

BITS, BYTES & PIXELS

LIMA 99/4A USERS GROUP



SPECIAL EDITION - SUMMER 1989

WHY A SPECIAL EDITION OF BB&P?

As you can read in the adjacent box, we normally only publish this newsletter ten times per year, skipping July and August. At our recent Multi-User Group Conference we were able to "World Premier" demonstrations of pre-release beta testing versions of FUNNELWEB v4.1, and DISK UTILITIES v4.1. These two software packages have now been released and we feel that it is important to get the written descriptions of these software packages (and the software itself) out to the TI community as soon as possible. Hence the publication of this special DD&P edition. Costs of the software distribution that accompanies this newsletter have been partially undrewritten by Lima UG member Jim Courtney.

****DONE****

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* BITS, BYTES & PIXELS * * *

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THE 1989 LIMA MULTI-USER GROUP CONFERENCE

By VERY popular demand we have scheduled another ABSOLUTELY FREE conference and swap meet at the Ohio State University Lima Campus for Saturday May 20, 1989. We received many complementary letters and have much favorable newsletter comment about our last conference, so we are going to do it again! There will be no admission charge, and no charge for tables in the exhibit area. Any user group or dealer can reserve as many tables as they need. We plan to schedule one hour software and technical demonstrations (not half hour as before), and to schedule concurrent demonstrations in two separate rooms with starting times at half hour intervals if there are lots of demonstrations. Mark this date, and start planning now for possible demonstrations and exhibits. SATURDAY MAY 20, 1989.

It was suggested in the Columbus OH (C.O.N.N.I.) UG's newsletter that other user groups might want to accept some of the responsibility for organizing a possible 1989 conference and take some of the burden away from the Lima UG. The Lima U.G. discussed this at their June meeting and decided that organizing and running our 1989 conference should all be done by us at the local level. We feel that all the necessary coordination would be difficult if spread out among lots of people over a wide geographic area. Thanks for the offer!

There are two areas in which other user groups could help us with our 1989 conference. One is money. The Lima UG did incur some postage, long distance phone call, and other minor expenses in the operation of our last conference. Almost all of these expenses were absorbed by individual members of the Lima U.G. and did not come out of our group's treasury. If attending user groups and dealers would each be willing to donate \$5.00 to conference costs, that would pretty much take care of all these minor expenses. What you see here may be the only time this topic is discussed by us in print. We don't want to make a big deal about this money issue, since advertising our last May's conference as TOTALLY FREE is one of the reasons we were able to draw such a large crowd. Small donations to assist with conference expenses WILL be accepted by the Lima U.G.

The second way other groups can assist the Lima group is publicity. Spread the word in your newsletters. Encourage your LOCAL TI dealers to attend. Post notices on bulletin boards and information services. "And we thank you for your support!"

****DONE****

THE NEW FEATURES OF FUNNELWEB v4.1

by Charles Good
Lima Ohio User Group

FUNNELWEB is probably the most significant software ever for the 99/4a. After booting FUNNELWEB v4.1 from XBASIC (you can boot FNB from any assembly language loader, but the XBASIC module is the best way) you can do all of the following without changing modules:

1. With a single keypress you can load from a selection of user created menus almost any software ever written for the 99/4A. If the software you want to load isn't configured into one of your user created software menus, you can call up a disk directory anywhere within FNB, mark the file name of software seen in the directory, and then load that software.
2. Do work processing with a much improved version of TI-Writer.
3. Create assembly source code and then assemble it as you would with the E/A module.
4. Manage disks with a modified version of DM1000 which is supplied with the FNB package. Pre-configured menu entry points for other common disk managers are also provided.
5. View and edit disk sectors with a modified version or DISK PATCH, also sometimes known as DISKU.

This review will describe the changes and additions in v4.1 as compared to v4.0. Although this description is based on the May 30, 1988 release which says "Memorial Day" on the XBASIC title screen, the review should be valid for all subsequent releases of v4.1.

Enhanced CENTRAL MENU capabilities.

Each central menu now has 8 items, and items 4-7 are completely configurable to load any kind of assembly language file. This includes autostarting D/F80 source code and assembly PROGRAM files. In previous versions of FNB the central menus could only load PROGRAM files and only a limited number of central menu slots were configurable.

