



# QB MONITOR

## QB-99'ERS U.G. NEWSLETTER

April 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

April 1988							May 1988						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
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## QB MONITOR ~ QB-99'er NEWSLETTER

In this issue of the Monitor you will find the information you always wanted. We start with Ed Machonis' TI Writer Toolbox. You will be gratified to know that the funnelweb loader disk V4.0 can be used with a single drive system. Ed shows you how to set up the disks for this purpose. Ed will continue this enlightening series each month.

Recently I was frustrated by continual lockups occurring upon startup with Extended BASIC. I searched for an easy to follow method of getting around the problem. The result: our copy this month of LITI's article on installing the extended BASIC cartridge in the console. Let me tell, you it really works. No more problem with lockups. Although there are other methods this appears to be the easiest to follow.

I have been following the works of John Willforth and his West Penn Users Group. He has been successful in designing blank printed circuit cards to install in the PE box. Information is printed in this issue of the Monitor.

The biggest east coast TI event of the year occurs in our backyard March 26. at Roselle Park High School. T.I.C.O.F.F. notice is on page 7.

Danny Cox of the LA 99ers U.G. contributed a program displaying the power of sprites on the T.I. 99/4A. I hope you enjoy "Arrow"

The Funnelweb loader is the greatest piece of software ever written for the 99. To get the most out of the program you should read the Read me files on the disk. Funnelweb should not be given to

anyone without including this essential documentation. In addition to the author's original docs, Charles Good of the Lima, Ohio Users Group has written two files. -READ-ME-2 and FWDOC/FLOW also included in the set of Funnelweb disks. I include this information for your reading and examination.

A late change has been added to the Funnelweb loader disk. In the V4.0 setup you can access the directory of a disk by pressing FCTN 7 (AID). You were also supposed to be able to mark a file for inclusion into the "mail box" of the program. This would make it easier to enter the file name in either the editor or formatter sections of the program. You simply mark the file for use and its name will automatically appear in the header line for Load File or for Input File Name lines. However, an error slipped through. The following fix was passed on to me from Charles Good.

in file QD, 3rd sector  
change byte >BF from >06 to >07  
change byte >CF from >7B to >72

in File UTIL1, 5th sector change  
byte >29 from >06 to >07  
change byte >39 from >7B to >72

Use the Disk Patch on Funnelweb disk to do this on a backup copy of your Funnelweb disk.

There are still some assembler programmers out there and I know a conversion aid for Hex to Decimal will come in handy. It's here too. Perhaps next month I will be able to include a copy of Decimal to hex conversions.

```

-----
 / TI-WRITER TOOLBOX #2 / \
 /-----/ QB \
 | by Ed Machonis |99ers|
 \-----/
-----
    
```

Visiting a family member recently, I noticed the TI-Writer, Extended Basic and Editor/Assembler modules plugged into the Widget. Laying conveniently nearby was a Disk Manager 2 module. I commented on this archaic collection since three of the modules and the Widget could have been retired by use of a Funnelweb loader. All that was required was the Extended Basic Module and the Funnelweb disk, a copy of which rested in the disk bank.

Although heavy use of TI-Writer occurred in this family, no programming went on, the E/A module being used only for loading of some disk based games. While the system had two drives, the second drive was only used for making back up copies. All files created with TI-Writer were saved on the disk in Drive 1, which also contained the TI-Writer Editor and Formatter files.

Why wasn't Funnelweb being used? No room on the disk for new files! Why aren't new files being saved on Drive 2? Because this is the way we are used to doing it.....

The solution applied in this case will also apply to all owners of single drive systems, who also hate to swap disks and are slightly awed by the prospect of customizing a Funnelweb disk. I will try to present it step by step so that even the most inexperienced users can keep up with the rest of us.

Funnelweb 4.0 will be used, there is a copy in your group library. The new features of Version 4.0 make all previous editions obsolete. Don't waste time with an older version, these instructions will not apply.

As received, the disk has no free sectors. Depending on your needs, you can free up anywhere from 140 to 211 sectors for saving user created files. Or if you don't mind the disk swaps, or own two drives, you can fill the disk with the utilities you mostly use.

Most of the files that will be deleted from the disk are special

loaders or are used mostly by Assembly Language programmers. Not that these files are not valuable to those who have a use for them! As much as you will come to appreciate the TI-Writer features of Funnelweb, I am sure there are even greater advantages for assembly programmers.

