



HUG

HOUSTON USERS' GROUP

AUGUST
1986

HUG TIBBS - (713) 475-8909
24-hour BULLETIN BOARD

MEETING SCHEDULE
FIRST SUNDAY OF EVERY MONTH
(2nd Sunday if 1st Sunday
is on a holiday weekend)

AT THE NEXT MEETING

SUNDAY, AUGUST 10, 1986 2:00 P.M.

St. John's School - 2401 Claremont

This month Wayne Wright will demonstrate some Business programs for the TI 99/4A. He will also have a question and answer period after the demonstration.

IN THIS ISSUE

ADDENDUM TIPS FROM THE TIGERCUB T I REPAIRS

DM1000-CONFIGURE LIST DEVICE TI PROGRAM IMAGE FORMAT

TRANSFERRING TI-MULTIPLAN FILES TO ANOTHER COMPUTER

4/A TALK FEATURE NEAR LETTER QUALITY FOR GEMINI 10X

1986 HUG OFFICERS

President --- MARK CRUMP unlisted
VP/Membership DON LEWIS 353-5295
VP/Program -- DAVID SHOLMIRE 482-0186
VP/S.I.G. --- ROGERS MILLS .. 930-0810
Exec. Asst. - TOM JAY 850-0222

Secretary - OPEN.....
Treasurer - JERRY ILLING . 664-7059
Librarian - LARRY PIPKIN . 499-9991
TIBBS/SysOp BILL KNECHT .. 473-5713
Editor ---- PHIL POXON .. 973-2362

THIS NEWSLETTER IS PUBLISHED MONTHLY BY THE HOUSTON USERS' GROUP. ANY OPINIONS OR ENDORSEMENTS ARE THOSE OF THE AUTHOR, AND MAY NOT NECESSARILY REFLECT THE OFFICIAL OPINION OF 'HUG'. PERMISSION TO REPRINT GRANTED TO OTHER USER GROUPS. SUBSCRIPTION IS FREE WITH MEMBERSHIP.

T. I. REPAIRS

• typewriter. You would be hard pressed to tell

As you know the repair and exchange centers closed in March. So here is some basic information that may come in handy, but lets hope not too often.

1-800-TI-CARES = General information and advice, if you aren't sure what is wrong or what or who to call, call TI-CARES

1-800-741-3064 = T.I. DEALER PARTS. They do accept Visa and Mastercard. You call them for the "6ROM PORT EXTENSION", part number 1049693-1, price is \$ 5.84 plus Texas State tax plus \$2.00 shipping.

For other parts just look for the number on each part, and they have all the numbers. Give them the number and description, they will give you the cost and availability. Would you believe that the eight connector slots that mount on a curcuit board in the bottom of the P.E. Box only cost \$12.95.

Repair Facility address:
TEXAS INSTRUMENTS, INC.
2305 NORTH UNIVERSITY AVE.
LUBBOCK, TEXAS 79415

ITEM.....COST.....SHIPPING

ITEM.....	COST.....	SHIPPING
CONSOLE	\$30.50	\$3.00
P.E. BOX	\$55.00	\$2.00
DISK DRIVES (Internal and External)	\$80.00	\$2.00
DSK CONTROLLER	\$44.00	\$2.00
32K MEMORY CARD	\$44.00	\$2.00
RS 232 CARD	\$60.50	\$2.00
"P" CODE CARD	\$33.00	\$2.00

Reprinted from July issue of the Greater Akron 99ers Newsletter

NLQ FOR THE GEMINI 10X

A new product from Germany has arrived on the American Market and is proving to be a big hit with Gemini 10 owners. It's a plug-in chip that allows the 10X to produce Letter Quality Print that rivals the 96-10. The chip has been available in Europe for over a year, so you can be assured that all the bugs have been worked out. I have one in my 10X and couldn't be happier with it's performance.