The TI-Writer menu reads as follows:

- 1 EDITOR
- 2 FORMATTER
- 3 DISK UTILITIES
- 4 MODEM
- 5 DATA BASE
- 6 DM1000
- 7 DSKU
- 8 USER LIST

As noted above, items 4-7 can be configured to suit the user. MODEM is an entry point for terminal emulation software such as FAST TERM or TELCO. DSKU refers to John Birdwell's "DISK UTILITIES." This fairware disk manager/sector editor is so good that some former users of DM1000, myself included, have switched to DSKU for most disk management uses. DSKU is not provided as part of the FNB package, but can be obtained directly from John Birdwell or from most user group libraries.

Item 3 in the above TIW central menu leads to a specially created user list menu in which disk management software is grouped together. The DISK UTILITIES menu reads as follows:

- 1 DM1000
- 2 DSKU
- 3 MYARC DM
- 4 DPATCH
- 5 SCREAMER
- 6 TRACKER
- 7 ARCHIVER
- 8 CONFIGURE
- 9 <CTR ROM>

DPATCH is the modified sector editor DISKO which is provided as part of the FNB package. SCREAMER is a good entry point for an ultra fast whole disk copier such as REDISKIT or TURBO COPY. TRACKER can be used to load one of the various "copies anything including protected disks" track copiers. Will McGovern, one of the FNB authors, has written a fairware track copier called TRACKER that is one of the few (maybe the only) that works with a Myarc disk controller. Send him a few bucks in Australia and he will send it to you, or look in your user group library. ARCHIVER will load the latest version of Barry Boone's archiving/compressing program. This archiving software is not part of the FNB package. CONFIGURE boots the FNB configuration files CF/CG. Items 1-8 in the above DISK UTILITIES user list menu can be altered with CF/CG to boot any assembly D/F80 (autostarting or not) or PROGRAM files.

The Edit/Assm central looks this way as configured on the FNB distribution disk:

- 1 EDITOR
- 2 ASSEMBLER
- 3 LOADERS
- 4 C-COMPILER
- 5 DISK PATCH
- 6 LINEHUNTER
- 7 ..
- 8 RESET

Item 4 loads the latest v4 release of c99. LOADERS, unchanged from FNB v4.0, leads to a menu for loading assembly D/F80 or PROGRAM files that aren't already configured into one of the FNB user lists. LINEHUNTER is new to v4.1. It is an assembly programming utility that prints on the screen any specified line of assembly D/V80 source code. You can also type the name of a label, and LINEHUNTER will display lines that have that label.

THE CONFIGURATION PROGRAM, FILES CF/CG:

This has been totally redone for v4.1 and MUST be used to do any configuring of the various user lists. It is no longer possible to directly edit FNB's XBASIC LOAD program to alter the XBASIC user list because there is very little XBASIC code in LOAD. There are only a few XBASIC line numbers in LOAD and the rest of LOAD is all in assembly.

CONFIGURE is much easier to use in v4.1 than it was in v4.0. CF/CG has a tree structure which allows you to quickly get to any part of the configuration without redoing the entire configuration process. The configuration program is very professional looking with sound effects, overlapping menu windows that pop into view, and help screens that are available at various points in the configuration process by pressing "?". Obviously much effort went into the preparation of the new v4.1 configuration files. The authors note that CF/CG was condensed from over 300 sectors of source code.

Basically what you do is load a configuration data file, alter the configuration, resave the altered data file to disk, and then while it is still in memory install the new configuration data into the FWB LOAD and UTIL1 files. If you later obtain a more recent release of FWB v4.1 you can configure the more recent release simply by loading your old configuration data file and installing this data into the newer LOAD and UTIL1 files. This is REALLY EASY! I had access to a pre-release beta testing edition of FWB v4.1 and was able to use the beta testing edition's configuration data file to configure my "Memorial Day" v4.1 in about 30 seconds. Hopefully the FWB authors will maintain this configuration data file system in all future upgrades of FWB and allow this easy transfer of v4.1 configuration information into all future FWB updates. Unfortunately, configuration information from v4.0 cannot be transferred directly to v4.1.

The important universal keys to remember in the configuration routine are <ENTER> to advance to the next window, and BACK to return to the previous part of the program (often the previous window). AID will get you a disk directory from most places in the program, and "?" brings up the help screens. When a window is displayed, you press the first letter of the text line in the window to perform the function indicated. If the window says

```
!Load!
!Edit!
!Save!
```

then you press "L", "E", or "S". Sometimes "N" and "R" are used to move the cursor up and down within a window when the functions "Next" and "Back" are displayed in the previous window. When more than one window is visible at the same time, the active window is indicated by a fat (2 pixel wide) border. The borders of the windows get alternately fat and skinny depending upon which is the currently active window.

