BITS,BYTES&PIXELS

LIMA 99/4A USERS GROUP

IMPRESSIONS OF THE 1987 CHICAGO TI FAIRE
by Charles Good

I must admit I was a little concerned about what seemed to me to be lack of organization on the part of those who were organizing the Chicago User Group's Faire. The advance publicity reached our user group only 5 days before the deadline for making room reservations at the "official" hotel, and the "FAIRE BOOK" describing details of exhibits and presentations only arrived at our group's P.O. Box 2 days before the Faire. When I arrived at the Faire on Saturday morning, however, everything was working smoothly. There were no long lines or delays getting in, even though there were eventually quite a number of people who attended. Everything ran on schedule. There were plenty of TI systems available for the exhibitors and demonstrators, and there were no foul ups in hooking up equipment needed for the demonstrations. Kids were able to enjoy themselves at the arcade games. There were over 486 admission tickets sold based on the smallest and largest ticket numbers posted for the door prizes. There were more than this number of attendees since more than 486 tickets were sold and some of these tickets were for entire families. My congratulations to the Chicago User Groups for a very informative and well organized event.

As is usual for Chicago Faires, everything and anything ever made for the TI was there and available for sale. Usually the asking prices were below advertised prices, and sometimes it was possible to talk dealers down a bit, particularly in the latter hours of the 9AM-6PM faire. Hardware was to me the most interesting, and particularly attractive offerings are described below.

MISCELLANEOUS HARDWARE:
It was possible to buy entire used expansion systems based on the PE box or the CorComp expansion box at very reasonable prices. Disks, and disk drives were available at exceptional prices. Two half height DS/DD drives with all cables needed for the PE box ($210) or a full sized DS/DD drive ready to slide into the PE box ($70) were among the specials offered by C & G Drives. I picked up a used basic expansion system (PE box, 32K, TI controller, SS/SD drive) for $275 with a 30 day guarantee from Competition Computer. L.L. Conner Enterprise had a very substantial looking 20 inch cable that plugs into the 99/4A side port and allows you to move your fire hose and speech synthesizer back somewhere out of the way. I and other members of our user group have used a similar cable offered in the Tenex catalog with poor results. The thin grey Tenex cable apparently breaks internally if it is flexed too much. The $25 L.L. Conner

cable looks much stronger than the Tenex cable and the L.L. Conner sales man said that there have been no reports of troubles with their product. I almost bought one. It's too bad the cable isn't a bit longer

80 COLUMN COLOR DISALAY:
Three ways of achieving 80 columns in color were displayed and available for sale. The GENEVE was demonstrated by Jack Riley, now a MYARC partner. The computer was running MDOS v0.99B, but the MYARC people were NOT giving out any copies of this DOS to those who didn't have access to the latest DOS posted on the national information services. The MYWORD word processor is completed, and all the other promised software is "almost complete" except for the new BASIC which is a month or so from completion. (I've heard this somewhere before I think. Oh well.)

T.A.P.E. LTD in the person of owner Franz Wagenbach demonstrated and had available for sale the MECHATRONICS 80 column card which plugs into the side expansion slot of the 99/4A console. Replacement of a socketed chip inside the console (no soldering, anyone can do it) is also necessary to get this 80 column card to work. The card is sold with an 80 column version of TI Writer and a patch to Multiplan that gives an 80 column display and requires the use of the Multiplan module. These software items arn't vaporware. They were there at the faire as part of the 80 column card package. Unfortunately, I didn't get the price of this package. There is currently no other software available for the Mechatronics 80 column card, but a recent reiew in Micropendium says that extended basic can be given an 80 column display. With an RGB analog monitor the Mechatronics card has three graphics modes, up to 512 colors, and is "100% T.I. compatable."