The NLQ mode can be invoked by changing DIP-switch settings or by simple printer commands in your program. The letters "w" and "p" are fabulous. Print is very near

the tru.

the difference. Letters are round not square, a plus for readability

The letters are formed during two passes across the paper. Of course, this reduces the print speed to about half. The second pass completes the distenders and emphasizes the print. The print quality is remarkable.

Just about anyone can install the it. It takes about 20 minutes. The chip replaces two intergrated circuits found on the board right behind the carriage.

The NLQ type face resides where the ITALIC face used to be. In fact, the codes that involked ITALIC print now involk NLQ print. SO GOODBYE ITALIC PRINT. I have tried the chip with TI-WRITER and have experienced no problems.

Now you are asking yourself, how much is this chip? The answer is \$57.50 each or a group discount is available if we buy several at one time. It becomes much cheaper than \$230.00 for a new 96-10.

The NLQ chip is sold by:

E.S.P. CORPORATION
7900 NORTH TAMiami TRAIL
SARASOTA, FL 34243
813-355-6797

About two years ago, Star Micronics changed one of the chips in the 10X. This change makes it necessary for you to open your printer to determine which chip is needed for your printer. Look over the board in your printer. If you find a chip labeled D7801676 then you need chip number 610M. If you find a chip labeled D78006 then you need NLQ chip numbered 610. You will have one or the other in your printer. It may sound confusing but, a call to the company will result in instant help. Once your printer has the chip in place, you will be very pleased with the enhancement.

Reprinted from March 1986 issue of Home Computer Users Spotlight, (HOCUS) a Monthly Publication of the Milwaukee Area TI 99/4A Users Group.

DM1000-CONFIGURE LIST DEVICE BY DON BROUILLARD

If you are fortunate enough to have the DM1000 disk from our PUNN library, and have been using it, you are probably as impressed with its capabilities as I, and have probably relegated your Disk Manager II module to "Never Never Land". I have been using the DM1000 program for a short period of time and can print the catalog in a condensed format that is very easy to read and does not completely cover your disk or its jacket. I struggled with this problem until I realized how simple it was to accomplish this.

If you follow the comments below, you will have a permanent program on your DM1000 disk that will print out a catalog in a condensed format for each of your DM1000 formatted disks, with but a single keystroke of your console.

The primary instructions are on page 17 of the documentation for DM1000. If you follow these instructions, the only problem encountered is "what control codes do I enter?" If you have an EPSON, TI or GEMINI 10/15 printer, the answer is: 15 27 71 27 48 \$. You can enter up to 30 control codes, but these codes do the trick. Be sure to separate each control code with one (1) space and when you have finished entering your control codes, enter ONE MORE SPACE followed by an asterisk (\$) and press enter.

After you have done the above, RETIRE your Disk Mangler (oops, MANAGER!) module and when you want a condensed print out of your catalog, hit FUNCTION 7 and enjoy!

Reprinted from WORDPLAY, VOL V, NUMBER 4, APRIL 1986 (PUNN Users Group Newsletter)

FOR SALE / WANTED

n, press FCTN D. When done press enter and select

This is a column that is always available to all members. Whenever you have something you want to buy or sell, just let me know and I'll get it in the next newsletter. I'll leave items in this list for two months, or until you tell me to drop them or keep them running.

FOR SALE

Black and Silver console, 5-1/4" stand-alone Disk Drive with Disk Controller card and Financial Decisions cartridge. Package price..\$125.00 Contact Paul Kent, 780-2109

4A/TALK FEATURE

(From Nov 1985 issue of Micropendium.)

One excellent feature of 4A/Talk is often overlooked...That feature is in the use of the capture buffer and keyboard files to pre-write messages for upload to the message input area of a BBS.