The early windows in the configuration process are as follows:

```
! Sysinfo      Quit      Install !   FIRST
                                           WINDOW

!Load!      !Loading!      !Boot Tracking OFF!
!Edit!      !Devices!      !TI-Writer side 1 !   LOADING
!Save!      !Colors !      !Edit/Assm side 1 !   WINDOW
SECOND     !Menu !      !Working Drive 2 !
WINDOW     !XB List!
           !UL List!
           THIRD
           WINDOW
           !Edtr Printer!
           !Fatr Printer!   DEVICES
           !Object File !   WINDOW
           !Work File !
           !Program !

           !Edit!
           !Next!   COLOR
           !Back!   WINDOW
           !Xchg!
           !Redo!
           !View!

           !TI-Writer side!   MENU
           !Edit/Assm side!   WINDOW
```

You start out by pressing S(sysinfo) to display the second window, and then press L(load) to load the configuration data file, following the prompts for loading. The name of this file on the FWB distribution disk is SYSCON, but you can use any name. You can create different FWB configurations on different configuration data files each with a different file name. After loading the configuration file, you press E(edit) change the the configuration data and display the third window. From here you bring up fourth series of windows where much of the configuration actually occurs.

LOADING WINDOW: Boot Tracking toggles between ON and OFF by pressing "B". Usually it is left ON unless FWB is installed on a ramdisk. In that case, the authors suggest it is sometimes best to leave boot tracking OFF. If the files loaded by FWB's central menus are in different drives (or ramdisks) these drive numbers are specified next to "TI-Writer side" and "Edit/Assm side". The "Working Drive" is the default drive number that appears after "DSK" if the mailbox workfile name is empty when you LF from the editor or use the Formatter.

DEVICES WINDOW: Printer names are self explanatory. "Object File" name is the default that appears on the screen next to DSK%. when you select LOADERS from the Edit/Assm central menu and try to load a D/FBO assembly file. I have "Object File" name configured as "DF/BOFILE" to remind me that only this type of file can be loaded from certain parts of LOADERS. "Work File" is the default file name used the first time you LF. It is best to leave this blank as it is

on the distribution disk. If "Work File" is left blank, you can exit FWB, go through the title screen and do something in BASIC without turning off the PE box, return to FWB and find the previous workfile name still there when you LF. "Program" is the default displayed on the screen when you use the LOADERS menu to load assembly PROGRAM files. The ability to set "Object File" and "Program" defaults is a feature new to FWB v4.1.

COLOR WINDOW: Here you can edit and view your choice of 10 color combinations. You can alternate between two sets of such combinations. The one listed at the top of the list is the combination that appears first when you boot FWB.

MENU WINDOW: This choice allows you to configure items 4-7 in each of the central menus. You can configure autostarting D/F80 assembly files or assembly PROGRAM files. Each file name is limited to two characters and should either be on the boot disk in the either one of the two central menu drive numbers specified above in the LOADING MENU. Press BACK to exit this part of the configuration process.

XB LIST AND UL LIST CONFIGURATION: These are both done in a similar manner. First F(etch) the list by pressing "F". Then press N(ext) or B(ack) to select the item to be configured and press E(dit) to change that item. Press <ENTER> to go from menu to menu in the editing process. When asked for the "Secondary" this refers to the drive number specified in the devices window for the E/A central menu files. If you ask for a "Reminder", FWB will display the message INSERT UTILITY DISK when you attempt to boot the configured program from a FWB menu. When XB List or UL List configuration is finished (and S(aved) in the case of UL List), press BACK to return to the third window.

THE FINAL CONFIGURATION STEPS: Press BACK several times to return to the second window and then press S(ave) to save the modified SYSCON configuration data file back to disk for later use. Then press BACK, and from the first window press I(nstall) to install the configuration data into the LOAD and UTIL1 files. Follow the prompts. An alternate name for the UTIL1 file is FW and you can use this name if you want. The alternate name used to be RELOAD in earlier versions of FWB, but this name is too long to use with current Horizon Ramdisk Menu software. It is necessary to save the configuration data to BOTH the LOAD and the FW/UTIL1 files, so cycle through the installation process twice. Then press BACK a couple of times to return to the first window and press Q(uit) to return to FWB. If you exit configuration with Q(uit) you will not immediately see your new configurations. It is necessary to reboot FWB from the beginning for the new configurations to appear on screen.

