have disks inserted and removed in rapid succession . For ease of use the "Perpetual" method certainly is preferable .

Until now, even though there are any number of disk cataloging utilities, either commercial programs or "freeware" around, they were either of the "Basic" variety with their language constraints, or of the "Snap-shot" variety with its drawbacks.

A new "Freeware" program "CATALOGING LIBRARY" by Martin Kroll, Jr. admirably succeeds in overcoming all these limitations: It is an Assembler program of the "Perpetual" type.

The opening menu of CATALOGING LIBRARY gives an indication of the many features that Martin managed to pack into this program:

A Add Disk to Catalog
B Delete Disk from Catalog
C Delete all "T"emporary Disks
D List Disk Summary
E List all Programs (Files)
F Search for and List a Disk
G Search for and List a Program
H Print Disk Summary
I Print all Programs
J Print all Program - No Page Division
K Search for and Print a Disk
L Change Printing Options
M Sort and Save Data
N Terminate Program

As can be seen by this menu, there is hardly an option not covered by this program: Any information desired is available either as printer hardcopy or as screen output. Printer setup is very flexible and not restricted to either PIO or RS232. Since all the information is memory resident, searches for either file or disk information are completed almost instantly.

If Martin can be faulted at all it is that there is no documentation for this program. Thus there is no telling what the capacity limitations of this program are. I have tested it with 90 disks and 830 files without problems.

Another limitation of this program is that it requires the "Load and Run" option of either Editor Assembler or Mini Memory. We can only hope that Martin will re-compile this program in Program image format so that it will be usable with an XB loader for a wider TI community.

A "cute" feature of this program is that whenever it branches to a sort, the message "By The Way..Have you sent $10 to.." appears on the screen rather than the more traditional "Now Sorting...". Certainly a nice way to remind the "free-loaders" among us that all programming efforts deserve their financial rewards.

All in all, CATALOGING LIBRARY is the best catalog program that I have seen yet, and I have tried many only to be frustrated either by lack of capacity, lack of speed or complex handling. Martin is to be commended for this excellent product for the modest price of only $10.

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