



THE PUG PERIPHERAL



THE MONTHLY NEWSLETTER OF THE
PITTSBURGH USERS GROUP

DECEMBER 1992

CLUB NEWS By Gary Taylor

At this months meeting I will be giving a demonstration around 4:30 of various screen dump programs. These programs come in two flavors, those that print the ASCII character set and those that print graphic characters. In both cases however, the program is loaded into the computer before any other program and resides in an area of memory that is not normally used. Programs that conflict with the memory location of the dump program will not work correctly. What is the difference between the two types, you ask?

Well, if you have nothing on your screen but English characters that were typed in from the keyboard you would have ASCII characters on your screen. An example is when you type in programs as they are typed in using the ASCII character set. Each character is assigned a numeric value and is used by your computer and your printer to display or print each character. A program to dump ASCII characters reads the screen to determine the numeric value of the characters and sends them to the printer.

Graphic characters are very different. Each pixel of a monitor is turned off or on to create the image. Likewise each wire of a dot matrix printer must be fired at the correct time to print the image on paper. A program to dump a graphic image must be able to read each pixel position of the screen to determine the on/off status and then calculate the correct data stream to be sent to the printer. Since each printer is different in its use of control codes to switch into graphic mode, compatibility problems can arise that are not easily fixed. I will try to explain this more completely during the demonstration. I will be covering the ASCII dumps this month

and the graphic dump programs next month. The Chicago faire has come and gone. It was a lot of fun this year and the Chicago group is commended for doing another fine job of hosting it. There was a lot of new hardware and software for sale. Some of the more interesting items are: The new SCSI disk controller by Bud Mills and Don O'neil sans DSR, a TI emulator running on a 50mz 486 processor, Berry Miller's buyout of MDOS, and Don Waldens new service company for repair of Myarc products. I was disappointed that Mike Maksinak did not have version 3.0 of the midi interface available. It was promised as a free upgrade when I bought my copy at the Lima fair in May of 1991. While I was able to give you a review of the fair at the last meeting I will recount some of the things that were happening there as well as give others who attended their perceptions.

I brought back several new programs that will be demonstrated at future meetings. Included are new games, utilities, and even a new word processor with a built in spell checker. It also can print TI-Artist instances right in with your print out. Page Pro pictures are also supported. I will be giving a brief demo of this program during the regular meeting.

You don't want to miss this months meeting as Nick Gramatikos will be bringing some special holiday goodies that have to be tasted to be appreciated.

The latest Micropendium, November 1992, has a nice photograph of Mike Sealy on the front cover in the lower right corner as part of the Chicago fair coverage. Also in the magazine is a new advertisement from TEX COMP announcing their 1993 catalog. It cost \$2 and comes with a \$5 coupon good on your next purchase. Send your \$2 to TEX COMP PO Box 33084, Granada Hills, CA 91344.



PEACE
ON
EARTH



RAMDISKS and MORE

An article for RAMDISK builders or users.

By Dallas Phillips

IF YOU HAVE HAD TROUBLE BECAUSE SOME PROGRAMS ARE NOT COMPATIBLE WITH YOUR HORIZON (Bud Mills) RAMDISK, it may be because the program and the RAMDISK both use the same CRU address.

If you look at page three of the Ramdisk Instructions, you will see a chart like this:

DIP	CRU	Normal use
SW	Address	
1	>1000	Not normally used
2	>1100	Disk Controller
3	>1200	Reserved/internal modem
4		Not used./
4	>1300	RS232 ports 1 2
5	>1400	Unassigned
6	>1500	RS232 ports 3 4
7	>1600	Unassigned
8	>1700	Hex Bus/Not used

Just below that chart are instructions to set the RAMDISK to CRU address >1100. That address is the one that is used by the programs that lock horns with your RAMDISK!

It simply does not make sense that an eight position dip switch would be used if there is never a reason to use it. Soooo...Martin Burkhart wondered what would happen if he set the RAMDISK to another address.