UL LIST SPECIAL CONSIDERATIONS: Immediately after configuring a USER LIST and before pressing BACK to return to the third window it is necessary to S(ave) the configuration to the USER LIST, since this user list data is NOT saved as part of the configuration data file. When you return to the third window your USER LIST data may be lost. You may create as many USER LISTS as you want, each under different names. These lists can be loaded from each other, or they can be loaded from the central menus. DISK UTILITIES from the

TI-Writer central menu is a special user list file named DS, and can be configured from the "UL List" option of the third configuration window. If you come across a more recent release of FWB v4.1 you can use your previously configured user lists (files UL, DS, and any of your own user list files) unmodified with the more recent release. You don't have to configure your user lists all over again. I hope it will be possible to use unmodified v4.1 user lists in future versions of FWB (v4.2 etc) as well. Unfortunately the FWB authors state that v4.0 and earlier user lists are not guaranteed to be compatible with v4.1.

NEW FEATURES IN QUICK DIRECTORY:

You can now mark ANY file in QUICK DIRECTORY, invoked by AID from most places in FWB. If the marked file reads PROGRAM, then its name will appear on screen as the default when you load an assembly language PROGRAM file from items 1-3 of the LOADERS menu. If the marked file is D/F80, then it will show up on screen as the default when you load assembly object code from items 4-7 of the LOADERS menu. The ability to mark files from QUICK DIRECTORY for the LOADERS menu is new to v4.1. Any file may be marked for deletion, and after deletion the sector count and file name list displayed on screen by QUICK DIRECTORY are immediately updated. The ability to delete from QD and immediate updating in both QD and SD (from the editor) are new to v4.1. I consider all the new features described in this paragraph to be very useful.

Other changes in QD include the ability to unmark a workfile name as Q(ld) and revert back to the previous workfile name. In v4.0 you could only do this by using SD from the editor. The N(ext) and B(ack) keys are now used to page through the alphabetical list of file names in QD rather than SHIFT/CTRL as in v4.0. This change makes QD consistent with other sections of FWB v4.1 since "N" and "B" are commonly used to move forward or backward, particularly in configuration.

DM1000 CHANGES:

The FWB authors include their own modifications of DM1000 v3.5 as part of the FWB package. (PLEASE NOTE: DM1000 is fairware, and if you use FWB you should not only send a fairware donation to the FWB authors, you should ALSO send a fairware donation to the Ottawa User Group for the use of DM1000.) V3.5 is the last source code sent directly to the FWB authors by the Ottawa UG and this is why the FWB authors have based their modifications on this rather than a later version. FWB co-author Tony McGovern writes me that he believes his modified v3.5 will do everything that DM1000 v4.0 will do except line by line scrolling with V(iew). Tony has given DM1000 the squeeze job, and the result is that FWB's modified v3.5 files are smaller than the original v3.5 and much smaller than DM1000 v4.0.

The most important feature of FWB's DM1000 is that it formats disks at 18 sectors per track in DD mode with a Myarc disk controller. Bugs in T(ype), P(rint), and C(opy) have

been fixed, and you can now use 3 digit printer entry codes. Horizon Ramdisks at high CRU addresses are fully supported except for initialization during Disk Copy.

OTHER FEATURES NEW TO FWB v4.1:

The formatter may now have 4 disk files open at the same time. From the assembler the object file name is passed back to the object file parts of the LOADERS menu and appears as the on screen default for immediate loading.

The keyboard control of DISK PATCH has been augmented to make it consistent with John Birdwell's DISK UTILITIES. The DISK PATCH title screen tells you that you can use the "original" keys (this means the keys that worked with FWB v4.0, which aren't quite the original DISKU keys) and an alternate set of key presses that corresponds to the keys used to control DISK UTILITIES (Ctrl/H for Hex display, Ctrl/N for next sector, Ctrl/W for write to sector, etc). If you are familiar with the keyboard controls of DISK UTILITIES you will have no trouble using FWB's DISK PATCH.

FINAL CONCLUSIONS:

In my opinion everyone who does serious disk based work with the 99/4A should be using FWB. If you don't have it, check your user group's library. User groups, not individuals, may obtain FUNNELWEB v4.1 at no charge by sending a disk and paid return mailer to the Lima User Group, P.O. Box 647, Venedocia OH 45894.

