

QB MONITOR

QB-99'ERS U.G. NEWSLETTER

4

MAY 1988

The QB MONITOR is the Newsletter of the QB-99'ers User Group, is printed Sept. thru June and sent in exchange for other User Group Newsletters. Send Exchange Newsletter to Frank Cotty, Queensborough Community College, Bayside, NY 11364. Credit original sources.

The QB 99'ers meets the second Saturday of each month September through May, at Queensborough Community College, Bayside New York, room S225, at 2 P.M. See the calendar at right for the dates

Saturday
MAY 14
2 PM

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QB MONITOR ~ QB-99'er NEWSLETTER

As usual the QB Monitor this month presents the best. Just in case you missed the previous two installments of the TI Writer Toolbox let me tell you Ed makes us think, and makes it sooo easy to follow his instructions and where he is going it is a delight to present TI-Writer Toolbox #3. This time he presents how to configure your working FUNNELWEB V4.0 disk for two drive systems. Ed knows how to get the most out of his system, so let him tell you how.

You may want to refer to the FUNNELWEB FLOW CHARTS during Ed's DISKussion so they were included in an updated fashion (how quickly things change Mr. Good!).

Ed always has his computer warm. One of the many things he does with it is articles for our newsletter. Another is the terrific ability he displays in programming in BASIC. Not that the most important things are done in BASIC or anything like that, but I learn something everytime I read Ed's description or see the results of his programming effort. NAME THAT PHONE another Tiny gram from Ed will not impress anyone with its importance. But, I dare anyone to tell me they haven't thought about having a simple nemonic device to relate their phone number to someone so they don't forget it, OR forget YOU. For instance: TI-CARES!

We should never forget that the

reason 75% of us brought our TI's was the kids in our lives. I know as well as you that your kids can't get near the thing. Let's give them something to look at in our KID'S KORNER this month. Colorific! I hope will entertain as well as educate our younger set. (I'm sorry I don't have the credits for this program. If you know who the author is I will print that information next month.)

Do you like to laugh? I guess there aren't too many computer users who don't laugh. You have just entered the code from HCM. Sit back and let it RUN! OUT OF MEMORY AT 32765. SYNTAX ERROR. BAD VALUE. NAME TOO LONG. RETURN WITHOUT GOSUB. Hours can go by before you dope out the error messages. You have to have a good sense of humor to endure the torture your computer can dish out. Let's let a Realist enter his two cents. A Realist's Computer Glossary can't foul things up any more than they already are.

I love to work on electronic projects involving my TI. But where to get the basic information is ever a problem. John Wilforth continues his Let's Talk RAM Disks series in this issue of the QB Monitor. In it he discusses the Horizon RAM Disk. It is available in kit form. That's a great way to learn about the innards of your computer; to get a first hand look at what it takes to put one together. This series will continue next month with a discussion of the MYARC memory expansion card.

```
1 *****TINYPEG*****
   *****A TINYGRAM*****
   ***BY MIKE STANFILL***
   **DALLAS TI USER GROUP**
```

```
2 CALL CLEAR :: X,Y=18 :: CA
LL CHAR(88,"003C7E7E7E7E3C")
:: PRINT " XXX", " XXX":,
"XXXXXXXX", "XXXOXXX":, "XXXXX
XX":, " XXX":, " XXX": ::
```

```
3 N=79 :: GOSUB 8 :: GOSUB 7
:: X=P+X :: Y=U+Y :: IF K<>
1B THEN 3 ELSE GOSUB 8
```

```
4 CALL GCHAR(X,Y,C):: IF C<B
8 THEN 3 ELSE GOSUB 7 :: CAL
L GCHAR(P+X,Y+U,C):: IF C<B8
THEN 3 ELSE W=P*2+X :: Q=U*
2+Y :: CALL GCHAR(W,Q,C)
```

```
6 IF C<>79 THEN 3 ELSE CALL
HCHAR(X,Y,N):: CALL HCHAR(X+
P,Y+U,N):: X=W :: Y=Q :: CAL
L HCHAR(X,Y,88):: GOTO 3
```

```
7 CALL KEY(I,K,S):: P=(K=5)-
(X=14)-(K=0)+(X=22):: U=(K=2
)-(Y=16)-(K=3)+(Y=24):: IF S
THEN RETURN ELSE 7
```

```
8 CALL SPRITE(#1,88,7-(K=18)
*9,X*8-7,Y*8-7):: CALL SOUND
(N,440-(K=18)*N,0):: RETURN
```

MENSA MATERIAL?



FUNNYMAD FARMS
Mike Stanfill

laid out in this fashion (the "X"s are the pegs):

```
xxx
xxx
xxxxxxx
xxxOxxx
xxxxxxx
xxx
xxx
```

The 'o' is an empty space. The idea of this game is to jump peg over another, always landing in an unoccupied space, remove the jumped peg and continue doing this until you have but one peg remaining. Sound simple? Dream on cherub! I'm told that the truly

Mensa-material types can accomplish not only the final objective of the game but have that final peg resting in the originally empty center spot. I've tussled with it for awhile but have only been able to end up with three pegs left. It IS a challenging little monster!

