

BITS, BYTES & PIXELS

LIMA 99/4A USERS GROUP



JANUARY 1990 VOLUME 6 #1

TWO VIDEOTAPES NOW AVAILABLE TO THE TI COMMUNITY

In this newsletter is an article describing the newest version of FUNNELWEB, v4.2, and another article describing some never released official TI module software. We have two video tapes demonstrating of all this software which we are offering to the TI community for the cost of media and postage. One tape shows the complete step by step configuration process and illustrates all of the new features of both 40 and 80 column FUNNELWEB v4.2. The second videotape shows never released (or released to very limited circulation) module software with a TI copyright or written by third parties under a TI license. Running time for each of these two videotapes is approximately 1 hour 50 minutes. Any user group, as well as individuals who are paid members of the Lima UG, can obtain copies of these videos by sending a VHS tape and paid return mailer, or \$5, for each tape desired. Our address is P.O. Box 647, Venedocia OH 45894.

****DONE****

* * * * *

* BITS, BYTES & PIXELS * * *

* Published by Lima OH * * *

* 99/4A User Group * * *

* Material contained herein *
* may be copied by any user *
* group as long as credit *
* is given. DV80 files of *
* most articles in BB&P can *
* be obtained by sending a *
* disk and return postage. * * *

* ADDRESS- P.O. Box 647 *
* Venedocia Ohio *
* 45894 * * *

* Published monthly except *
* July and August * * *

----- *
* GROUP OFFICERS * *
* President-Mary Garrett *
* 419-238-3222 * *
* Vice Pres-Mark Chavarria *
* 419-238-3222 * *
* Treasurer-Leonard Cummings *
* 419-738-3770 * *
* Newsletter editor and *
* Librarian-Charles Good *
* 419-667-3131 * * *

T.I. MULTI USER GROUP CONFERENCE UPDATE

Saturday May 25, 1990

HARRISON SOFTWARE will be present selling classical music and the HARRISON WORD PROCESSOR. Bruce Harrison will give a 1hr formal presentation on the technical aspects of direct assembly language access to the TI's shound chip, and he will demonstrate his company's word processor.

TIGERCUB SOFTWARE will offer an expanded collection of "dirt cheap" public domain and fairware software. Jim Peterson reports that his sales of such software have picked up in recent weeks, due in part to recent additions to his PD software catalog.

As reported in our last newsletter, the following individuals and organizations have also indicated to us that they plan to attend:

HARRY BRASHEAR- Micropendium columnist.

Genial Computerware- selling Barry Traver's magazine on a disk. Barry will probably give one or two formal presentations.

DISK ONLY SOFTWARE- represented by Jim Horn. They sell Geneve computers and other iteas of software and hardware (including hats) for the Geneve and 99/4A.

ASSGARD SOFTWARE- the largest active publisher of TI and Geneve related software, will of course be represented by its owner Chris Bobbitt.

BUD MILLS SERVICES- with ramdisks, P-GRAM cards and other neat hardware for the 99/4A and the Geneve.

L.L. CONNER ENTERPRISE- one of the best "general" TI and Geneve dealers in the area.

The Lima UG has obtained specific price quotes from many area motels. Some motels are offering significant discounts to those attending our MUG Conference. We will publish this information, along with a map of the Lima area showing motel locations and the location of the OSU Lima Campus, in future editions of this newsletter. We do not intend to designate a specific "headquarters" motel. Those attending the MUG Conference who wish to spend a night or two in the Lima area can contact the motel of their choice, based on the information we publish.

Remember, everything at the MUG Conference is FREE. To reserve tables in the exhibit room, schedule a formal presentation, or obtain additional information, write the Lima UG at P.O. Box 647, Venedocia OH 45894, or phone Dave Szippel evenings at 419-228-7109.