DIJIT Systems had on display, and were taking orders for their AVPC (Advanced Video Processor Card) that goes inside the PE box and is used with a 99/4A console. Asking price is $220 + $4 shipping. It is necessary to solder in a jumper on one of the 4A console chips, and the AVPC only works with consoles what have gold shielding on the side expansion port. This means most black and silver consoles and a few grey plastic consoles. A not yet perfected 80 column version of TI Writer was shown and DIJIT representatives said that a bug free TI Writer would soon be available at no additional charge. This PE box card is advertised as "99% compatable with existing 99/4A programs; 192K video RAM; 512 color palette" and requires an RGB analog monitor for best color video.

Of the three 80 column 512 color systems I saw at the faire the most attractive to me (and the most incomplete in terms of software) is the DIGIT systems card. I like the

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idea of a PE box card instead of something that plugs directly into the console, and you can get the DIGIT card for less than half the price of a GENEVE.

BATTERY BACKED UP SUPER RAM CARDS:

Bud Mills Services had on display a PE box with John Johnson's Menu v7.1 operating two DS/DD (384K, 1440 sector) HORIZON RAMDISKS. Complete Horizon Ramdisk kits including board, chips, instructions, and v7.1 Menu operating system software are available in 1 MEG(!!!), 512K, 384K, 192K, and 96K sizes. The increased memory sizes are made possible by using 32K chips instead of the 8K chips that have previously been used on Horizon Ramdisks. V7.1 allows the user to make one Horizon card act as more than one disk drive if desired. Already assembled, tested, and guaranteed 92K and 192K (DS/SD 720 sectors) were available at the faire at the Horizon Computer Ltd. table. Already built 256/32K combination ramdisk/memory expansion ($260), straight 256K ramdisk ($235) and 1 MEG ramdisk ($450) were advertised at the faire as available from Midwest Engineering.

Products in the above paragraph are all based on the Horizon Ramdisk and are available NOW! Rave 99, selling IBM style keyboards at the faire, had a handout announcing a memory enhancement card available in December. This battery backed card has up to 544K memory and up to 4 can be used in the PE box for over 2MEG of memory storage. Price for the 544K version is $400.

DEMONSTRATIONS AND PRESENTATIONS:

These went on almost non stop uptsairs in the very comfortable fireside lounge. It was impossible to attend and take notes on them all, so I attended only those that interested me. Barb Wiederhold of the Queen Anne Computer Shoppe gave a very emotional "keynote address"-like presentation on why the TI computer is so good and why we should continue to learn about and expand our systems. Her talk resembled the half time talk of a football coach to his playrers. It was great!

J Peter Hoodie (age 21), co-owner of Genial Computerware, author of MYWORD and the Horizon Ramdisk Eprom (reviewed last month in BB&P) demonstrated some of the software sold by Genial. This software included PC Transfer ($25) by Mike Dodd (age 15) which transfers ASCII files between IBM and TI formats using EITHER the CorComp or Myarc disk controller. Unlike the $60 CorComp equivalent which only works with the CorComp controller, PC Transfer can format a disk in IBM format using the TI. Graphics Expander ($10) by J Peter Hoodie does an interesting job of S-T-R-E-T-C-H-I-N-G, rotating, and producing mirror images of fonts and pictures. The only thing it won't do is shrink.

I also saw Chris Faherty put his TI-Artist through its paces. His demo was really slick. Currently TI-Artist is the only software package that can be used by the Mechatronics mouse. The mouse was, by the way, available for sale at the T.A.P.E. booth. I did NOT see much of the formal Geneve demos by Don Walden of the Milwaukee users group and by Jack Riley of Myarc. These two demos were very well attended by others and I am sure will be well reported

in Micropendium and in other newsletters. The reason I didn't attend is the lack of interest shown in the Geneve to date by members of my user group.

CONCLUSIONS:

The Faire is a super opportunity to buy goodies at the lowest possible price, and to see and actually talk to many of the TI personalities you read about in Mircopendium and in the newsletters. Many many of these people were there. I wore a name tag with my name and user group affiliation prominantly displayed. I was approached by a number of user group presidents and newsletter editors who recognized my name from our own newsletter. It was nice to meet these people that before I had only known through the mail. I am looking foreward to, and saving my money for, the 1988 Faire!