Type in, SAVE and RUN the program in X-BASIC. On the screen you'll see the black pins, an empty central spot and a red peg. The red peg is a sprite you control with the arrow keys. When you place the red dot over the peg you wish to move press the 'Q' key, whereupon the dot will turn white. At this point press the arrow key indicating which direction you want dot to jump. If your move is illegal the dot will turn red again, if not the peg under the dot will have jumped the desired peg leaving a blank space where the jumped peg and the original peg were.

Sound confusing? It isn't. You'll get the hang of it quite quickly. Enjoy, fellow pigeons! (And if anyone knows how to end up with a single peg let me know. It's driving me, even further, bananas!)

```

-----
 / TI-WRITER TOOLBOX #3 / \
 / QB \
 | by Ed Machonis | 99ers |
 \-----/
    
```

Last month we configured a Funnelweb disk for use with single drive systems which enabled saving files without swapping disks. This month we will show you how to configure a disk for two drive systems. Owners of single drive systems, stick around, there is something here for you also. Assembly types are free to leave and write that article showing how best to apply FWB for their purposes.

FWB can be looked at as a series of menu loaders which can load both Extended Basic and Editor Assembler files. The initial menu you see on power up is called the XB User List. There are provisions for selecting 18 different files, but three are pre-empted, leaving 15 which you may define. You can configure this menu to load Basic, Extended Basic, E/A Opt #3 (Dis/Fix 80) files and E/A Opt #5 (Program) files. This is the only FWB menu that will load Basic and/or Extended Basic Files.

E/A programs loaded from this menu can be on the FWB disk, on the FLIP side if you are using a Flippy, or on another disk. A reminder to load the separate disk or Flip a disk can be specified. XB programs must be on the FWB disk as a reminder is not provided for these programs.

Selecting 1 or 2 from the XB User List will take you to one of the two Central Menu Screens. You will have the opportunity to edit Option #6 UTILITY on each screen so that it will load a program of your choice. Restrictions here are that the programs be of the E/A Program type and the file name cannot consist of more than two characters. (Files can be a series of files with consecutive files names as in MG, MH, etc. Only the initial file name need be entered.) No reminder is provided to load a separate disk. As soon as the option is selected, FWB looks for the

file on Drive 1. The file should be on the FWB disk or the file disk inserted before the option is selected.

Other programs can also be loaded from these Central Menu Screens. Again, they must be of the E/A Program type. Filenames have been predetermined. On the TI-Writer Menu, Option #4 DATABASE will look for an initial file name of DB and Option #5 MODEM will look for an initial filename of MD. On the E/A Central Menu, Option #4 c-COMPILER will look for file CD and Option #5 DISK PATCH will look for file DP (Part of FWB disk).

If you find you need extra menu choices and don't need these, you can change the names with a sector editor and rename your files to conform to those listed. If you would rather have a disk utility other than DISCO, just rename it DP. You can always toggle from one Central Menu Screen to the other by pressing the space bar.

The third menu is called the Central Menu User list. It is accessed from Option #7 USER LIST on the TI Writer Central Menu Screen. Eight options are provided and one of these can be used to call up another User List. To use this User List, file UL must be on the disk. It is edited with the CONFIGure program. Files accessed from this menu can be either E/A Opt #3 or E/A Opt #5. Provision is made for a reminder to load a separate disk, if desired.

Now that you know the options available, it is time to sit down with pencil and paper and lay out your menu choices. Remember that once you leave the XB User List, there is no return except by Quitting and reloading LOAD. For Extended Basic programs installed on the FWB disk, I have found it convenient to provide a return to FWB by adding the statement RUN"DSK1.LOAD" to the program.

You can place selections on the XB User List and repeat them on the other menus. Determine which files will be on the FWB disk, Flip side if used, and which on a separate disk.

TI-WRITER TOOLBOX #3.....Page 2

This is the time to make a sector count of the FWB files that will be retained so that you can determine how many files can be added to the disk. A good starting point would be to hold CHARA1, DP, EA, ED, EE, MG, MH, QD, UL and XB4THLD. These files occupy 241 sectors, leaving you 117 sectors free on a SSSD drive, 477 on a DSSD or SSDD, and over 800 on a DSDD drive.

Although previous versions of FWB required UTIL1 to return from DM 1000, Version 4.0 can return without it. If you wish to load FWB from E/A, TI-Writer or Minimem modules or from the ARCHIVER 2.4 menu, you will need UTIL1. If disk space is no problem, then retain it but it represents 33 sectors that are seldom required.

Remember, when adding E/A programs that you do not have to add the XB Loaders that are generally provided; FWB provides a loader to load your E/A Program file. If you plan to install your favorite sector editor, you will not need file DP, picking up an additional 17 sectors. Owners of SSSD drives and single drive systems may want to configure several FWB disks for different applications

If you decide to load your Dragon-slayer Spell Checker from Option #6 on the TI-Writer Central Menu Screen, you will have to rename the Spell Checker's UTIL1 file as SP. Since it is on a separate disk and a reminder is desirable, it might be better to access it from the Central Menu User List and leave the filename unchanged.

CONFIGURING YOUR FUNNELWEB DISK

Once you have determined which files will be placed where, and accessed from which menu, make a copy of the original FWB disk. Auto load the copy and select CONFIGURE from the XB User List. When CONFIGURE has loaded, proceed as described last month accepting the "Y" default for Boot Drive Tracking, inserting 1 or 2 for Utility Drive Default (depending on whether you have 1 drive or 2 and which drive you want to load files from) and changing the Editor Printer and Format Printer Device to PIO

and PIO.LF if applicable. Accept the blank default for Workfile Name.