****DONE****

(BB&P editorial note: The following file, written by John Birdwell describes the changes made in DISK UTILITIES v4.1 as compared to v4.0a. John asks \$15 to become a registered user. After payment of this fee, updates are free. For updates after registering check your user group library, or send John a disk and postage paid return mailer, or send \$5 and John will provide the disk and mailer.)

```

*****
# UPDATE INFORMATION #
# FOR DISK UTILITIES #
# Version 4.1 #
# #
# John Birdwell #
# 7052 Springhill Circle #
# Eden Prairie, MN 55344 #
*****
    
```

NOTE: A special version of Disk Utilities (4.1M) is available for use with the Myarc Disk Controller. This is required to format a DS/DD disk to 1440 sectors. If you are utilizing this program with either a Geneve 9640 or have the 80 track Epro installed in your disk controller this version is not needed. If you are in need of this version please indicate when requesting this program.

ADDED AND CHANGED FEATURES

1. File Utilities: FILE OPS- Added - (E)dit Option. Selecting the (E) option will enter the File Sector Editor. Changed - (D)delete Option. If the file is protected the input will not be accepted. Pressing a 'P' will remove the 'D'. Changed - (V)iew Option. View will now display any size Display Fixed or Display Variable File. Selecting (V)iew will provide you with a prompt to output to Display or Printer, any size display file can be sent to your printer. FIND STRING- Changed to show the sector number within the file that the match occurred.

2. Disk Manager: Added - Copy (Bitmap). This selection will copy all used sector from the source disk to the destination disk. Added - Reset Disk. This selection will reset a previously initialized to its initialized state without formatting. Changed - Copy (Backup/Bitmap). If the destination disk is initialed to the number of sectors as the source disk the initialization step is not performed.

3. Disk Utilities: Removed - Setup Myarc Ramdisk (Needed the space for more important changes and additions.).

4. Sector Utilities: Added - Copy Sectors. This selection will copy a range of sectors. Added - Mark Sector. This selection will mark a sector as used. Added - Free Sector. This selection will unmark a sector as used.

5. System Setup: Added - Printout size for File print. Added - Special Print Code. This allows a hex string of up to 20 characters to be used for your printouts. ie- Should you desire the Disk Report printed in super-script you can designate this in you Special Print Code. Changed - Printout Size Selections. N - Normal. Will precede your printout with the code needed to set your printer to its standard print size. C - Compressed. Will precede your printout with the code needed to set your printer to its Compressed print size. S - Special. Will precede your printout with the code you designate as special.

NOTE: Due to the addition of the special print code a printer reset is sent to your printer to reset it to its initialized state. This code MUST be set through a sector edit. All defaults are currently set for an OKIDATA printer. See docs for this location.

6. Exit: No Change.

7. Load FW: This selection will load the Funnelweb UTIL1 file from any drive.

OTHER CHANGES: Sector/File Editor: Added - Insert Key (FCTN/2). This key will insert a null if in Hex or a space

in Ascii at the current cursor position and remove the last character of the sector. Added - Delete Key (FTCN/1). This key will delete the character at the current cursor location and place a null in Hex or a space in Ascii at the end of the sector. Changed - Character highlighting. Spaces between changed characters are now highlighted to further aid in identification.

The following selections are available at all times when keyboard input is expected - except while doing a sector edit: CTRL/D will provide you with a decimal to hex convertor. CTRL/H will provide you with a hex to decimal convertor. Depressing either of these will turn the convertor off and return you to the prompt you were at when it was turned on.

***DONE**

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CHARLES GOOD
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6/15/88

Dear Mr. Good

*P.S. Turbo-Pasc'99
Should be ready to ship
first week of July.*

Just wanted to drop you a line saying how pleased I was with the Conference Show. All of the members were both helpful and friendly. Also, the Show was profitable and I would attend the next Conference. Just let me know as soon as you can, as I also setup at HamFest and therefore need to plan for that weekend. Again, let me say I found every- one to be very friendly and courteous. But then I have always found TI Users to be a cut above the rest.

Just a bit of news!

I Will be ready to ship the Turbo-Pasc'99 in just a few weeks. Cost is \$59.95. I am the sole distributor for North America and Canada. Dealer inquiries are welcome.

Also, The TI-Base is now in stock and ready to ship!

The XB Detective and Von Graph are only \$9.95 ea.

Thanks, for a great Computer Show!!!