ADDRESSES OF THOSE MENTIONED HERE:

Bud Mills Services
166 Dartmouth Dr. Toledo OH 43614
419-385-5946

C & G Drives
1241 Landwehr Rd. Northbrook IL 60062
312-272-0468

Competition Computer
2629 W. National Ave. Milwaukee WI 53204

DIGIT Systems
4345 Hortensia St. San Diego CA 92103
619-295-3301

Genial Computerware
P.O. Box 183 Grafton MA 01519

Horizon Computer Ltd.
P.O. Box 554 Wallbridge OH 43465
419-666-6911

L.L. Conner Enterprise
1521 Ferry St. Lafayette IN 47904
317-742-8146

Midwest Engineering Consultants
203 Arcadia Dr. Vernon Hills IL 60061

MYARC Inc.
P.O. Box 140 Basking Ridge NJ 07920
201-766-1700

Queen Anne Computer Shoppe
6102 Roosevelt Way N.E. Seattle WA 98115
206-522-6558

T.A.P.E. Ltd
1439 Solano Pl. Ontario CA 91764
714-989-9906

DONE

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 incorperated into v4.0, and this new version has now been released as fairware. This is a major update designed to be compatable with Myarc's Extended Basic II as well as TI Extended Basic. This review describes the v4.0 release dated Oct. 20, 97. 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 accompaying 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 UM 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, UM, 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 accidently overwriting the viewed file when you later save the text buffer contents with SF.

OTHER MINOR CHANGES:

Disk Patch (file DP) has again been modified. The insctuctions 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 MG and MH have been modified so they will load successfully from outside of the FUNNELWEB environment. These FWb v4.0 MG and MH files can now be loaded and used correctly from XBASIC command mode if you have the Horizon Ramdisk eprom (reviewed last month in BB&P) 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**

THE POSSIBILITY OF A GRAM KRACKER EQUIVALENT

At the recent Chicago Faire it was announced that a GRAMULATOR, a direct equivalent of the now out of production Gram Kracker has been designed. Production depends upon whether there is any demand. Price is estimated to be $140 (much less than the original GK) and at least 100 need to be sold to break even. A prototype was demonstrated at the Faire by J. Peter Hoddie. If you are interested in purchasing such a device at or near this price please write to:

  Mark Van Coppenolle
  52 Audubon Road
  Haverhill MA 01830
  Phone 617-372-0336

Please don't send any money. Actual production of the Gramulator deends on the amount of feedback received- no feedback, no product.

                DONE

TIGERCUB SOFTWARE REDUCES PRICES

Jim Peterson has written us to announce some significant price reductions in his software.

"The 130 programs in the Tigercub catalog have been reduced to $1.00 each, plus $1.50 per order (not per program) for the cost of of the cassette or disk and packaging and mailing. Minimum order $10, please.

"The 18 Full Disk collections, consisting of 5 or 6 of my catalog programs in one category, and the rest of the disk filled with a bonus of public domain programs of the same type, have been reduced to $5.00 each, postpaid, minimum order $10.

"These prices are comparable to what many user groups are charging their own members for public domain programs, or what it would cost to download an equal number of programs from Genie or CompuServe.

"The four Tips from the Tigercub disks are still available at $10 each, postpaid, and thoe three Nuts Bolts disks at $15 each postpaid.

"I still have a few catalogs available at $1, deductable from the first order.

"The market for TI sottware has become so poor that I can no longer afford to advertise."

The most significant price reductions are in the 18 Full Disk collections. Each of these full disks is available from Charlie Good for examination (NOT for copying! We need to keep the faith since Jim has donated lots of goodies to our newsletter) by members of the Lima U.G. Jim Peterson is one of the best BASIC and XBASIC programmers ever for the TI. See Jim's TIPS #46 at the end of this newsletter for a listing of the Full Disk collections.