EDIT CENTRAL MENU SCREENS

You are now offered the opportunity to Edit Utility Choice #6 on the TI-Writer Central Menu Screen. If you would like to boot an assembly language PROGRAM file from this menu and that file will be on the FWB Disk this is your chance. While DM-1000 has a sector copier, it is slow, and you might want to place a fast track copier on the FWB disk.

For an example we will use REDISKIT which is a Fairware program in our library. The core program is only 12 sectors long so it won't take up too much room on the disk and it meets the requirement for an E/A PROGRAM file. Unfortunately it requires a two drive system and cannot be used with a MYARC controller. Type in REDISKIT in place of UTILITY and press Enter. The cursor will move to the filename. Type in RD in place of SP. Later when you have deleted unwanted files from your disk, use DM-1000 to copy REDISKIT or REDISKCC (depending on your disk controller) on to the FWB disk and rename it RD. If you use REDISKIT and haven't yet done so, pay your dues to Mr. Schroeder

If you don't wish to change this menu, just press Enter for menu name and file name. You are next offered the same choice for the E/A Central Menu Screen; handle it the same way. Your next option is screen and character default colors. We covered this in depth last month. When you have made your selection, select 4 from the menu to move on to the next screen.

EDIT CENTRAL MENU USER LIST

Now comes the fun part! The question is "Do you wish to edit the Central Menu User List before saving UTIL1?" If you don't intend to use the Central Menu User List (hereinafter called CMUL) just answer N. If you answer Y, you will be offered the chance to enter data for UL ENTRY 1. Along the bottom of the screen you will note the following functions which can be accessed by pressing the initial letter of the chosen word.

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B(ack) takes you back to the previous UL ENTRY.

N(ext) will move you to the next UL ENTRY.

E(dit) allows you to enter data for the UL ENTRY displayed.

S(ave) saves your configuration of the CMUL to the file UL. It need not be exercised for each UL ENTRY, but must be used when you are through and before FUNCTION 9 is pressed to return to the main program.

UL ENTRY 1 is a good place to load a Spell Checker. We'll assume you wish to load the Dragonslayer Spell Checker. Press E(dit) and your cursor will move to List Entry. Type in SPELL CHEK and for File-Name DSK1.UTIL1. You are then asked for a LOADER SPECIFICATION:

1. Memory Image Program
2. Tagged Object Code
3. Script Load File

A Memory Image Program is an E/A Program file generally loaded with E/A Opt #5. Some will also load from TI Writer Opt. 3, especially those named UTIL1. Tagged Object Code is a Dis/Fix 80 file loaded from E/A Opt. #3. Script Load File is for loading a sequence of D/F 80 files. For our Spell Checker press 1. You are then requested to choose between the following FILE REQUIREMENTS.

1. Text Mode (TI-Wr)
2. GPL Environment
3. E/A Program File

1 is for files which usually load from #3 of the TI-Writer module which fits Spell Checker. 2 is for most E/A Opt #5 files. 3 is for files that do not fit the other two environments. If in doubt use 3. Press 1 for our entry.

If instead of specifying 1. Memory Image Program for a loader on the previous screen, you had chosen 2. Tagged Object Code you would instead have been asked to choose from the following LOADER LIMITS.

1. No Special Conditions
2. Load Low Memory First
3. Auto Start LHFM
4. Intercept Auto Start

After choosing a File Requirement or a Loader Limit, or selecting 3. Script Load File for a Loader Specification, you are asked "Will file always be found on F'WB Boot Disk?" with the prompt "Boot Tracking On Y (Y/N)." The default is Y but Spell Checker is on a separate disk, so answer N.

You are next asked "Secondary Disk N (Y/N) ?" We have not specified a Secondary Disk so accept the default N.

You are then asked "Provide Reminder N (Y/N) ?" By pressing Y you provide that when this Entry is selected from the CMUL you will be given a reminder to insert the disk with file UTIL1 into Drive 1. NEATO! You will really appreciate this in operation. Press Y of course, as Spell Checker is on a separate disk. Your next options are:

- Fctn-6 -- Enter the data
- Fctn-8 -- Do over again
- Fctn-9 -- Cancel the data

These options are PROCEED, REDO and BACK respectively. Pressing Function 9 at this point will not take you out of the Edit CMUL mode and return you to the main program, but will cancel all data entered for this UL Entry. If you want to change any of the data, press REDO and you will have the chance to reenter all the data.

Pressing PROCEED will display the Entry and the data you have entered for this Entry. We have completed the steps required to install one Entry on the CMUL. I assure you it is a 100 times easier to do than to describe. Don't let this lengthy description deter you from trying it. You may ask "Who needs it? I can just configure the XB User List and forget the CMUL." True, but every time you leave the Editor or Formatter you will have to Quit and reload LOAD to get to the XB User List, whereas the CMUL only has to load a 4 sector file, UL. You can go from Editor to Spell Checker without passing through the color bars.