****DONE****

STOP PRESS NOTE ADDED TO THE FOLLOWING ARTICLE:

We have just received a letter dated Dec 04/89 from Tony McGovern in response to a letter we sent him about a few bugs in the initial release of Funnelweb v4.2. Tony says "You are right, don't circulate widely on 4.20 until 4.21 is received.....I'll send 4.21 very soon." It was initially our intention to include disks with FNB v4.2 to all exchange user groups and out of town paid members who receive this newsletter. We will now wait on this. When v4.21 is received, we will mail it. The major bug in the current v4.2 is that you cannot run X BASIC software from the XB user list. You are instead returned to XB command mode. This really is no problem, because you can run XB software from the DISK REVIEW part of Funnelweb. Those user groups and out of town members who are super anxious to get their hands on v4.20 as it now exists can do so by sending TWO DISKS and a paid return mailer. We will send out v4.21 when it is available.

FUNNELWEB VERSION 4.2, IN 40 AND 80 COLUMNS
 new features report by Charles Good
 Lima Ohio User Group

Dated Nov 14, the first release of Funnelweb v4.2 has been sent by Tony McGovern to his regular correspondants and to those who recently sent him a fairware donation. Originally, Tony was planning to completely rewrite an 80 column version of FUNNELWEB from scratch, making its coding more "elegant" and compact and giving it the new name of WHIPBIRDS. However, such a rewrite would have made WHIPBIRDS largely incompatible with previous versions of FUNNELWEB with respect to previously created user lists and system configuration (SYSCON) data. So Tony has put WHIPBIRDS on hold and has incorporated some of the new features he planned for WHIPBIRDS into the latest FUNNELWEB.

DISK REVIEW:

The enhanced disk directory available to 80 column users (Geneve, AVPC card, or Mechatronics 80 column peripheral) since last summer as file QDAV has been renamed DISK REVIEW. It comes preconfigured in one of the FNB central menus and now comes in both 80 and 40 column versions. Yes, now 40 column users can make use of this new VERY POWERFUL utility. With the 40 or 80 column DISK REVIEW you can bring up a disk directory and move the cursor next to a file name. You can then press "R" and run the software! This includes assembly language software that reads as PROGRAM or DF80 on the disk directory and extended basic software (if you have the XB module plugged in) that reads as PROGRAM or IV254 on the disk directory. The only thing you can't run this way is TI BASIC software that won't run from extended basic, such as PROGRAMS using TE2 speech.

Using either 40 or 80 column DISK REVIEW, you can protect, unprotect, delete, rename, and copy (a feature not previously found in QDAV) the disk directory file next to the cursor. File copy requires more than one drive. You can examine the contents of the disk header sector (sector 0), and you can examine each of the file header sectors. You can print a disk directory to a printer, or to a DV80 disk file name. When printing to a disk file, the file is opened in APPEND mode. This allows you to chain successive disk directories into one large text file which can serve as a reference data base to quickly show you the contents of your entire disk library. These features allow you to use DISK REVIEW for many of the things you would usually have to do from a disk manager.

With the 40 column DISK REVIEW you can load ANY KIND OF FILE into a 17K buffer for VIEWing on the screen. If the file fills the buffer, the file continues to load and overwrites the contents at the beginning of the buffer. You can load the whole file in at once, or page it in one screen of text at a time, or one file record at a time. PROGRAM files loaded this way are displayed simultaneously in both ASCII and Hex. The display resembles what you see with a sector editor. The most useful use of this VIEW feature of DISK REVIEW is the viewing of DV80 text files. You can take the DOC file of a piece of software and read it on the screen without having to make a hardcopy. Then you can go back to the DISK REVIEW disk directory and R(un) the software. The 17K buffer will accomodate about 68 disk sectors of text before it starts to overwrite itself. Once in memory, you can print the file to a printer in whole or in part. You can mark the buffer text in two places and print to a printer or disk file only that part of the buffer contents between the marks. This allows you to make a small DV80 file containing only part of the text of a larger DV80 file.

With the 80 column version of DISK REVIEW there are two 64K VIEW buffers, the second available only if you have 192K of video RAM installed. This is an easy option with the AVPC card. It can be done, but not easily, on a Geneve. You can put text in each of these buffers and display either buffer on the screen, alternating back and forth between either buffer and the disk directory. You can also display both buffers simultaneously, scrolling them both up and down and printing all or parts of either buffer. Text in each buffer stays in memory for instant recall without disk activity until you exit DISK REVIEW. The 40 column DISK REVIEW has only one text buffer.