But enough Chit Chat, let's get to work!

FIRST MAKE A BACK UP COPY!

Take 4.0, cover the write protect notch and place it in Drive 1. Select Extended Basic and the disk will auto load. Once the title screen times out (can be helped along by pressing the space bar) you will be presented with a menu. Select 1, TI-Writer, and from the next menu take #3, DM-1000. Your drive will engage and the DM-1000 title screen will appear.

Select #2, Disk Utilities, followed with #2 from the Disk Utilities menu for Copy Disk. On the next selection accept the default, #2, Sector Copy. The next screen will request the Drive No. for the Master Disk (The disk that is being copied.), Enter 1. Next you are asked for the Backup Disk Drive No. Enter 1. (Dual drive owners will of course Enter 2.) Follow the screen instructions to make your copy, DM-1000 is a four pass copier. No need to have a formatted disk for the back up copy, it will be formatted if necessary. Any old files on the back up disk will be erased.

Mark the copy with the covered notch, "Master" and put it away with your other master copies. When your buddy asks for a copy of Funnelweb, pass on a copy of the master.

CONFIGURE YOUR WORKING COPY.

In this section, we shall change the defaults for drive number and print devices, if required, and clean up the XB User List. If your system includes two drives and a serial printer, and you don't mind displaying some unavailable choices, you may skip to the next section, "Copy The Reconfigured Disk."

Place the copy you just made in Drive 1 and return to the title screen. Again using Extended Basic to load FMB, select 1, Configure, from the Menu.

Press any key after reading the initial Configure screen. Then Press 1 to Continue Normally, press Enter for Boot Drive Tracking On and change Utility Drive default to DSK1. (Two drive owners should accept the DSK2 default.)

Next you are asked for the Editor Print Device. The default is for serial printers. If that's what you have, just press Enter. If yours is a parallel printer, type in PIO and delete the remaining characters. Do the same for the Format print device, except enter PIO.LF for parallel printers. (Some printers may need .CR)

Press Enter to accept the blank workfile name default, unless you have a particular name you always want displayed on the initial LF prompt.

The next four queries present the opportunity to Edit Utility Choice, #6, on the two central menu screens. You can either delete the displayed names or accept them by pressing enter.

Color Cycle Selection is the next choice that is offered. This will determine the combination of background and foreground colors that will be initially displayed and the combinations available by pressing CONTROL J when in the Editor's Command mode (or pressing zero on most FMB menus).

Ten groups of two characters are displayed. The first, F4 (White on Dark Blue), is the one you are presently working with. If this is satisfactory, just press Enter for it and for each of the following color combinations. If you are using a Black and White TV, change the first combo to 1E, Black on Gray. If you still want the F4 set to be available, substitute it for one of the other combinations displayed.

When you are done, the default color combination (in its respective colors) will be displayed center screen surrounded by sets of horizontal and vertical bars. The bars enable you to judge the resolution provided by the selected set of colors. You are given the opportunity to view other combinations by continually pressing 1, Cycle colors. You may also (2) reselect the colors, (3) return to the original sequence, or (4) continue to the next screen. Press 4 when all is to your satisfaction.

TI-WRITER TOOLBOX.....Cont'd

Decline the chance to Edit the Central Menu Screen User Lists by pressing Enter. Accept the offer to Edit the XB Load User List by again pressing Enter. Accept the default filename, DSK1.LOAD by pressing Enter.

Drive 1 will engage and the initial menu screen will be displayed with the cursor on the filename for Option 4. Press Enter and cursor will move to Option 5, MYARC DM.

If you have a MYARC Disk Controller and wish to access the MYARC Disk Manager from this menu, press Enter and you will be prompted for the necessary information. (I shall assume there are very few readers who have a MYARC controller, one drive, and require detailed information on how to configure FMB)

For the rest of us, press the period twice, delete the remaining characters, and press Enter. The cursor will move to the Filename for Option 6. Do the same for Option 6. Press Enter for choices 7, 8, 9, A and B. Delete the name for Option C as you did for 5 and 6. Press Enter for choices D, E, F, G and H. Delete the name "Configure" for Option I.