The chart shows that switch 3 - (>1200) sw 5 - (>1400) and sw 7 - (>1600) are not used. Martin tried opening sw 1 and closing the others, one at a time. He could locate NOTHING that goes to addresses >1200 (sw3), >1400 (sw5) or >1600 (sw7). Closing either 5 or 7 works great. No more interference from other programs.

MEMORY CHIPS FOR RAMDISKS

If you are planning to build or expand a Horizon Ramdisk, you know that the prices of Static Rams are much moolah. Unless you have your own bank, you may have decided to bring the memory up a step at a time, but there may be another way. Shop, shop, shop! The 74LS series are easy to find and easy to buy so I will not waste space listing them, but I have found that a few dollars can be saved by shopping for them too. The following information may help.

NOTE 1

(A) You can start with 64k, 128k or 256k. The SRAMS come in several memory capacities, but if calculated in cost per bit of memory, the 256k chips are considerably less expensive than the smaller ones.

(B) If you plan to expand to a Meg of memory later, you can start with as few as three 256k chips, but if you start with 64k chips they cannot be used when you decide to go to a Meg.

(C) You can get much better prices with quantity buying. Get together with other members and buy for more than one board at a time.

NOTE 2: Learn as much as you can about the chips. Know which will interchange. The information below can help.

(A) An "L" in the chip number means it is a low power chip. Any CMOS is low power but not all manufacturers use a code to tell you how much power a chip consumes. If you use chips that demand too much from your batteries, they may not stay charged.

(B) A suffix number usually tells the maximum access speed. -12 or 120 means 120 nanoseconds. A -10 or 100 usually means 100ns. (This is not always true). Some high speed versions use 10 to indicate 10ns access time). 150ns is fine for the TI and 120ns is great. Any higher speed will work, but unless you happen to find a bargain, you will pay up to six times as much for high speed chips.

(C) If you know the numbers that will interchange, you may be able to find a board or boards with the memory chips. If you do, you can save BIG money! I bought my memory chips at the Dayton Hamvention in Dayton, Ohio. I found a real bargain. In only paid \$6.06 each and a Meg of memory only cost \$200. And now...the rest of the story... Earlier, I could have bought some boards with 18 chips each for \$5 apiece. They had six 256k static rams and twelve other chips with all other components. The SRAMS and two other large chips were in sockets. I thought the Mitsubishi M5M256 chips were dynamic RAMS, but if I had known what I know now, the Meg of memory would have cost \$30 and I would have had a bunch of good junk left over.

Some chips that have the same pinouts and characteristics as the 62256 but are in 28 pin DIP packages that are broad you can use the narrow (.3 or

.45) packages by purchasing 28 pin wire-wrap sockets of the proper width and forming the "legs" to fit the wider spaced (.6) holes.

Some manufacturers produce the narrow chips as completely different numbers and some indicate the width with a code letter, in the number or in a suffix. Many of these use the same coding. If they do, "P" indicates flat-packs. High speed chips are usually expensive and the speed is not needed, but if you happen to locate them in surplus, don't pass them up.

NOTE 3: While I was doing the research for this article, I discovered that some companies sell chips with the same base numbers but with very different characteristics. I found one number that is one manufacturer's SRAM but another company's EPROM! They did have different prefix letters but be careful.

As I said, bigger memories cost less per bit of memory. I found a terrific source for bargain chips at the Dayton Hamvention. A cottage type firm, Mao Electronics Co., PO Box 6871, Alexandria, VA 22306, seems to be happy to earn a reasonable profit and give us a good deal. They have more chips than I have ever seen before.

Chuck Mao seems to be quite knowledgeable about chips and interchanges. He was very busy but was an interesting person to talk with. I asked if he had any low power 62256 SRAMS. He picked up a stick of SONY CXK58256P-LL chips and told me they were a direct interchange but were even lower powered than the ones I asked for. (I do not have them installed yet, but I bet \$200 that he knew what he was talking about). His listed price was \$10 each or 15 for \$100. They were packed 15 per stick. I asked him if he would sell 33 for \$200. He readily agreed. All of their chips seem to be equally low priced.