REVISED EDITOR:

The text and assembly program 40 and 80 column editors have been rewritten internally to allow much faster move

lines, copy lines, delete lines, and reformat. MOVE LINES no longer causes a TEXT BUFFER FULL condition. Because of the increased speed of reformat, it is now unlikely that characters will be dropped at the end of lines using the 40 column editor, slightly more likely with the 80 column editor. Text buffer capacity has been increased slightly. When editing, you can alternate back and forth between two different sets of tabs using ST (swap tabs). T displays the current set of tabs, ST displays the alternate set. Both sets of tabs are saved on disk when the file is saved with SF. In the 80 column editor the tabs can optionally be displayed on the bottom ruler.

A new feature has been added to the assembly source code editor (the E/A editor) that is useful for creating new assembly code, or typing in an assembly listing from a newsletter or Micropendium. You can, optionally, keep the alpha lock off and type everything in using lower case, using SHIFT for upper case as desired in the comment portion of each line of code. When you press <enter> after typing a line of code and its comment the code automatically becomes upper case letters as is required for source code, while the comment remains just as you typed it in a mixture of upper and lower case. This makes comments much easier to read and to distinguish from the actual source code when viewing a source code listing.

In the 80 column ShowDirectory, you can bring up a second directory without having to exit SD to the editor and then reboot SD. In the 40 column SD you still have to back out and then reboot SD to see another directory.

PATH NAME CONFIGURATION FOR HARD DRIVES ETC:

When configuring FNB v4.2 you have the option of designating a path name for all files. When set, path name configuration deactivates boot disk tracking and whatever drive numbers you choose to designate for the TIWriter and EA central menus. Path name choices are WDS1.FWB. or RD. or DSKR. or HD. if you choose this option. If you are using a hard disk WDS1.FWB. allows you to have all the Funnelweb files, including user configured software, as files in the same subdirectory. This leaves DSK1. emulation available for other purposes. Using RD. you can put all your Funnelweb files on a Myarc ramdisk. I think DSKR. works with a Foundation card. Once Boot path is set, the rest of the configuration process just needs file names. Funnelweb will automatically insert the boot path name in front of the file name when searching for the file.

"ON THE FLY" RECONFIGURATION:

When exiting Funnelweb from either of the central menus you press FCTN/9 (BACK). You need to know this, since there is no screen prompt to suggest that FCTN/9 does anything here. If you answer "N" to the resulting QUIT? prompt you are then given the opportunity to temporarily load a different character set into memory, change the editor printer default name, and change the TI Writer and EA central

menu drive numbers. These changes are not permanently read back to disk but they do remain in effect until you exit Funnelweb.

OTHER SMALL CHANGES:

Files in all disk directories are no longer marked by pressing a number. Instead you move the cursor next to the file name with the arrow keys (EX or FCTN/EX) to perform some action on that file. It is only really necessary to mark a file (with space bar or "M" or <enter> depending on where you are within Funnelweb) if you want a DSK0 or DF80 file to be the workfile name that appears in the editor when you LF or SF.

You can now protect and unprotect with QUICK DIRECTORY, which you can access from most places in Funnelweb with FCTN/7 (AID).

When booting DF80 software from the LOADERS menu, or with R(run) from DISK REVIEW and you have put all the files into memory, you have to blank the next DSKx prompt off the screen with spaces or with ERASE before you press <enter> in order to display the START name. If you press <enter> without doing this you get an error. You can recover from this error with REDO. Then press ERASE and then <enter> to display the START name.

The FORMATTER is now an independent LOADER #2 file not linked directly to the rest of the Funnelweb environment. This means you can use other formatters, such as the one that comes with Art Green's "TI-Writer v4.2" instead of the formatter that comes with Funnelweb. Rename the alternate formatter files FQ, FP, etc and put them on the funnelweb disk or subdirectory.

Screen layouts for the 80 column DISK REVIEW and SHOW DIRECTORY have been improved, compared previous versions of 80 column funnelweb.

You can no longer delete files from the EDITOR command line, although the prompts on the FILES submenu on the command line say that you can. File deletion is now done from within the EDITOR using SHOW DIRECTORY.