                DONE

HARDWARE OWNED BY THE LIMA USER GROUP

The group purchased a basic expansion system at the recent Chciago Faire. Our system consists of a PE box with one SS drive, disk controller, and 32K. The club also owns 2 consoles with working TV adapters and power supplies. This equipment is normally kept at the campus, but is available at no charge to any member on loan as long as the goodies are available at each meeting. Maybe some of our members without a disk system would like to borrow the PE box and experience the glories of using a disk drive instead of tape! If your console, or power supply, cease working properly these items can also be borrowed from the User Group.

                DONE

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                    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/F80 software.}
       ↓                  →→ → → → → → → → → →↓
       ↓                                       ↓
     1 EDITOR     (needs files ED/EE)        1 EDITOR     (needs files ED/EE)
     2 FORMATTER (needs files FO/FP)         2 ASSEMBLER  (needs files AS/AT) .
     3 DM1000    (needs files MG/MH)       ↓←3 LOADERS
     4 MODEM     (loads user file MD)       ↓ 4 c-Compiler (needs file CO and
     5 DATA BASE (loads user file DB)       ↓    renamed c99 files)
     6 UTILITY   (customized with CONFIG,   ↓ 5 DISK PATCH (needs file DP)
         boots any assembly language file)  ↓ 6 UTILITY     (customized with CONFIG,
   ↓←7 USER LIST (needs file UL)            ↓    boots any assembly language file)
    ↓ {TI-Writer CENTRAL MENU. This boots   ↓ 7 RESET/QUIT
    ↓ directly after loading file UTIL1.}   ↓ {Edit/Assm CENTRAL MENU; alternates
    ↓                                       ↓  with TI-Wr central menu with the
    ↓                                       ↓  press of any non-number key}
   1 ..                                     ↓
   2 ..                                     ↓
   3 ..                                     ↓
   4 ..                                     ↓
   5 MYARC DM                               ↓
   6 NEXT UL     (needs UM, a recustomized  ↓
                 renamed duplicate of UL)   ↓
   7 CASETTE     (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/F80 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/F80 object files that otherwise use #3 of EA module)
   5 SCRIPTLOADER    (loads predefined sequence of D/F80 files, needs file SL)
   6 LOW-MEM LOADER  (loads D/F80 object files into low memory, needs file LL)
   7 L&R ALL-MEM     (loads autostarting D/F80 object files into memory anywhere)
   8 (Not shown on screen. Cancels autostart of autostarting D/F80 object files)
   {LOADER menu. Loads from #3 of Edit/Assm central menu. All options need file EA}
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DONE