TI-WRITER TOOLBOX #3.....Page 4

Next press N to move to the N(ext) UL Entry. Install all the files you have planned for the CMUL. UL Entry 5 is for the MYARC DM. If you are not using this file nor plan to use the Entry for another file, you can blank the Entry on the UL by moving to Entry 5 with the N(ext) key, pressing E(dit) and entering two periods for List Entry and anything at all for all the other prompts. UL Entry 7 CASSETTE is a candidate for the same treatment. UL Entry 6 NEXT UL provides the opportunity to select another User List should your needs require it.

Entry 8 is for the file CONFIGure. We will delete this 40 sector file from our FWB disk but it would be nice to have access to it on our Master copy for future changes. The Entry is presently configured for the file to be on the boot disk, DSK1. Press E(dit) and, if applicable, change the File-name to DSK2.CONFIG. The Loader Specification is 1. Memory Image Program and the File Requirement is 3. E/A Program File. Answer N for Boot Tracking and Secondary Disk. Press Y to provide a reminder. If you want to run CONFIGure in the future, select it from the menu and insert the Master copy in the drive selected.

When you have completed Editing of the CMUL press S(ave) to save your changes. You will be prompted to have file UL in Drive 1. UL is on the disk in Drive 1 so just press Enter and your changes will be saved. Now you can press Function 9 to leave the Edit CMUL mode. If you did any Editing and pressed Function 9 without Saving, you would be prompted to Save the changes. Pressing Function 9 returns you to the point you started out on Editing the CMUL. "Do you wish to edit the Central Menu UL before saving UTIL1?" This time press N.

EDIT XB USER LIST

THE next prompt reads "Do you wish to Edit the XB LOAD program & UList before saving UTIL1? (Y/N) Y" Accept the default Y. Next press Enter so LOAD can be loaded from DSK1. After LOAD has loaded the XB UList will be displayed

with the cursor at entry 4. The bottom line prompt is "Edit Entry Name for Menu"

Suppose you had decided that the XB Program LASTYLER would be loaded from Entry 4. Type in LA STYLER and press Enter. The following choices will be displayed with the prompt "Select Action by Number":

1. XBasic Program
2. Assembly Loaders
3. Return to XBasic
4. Leave Unaltered

Press 1 for our XB Program. You are asked to enter a file name. Enter DSK1.LASTYLER. Since assembly loaders are not required and reminders are not provided for XB programs, you are returned to the XB UList at Entry 5, MYARC DM. If you are using a MYARC controller, be aware that this entry is configured for DSK6 and should be changed if required. For those who do not have the MYARC controller, you can install another file for this entry.

Suppose we would also like to have REDISKIT available from the XB UList. Enter REDISKIT in place of MYARC DM. The parameters for MYARC DM will be displayed; just press any key. At the Select Action prompt, select 2 Assembly Loaders. From this point the prompts will be the same as those displayed when editing the CMUL as described above. This is familiar ground now. The only difference is that you cannot move back through the User List and CONFIGure moves you along from Entry to Entry.

It is wise to keep Entry 6 TI FORTH so just press enter. The parameters displayed will show the filename to be DSK6.XB4THLD, Memory Image Program, and E/A Program File. Press any key and then Select Action 2 Assembly Loaders. Edit the filename to DSK1.XB4THLD and make a note to copy this file from the FWB Docs disk to the FWB program disk. Loader Specification is 1. Memory Image Program. Program File Requirement is 3. E/A Program File. Boot Tracking On Y, Secondary Disk N, and Provide Reminder N.

Continue installing files according to your schedule. Entry 1 CONFIGURE can be retained as was done in the CMUL. Edit it in the same manner. When you have completed editing all the Entries on the XB UList, you will be asked "Save File to Drive ?" The prompt is DSK1.LOAD. Pressing Enter DOES NOT save your configuration but brings up the following menu:

1. Continue Normally
2. Redo User Lists
3. Redo Configuration
4. Back to FWB Vn 4.0

Recognize it? It's the same menu you encountered at the start of the program. The bottom line prompt now reads "1. To Save Configuration". Press 1 and drive 1 will engage and LOAD will be rewritten according to your configuration. The prompt will change to "Configuration now saved." If you don't wish to use UTIL1 you can now skip to the FINALE

SAVING UTIL1

If you also wish to configure UTIL1, press 2. Redo User Lists. You will be returned to our old friend "Do you wish to edit the Central Menu User List before saving UTIL1?" This time accept the default N. To the query "Do you wish to edit the XB LOAD program & UList? Y/N" also answer N. You are presented with the following choices:

Select F'WB File Name

- 1 UTIL1
- 2 RELOAD

Press 1. The only use I have found for RELOAD is that DM 1000 in returning to FWB looks for files RELOAD, UTIL1 and LOAD in that order. It takes about 2.5 smidgeons longer for it to find LOAD and saves you 33 sectors if you forget about RELOAD. UTIL1 would be useful to those who do not own the XB module and rely on one of the other modules to load FWB.

You are next asked "Save file to Drive #?". Press 1 and UTIL1 will be written to disk according to your configuration.