CONCLUSIONS:

New features are found throughout the new Funnelweb. 40 column users especially will love the new very powerful features available to them in DISK REVIEW. DISK REVIEW is a major new piece of software, not just a minor update. If you use it you should send Tony an additional firmware payment over and above what you have already paid for other parts of Funnelweb. How much additional? Well, DISK REVIEW is comparable to the latest versions of John Johnson's BOOT, maybe better. You can consult ads in recent MICROPENDIUMS for the asking price of BOOT.

DONE

THE BEST BULK DISK STORAGE CONTAINER

by Charles Good
Lima Ohio User Group

As our user group's librarian I use lots of 5.25 inch disks. The group's library is quite extensive, and I need ready access to the entire library in order to serve the needs of our members. If you need ready access to more than 50-100 disks, the standard plastic storage boxes with the transparent flip top lids are not convenient. They are not readily stackable. If you do stack them and want to get at a disk in the lowest disk box, then you have to unstack all the boxes. Furthermore, you can't put other stuff on top of these disk boxes because this prevents access to the flip top lids. Such boxes occupy lots of valuable surface area on the computer desk. The superb looking and very expensive wooden roll top disk storage boxes have the same disadvantages. You can't stack them (even the top one in a stack won't roll open properly) and you can't put other stuff on top of them if you want to maintain access to your disks.

What is needed to overcome these problems are stackable disk cabinets with a flat top surface and with individual drawers that pull out horizontally. Compact disk (CD) storage boxes don't work. They are slightly too small for floppy disk storage.

National Computer Accessories sells just the required item. For \$19.99 plus about \$5.50 U.P.S. shipping you can purchase part number DHS300, a good looking wooden enclosure with two plastic storage drawers for 5.25 inch disks. The unit looks like the CD storage cabinets you have seen for sale at many local stores, but it is specifically designed for 5.25 inch floppy disks. Total capacity of this unit is 300 disks. Even including shipping cost, this is the cheapest cost per disk of any bulk disk storage container I have ever seen. Drawer dividers snap into place and DO NOT COME OUT AGAIN unless you specifically pull them out. These dividers are much more secure than those typically found in the transparent flip top lid type of storage box. Plastic drawers of these units are rather flimsy, but the wooden enclosures are quite substantial. These enclosures can safely be stacked from floor to ceiling if you really have tons and tons of disks.

I like these N.C.A. disk cabinets. I now have immediate access to all my disks and the storage containers don't occupy lots of surface area. I have seen other kinds of stackable disk drawers in catalogs and in a few computer stores, but what I have seen elsewhere is very expensive compared to the cabinets sold by N.C.A.

NATIONAL COMPUTER ACCESSORIES
1310 McCormack Street
Sacramento CA 95814
916-441-1568

No surcharge for credit card payment. ****DONE****

THE SIGNIFICANCE OF FUNNELWEB PROGRAM LOADER #1

by Charles Good
Lima Ohio User Group

When booting assembly language PROGRAM software from Funnelweb you usually use #2 or failing that #3 from the LOADERS or DISK REVIEW menus. Loader #2 is basically identical to #5 from the EA module and boots the character set that is in the console PROMs. This is the character set that has those horrible lower case letters that look like small upper case letters and does not have any screen display for ASCII 1-31 (the TI Writer CTRL/U control characters).

Loader #1 is almost identical to #2 except that with loader #1 the first Funnelweb character set is loaded in memory (file C1 in Funnelweb v4.2, file CHARA1 in earlier versions). This is a much better looking character set. Any assembly PROGRAM that can be loaded from Loader #2 will also probably work with Loader #1. Using Loader #1 gives much better looking text with software that does not have its own built in character set.

Try this to see the difference between Loaders #1 and #2. Examine the text that is displayed within DM1000 as it comes already configured in Funnelweb. Then run CONFIGURE and reconfigure DM1000 in the TI Writer side MENU. Change DM1000 from a #2 (GPL Pgm) to a #1 (TIM Pgm) load. Reboot Funnelweb, bring up DM1000, and notice the difference in the appearance of the text. On my system the DM1000 screen colors are also changed, but I like the new screen colors.