The procedure is as follows:

After the program has loaded and you have finished with the default screen you enter FCTN 3 for half duplex. Then enter FCTN 4 to open the capture buffer. Now you can write a message using 40 character lines and FCTN X for a CR/LF to advance to the next line. You can continue to write your message and when done you select

FCTN 5 and option 1 to save the buffer to disk. Now, after signing on to a BBS you go to the message input area and enter the message header information. When you come to the area where you input the body of the message you may use one of two methods to enter the message. If the BBS system only allows you to enter one line at a time, like TIBBS, you do the following:

Select FCTN 6 and option 1, Open a keyboard file. Enter the filename that you gave your message and then press enter. Now press FCTN D twice with a pause in between. On the second entry the first line of your message will appear on the screen. Continue to press FCTN D and your message will be entered one line at a time. When done press enter and BBS's options to save, edit etc. will appear and you can choose the one you wish.

If you are on a board that allows block input for messages, like TBBS, then the procedure is as follows:

Input the message header information as before. Now select FCTN 6 again and take option 3, set up XON/XOFF characters and enter 17 for XON and 19 for XOFF. Now enter FCTN 6 again and select option 1, Open a keyboard file. Enter the filename of your message file and press enter. Now the first time you enter FCTN D your entire message will be entered. To stop and start it as it is

going 1

whatever option you wish.

Whether or not you select full or half duplex (FCTN 3) during this operation depends on whether the host has local echo on or off during the upload. TBBS, for example, turns it off during unprompted block uploads so you must go half duplex. On most boards, however, full duplex is the proper selection. Using the above procedures you can also read other VAR/80 files from other systems. The use of the keyboard files section of 4A/Talk greatly increases its versatility.

One final note: with some modems you may have to experiment to find out how to get the text entry portion of the procedure to work. It works fine on the RADIO SHACK(ta) Modem 1 and VOLKSMODEM(ta) 12 modems I have but I had to put an on/off switch in the phone line for a friend who uses a 300 baud VOLKSMODEM(ta). In any event, to see how the procedure works using any modem you can simply disconnect your modem from the RS232 if you have a problem with text entry and try it out. If you like the procedure, then you can do whatever is necessary to make it work with the modem hooked up.

Joe Muvolini

Colorado Springs, Colorado

(Reprinted from HOCUS, Milwaukee Area 99/4A Users Group Newsletter, February 1986)

TIPS FROM THE TIGERCUB

#36

Copyright 1986

TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

Distributed by Tigercub Software to TI-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non-profit users groups, with credit to Tigercub Software.

Over 138 original programs in Basic and Extended Basic, available on cassette or disk, only \$3.00 each plus \$1.50 per order for PPM. Entertainment, education, programmer's utilities. Descriptive catalog \$1.00, deductible from your first order.

Tips from The Tigercub, a full disk containing the complete contents of this newsletter Nos. 1 through 14, 58 original programs and files, just \$15 postpaid.

Tips from the Tigercub Vol. 2, another diskfull, complete contents of Nos. 15 through 24, over 60 files and programs, also just \$15 postpaid.

*
* Tips from the Tigercub *
* Vol. 3 is now ready. *
* Another 62 programs, *
* routines, tips, tricks. *
* Also \$15 postpaid. Any *
* two Tips disks \$27 or *
* all 3 for \$35 postpaid. *
*

Nuts & Bolts (No. 1), a full disk of 100 Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Menuloader, a tutorial on using subprograms, and 5 pages of documentation

with an example of the use of each subprogram. All for just \$19.95 postpaid.

Nuts & Bolts No. 2, another full disk of 100 utility subprograms in merge format, all new and fully compatible with the last, and with 10 pages of documentation and examples. Also \$19.95 postpaid, or both Nuts Bolts disks for \$37 postpaid.

Tigercub Full Disk Collections, just \$12 postpaid! Each of these contains either 5 or 6 of my regular \$3 catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - my own programs on these disks are greatly discounted from their usual price, and the public domain is a FREE bonus!

TIGERCUB'S BEST, PROGRAM-TUTOR, PROGRAMMER'S UTILITIES, BRAIN GAMES, BRAIN TEASERS, BRAIN BUSTERS!, MANEUVERING GAMES, ACTION REFLEX AND CONCENTRATION, TWO-PLAYER GAMES, KID'S GAMES, MORE GAMES, WORD GAMES, ELEMENTARY MATH, MIDDLE/HIGH SCHOOL MATH, VOCABULARY AND READING, MUSICAL EDUCATION, KALEIDOSCOPIES AND DISPLAYS

For descriptions of these send a dollar for my catalog!