I asked if we could buy more at the same price. He said we could if his price remains stable. He felt that prices would continue to drop for awhile, and if so they would cost us less.

It is OK to call evenings, as they operate out of their home and they are more likely to be there then.

I believe it is best to speak with Chuck, but be sure you tell whoever answers about the Dayton prices, as anyone else who answers may not reduce them as much or Chuck may have forgotten to tell them.

Late addendum: SRAM chip prices seem to be going down rapidly. It will do no harm to ask if a lower price is available or if a cheaper chip will do the job.

Mao Electronics Company's telephone no. is 703-360-5145.

Reprinted from the Greater Akron Newsletter.

WHY DIDN'T INDENT (.IN) WORK?

By P. Nordstrand and J. Owen

At the May JUG meeting, we were showing a new member how easy it is to use TIW editor and formatter to prepare and print a letter. Everything worked fine but the date on the first line, which did not indent 50 spaces like it was told to do. It did not move over one space! Then we tried the Center command (.CE 1) and that didn't work for the first line either. Here are the formatting commands so you see if you can spot our mistake.

.IN 50

May 20, 1991

.LM 5;RM 75;AD;FI

Dear Sir,

.IN+5

etc, etc

After the meeting, we reread the Indent instructions in the TIW manual but did not find the answer to the problem. After rereading all of the Formatter instructions from the start, we found that the .FI command MUST be used WITH or BEFORE using the INDENT (.IN) or CENTER(.CE) command. It is a good idea to always insert the .FI command on the 1st line of every document that is to be printed using the formatter. The only time you every want to use the NO FILL default is when you want to print the text exactly as shown in the Editor(l.e. tables & columns). The NF command, which is the default, prevents the formatter from moving or adjusting any of the text, even though commands to do so are included. If anyone ever revises the TIW program, please make the FILL command the default. (Attention: Will McGovern and R.A. Green.) It is needed 99% of the time at the start of the document.

BACK UP COPY?

By Earl Raguse

User Group of Orange County

I found the following interesting story in North Jersey UG newsletter, by Frank DeCandia. I thought I would share it with you. The story is not only humorous, but Frank says it has a moral. I think it does too.

Let's journey now to the mythical land of I.P.M. (It is a Peculiar Machine). Junior programmer, Ted Nibble has just finished his first word processing program which he hopes to sell for \$499.95. He corrects all the mistakes, checks the program for bugs, and saves the program to disk using a copy protect scheme.

Ted is not all there so he does not make a master (back up copy) of his program. In eager anticipation, Ted puts his disk in the disk drive and closes the door. He types the command to run his program and hits the "return" key with flaring confidence. As the disk spins, it makes the sound of cash registers ringing all over computerland in his mind. He is interrupted by a message flashing on the screen. His program is running perfectly! He removes the disk, putting it aside.

Ted sits in amazement as he explores all the wonderful features of his program. Ted finally decides he is going to be a famous author and he is going to use his word processing program to do it! The title of his best seller? "You Too Can Be a Great Programmer", by Ted Nibble. Ted writes a while when he realizes that he will be late for an important meeting. He decides to format a disk and save his work. Ted knows formatting a disk will erase any information on it, what he does not know is that he just stuck the only copy of his word processing program disk into the disk drive.

He gives the command to save his work and hits the "return" key. The disk drive spins and suddenly he realizes what he has done. This time the disk drive make the sound of lost dreams, fame and cash. Ted screams as he falls to his knees and bangs his head on the keyboard. What is this? His program is OK. He forgot to close the disk drive door. What do you know, saved by his own stupidity.