Sometimes there is an advantage in not having ASCII 1-31 visible on the screen. The visible control characters create lots of screen clutter. DISK REVIEW of Funnelweb v4.2, both 40 and 80 column versions, comes preconfigured as a loader #1, and you can't change this with CONFIGURE. If you want to get rid of control characters in text VIEWed with DISK REVIEW, you can use CONFIGURE to configure DISK REVIEW (file DR) into a second place in the central menus as a Loader #2 (GPL Pgm) option. Text VIEWed from this alternate DISK REVIEW central menu selection will be free of control characters.

****DONE****

VOLUME 6!!!!

Yes, we are beginning our 6th year of publication of this newsletter. EVERY ISSUE SINCE THE BEGINNING IS STILL IN PRINT. We have disk files of almost everything published in B&P since December 1986. These unarchived disk files occupy the equivalent of 14 DSDD disks. Hard copies of all issues since our modest volume 1 #1 in August 1985 are available for \$0.03 per page. This material is available to any user group or to any paid member of the Lima User Group. Members will be billed for the cost of xeroxing requested back issues. User groups should write for price quotes at \$0.03 per page. Members and user groups can have the disk files by disks and a paid return mailer. We can put the complete set of unarchived files on as few as 4 DSDD disks. ****DONE****

MUSIC ??

by Barbara (Mrs. Charles) Good
Computer Widow Auxiliary, Lima Ohio User Group

While searching my brain for a beginning to this article I feel that in all fairness I must tell you that I do not have as much affection for computers as many of you. I consider myself to be no more than semi-literate in computerese. I appreciate the work saving qualities of the computer but do not fancy them in the way that my husband does or that many of you do. As is the case with many of you I have limited time to spend on my hobbies and thus have choices to make. I have chosen to avoid involvement with the computer except on a "strictly business" level.

Realizing, however, that my previous statements might arouse intense hostility in some of you more rabid computer buffs, I hasten to confess that I am typing this on a Smith-Carona personal word processor complete with memory, disk drive, etc. Now that I have your attention and have also succeeded in the dreaded beginning-- on to the real subject of this article.

I am light years away from calling myself a musician but I enjoy listening to music and I even enjoy making a little music on the various stringed instruments that I own. One of my favorite instruments is the hammer dulcimer. What!! Can it be that some of you are unfamiliar with this old and venerable instrument? Just in case there should be such among you, I shall explain. The hammer dulcimer is a many stringed trapezoidal instrument that dates to about 800 or 900 A.D. and is the forerunner of the piano. It is commonly played with two wooden hammers. Now that you all have that picture in your heads, lets talk about the problem that leads me to write this article.

I have 38 strings on my particular hammer dulcimer. I also have two bridges, separating one set of strings from the other. It is conceivable therefore that I could, with a little (considerable?) thought, use my dulcimer as a kind of abacus. It is not my intent, however, to do this. Hammer dulcimers are for making music, and there is no shame in doing one thing well. If I find a need to calculate, I will procure an abacus, a slide rule, a calculator, or a plain old pencil and paper. The point is, my friends, that dulcimers are for making music --defined by Webster as any pleasing succession or combination of sounds-- and computers are for doing the many things they do so well. The pure tones produced by a computer in the guise of music are anything but pleasing to my ears. Those instruments that have been invented for the express purpose of making music --and a few others (consider the saw)-- produce a number of harmonics in addition to the major (or first) tone. In other words when a dulcimer produces an "A" in octave one (defined in this country as having a frequency of 440 hertz), the instrument will also produce tones of 880, 1760, etc. These

tones are called harmonics and add immensely to our enjoyment of the music. Perhaps this is why the pure tones produced by the computer sound so strange and unmelodic to my ear. I'd honestly rather listen to a door chime or a musical car horn. I must also confess to a certain amount of aggravation present in the thought that some computer hackers are out to prove that their computers can do it all, undoubtedly including bathing the dog.

I realize that keyboards are computer controlled but keyboards are also classified as musical instruments. I doubt their capacity to act as computers every bit as much as I doubt the wisdom of assaulting my ears with "music" produced by such as the TI99/4A. I am not here for the purpose of maligning your computers but please consider my point and spare yourself and your loved ones the pain of hearing Jingle Bells played by that master musician TI99/4A. If you are one of the many musicians that has previously limited yourself to the playing of the radio, that is nothing to be ashamed of. If you want to branch out a little, that might be nice too, but do yourself a favor and beg, borrow, or even purchase a musical instrument instead of relying on the artistic ability of the TI.