(The above steps, cleaning up the XB User List, can be skipped if you just keep pressing Enter to run through the entire menu. But in that event your menu will display options that are not available.)

You are next prompted for the drive to save the file to, with DSK1.LOAD displayed. Accept the name by pressing Enter. On the next screen select 1 to save the new configuration. If all did not go well, press 3 to redo the changes. Upon pressing 1, Drive 1 will engage and a new LOAD program will be written to disk incorporating your changes.

When the file has been saved, press 4 to return to Funnelweb 4.0. You will be returned to the E/A Central Menu (the two menus can be toggled by pressing the space bar). Press 7 for Reset and 7 again for Quit to return to TI's color bar screen. This is the proper way to exit Funnelweb and will place a working filename in the mailbox for later display as a default.

COPY THE RECONFIGURED DISK

Our disk hasn't been reconfigured, just the file named LOAD. Our disk still has 360 sectors used. We shall shrink it by copying only the files we really need onto another disk.

Cover the write protect notch on the disk, return it to Drive 1 and select Extended Basic. If all went well, your User List now displays only three choices. Press 1 for TI-Writer, then 3 for DM-1000. When it has loaded, choose 1, for File Utilities, 1 for Copy, etc, and 1 for Drive. The drive will engage and a catalog of the disk will be displayed.

By placing a "C" in front of a filename, we will be able to copy it onto another disk. Pressing Enter will leave the default "N" for files we do not wish to copy. Place a C in front of the following files:

CHARA1 - The true lower case alphabet. We won't need CHARA2, another lower case alphabet of slightly different form to aid the user in distinguishing between the two Editors, TI-Writer and Editor Assembler.

EA - Not really required for TI-Writer, this file will enable loading E/A programs normally loaded with options 3 and 5 on the Editor Assembler module. Saves module swapping and only 8 sectors long. Cheap!

EE EF - These two comprise the Editor portion of TI-Writer. A must!

FO FP- The Formatter portion. A must!

LOAD - The file we just reconfigured and the one that replaces the TI-Writer module.

MG MH - Disk Manager 1000 files, 61 sectors long and worth every byte. Not really necessary for TI-Writer if you MUST have those 61 sectors. The name, by the way, stems from the fact that it is 1000 times better than Disk Manager 2.

QD - Show Directory file. This is the one that makes Funnelweb 4.0 superior to all other versions and TI-Writer. If this doesn't get you to retire that TI-Writer module, nothing will!

Check that only 10 files are preceded with C and that they are the ones listed above. Press FUNCTION 6 to display the execute prompt at the bottom of the screen and respond by Entering Y.

You will be prompted to Enter the Back Up drive number. Unless you have two drives, Enter 1. At the prompt insert a blank or a newly initialized disk.

For the blank disk, Enter Y for the Initialize Diskette Prompt, FMB/4\*0 plus your initials for a disk name, 1 for Sides, 5 for Density and Y for Verify. From this point follow the screen instructions for inserting the Master and Back Up disks. The Master is the one with the covered write protect notch (aren't you glad you did?)

All this disk swapping may make you wonder if it wouldn't have been easier just to delete the unwanted files. Yes, it would have, but your remaining Funnelweb files would be scattered all over the disk and your user created files would be fitted into the empty sectors in between, resulting in fractured files. The additional disk swaps only have to be done once and I think it's worth the effort.

When all files have been copied, remove the write protect tab from the old Master and place it on the disk just written to. This is your new Master. Try it out, verify that it will access the Editor, Formatter, Show Directory and DM-1000.

If all is well we shall make a copy of this new Master onto the disk from which we just removed the write protect tab, now called the Back Up disk. Use DM-1000, Disk Utilities, Copy Disk, Sector Copy. (Only four swaps now!) When done, mark the Master copy as a WORKING Master and place it with the original 4.0. It will be used for making additional working copies as the one in use fills up with your literary gems. Identify the Back Up as a Working Copy and.....get to work!

You have two letters to write. One to those great chaps Down Under and another to Canada. (DM 1000 is a separate FAIRWARE program!) Tell them you appreciate their continuing support of these programs and substantiate that appreciation with an International Money Order from the Post Office. Australian bank charges can wipe out your personal check.