Unless you want to REDO your work, Exit with QUIT (Fctn =) and reload FWB by selecting XB. Check that the XB UList is as planned. If all is well, Press 2 for Edit/Assm Central Menu Screen and check Entry 6 if edited. Toggle with the Space Bar for the TI-Writer Central Menu and again check Entry 6 followed by pressing 7 for User List and a check of that Menu. These are visual checks only as we still haven't placed our files on the disk. If problems appear, or you want to make further changes, select CONFIGure and do it over. If you get a DSK2 prompt, temporarily move your disk to Drive 2 until CONFIGure loads.

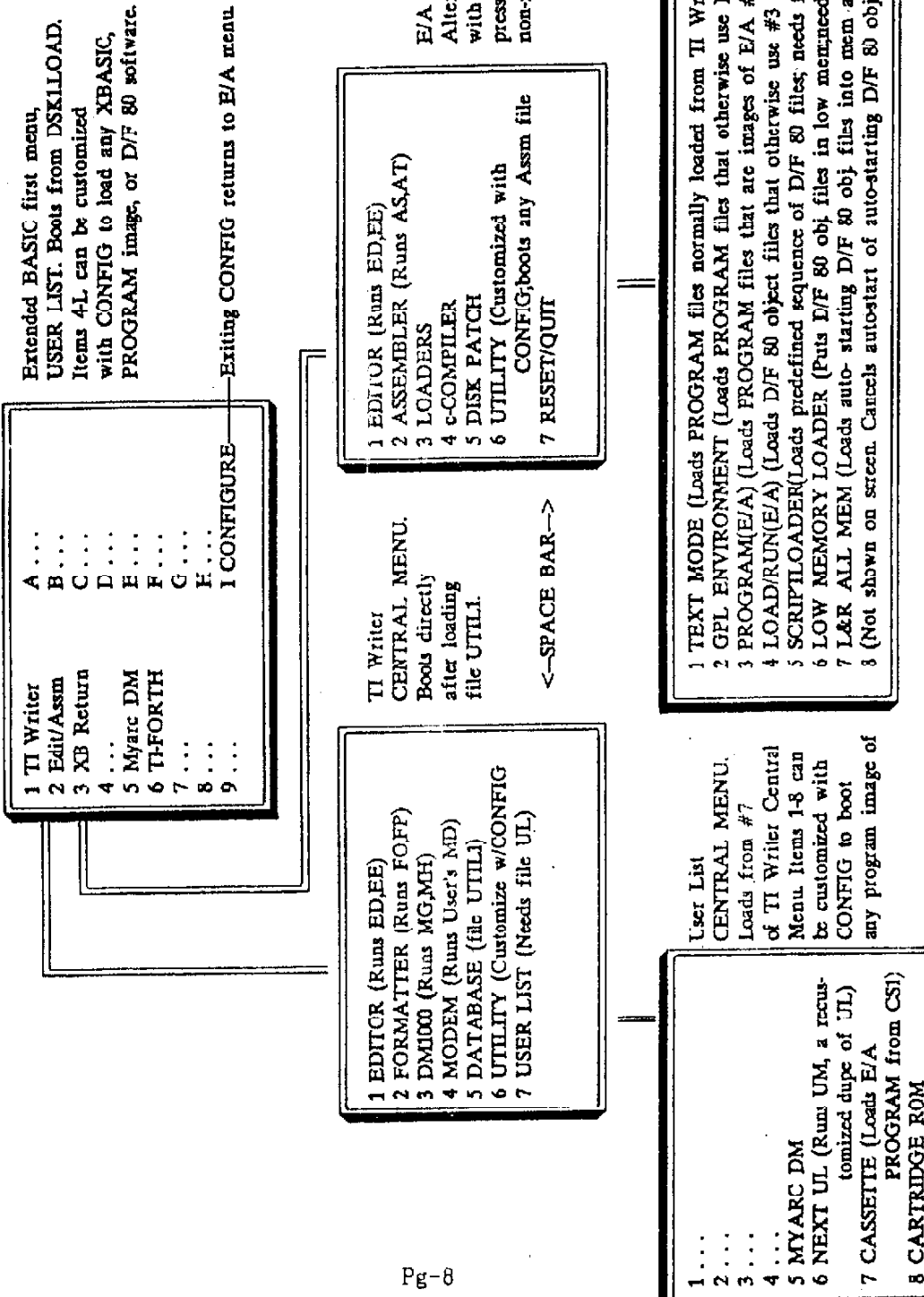
If all menus appear as planned, load DM 1000 and copy the following files from your configured disk onto a blank disk: CHARA1, DP (if retained), EA, ED, EE, FO, FP, LOAD, MG, MH, QD, UL, and if retained, UTIL1. Also copy XB4THLD from the Docs disk. Next copy all the files you had planned to place on this disk and test your newly configured disk. Test every feature to be sure your configuration works as planned. Then cover the write protect notch, label it as your configuration and make yourself a working copy using the disk you first configured.

Those handy with a Sector Editor may want to replace Atrax Robustus (Fat Albert?) with their own name or initials so that you can easily tell which configuration you are using. EQF can also be replaced with your initials for this purpose.