Some old business to take care of -

Tom Wible (? - handwritten signature), in the MANNERS NEWSLETTER for April, points out that I am all wrong in my comments about updating a FIXED SEQUENTIAL file. There is no such thing as a fixed sequential or fixed relative file, only fixed files accessed sequentially or randomly (relative). Sequential and relative are access modes, not file attributes. There is no

reason to open a fixed file in anything other than RELATIVE mode, because if you do not specify the REC clause in your INPUT or PRINT, the computer defaults to sequential processing.

In one paragraph, that gentleman told me something about files I had't learned from the TI manuals and from the 2000+ newsletters on my shelf. File handling is apparently easy to understand for those who have had formal computer training, but it is a frustrating mystery to those of us who try to learn by hacking it. Won't somebody please write a series of articles, somewhere, in plain, non-computerese English?

And here is the last word on printing lines of more than 80 characters out of the TI-Writer Formatter, by W. Stewart Ash in a MANNERS newsletter of May-June 1986. It is only necessary to use the .FI command, and to set the right margin to the length you want, for example .FI;RM 120 for lines of 120 characters; and then use .TL or CTRL U commands to select a type font which will fit that many characters on a line (136 or 132 in condensed, depending on your printer; 96 in elite).

Here's a new way to make music, for you Basic-only users, music programmers and country music fans.

```
100 CALL CLEAR
110 PRINT " WILDWOOD FL
OWNER": : " on the hammered
dulcimer": : : : : : "
by Jim Peterson"
```

```
120 DIM S(26)
130 F=262
140 FOR N=1 TO 25
150 S(N)=INT(F#1.859463#94^(
N-1))
160 NEXT N
170 READ N
```

```
180 C=S(N)
190 D=S(N)
200 CALL SOUND(-350,S(N),0)
210 RESTORE 350
220 FOR J=1 TO 63
230 GOSUB 260
240 NEXT J
250 GOTO 200
260 READ N
270 CALL SOUND(-350,S(N),0)
280 X=1^100
290 CALL SOUND(-350,S(N),0,C
,9)
300 X=1^100
310 CALL SOUND(-350,S(N),0,C
,9,D,19)
320 D=C
330 C=S(N)
340 RETURN
350 DATA 5,6,8,8,10,13,5,5,6
,5,3,3,5,3,1,1
360 DATA 5,6,8,8,10,13,5,5,6
,5,3,3,5,3,1,1
370 DATA 8,13,17,17,17,15,13
,13,8,8,10,10,13,10,8,8
380 DATA 1,1,1,3,5,5,8,5,3,3
,5,3,1,1,1
```

Lines 120-160 set up a scale of two octaves, beginning with the frequency in line 130 - to change the key, just change that frequency. Lines 170-190 set up the initial values, line 200 prevents a pause while data is being restored. Then the routine reads the data and plays the music.

Note the dummy calculation in lines 280 and 300, which does nothing but create a brief pause while the value of X is computed. This is a good method for a delay because it can be adjusted so exactly by changing the exponent, but use a value of 1 to avoid a numeric overflow.

To write your own music by this method, just list the notes of a 2-octave scale from your starting frequency C C# D E f E F# G - etc. and number them 1 to 25.

Then, list the notes of your song by their number in the DATA statements. For a longer note, list it twice or more. Change the TO

TRANSFERRING TI MULTIPLAN FILES
TO ANOTHER (NON 99/4A) COMPUTER

Multiplan spreadsheets can be saved to disk three basic ways:

The standard way, which is how you save it to disk, then bring it back in for normal usage,

As a PRINT file, which is an ASCII text format which looks like your usual spreadsheet, but has no formulas associated with it,

And, as a SYMBOLIC format which is an ASCII representation of the spreadsheet that does have the formulas and cell formatting intact.