```
                 FUNNELWEB v4.0----CONFIGURE FLOW CHART

  ↓←1 Continue Normally   (Use this the first time you run CONFIG.)
↓←↓←2 Redo User Lists     (Use to alter and/or add to already configured XB
↓  ↓                          and/or central menu User Lists.)
↓  ↓ 3 Redo Configuration
↓  ↓ 4 Back to FWB Vn 4.0
↓. ↓ {First and last CONFIG menu}
↓  \
↓     ↓
↓ "Boot drive tracking on? (Y/N)"
↓  ↓←Y.. FWb expects all its own files and the user files accessed directly
↓  ↓        from central menus to be in the boot drive or in DSK1.
↓  ↓ N.. Overrides boot drive tracking, allows specifying specific drives
↓  ↓   ↓    for TIW and Edit/Assm central menu files.  Particularly useful
↓  ↓   ↓    with ramdisks or with multiple floppy drives.
↓  ↓   ↓
↓  ↓  "Fixed drive # (TI→Wr) DSK_"   Enter a single digit drive number.
↓   \ "Fixed drive # (Ed→As) DSK_"   Enter a single digit drive number. This
   ↓ ↓                                     is the SECONDARY DRIVE number.
↓    ↓ ↓
↓ "Utility drive default? DSK_.UTIL1" Enter a single digit number that will be
↓    ↓        the default number displayed when LF/SF is first used in the editor.
↓    ↓
↓ "Editor printer, device"  Enter PIO, or whatever your printer name is.
↓ "Format printer device"   Enter your printer name followed by ".LF" or, for
↓   ↓                             some printers by ".CR"
↓   ↓
↓ "Workfile name default"  If you enter something here, the name will appear
↓   ↓ after "DSKx." the first time you LF or SF from the editor after booting
↓   ↓ FWb.  If you leave this blank, as I do, then you can exit FWb, do
↓   ↓ something else with the computer, then reboot FWb and usually find the
↓   ↓ old file name still in the mail box.
↓   ↓
↓ "Edit Utiltiy Choice #6"   Type in the screen display name of an assembly
↓ "Edit Opt #6 file name"    language PROGRAM user file you want to be able
↓   ↓ to boot from a central menu.  Then enter a 2 character name for this file.
↓   ↓ Repeat the process for the other central menu.  These user files must
↓   ↓ be on the same disk as the other files accessed by the displayed TI→Wr
↓   ↓ or Ed→As central menu.
↓   ↓
↓ "Color choice selection"  Colors and their hex values are displayed. Ten
↓    ↑ foreground/background combinations are shown with the first being the
↓    ↑ combination showing at powerup.  The other 9 are can be cycled through
↓    ↑ by pressing zero from most FWb menus.  Edit the color combinations, or
↓    ↑ press ENTER to cycle through all ten without editing. You then get this
↓    ↑ menu:
↓    ↑   ↓
↓    ↑ 1 Cycle Colors (Press 1 repeatedly to see each color combination)
↓    ↑←2 Select Again (Re-edit the colors you just entered)
↓    ↑←3 Original Set (Re-edit the colors originally present on the FWb disk)
↓       4 Next Screen
↓    ↓
GOTO NEXT
  PAGE
```