**CONSOLE XBASIC By CHUCK  
REINHART-LTI USERS GROUP**

**XBASIC IN THE CONSOLE PROJECT  
INTRODUCTION:**

Since more and more programs are loading from XBASIC (example: TI-WRITER, DM 1000, MENU), it would make good sense to put the XBASIC cartridge in the console. This would

also reduce lockups that are due to a dirty cartridge port. (The XBASIC cartridge causes most of the lockups).

The following project will mount the XBASIC CARTRIDGE in the console. In the project 2 ribbon cables are soldered to the cartridge port pins on the main board. The XBASIC cartridge circuit board is removed from it's case and soldered to the other end of the ribbon cables. The cables are then routed around the back of the main board and the XBASIC cartridge is mounted on the top of the metal shield. There is plenty of clearance to the left of the cartridge port. A switch is also installed to allow operation with XBASIC or an intalled cartridge. XBASIC will not function if a cartridge is installed in the port. The switch can be installed in the back center or top of the console cover.

**PARTS REQUIRED:**

- 1 56K RESISTOR 1/4 WATT
- 1 DPDT MINI SWITCH (Radio Shack 275-626)
- 2 8 in PIECES OF RIBBON CABLE WITH 17 CONDUCTORS IN EACH (Radio Shack 278-772)
- 5 8 in PIECES OF WIRE

**NOTES:**

1. I do not accept responsibility for problems resulting from this project. The risk is yours.
2. \*\*\* This is not a simple project \*\*\* Do not attempt this project unless you are familiar with electronics and are experienced in soldering.
3. Use solder sparingly. There are land patterns that run between the pins. Also use a small soldering iron.
4. After this modification you will not be able to have a cartridge installed while you are running XBASIC.
5. Read the instructions fully before starting the modification.

**INSTRUCTIONS:**

-- Remove the main board from the console. -- Remove the cartridge port and metal shield from the main board. -- Remove the XBASIC circuit board from it's case.

-- Take the two pieces of ribbon cable and separate the wires in the four ends back 1 inch. Then strip all of the wires 1/8 inch

and tin the bare ends. Mark one cable TOP and the other BOTTOM.

-- Place the main board component side down with the side port connector on the right. Locate the two rows of pins that go to the cartridge port (see main board diagram).

-- Take the cable marked BOTTOM and mark a 1 on the edge at both ends. Then solder the wires from one end of the cable to the bottom row of pins skipping pin #4. Keep the wires in order with pin #1 on the right (see main board diagram). Solder one of the 8 in wires to pin #4 and one 8 in wire to pin #9 (pin #9 will have 2 wires). Place a piece of black electrical tape on the circuit board under the cable to prevent shorts.

-- Take the cable marked TOP and mark a 1 on the edge at both ends. Then solder the wires from one end of the cable to the top row of pins skipping pin #2. Keep the wires in order with pin #1 on the right (see main board diagram). Solder one of the 8 in wires to pin #2.

-- Place the XBASIC circuit board with component side up and connector facing the cable marked TOP. Solder the wires to the connector skipping contact #2 (see circuit board diagram). Solder an 8 in wire to contact #2.

-- Turn the circuit board over and solder the wires from the cable marked BOTTOM skipping contact #4 to the contacts on the foul side of the XBASIC cartridge (pin #1 TOP should line up with pin #1 BOTTOM). Solder an 8 in wire to contact #4.

-- Solder the 5 wires and 56k resistor to the switch (see switch diagram).

-- Bend the edge of the metal shield to allow room for the cable to pass. Mount the XBASIC cartridge on a piece of cardboard and tape it to the top of the metal shield to the left of the cartridge port. -- Mount the switch in the back of the console cover near the center.

-- Check the wiring with an OHM METER from the cartridge port to the XBASIC circuit board connector. -- Clean the side port and cartridge port. -- Reassemble the console and test the switch in both positions.

.....  
-- THE END \*\* GOOD LUCK .....

# QB MONITOR ~ QB-99'er NEWSLETTER

## THE NEW FEATURES OF FUNNELWEB v4.0

by Charles Good  
Lima Ohio User Group.

The last update of FUNNELWEB v3.4 was dated May 14 1987. Subsequent improvements have all been incorporated into v4.0, and this new version has now been released as fairware. This is a major update designed to be compatible with Myarc's Extended Basic II as well as II Extended Basic. This review describes the v4.0 release dated Oct. 20, 87. No doubt improved versions with more recent release dates will soon appear. However all v4.0 releases will have the same basic organization, so this review should remain valid for future v4.0 releases.