Ted decides now is a good time to make a back-up copy, next time he may not be so lucky. Now what? He cannot copy it! His copy protect scheme will not let him. What do you know, screwed up by his own arrogance. Ted whimpers as he slumps into his chair. Suddenly he perks up when he realizes he could rewrite his copy protect scheme and sell it to people who wish to protect their own programs. He will also use the example of his blunder in his book and change it's name to "Careful Computing is Crucial", Anonymous.

3 1/2 INCH DISK DRIVES ON THE TI99/4A

By Frank Aylstock

The 5.25" (360k) drives are becoming another orphan, like our TI. The disk controllers do not know if you have 3.5" or 5.25" drives. The only thing they know is what your input is, and the only control you have is the number of tracks per sector, number of sides and density. The TI disk controller will handle double sided but only single density. The Myarc card with the QUAD CHIP installed will handle disk drives up to 720k. The 5.25" quad density drives are another orphan but you can use 3.5" disk drives. The 3.5" drives can be up to 1.44meg. This means that you will have 2880 sectors or the equivalent of 8 SS/SD floppy disks. However you can set up your system so that you have at least one 5.25" disk drive and the others 3.5" drives. The HFDC by Myarc will also accept up to quad density disks.

I would recommend that you switch over to the 3.5" drives as they are a superior form of storage for the following reasons:

1. The disks are enclosed in a shell/cover which holds them rigid and will not allow the disk to get bent. You can even write on the disk directly without harming the data.
2. They contain their own sliding reuseable "write protect tab". By merely moving the tab up or down the disk can be protected.
3. The size is a large consideration as they require a lot less space to store or transport them.

4. They contain a sliding door which protects the storage medium at all times. This door opens and closes automatically when the disk is inserted or removed from the drive.
5. The size also helps to read and write data faster than the 5.25" floppy disk drives.
6. The disks are coated with superior oxide which is less vulnerable to data loss.
7. They are considered more reliable than 5.25", especially important when dealing with quad density disks.
8. The drives take less current during the reading and writing process. In fact some of the 3.5" drives use only 5 volts.

Last but not least is the price. Around this area (Los Angeles) the drives can be purchased for as little as \$50 and there is no conversion or other hardware changes to be made and they will replace the existing disk drives with very little labor.

Look into these drives!

Printed from the BREAA Users Group

David Bishop's WATERWORKS

A review by Frank A. Smith
Pittsburgh Users Group

When I first tried this program, I thought I wouldn't even be able to get it to run. My great mistake was in trying to run the program on a Geneve. This program contains non-standard UTIL1 and LOADWW files which cause the Geneve to wipe out the module loaded into the GPL environment and lockup the computer. After many unsuccessful attempts, I wised up and booted up the old TI. The program loaded perfectly the first time - and many, many successive boots afterward.

Lets begin with the booklet which accompanies the WATERWORKS disk. This booklet provides a little story explaining why you are installing plumbing in a 100 story building, directions to print the

bulk of instructions (contained on the disk), directions for setting up your printer, and a list of the keys needed to play the game.

Printer setup routines are provided for both Epson and Prowriter printers. These setup routines will allow you to print a hard copy of the 50 screens of instructions on the disk. This is accomplished through screendumps of these 50 screens as they flash by. Why use screendumps to print instructions? The instructions contain all of the graphic characters which you will encounter while playing the game. It would be next to impossible for anyone to remember all of them, so a hard copy is a necessity. The booklet provides you with all the necessary information to make one of the six printer setups into the default which will; thereafter, be loaded each time the disk is booted. The reason for this is that you will be able to dump playing screens to your printer during the game. I found this to be a very convenient method of keeping track of game progress and an excellent means of remembering the name of a saved game.

Once you have established a default printer setup, you're ready to print your hard copy of the instructions. I found the easiest method was simply to boot the disk, wait for the introduction screen to appear, and press FCTN D. This causes all 50 screens to be printed while you make that cup of coffee to sip while reading them. You can also flip through all 50 screens by pressing ENTER, and print only those you deem worthwhile by pressing FCTN P while on that screen. Printing may be stopped at any time by pressing FCTN Q.