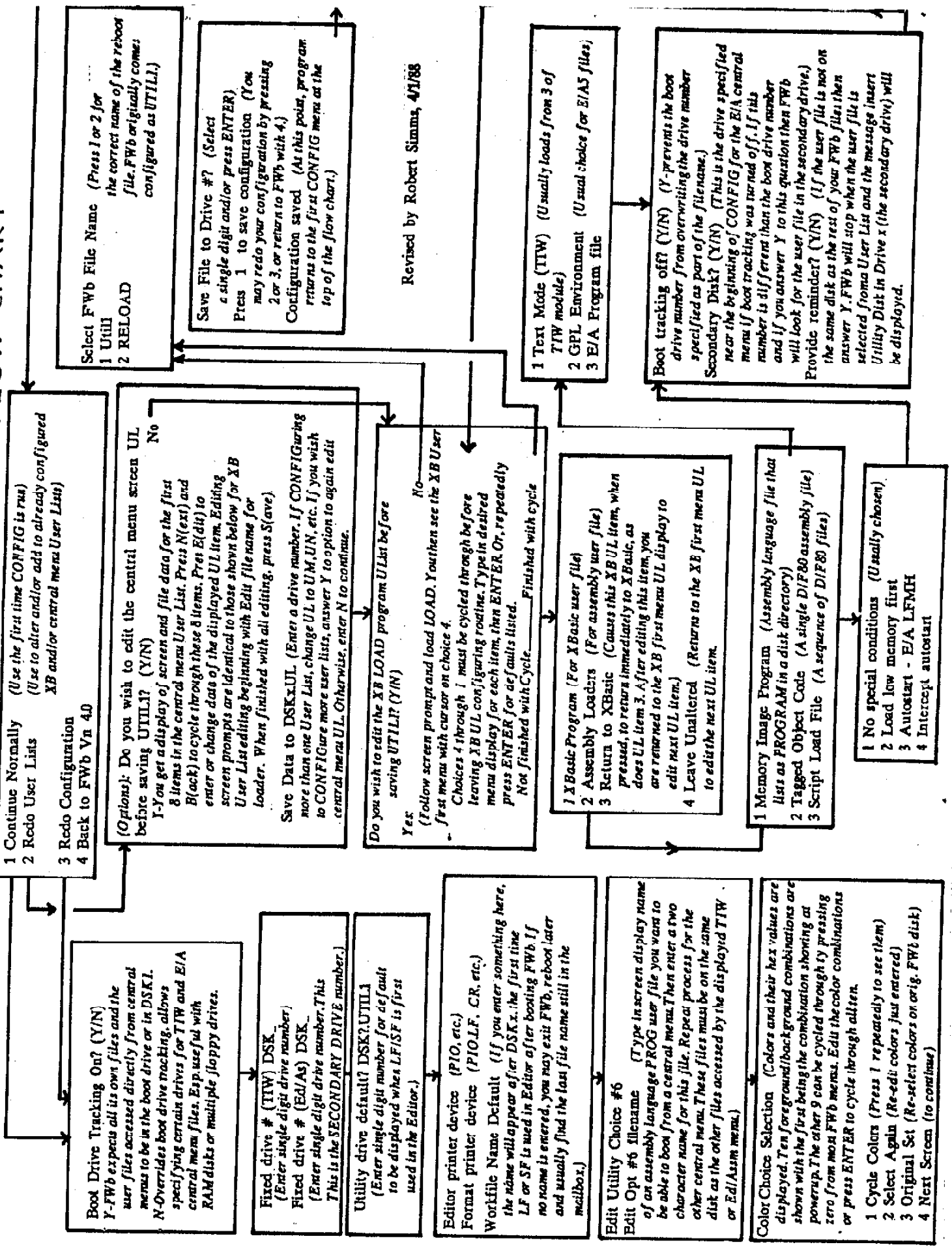
CONFIGure is a USER FRIENDLY program. Watch the bottom of the screen for prompts. You had to be a little bit of a programmer to conform earlier versions of FWB to your system by editing the LOAD program. CONFIGure has eliminated that and any user can conform LOAD without entering a Line Number. It is quite a programming achievement by the McGoverns. It is a program that rewrites other programs, LOAD, UL & UTIL1, in accordance with your inputs. If you haven't paid your respects to the McGoverns, now is a good time to do it. If now now, WHEN? Their Fairware message it typically Low Key Australian and does not even appear on screen. "Send what you think it's worth", is all they ask. But who could afford that!

FUNNELWEB 4.0 MENU FLOW CHART

FCFN-7 (AID) from any of these menus gives a disk directory.



FUNNELWEB 4.0 CONFIGURE PROGRAM FLOW CHART



Revised by Robert Simms, 4/1/88

QB MONITOR ~ QB-99'er NEWSLETTER

NAME THAT PHONE

A Tiny Gram.....by Ed Machonis

(Sorry Regina, I just couldn't resist that title!)

Do you remember calling TI CARES? Never had to look up that number, it was always at the tip of your fingertips! And what an asset it was to TI. I don't believe that Helpline cost TI a penny. It paid its weight in free advertising. Knowing that help was at the other end of a toll free line sold many a computer.

Today, many businesses strive for a telephone number that can be easily remembered. Perhaps there is a word or phrase hidden in your own phone number? But how to discover it? You could look over the dial and see what letters are involved and try arranging them into words. Good Luck!

Each of the seven digits in your phone number, excluding ones and zeros, can represent any one of three letters of the alphabet. The number of possible combinations is 3 to the 7th power, or 2187. Try arranging them into words some rainy weekend.