### THE CONFIG PROGRAM:

The most obvious improvement in v4.0 is CONFIG which can be accessed from the first XB User List menu or from the central User List menu. CONFIG allows the user to customize FUNNELWEB in numerous ways without any programming. All you do is follow the screen prompts. Any idiot can do it, but in case you aren't just any idiot check out the CONFIG flow chart accompanying this article.

Although the v4.0 LOAD program remains a hybrid of XB and assembly code, the FwB authors advise against trying to directly edit the XB part of LOAD. One reason is that if you are using MYARC XBII the XB portion of LOAD cannot be resaved properly. Also, there is no longer a UPATCH file to transfer LOAD customization to UTIL1. All configuration of LOAD, UL, and UTIL1 should now be done with CONFIG. If a later release of v4.0 is obtained the newer release should be configured from scratch with CONFIG. It is no longer recommended that you customize newer releases by merging the old LOAD XB code onto the newer LOAD. If you attempt to customize future v4.0 updates this way there is no easy method to transferring the customizations to UTIL1.

CONFIG allows the user to set up FUNNELWEB on a primary AND secondary drive (or ramdisk). Configured this way, FUNNELWEB suspends boot disk tracking and expects the TI-Wr central menu files to be in one drive, and the Ed-As central menu files to be in another drive. If you run out of space on one disk for the FwB files and all of the your assembly user files which FwB expects expects to be on the boot disk, then this is a useful option.

### CENTRAL MENU USER OPTIONS:

Menu item #6 in each of the two central menus now is a UTILITY option whose menu name and two character file name can be customized with CONFIG. Any PROGRAM image EA#5 software can be loaded directly from the central menus with a single keypress via these options without first having to first select the central menu User List. The FwB authors suggest that the TI-Wr central menu utility would be a good place to load a spell checker.

### MULTIPLE USER LISTS:

The central menu user list now has an option that reads "Next UL". This loads another user list file named UN which

in turn can be configured to another user list file UN, etc. You can load from menu unlimited numbers of assembly language user programs in this way. Each of these user lists is a copy of file UL that is configured separately with CONFIG. After all UL files are independently configured, they are renamed UL, UN, UN, etc. You can form a continuous loop by making the last user list load the file UL again.

### TAB RULER SHOWS IN EDITOR:

The EOF line that originally showed in the editor immediately below the last line of text has been modified into a 40 column ruler similar to the tab ruler that shows at the top of the screen when you set tabs. The modified EOF line is very useful for centering text in an editor screen and for the manual indentation of paragraphs and columns. The EOF line is numbered 0, 1(0), 2(0), and 3(0) with the other positions for columns 0-39 indicated by dots. The EOF line shifts with left/right windowing and with line numbers on/off and as such is not a true tab ruler. You see the same line no matter which window you are viewing. The numbering doesn't change to 40-80 when viewing the right window, for example. The modified EOF line is only visible at the end of the text file. (but: see bottom of p. 8)

### NEW DISK DIRECTORY FEATURES:

Screen displays have been improved for disk directories called with AID (formatter, assembler, or a central menu) and SD (from the editor). A prompt line at the bottom of each directory tells you which keys to press for each feature. Pressing EQUAL after a directory is loaded shows if PROGRAM files are EA or BX (either basic) programs. This feature isn't new to v4.0 but it is worth mentioning here because it is so neat. If a PROGRAM file is not indicated as EA or BX after pressing EQUAL, the program file is a data file for the ADVENTURE, PRK, or similar module. A number (1-0) which has been added to the left of each displayed file name tells you which number key to press in order to mark a file. The marked file is put in the mail box memory and appears on the screen when you LF from the editor or when you boot the formatter or assembler.