The object of the game is to complete the plumbing of a 100 story building in an allotted period of time. You must face such hazards as water damaged floors, sabotage by your competitor, the infamous chewing gum left behind by construction workers, and uncompleted floor sections. You've also made the mistake of insulting a gang of kids when you arrived at the construction site. You are allowed \$200 to complete each floor, but can receive extra funds by making the proper connections on each floor.

Let's get down to the actual playing of the game. If you're going to be the only player, I suggest you choose to be player number 1. If no active player exists below the lowest number player, that player must

be activated through a series of keypresses. The routine to activate player 0, though understandable, can tend to be an unnecessary pain. You can start on any floor between 0 and 9 but you might as well start on floor 0 (the basement) and begin to work your way up. The first 30 floors tended to be a bore. Aside from the occasional ENCOUNTER buzzing around the screen to delay your progress and a few visits by MARLO (your nasty pipe busting competitor) the game is fairly uneventful. There is a good reason for this and it soon becomes evident.

The game is allowing you to build up the point total which can quickly be obliterated on higher floors. Even after floor thirty, hazards seem to come at you in a fairly tolerable order, and you're able to turn a profit on each floor. The program is simply preparing you for what's to come. When you finally arrive at floor 50, you may have gained the experience to tackle what is awaiting you in the remaining 49 floors. When you get to this stage of the game, you will receive harassment from as many obstacles, monsters, and nuisances of all kinds to satisfy the most avid game player. However, you have the knowledge that the worst is yet to come.

A few of the features which I find very useful and comforting are the ability to pause or save the game at any time. In fact, I highly recommend saving the game upon completion of each floor. If you don't save the game, you could fall through a water damaged floor section which will drop you through one or two floors. If you haven't saved your game, there's nothing you can do but work your way back up. Another useful feature is the ability to dump playing screens to your printer. Since the game must be paused to do this, you're not using up your allotted time to examine your work and you'll inevitably find something you may have overlooked.

If you're looking for the typical shoot everything in sight type of game, don't bother with WATERWORKS. You won't get any of that kind of action here. On the other hand, if you want a game that requires you to think and plan your every move as well as do some fancy moves with the old joystick, I highly recommend WATERWORKS.

WATERWORKS is available from Asgard Software. The current price is \$12.95 plus \$3.00 S/H in the U.S. and Canada

FROM THE LIBRARIAN.

By Sue Harper



Well, it's the holiday season, and we hope that all members will come on down to the meeting this December, and perhaps bring a friend! We have, as you have heard here before, quite an array of software, and Art usually has a few of those necessary hardware things available to make those software things work!

I am reminded of an old INFOCOM newsletter, with a letter to the editor telling the editor how much he enjoyed the games he was buying and playing. And then one day someone told him that he had to have a computer and console to play the games! Well, he was devastated, and said gaming has just not been the same since.

Sometimes I feel that way. There are so many things in the library that I have trouble keeping straight what is what and what is where and what it does. And, when a member comes to me with that question in his (or her) eyes that says "What does this do?" I am never quite sure I will have a good answer for that question. Therefore, I am making a request of the membership. I would like to know what you need to know to help you make informed decisions about what software you want. I hope everyone knows that there is a return policy if the disk does not do what you need, but I think a free wheeling exchange would be useful. For instance, I would love to know how to design more graphics using the Dave Rose set (the ones that end in GR). I am sure there is the knowhow out there somewhere, and probably not too far away.

How many folks do we have who need a good data base program, and are confused by the choices of PR BASE, RECORDS+ and others that are in the library? And how in the world can you compare them, without someone to walk you through them?

Anyway, this is a subject I would like members to think about, and give me a call (phone number's on the back, folks) and let me know what you want to know. I promise to study up on the section targeted - or find a standin to do the dirty work. We all need to help each other to get the most out of the best little machine around! See you at the meeting.