Sounds like one of the tasks we bought our computers for and it is. The Tiny Gram described herein can do the job in just over 11 minutes. It will present you with every combination of letters existing in your number. It will display them on screen or send them to your printer. The printout, in 6 columns takes up about six pages. Not bad for a screenfull of code.

When RUN, the program will prompt you to enter your phone number, one digit at a time. It will then ask you to choose Screen or Printer. (You may enter any number from 1 to 255 for the Printer.)

There are no letters assigned to One or Zero. If you enter these numbers into the program, it will display asterisks for zeroes and number signs for ones.

The screen display is in two columns and scrolls by just about fast enough for you to follow. Should you spot some interesting combinations you would like a closer look at just break the program with FUNCTION 4. When you are ready to continue, just tell the computer so by typing CON and it will resume where it left off.

If you don't find a word or phrase, you should certainly be able to find a phrase, the initial letters of which would represent your number. Try to work out a phrase which is easily associated with you.

In my own case, the best I could find was EGDRAMA which I turned into the mnemonic "Ed's Great DRAMA." Using initial letters, I can also be reached with "Ed Is Forever Programming A Marvelous Computer." Avoid using numbers in your mnemonics, like "Ed Has Damaged Seven Brand New Cars." Your friends start to wonder, "Let's see, is it SIX or SEVEN new cars that maniac has destroyed?" And then there are the characters who will persist in dialing the number 7 instead of the initial letter "S".

There may be a fantastic mnemonic hiding in your phone number, but you won't know it unless you run this program. Again, GOOD LUCK!

```

1 !****NAME THAT PHONE****
  * No 1's or 0's Please *
  *   A Tiny Gram   *
  *   by Ed Machonis *
  **QB-99'ers Bayside NY**

2 DEF S$=SEG$(G$,1,LEN(G$)-1)
  ):: A$="#####ABCDEFGHIJKLMN
  OPRSTUVWXY" :: FOR C=1 TO 7

3 INPUT "ENTER DIGIT "&STR$(
C)&" OF PHONE # ":D :: E$=E$
&SEG$(A$,D*3+1,3):: NEXT C

4 PRINT : "0=SCREEN": "1=PRINT
ER": "CHOICE (0/1)": : INPUT
P :: IF P THEN OPEN #P: "PIO"

5 FOR F=1 TO 3 :: G$=""&SEG$
(E$,F,1):: FOR H=1 TO 3 :: G
$=G$&SEG$(E$,3+H,1):: FOR J=
1 TO 3 :: G$=G$&SEG$(E$,6+J,
1):: FOR K=1 TO 3 :: G$=G$&S
EG$(E$,9+K,1):: FOR L=1 TO 3

6 G$=G$&SEG$(E$,12+L,1):: FO
R M=1 TO 3 :: G$=G$&SEG$(E$,
15+M,1):: FOR N=1 TO 3

7 G$=G$&SEG$(E$,18+N,1):: PR
INT #P:G$,:: G$=S$ :: NEXT N
  :: G$=S$ :: NEXT M :: G$=S$
  :: NEXT L :: G$=S$ :: NEXT
K :: G$=S$ :: NEXT J :: G$=S
$ :: NEXT H :: NEXT F
    
```

QB MONITOR ~ QB-88'er NEWSLETTER
KID'S KORNER
COLORIFIC!

For a different treat, run this TI BASIC program, sit back, and watch the delightful patterns of color spread across your screen.

```
200 CALL CLEAR
210 RANDOMIZE
220 REM DEFINE CHARACTERS
230 S#="0103070F1F3F7FFF"
240 T#="00C0E0F0F8FCFEFF"
250 U#="FF7F3F1F0F070301"
260 V#="FFFEFCF0F0E0C000"
270 FOR A=96 TO 152 STEP 8
280 CALL CHAR(A,V#)
290 NEXT A
300 FOR B=97 TO 153 STEP 8
310 CALL CHAR(B,T#)
320 NEXT B
330 FOR C=98 TO 154 STEP 8
340 CALL CHAR(C,U#)
350 NEXT C
360 FOR D=99 TO 155 STEP 8
370 CALL CHAR(D,S#)
380 NEXT D
390 REM DEFINE COLORS
400 CALL COLOR(16,14,15)
410 CALL COLOR(15,12,10)
420 CALL COLOR(14,9,16)
430 CALL COLOR(13,7,11)
440 CALL COLOR(12,15,14)
450 CALL COLOR(11,10,12)
460 CALL COLOR(9,11,7)
480 REM THESE LOOPS PLACE 25 SETS OF EACH COLOR COMBO
490 FOR M=96 TO 152 STEP 8
500 FOR I=1 TO 25
510 GOSUB 550
520 NEXT I
530 NEXT M
540 GOTO 490
550 REM SUBROUTINE
560 REM RANDOMLY GENERATES COORDINATES
570 R=(RND*12)+1
580 C=(RND*16)+1
590 REM PLOT CHARACTER PLUS THE REFLECTIONS
600 CALL VCHAR(R,C,M)
610 CALL VCHAR(25-R,C,M+1)
620 CALL VCHAR(R,33-C,M+2)
630 CALL VCHAR(25-R,33-C,M+3)
640 RETURN
```

The information on this upgrade is available from Edward A. Hallet, 5600 S. Countryclub #64, Tucson, AZ 85706 [(602) 889-6930], or as a kit w/instructions from Bud Mills Services, 166 Dartmouth Drive, Toledo, OH 43614 for \$30 (upgrade only). Be sure to send Edward something for his trouble and postage.