The directory obtained from the editor with SD has some VERY USEFUL new features not found in the AID directly. Press "P" to print the directory to the editor print device, usually a printer. To delete the marked file from the disk press "D". An especially nice feature is the ability to view a marked file by pressing "V" without disturbing what you are editing in the editor's text buffer. After viewing the disk file you can then go back and continue editing the text buffer, since it is not necessary to save off what is in the buffer before pressing "V". If you press "O" (meaning 'old file', not 'load file' as might be suggested by the screen prompt) the current marked file becomes unmarked and the OLD previously marked file name replaces the just unmarked file as the mail box file name. It is a good idea to press "O" after viewing a file with "V" if text is in the editor's buffer. This will prevent you from accidentally overwriting the viewed file when you later save the text buffer contents with SF.

next page

**QB MONITOR ~ QB-99'er NEWSLETTER**  
**T.I.C.O.F.F. '88**

**By Frank J. Bubenik, Jr.**

**OTHER MINOR CHANGES:**

Disk Patch (file DP) has again been modified. The instructions are displayed on the first DP screen for easy reference. With the contents of a sector in view, pressing PROCEED brings up the previous sector, and BREAK displays the next sector. Always before in earlier versions of FwB and in the original DISKO, PROCEED displayed the next sector as would seem logical. I find PROCEED incrementing sectors in reverse to be confusing.

Color combinations can now be cycled through by pressing ZERO from almost any FwB menu that requests a number key press. In earlier FwB versions the color cycle key varied from menu to menu.

DM1000 files M5 and MH have been modified so they will load successfully from outside of the FUNNELWEB environment. These FwB v4.0 M5 and MH files can now be loaded and used correctly from X BASIC command mode if you have the Horizon Randisk eprom (reviewed last month in BB&F) and type CALL DM.

In my humble opinion (I'm modest too, just ask me some time and I'll tell you how modest I am!) FUNNELWEB is the most significant single piece of software ever for the 99/4A. These improvements make FUNNELWEB even better. If you upgrade to v4.0 you might consider giving an additional Fairware donation to the Funnelweb authors, even if you have paid for a previous version.

**\*\*DONE\*\***

**PROTO CARDS**

Downloaded by **STEVE TIORTO**

John Willforth of the West Penn 99'ers with the help of Scott Coleman has designed and had fabricated P-Box PROTO CARDS.

A number of TI enthusiasts were contacted before finalizing a design. (Including the author) I believe that this board will go a long way in helping us expand the hardware options for our machine. This new proto board will be usefull not only to the "hardware hacker" but to the average user who knows little about designing or constructing projects. Once designed and tested by others, projects can be written up in newsletters such as ours and constructed either in groups or individually by members.

Some of the possible uses at this time are: Battery backed clock, DSR ram, Memory LED project, Buss extender, Forti music, Memory expansion, P-Box speech, 6000 & 4000 ram, A/D covertor, etc.

Boards include complete documentation, hints and project ideas. NOTE: not all of the above projects are documented

The boards may be ordered from COMPUTER BUG, 5075 CLAIRTON BLVD., PITTSBURGH PA 15236 (412) 882-3374 Price: 1-4 \$35 5 to 9 \$30 add \$3.50 shp/hdl John Willforth (412) 527-6656

Well, we are coming up to our **THIRD EAST COAST COMPUTER SHOW.**

When? Saturday - March 26th, 1988. TIME: 9:00 AM TO 4:00 PM.

Admission is \$5.00 with the profits going to the Student Scholarship Fund.

The show will be held at the **ROSELLE PARK HIGH SCHOOL (Exit 137 GARDEN STATE PARKWAY)**, mail address is 185 W. Webster Avenue - **ROSELLE PARK, NJ 07204.**

The show will include a high indoor **VEN-DOR'S AREA**, Workshops **TI** and **IBM**, **FAIRWEAR SOFTWARE/PUBLIC DOMAIN SOFTWARE, HARDWEAR** and a **SWAP SHOP.**

This year the **TI 99/4A** computer is being joined by the **IBM - CLONES** and **MSDOS COMPATIBLES**

Pre-paid admissions by mail will get a certificate for a disk of **TI** or **IBM SOFTWARE** of their choice - **FREE.** (This certificate can not be applied toward a 4 for \$10.00 purchase)

Fairwear/Public Domain Software will be on sale for \$3.00 a disk or a special 4 for \$10.00 both **TI** and **IBM.**

Many local user groups will have tables at which you can meet your computer friends or join a user group.

For information call (201) 241-4550. I hope to see you there. This is the only local **TI FAIRE** in this area.