The purpose of the Symbolic format is to allow the spreadsheet to be converted to a universal form that is usable by the Multiplan program no matter which machine is running it. Restated, that means a Multiplan spreadsheet that was created with a TI 99/4A could be used by an Apple running Multiplan, or an IBM, or in this case by Digital Equipment Corporation's Rainbow computer.

First the spreadsheet is created (on a TI). Then the spreadsheet is saved to disk in 'symbolic' format. Next that 'symbolic' file is transferred to another machine using some communications program (Fast Term, for example) that allows the transferring of ASCII files. The other machine is using a communications program that will capture and put to disk the ASCII file it receives. Now the other machine can run Multiplan and load the file it received in 'symbolic' format. All the formulas are intact. The spreadsheet is a duplicate of the one originally on the TI.

All this is great except for one thing. It doesn't work. The TI Multiplan 'symbolic' format which is supposed to be ASCII, isn't. Doing a directory of a 'symbolic' file shows it to be INTERNAL/128. If it were ASCII it would be DISPLAY/128.

Guy Stefan Romano, who mans the Amnion Helpline 415-753-1455, owns both a TI 99/4A as well as a Rainbow computer. He found that he could not transfer his TI Multiplan files to his Rainbow. The standard way to do this with 'symbolic' files did not work. He discovered the reason why was because of the information covered in the last paragraph and he also found a way to fix it.

Note: This is easier to do if the file is copied to an empty disk so your file will be the only one on it. Using a disk sector editor program (like DISKO), find the 2nd to the last byte on the first line of the file. In HEX, you will see it is >02. Change it to >00. That will cause the file type to be converted from INT/128 to DIS/128. Now the 'symbolic' file format will BE a true ASCII file and it can be successfully transferred to another type of computer and loaded into Multiplan.

Thanks to Guy for sharing this information

Gary Matthews

(Reprinted from April '86 issue of APCUS CALL NEWSLETTER, Atlanta 99/4A Computer User's Group

TI PROGRAM IMAGE FORMAT

By Jerome Trinkl

Program format is the most efficient way to store programs on disk as well as being the fastest way to load them.

Any memory image, be it assembly or Basic can be saved in program format. Memory image is nothing more than an exact copy of the code as it resides in memory.

TI's convention for distinguishing among the two program format types are as follows:

Assembly language programs that load and run from option 5 of the E/A follow this format:

Note: (These bytes are not loaded but used to direct the loader.)

EX: 1st file, 1st 6 Bytes

- 0-1 >FFFF Header tells loader there is another file to load.
- 2-3 >xxxx No. of bytes, max.=>2000 (33 sectors max.)
- 4-5 >xxxx Address to load those bytes

1st file, next 4 Bytes

Note: (These bytes are loaded as part of the executable program.)

- 6-7 >0460 B @
- 8-9 >xxxx Entry Address

Succeeding files contain:
(Again these do not load in memory)

- 0-1 >FFFF if there are more files
or >0000 if this is the last file
- 2-3 >xxxx No. of bytes (max. >2000)
- 4-5 >xxxx Address to load those bytes

The reason there are a maximum of >2000 bytes (or 33 sectors on disk) per file is that TI's loader uses the 16K VDP memory to transfer the data during the Device Service Routine. Only 8192 (8K) bytes have been allocated for its buffer.