DONE

CREATING A DISK LIBRARY LIST WITH BIRDWELL'S
DISK UTILITIES v4.12
by Charles Good
Lima Ohio User Group

Part of the "official software library listing" of the Lima Ohio User Group is a series of long DV80 text files that show commented disk directories of each disk added to our software library since 1987. Software is listed numerically by disk number. These are the text files distributed to our paid members and to user groups who are likely to want to make copies of our library at the Lima TI MUG Conferences. As group librarian, I generate these text files from chained disk directories created using John Birdwell's DSKU v4.12 that are subsequently slightly edited. In response to an inquiry from one of my correspondants, I am in this article going to describe the whole process of making these library listings.

NEXT PAGE

Boot DSKU and from the first menu select 5) System setup. From the next menu select 1) Printer setup. Where it asks Select Printer Type type over the displayed printer name with DSK2.FILENAME, using the drive number and file name of your choice. This file will contain the chained disk directories. Normally DSKU prints everything to your printer, but it can just as easily print to a disk file. The disk file is automatically created as DV80 and opened in APPEND mode. This means that subsequent disk reports printed to this file DV80 file are just added to the end of what is already in the file. The file is not overwritten by new data. After typing in the file name, space down to the next item and then press BACK (FCTN/9), and then BACK again to get to the main menu.

Now from the DSKU main menu press 3) Disk Utilities. Insert the disk to be added to the library list in DSK1. and press 2) Directory/Comment. Press 1 to bring up the disk directory, and you can now add comments to each file on the displayed disk directory. These comments become a permanent part of the disk. Every time the disk is copied with any sector or track whole disk copier, and every time individual files are copied with DSKU (but not with any other disk manager), the comments are transferred to the copy disk. These comments can be read any time by using a sector editor or by using DSKU.

When you are finished creating comments, press BACK, and then from the Disk Utilities menu press 1) Disk Report. This prints the disk directory, complete with comments, to your DV80 file. Now press BACK. Insert a new disk, then 2) Directory/Comment and repeat the process.

Keep an eye on the growing length of the DV80 file of disk directories you are making. When it reaches about 120 sectors stop adding more commented disk directories to the file. Back out of DSKU and load the DV80 file into TI Writer or Funnelweb's text editor. If the file is much bigger than 120 sectors it will be too big for the text buffer of these text editors. Edit the file as desired, deleting extra lines and adding additional comments to each disk. It is important to blank out all the control characters at the beginning and end of each disk directory by spacing over them. DSKU inserts a printer reset at the end of each disk report. If you don't blank this out, your printer will only be able to print the DV80 file in standard pica type. Now save the text file back to disk with S(ave)F(ile). The resaved file will usually be smaller than it was before, sometimes considerably smaller. You may be able to add a few more DSKU disk reports to the end of this somewhat smaller file.

That's it folks. This procedure is quick and easy. The comments stay on the disk, and the DV80 text files tell readers exactly what is on each disk of the user group's library.

DONE

NEVER RELEASED OFFICIAL TI MODULES - PART 1 described by Charles Good Lima Ohio User Group

The Lima User Group has obtained some module software that we have never seen actually offered for sale. This software was developed in house by Texas Instruments or was created by third parties under an official TI license. Most of this software has a Texas Instrument copyright statement on the title screen. In some cases these modules were released to very limited circulation. Most of the modules were never released at all, mainly because of TI's withdrawal from the home computer market. A VHS video tape demonstration of some of these modules is available to any user group that sends us a blank tape and paid return mailer, or \$5. This month I will talk about utility and application software. Next month I will describe some never released game and educational modules.