**DON'T FORGET---MARK YOUR CALENDAR---**  
**--MARCH 26th, 1988 9am to 4 pm.**

```

1 |!!!!!!!!!!!!!!!!!!!!
2 | BY DANNY COX |
3 |!!!!!!!!!!!!!!!!!!!!
4 |
5 CALL MAGNIFY(4):: CALL CLE
AR :: CALL SCREEN(2)
6 CALL CHAR(96,"FFFFFFFFFFFF
FFFFFFFF7F3F1F0F07030180C0E0F0
F8FCFEFFFFFFFFFFFFFFFFFFFF")
7 FOR X=7 TO 4 STEP -1
8 R=190 :: C=250
9 FOR I=1 TO 25 :: CALL SPR
ITE(WI,96,RND*13+3,R,C):: R=R
-X :: C=C-7 :: NEXT I
10 R=190 :: C=250
11 FOR I=25 TO 1 STEP -1 ::
CALL SPRITE(WI,96,RND*13+3,R
,C):: R=R-X :: C=C-7 :: NEXT
I
12 NEXT X
13 FOR X=5 TO 7
14 R=190 :: C=250
15 FOR I=1 TO 25 :: CALL SPR
ITE(WI,96,RND*13+3,R,C):: R=
R-X :: C=C-7 :: NEXT I
16 R=190 :: C=250
17 FOR I=25 TO 1 STEP -1 ::
CALL SPRITE(WI,96,RND*13+3,R
,C):: R=R-X :: C=C-7 :: NEXT
I
18 NEXT X :: GOTO 7
    
```

*ARROWS*



QB MONITOR ~ QB-99'er NEWSLETTER

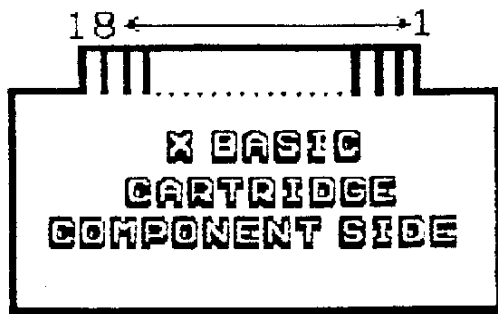
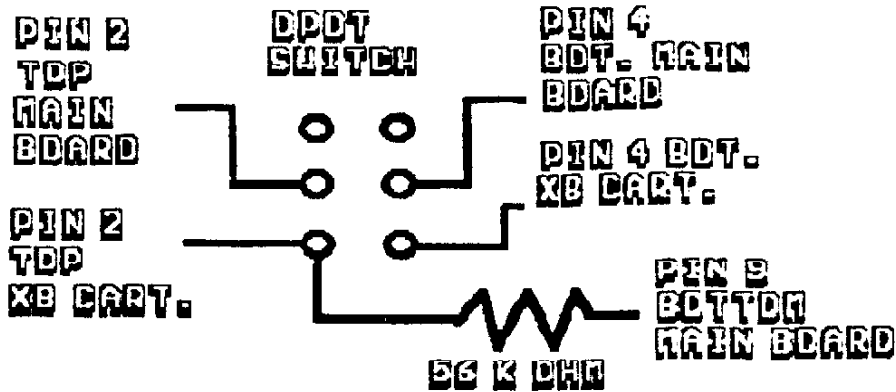
FUNNELWEB V4.0 MENU FLOW CHART  
 FCTN 7 (AID) from any of these menus gives a disk directory.