One final note of interest is that option 5 of the E/A allows a default filename of "UTIL1" if enter is pressed and no filename given. This is sort of like an

HUG LIBRARY CATALOG ADDENDUM
July 1986

- 0192** **DOMINO FACTOR**XB**
Domino factor game now released to public domain. Great fun. 43 sectors
- 0193** **OLD SOL**XB**
A great version of Klondike Solitaire. Great graphics. 38 sectors
- 0194** **MARGAME**XB**
Excellent war game. Can you win the battle? 79 sectors
- 0195** **WHEEL OF FORTUNE**XB**
Great adaptation of popular TV show written by the Kirase Brothers. Excellent graphics and fun to play. 95 sectors
- 0196** **STELLAR EXPLORER**XB**
An outer space battle. Great graphics. 44 sectors
- 0197** **TI99-MOPOLY**XB**
This is another great program from our friends "down under". This Australian program is an excellent adaptation of MONOPOLY. Requires dedicated disk.
256 sectors
- 1078** **MAX-RLE**DV/80** Printer recommended
This picture printing program is similar to TI-RLE (#1077) but with some added features. It can convert TI-Artist screens to GRAPHX screens or convert DV128 screens to DV/80 screens. Runs in Editor/Assembler Option 3. P/N Is START. Comes with documentation that can be printed out using TI-Writer. Comes complete with several pictures.
259 sectors
- 1079** **FLAG DAY**XB**
A graphic and musical salute to our flag. 31 sectors
- 3049** **+/- TEST**XB** Printer reqd.
A program by Jim Hutchison that will print out a page of addition and subtraction questions. 9 sectors
- 3050** **FLIGHT SIMULATOR**XB** Joysticks reqd.
A flight simulator made for the TI. Excellent program. 37 sectors
- 4172** **VCR/GUIDE W/DOCS**XB** Printer recommended
A fine program by Bill Knecht that will help you catalog your video tapes and print out a listing of all of the movies you have. 65 sectors
- 4173** **SESSIONS W/DOCS**XB**
This program, written as "Freeware" by Bob Pomicter, Jr. allows you to create your own "blink" files offline for transmission to "The Source". Comes complete with all documentation needed to operate. 105 sectors
- 4174** **VFILER**XB** Printer recommended
Another disk cataloging program. 39 sectors
- 4175** **SCREEN TEST**XB**
A TI-BASIC program by Bill Knecht that can be used to adjust your TV or monitor screen's colors and sizing.
10 sectors
- 4176** **ACOUSTIC DESIGN**XB** Printer recommended
A program that can be used to design your own speaker system. Comes with complete documentation. 163 sectors
- 4177** **BBS40/FT**XB**
A new version of BBS/40 Mail Preparation program that can be used with FAST-TERM. 40 sectors

4178 BBS FILER*XB** Printer optional
Allows you to create your own BBS directory. Has fields for you user number, password, the BBS phone number, etc. Saves information onto disk and allow you to print a hard copy of list. 29 sectors

5237 HOLIDAY ROAD*XB**
Another fine music program from our own Bill Knecht. This is his adaptation of the music from National Lampoon's movie "VACATION". Excellent graphics.
25 sectors

5238 MATILDA*TE-II &Speech Synthesizer**
Your computer will actually sing this Jamaican song. Excellent programming. 26 sectors

5239 TRISTAN UND ISOLDA*XB**
Wagner's "Prelude to Tristan und Isolda". Adapted for the TI by Ken Gilliland. Very good music with a great graphic scene. 46 sectors

X-BASIC autoloader "LOAD" feature for assembly.

location used in program

What about Basic program format? It is a bit more complex but is easily distinguished on the disk from assembly.

Line number table info, next 2 bytes

Program load bytes The 1st 8 bytes

- 0-1 >xxxx Exclusive Or of next two words 2-3 and 4-5.
- 2-3 >xxxx Address of the end of the line number table
- 4-5 >xxxx Address of the start of the line number table
- 6-7 >xxxx Address of last memory

- 8-9 >xxxx The last line number in the program.
- 10-11 >xxxx The start address of the program line

Then comes the tokenized basic code. I hope this helps your understanding of TI 99/4A program image format.

(Reprinted from February 1986 issue of Home Computer Users Spotlight(HOCUS), Milwaukee Area 99/4 Users Group.)

PHILIP POXON
EDITOR
9122 HAMMERLY
HOUSTON TX 77080

FIRST CLASS

DATED MATERIAL
DO NOT DELAY