DISK MANAGER 3

The title screen says "copyright Texas Instruments" but gives no date. This apparently was the disk manager that was to accompany the TI double sided double density disk controller. Two of these controllers, formatting to 1280 sectors DSDD, were sold by one of the dealers at the 1987 Chicago faire. DM3 looks very much like the well known DM2. However DM3 offers you the choice of drives 1-4, whereas DM2 only lets you use 1-3. Also, with DM3 the defaults on the screen for "initialize disk" are "double sided" and "double density." In all other respects DM3 appears identical to DM2. I successfully initialized disks with DM3 and my CorComp controller SSSD and DSDD. I was not able to make DM3 successfully initialize in DSDD format, probably because I think DM3 tries to make 1280 sector (8 sectors per track) disks in double density. I have no trouble initializing 1440 sector DSDD disks on my CorComp controller using the DM2.

CLASS DATA RECORDER

Copyright 1981 by Scott Foresman and Company. This is one part of the "School Management Applications" series developed by Scott Foresman, a large publisher of school text books as well as some better known TI educational software. An entire school system could be managed with this software. Packages for inventory control, payroll, salary planning and analysis, student scheduling, and analysis of student grades within a class and throughout the entire school system were supposed to be included in this series. This complete School Management Applications series is described in the booklet "Texas Instruments Home Computer Program Library" (copyright TI 1982, numbers "CL581C" and "1043605-001" on the back cover) that was packaged in the box with my first 99/4A. CLASS DATA RECORDER is given the Scott Foresman identification number 30406 in this booklet. The "School Management Application" series is also described in a 1982 article by Dr. Tom Hansen published in vol 1, #5 of 79er magazine. Of the 15 separate parts of this series, only CLASS DATA RECORDER and SCHOOL MAILER are available to me.

NEXT PAGE

CLASS DATA RECORDER is for use by teachers to keep track of and analyze classroom student grades. The module is a hybrid of GPL and TI BASIC code, resembling in this respect the Personal Record Keeping module. When using CLASS DATA RECORDER with a Gram device it is necessary to have TI BASIC (Grows 1 and 2) on line.

It is necessary to have a newly initialized SSSD disk, or a disk which has previously been used with CLASS DATA RECORDER in drive 1 when you select the software from the main title screen. If there are any files on the disk that CLASS DATA RECORDER does not recognize, you will get an error message. There is alot of disk activity when using CLASS DATA RECORDER. Apparently the program stores most of its data on disk rather than in memory, allowing the classroom teacher to manipulate large amounts of data.

You are first asked for the date.

On first use with a clean disk you are then asked:

- Course Title
- Period of the day
- Term of the school year
- Teacher name
- Will assignments be weighted?

You then get to enter the names of all the students in the class. Then you enter the assignments, each with the following information:

- Name (of the assignment, such as "Quiz 1")
- Is it pass/fail?
- Weight (only used if assignments are weighted)
- Total Points (the point value of this assignment)

Later, when you again boot this data disk you are again asked for the date, and then given the choice:

1. Enter/Edit data
2. Print Reports.

Selecting #1 gives you a chance to enter grades or manipulate data. You are, from #1 above, given this menu:

1. New assignment and scores.
2. Assign gradelines
3. Edit records
4. Add a student.
5. Assign final grades.
6. Add a new course.

If you choose to PRINT REPORTS, you are given the following choices:

1. Class list
2. Individual Student Summary
3. Cumulative Class Averages
4. Class Averages/assignment
5. Rank List
7. Histogram.

Printing is done to RS232. If you have a Gram device, you can change this to PIO.

As an experiaent I have recently used CLASS DATA RECORDER to keep track of student data in one of the classes I teach. It is very user friendly. Although I don't have access to the original documentation I have had no problems figuring out how to use CLASS DATA RECORDER except for the initial first time startup procedure (SSSD disk with no files on it in DSK1.). This can be a useful piece of software to any teacher IF a way can be found to direct output to a printer.

SCHOOL MAILER

Copyright 1981 by Scott Foresman and Company. This is also part of the "School Management Applications" series. The module is a combination of GPL code and TI BASIC and requires two drives. First time use requires a blank SSSD in both DSK1. and DSK2.

This software is used to generate address labels for the students in a single school or an entire school system. Printing output is to RS232. Labels can be printed based on grade, teacher, building, zip code, etc. The program serves as a data base for student and parent names addresses and phone numbers.

On first use you are asked the following information about each student in the data base:

- Name
- Grade
- Room
- Sex; Parent or guardian name
- Street Address
- City
- State
- Zip code (up to 9 digits)
- Option field 0-9 (I havn't figured out the meaning of this yet.)