↓   ↓
↓   ↓
"Do you wish to edit the central menu screen UL before saving UTIL1? Y/N"
  Y..You get a display of screen and file data for the first 8 items in the
↑   central menu User List. Press N(ext) and B(ack) to cycle through
↑   these 8 items. Press E(dit) to enter data or change data of the
↑   displayed UL item. Editing screen prompts are identical to those
↑   shown below for XB User List editing beginning with "Edit file name for
↑   loader." When you have finished editing all the items you wish to
↑   edit, press S(ave).
↑   ↓
↑   "Save data to DSKx.UL" Enter a drive number and change "UL" to UM, UN,
↑   etc. if you are CONFIGuring more than one User List. Then press
← ← ← ← ← ← ←ENTER. If you wish to CONFIGure more user lists, answer Y to
         option to (again) edit the central menu UL. Otherwise answer N
         and continue with the XB User List part of CONFIG.

  N..(You don't want to CONFIGure any more central menu user lists.)
↓
"Do you wish to edit the XB LOAD program UList before saving UTIL1? Y/N"
  Y..Follow screen prompt and load LOAD. You then see the XB User List first
     menu with the cursor on choice #4.
     ↓
→→→→Choices 4 through I must be cycled through before leaving XB UL con-
↑   figuring portion of CONFIG. Type in what you want the menu to display
↑   for each item, then press ENTER. Or, to rapidly cycle through the XB
↑   UL menu, just press ENTER if you like what you see displayed. ENTER can
↑   be used instead of any called for screen prompt in XB UL configuration.
↑   Not finished with cycle: Finished with cycle→↓
↑ ↓   ↓
↑ 1 XBasic Program→→→→↓(User file is XBasic.)   ↓
↑ 2 Assembly Loaders→→↓(For assembly language user file.)   ↓
↑←←←3 Return to XBasic ↓(Causes this XB UL item, when pressed, to im- ↓
↑   ↓ mediately return to XBasic, as does UL item #3) ↓
↑←←←4 Leave unaltered   ↓(Returns you to the XB first menu UL display so ↓
↑   ↓ you can edit the next UL item.)   ↓
↑   ↓   ↓
↑   "Edit file name for loader" Enter a file name including a drive ↓
↑   ↓   ↓   number in the form DSKx.FILENAME.   ↓
↑← ← ← ←If XB program: If assembly file: ↓
↑   ↓   ↓
↑   ↓←←1 Memory Image Program (Assembly language file that lists as ↓
↑   ↓   PROGRAM in a disk directory)   ↓
↑   ↓ 2 Tagged Object Code↓ (A single D/F80 assembly language file)↓
↑   ↓ 3 Script Load File ↓ (A sequence of D/F80 files)   ↓
↑   ↓ ↓← ← ← ← ← ← ← ←↓   ↓
↑   ↓ ↓   ↓
↑   ↓ ↓←1 No special conditions (This is what you usually choose.) ↓
↑ ↓←←←←←←←2 Load low memory first   ↓
↑ ↓ ↓ ↑←3 Autostart - E/A LFMH   ↓
FROM GOTO ↑←4 Intercept autostart   GOTO
LAST NEXT   NEXT
PAGE PAGE   PAGE

```
  GOTO      ↓   ↓                                                              ↓
PREVIOUS ↓  → → →↓                                                             ↓
  PAGE     ↓        ↓                                                          ↓
    ↑      ↓     ↓←1 Text Mode (TI-Wr)   (Usually loads from #3 of TIW        ↓
    ↑      ↓     ↓                         module.)                            ↓
    ↑      ↓   ↓←2 GPL Environment       (The usual choice for most EAS files.) ↓
    ↑      ↓   ↓←3 E/A Program file                                            ↓
    ↑      ↓   ↓                                                               ↓
    ↑      ↓  ↓                                                                ↓
    ↑    "Boot tracking off (Y/N)" Y prevents the boot drive number from      ↓
    ↑        ↓ overwriting the drive number you specified as part of the      ↓
    ↑        ↓ file name.                                                     ↓
    ↑        ↓                                                                 ↓
    ↑    "Secondary Disk (Y/N)"  This is the drive #  specified near the      ↓
    ↑        ↓ beginning of CONFIG for the Ed-AS central menu if you turned   ↓
    ↑        ↓ off boot drive tracking.  If this number is different than     ↓
    ↑        ↓ the boot drive number and if you answer Y to this question     ↓
    ↑        ↓ then FWb will look for the user file in the secondary drive.   ↓
    ↑        ↓                                                                 ↓
    ↑        "Provide reminder (Y/N)"  If the user file is not on the same disk↓
    ↑           as the rest of your FWb files then answer Y.  FWb will stop   ↓
    ↑           when the user file is selected from a User List and the       ↓
    ↑           message "Insert Utility Disk in Drive x" will be displayed.   ↓
    ↑← ← ← ← ← ←The x is the secondary drive number.                          ↓
                                                                              ↓
                                                                              ↓
  N..(You don't want to edit XB User List)                                    ↓
      ↓                                                                        ↓
      ↓                                                                        ↓
    ↓←"Select F'WB File Name" (Press 1 or 2 for the correct name             ↓
    ↓  1 UTIL1                of the reboot file.  FWb originally             ↓
    ↓  2 RELOAD               comes confugured as UTIL1.)                     ↓
    ↓                                                                          ↓
    ↓          ↓← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←
    ↓          ↓
"Save file to drive #?"  Select a single digit number and/or press ENTER.
      ↓
"Press 1 to save configuration"  You may also redo your configuration by
      ↓                            pressing 2 or 3, or return to FWb with 4.
      ↓
"Configuration saved"  You are now returned to the first CONFIG menu at the
                        start of this flow chart.          **DONE**
```