- ↓ ← ← ← ← ← ← ← ← ← 1 TI-Writer : A ..
- ↓ + 2 Edit/Assm : B ..
- ↓ + 3 XB-Return : C Cassette
- ↓ + 4 .. : D ..
- ↓ + 5 MYARC DM : E ..
- ↓ + 6 TI-FORTH : F ..
- ↓ + 7 .. : G ..
- ↓ + 8 .. : H ..
- ↓ + 9 .. : I CONFIGURE (needs CONFIG)
- ↓ {XB first menu USER LIST. This boots from DSK1.LOAD.
- ↓ Items 4-I can be customized with CONFIG to load any
- ↓ XB, PROGRAM image, or D/FBO software.}
- ↓ → → → → → → → → → →
- ↓
- 1 EDITOR (needs files ED/EE)
- 2 FORMATTER (needs files FO/FP)
- 3 DM1000 (needs files MG/MH)
- 4 MODEM (loads user file MD)
- 5 DATA BASE (loads user file DB)
- 6 UTILITY (customized with CONFIG, boots any assembly language file)
- + 7 USER LIST (needs file UL)
- + (TI-Writer CENTRAL MENU. This boots directly after loading file UTIL1.)
- ↓
- ↓
- 1 ..
- 2 ..
- 3 ..
- 4 ..
- 5 MYARC DM
- 6 NEXT UL (needs UM, a recustomized renamed duplicate of UL)
- 7 CASSETTE (loads an EA PROGRAM file from CS1)
- 8 CONFIGURE (needs CONFIG)
- 9 CARTRIDGE ROM
- (Central menu USER LIST menu. Loads from #7 of TIWriter central menu. Items 1-8 can be customized with CONFIG to boot any PROGRAM image or D/FBO files.)
- ↓ ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←
- ↓
- 1 TEXT MODE (Twr) (loads PROGRAM files normally loaded from #3 of TWr module)
- 2 GPL ENVIRONMENT (loads PROGRAM files that otherwise use E/A #5)
- 3 PROGRAM (E/A) (loads PROGRAM files that are images of E/A#3 object code)
- 4 LOAD/RUN (E/A) (loads D/FBO object files that otherwise use #3 of EA module)
- 5 SCRIPTLOADER ; (loads predefined sequence of D/FBO files, needs file SL)
- 6 LOW-MEM LOADER (loads D/FBO object files into low memory, needs file LL)
- 7 L&R ALL-MEM (loads autostarting D/FBO object files into memory anywhere)
- 8 (Not shown on screen. Cancels autostart of autostarting D/FBO object files)
- (LOADER menu. Loads from #3 of Edit/Assm central menu. All options need file EA)

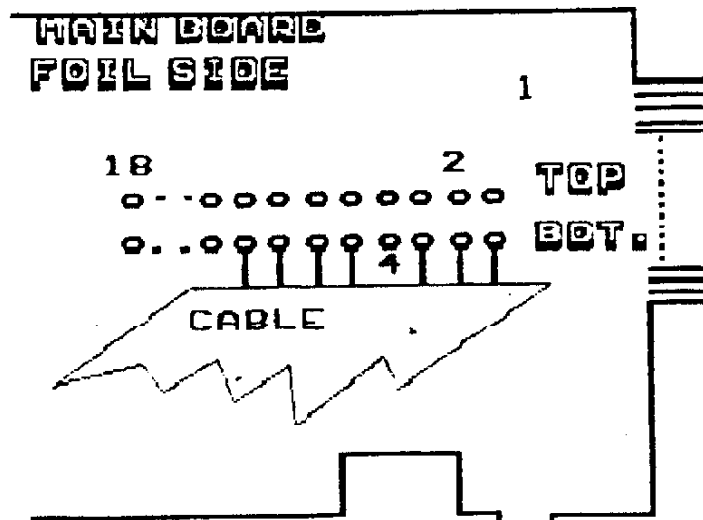


QB MONITOR ~ QB-99'er NEWSLETTER  
**CONSOLE XBASIC**

BY CHUCK REINHART



**TOP= COMPONENT SIDE  
 BOT= FOIL SIDE**



**QB MONITOR ~ QB-99 OF NEWSLETTER**

**HEX TO DECIMAL CONVERSION AID**

EX: >1111 = 4096 + 256 + 16 + 1 = 4369  
 >FFFF = 61440 + 3840 + 240 + 15 = 65535  
 >1234 = 4096 + 512 + 48 + 4 = 4660

Hex	Decimal	Hex	Decimal
1	1	10	16
2	2	20	32
3	3	30	48
4	4	40	64
5	5	50	80
6	6	60	96
7	7	70	112
8	8	80	128
9	9	90	144
A	10	A0	160
B	11	B0	176
C	12	C0	192
D	13	D0	208
E	14	E0	224
F	15	F0	240
100	256	1000	4096
200	512	2000	8192
300	768	3000	12288
400	1024	4000	16384
500	1280	5000	20480
600	1536	6000	24576
700	1792	7000	28672
800	2048	8000	32768
900	2304	9000	36864
A00	2560	A000	40960
B00	2816	B000	45056
C00	3072	C000	49152
D00	3328	D000	53248
E00	3584	E000	57344
F00	3840	F000	61440