Upon subsequent booting of a data disk you are given this menu:

1. Enter information (as above)
2. Edit/Display information
3. Print Reports
4. Upgrade all students (indicate that they have been promoted to the next grade).
5. Delete a grade

DISK DUPLICATOR -release 1.0

There is no date or copyright notice. The powerup menu has these choices:

1. Duplicate Pascal Disks
2. Duplicate Basic disks
3. Compare Disks
4. Diskette Quality Test
5. Catalog Disk.

In reverse order to save the most interesting for last, #5 is identical to disk catalogs of the BM2 and BM3 modules.

#4 offers you the choice of "Destructive test (YN)".

The Compare Disks routine (#3) will terminate the first time a difference is found in a sector by sector comparison. However the exact nature of the difference and the sector location of the difference are not given.

I was not able to check out PASCAL disk duplication (#1). Duplicating BASIC disks (#2) is the most interesting feature of this module. Duplication only works with a SSSD master. You can make two copies of the master disk onto two copy disks with only one keypress. You put the master disk in DSK1, and the backup disks into DSK2, and DSK3. First the copy disks are initialized, one at a time. Next, sector by sector information is read into memory from the master disk and then output to the first copy disk and then to the second copy disk. Since this is sector by sector copying (something DM2 and DM3 don't do) copying is rather slow compared to what is possible with a track copier, I suspect that track copiers were unknown when DISK DUPLICATOR was created.

DIAGNOSTIC TESTS

Copyright 1979 by Texas Instruments. This is designated as PHN3000, the lowest numbered module in TI's official module number system. It was designed to test the 99/4 (no A) console. No equivalent for the 99/4A was ever produced. This module, like the dealer demonstration module PHN3001, was not sold widely, if at all, to the general public. The DIAGNOSTIC TESTS module is mentioned in the documentation "ADDENDUM" that was packaged in the box with the first 99/4A I purchased in 1982. A console diagnostic module is a good idea. Diagnostic tests on disk, such as those released by TI to user groups a few years ago, require a more or less working console as well as a functioning disk controller and drive. Some ~~console~~ ^{console} problems would prevent testing from disk.

The title screen and main menu of DIAGNOSTIC TESTS use the large console character set, the character set used from the powerup "Press 1 for TI BASIC" etc menu. This is somewhat unusual. The main menu gives these choices:

1. Automatic test
2. Keyboard test
3. RAM test
4. Video display
5. Sound test
6. Calculation test
7. Cassette test
8. Handset test
9. Maintenance test

Choices #1 and #3 put various multicolored patterns on the screen. I don't know what these patterns mean.

The keyboard test (choice 2) lets you press any key and have its character displayed on the screen. This includes the arrows, which are displayed as arrows. Lower case characters, as well as non arrow FCTN characters give meaningless displays.

Video Display (choice 4) lets you view a bit map mode display (called pattern mode by the module) that includes sprites and an interrupt driven count down clock. You can also view 40 column "text mode" and "multicolor mode". The latter is rarely used in TI software, and includes squares composed of 4 pixels with the color of each square independent of any other. The "multicolor mode" test display is interesting.

Choice 5, sound test, automatically tests all aspects of the sound chip. Some of the generated test sounds are quite pleasing. This is not a speech test. TI speech was not around in 1979.

The calculation test, choice 6, automatically checks addition, subtraction, multiplication, division, log functions, trig functions, and "miscellaneous" functions. You don't see much on the screen.

Choice 7 exercises CS1 and CS2. You have to verify that the cassettes are doing what the computer says they are supposed to be doing.

The biggest surprise in this module is the handset (joystick) test. The screen display indicates that FOUR JOYSTICKS can be tested. Tests include all 8 joystick positions plus the fire button. Does anyone know if the 99/4 had provisions for four joysticks?

The maintenance test (choice 9) brings up a display that says "for repair technician only." You can check gross 0,1, and 2. You also test sound, VDP RAM, and XML. I don't know what "XML" is. The screen display for most of these tests simply says "test in progress." You do hear something in the sound test, and a ghostly image flashes across the screen in the VDP RAM test.

DONE