The HRD, HRD Enhanced, and HRD+ constitute probably the largest range of various disk sizes in the ENTIRE micro-computer industry. There are now "EIGHT" different sizes to choose from, and if you count using the Ver. 4 from HORIZON and the ROS from Mike Ballman and John Johnson, there are actually "ELEVEN" different sizes. The smallest is 90K (360 sectors) all the way up to the 1-MEG HRD+, and nearly every usable size between (180K, 250K, 360K, 512K, 800K, 800K + Boot Disk). As you might expect, a special formatter is needed to handle all the various sizes and initialize them reliably, and this is available in the CONFIGURE program by John Johnson, which allows initializing all or any parts of the above HRDs. More on this and the MENU program at another time and in another article. These are offered as public domain programs.


On 1/16/88 Bud Mills Services completed the purchase of the HORIZON RAM DISK from Ron Gries and Dave Romer. I'm not sure of their current arrangements, but it would appear that orders for the BARE BOARD and I recommend most if not all the parts, contact Bud Mills Services at the address above. The 90K drive kit sells for \$140 and the 1-MEG kit sells for \$435 (inc. s/h). Others are proportionately priced.

All HRD's are constructed on the HORIZON Ram Disk board using 62256LP's (or equiv.) as of this date. The 6264's (8K chips) are no longer used. The cost per Kilobyte of RAM has been reduced, as well as the physical chip count and thus capacity of the board improved.

The ROS (Operating System) allows a single RAM DISK at a CRU address (say >1000) to be divided into TEN LOGICAL DRIVES if desired, or into as little as ONE with a size from as little as around 30 sectors up to 4088 sectors on the 1-MEG version if you can find enough large files to use it all. TWO of these can be called DSKn.(1-9) and any of the remaining will respond to DSK(name). The Disk Number can be changed with a CALL from BASIC. The flexibility in this area exceeds the space I can take here, but briefly you can Write Protect Drives, Auto-ON a call automatically on power-up, Toggle Disks into the second LOGICAL DRIVES location, even from another RAM DISK. You can FILL up any PEB with the HRD+ and use ALL of them. There are 9 CALLS and 15 MENU selections available in MENU Ver. 7.3, which will add even a lot more expansion capabilities in these areas.

Construction is the HARDEST part for most people, after all no matter what errors are made (operator type), someone will be able to assist you on the phone, but if you destroy the board, or a component, or have wired it incorrectly, very few can help a novice repair it over the phone. The instructions have all the information there to build the board, but you MUST be better than average at following instructions, and at electronics kit construction, or you better find someone who is! It can be done, I did it the first time right. Hey a little luck can't hurt either. Want a rumor, the PRINT SPOOLER is just a few weeks away for the HRD's! Was I wrong about the 1-MEG RAM DISK?

QB MONITOR ~ QB-99'er NEWSLETTER

~~SMUG/89~~ A REALIST'S COMPUTER GLOSSARY  tiny 11m ~~MOBILE, AL~~
From the TIMES N/L, via the Spirit of 99 N/L (Central Ohio)

- BASIC Computer language used for generating error messages
- EXTENDED BASIC Similar to Basic, but more error messages
- ASSEMBLY LANGUAGE Very complicated way to crash your system
- MINI-MEMORY Yeah, except the price
- ARRAY A quick way to lose track of stored data
- NUM Try a softer computer chair!
- I/O Meaningless, except when preceded by EIE
- RAM Male sheep with good memory
- CALL SOUND Hard way to make music using wrong notes
- CALL CLEAR Blanks the screen to be ready for next error message
- NEXT Increments a counter; also much used in barber shops
- DEF Much used by programmer's wife (with other words)
- LET Reserves space inside the computer, as in "Room to Let"

~~EAR~~

~~SMUG/89~~ LET'S TALK RAM DISKS, PART III ~~MOBILE, AL~~
John F. Wilforth  Feb 88 West Penn 99'ers Newsletter

Last month I talked about the HORIZON RAM DISK (HRD), and it makes sense that we continue this month with the major enhancements of this unit, the 256K (976 sector) version by Edward A. Hallet, and the 1-ME6 (4088 sector) version by Mike A. Ballmann and marketed by Bud Mills Services as a kit in various sizes. See details below.

The 256K enhancement designed by Edward A. Hallet, added 64K of 8K static RAM to the existing DSSD HRD from HORIZON. This was equal to 256 sectors for a 35.5% addition. At the time this was a welcome improvement because the full blown HRD was precisely the same as the majority of the disk configurations in PEB units. This meant that you could store an entire DSSD (720K) diskette (the max. for the TI controller), on a single DSSD HRD. This was fine as long as you were not using the HRD as a media to do multiple copies of a DSSD diskette, or when all the utilities and your "PET" programs were just too large for the HRD. The additional memory was nearly the size of a standard 90K drive and therefore was a very welcome enhancement. Some of the more common programs that would occupy this space, were the MENU, by John A. Johnson, DM-1000, and many more. These when on the HRD Enhanced, would still allow the space to move an entire DSSD diskette to and from the HRD and not disturb these programs.