COMMANDLAND

by Sue Harper
Pittsburgh User's Group

Hi there folks! Last month we started off by comparing the differences between statements, functions and commands. This month we are going to begin by taking one command or statement or function at a time, and demonstrating what it can do. Some of them work together, and we will save some of the most confusing for last.

Let's begin with two simple ones - or not so simple ones, as you will see.

First CALL CLEAR. This can be used as a statement in a program, or as a command. As a statement, the computer waits for the program in which the statement resides to be RUN. Run is always a command, never a statement, until you reach Extended Basic, which will NOT be today!!!

So, the following:

```
10 CALL CLEAR
```

—will do nothing until you type in RUN and press enter. Then, it will remove all marks from the screen. Well, really what it does is cover the screen with blank spaces, the same as you would by pressing the space bar over and over again. You can also type in:

```
CALL CLEAR
```

—and since there is no line number the computer will immediately cover the screen with blanks.

This is a very useful statement or command, as anyone who has left this out and run a program can attest to. If this statement is not in the program, the words and graphics from the last program or entry will remain on the screen and really mess up any kind of nice display you had in mind. So, my general rule is to have the first statement in any program be CALL CLEAR, and then to use the command again as often as needed to clear from the screen things you don't want left there any more.

A few words about PRINT, which is probably the second most used statement. It, too can be a statement or a command. Use as a command:

```
PRINT "HELLO"
```

—will cause the word HELLO to appear under the cacommand. On the other hand, as a statement in a program:

```
10 CALL CLEAR
20 PRINT "HELLO"
```

—will cause the screen to be cleared and the word HELLO appear at the lower left hand side of the screen when the program is RUN.

If you want HELLO higher up on the screen, add the markings : after the closed quotes, as shown here:

```
10 CALL CLEAR
20 PRINT "HELLO":::::::::::
```

—the number of : you use will determine how high the word goes. Some programs use this to have words scroll off the screen, some to center them. They will still be on the left hand side of the screen, and next month we will move them over.

Look for more with PRINT next month! See you then.



TIW/FW TIPS
Reprinted from HUG newsletter

FORMATTER FACTS

ANY LINE in which the first character is a period will NOT be printed at all by the Formatter, but will be scanned for Formatter commands (dot commands). The dot (period) is NOT an integral part of each command. The Formatter commands can be placed together on one line if separated by a semicolon, e.g.:

```
.LM 5;RM 75;FI;AD;IN -3;PL 74
```

Supposedly these do not have to be in

upper-case, but some problems have been reported, so best practice is to do them UC. (I used a caret "^" in front of that line so that the period would not be the "first" character.) (Yes, I transliterated 92:94 so the reverse slant would PRINT the caret above.)

It is not impossible to PRINT a period in the first column--you have to transliterate it: .TL 124:46 will allow | (Function A) in the first column to be printed as a period. Transliteration can even print the missing slash on zeros: .TL 48:48;8;47 should work with most printers.

The ".IN -3;" above sets the indent value to "left margin minus three". Indent values are either RELATIVE to the left margin + or - (.IN +5 is standard five spaces paragraph indent), or will be ABSOLUTE column values: (.IN 16 puts the first character of the first line after each c/r on column 16, regardless of where the left margin is assigned). Either way, in order to HAVE a left margin value, you have to use the LM and FI commands.

In the dot-commands line above, the PL 74 was necessary in order to get a relatively full page length. For some reason, Formatter does NOT count lines properly when .FI and .AD are used, effectively reformatting to Fill (reformat) and Adjust (right justify) between the margins. I usually find a Page length of 72 to 76 is necessary in order not to get a lot of blank space at the bottom of pages.

I also (almost) always use the "Pause Between Pages" (y) option in order to catch and control Formatter's shenanigans of skipping lines or even entire sheets of paper. I would call this unacceptable performance, except for the fact that I have found similar uncontrollable "glitches" in the line handling habits of such widely known programs as the ubiquitous LOTUS 123, which happens to cost \$385 MORE than Funnelweb.

Another way to control the page-break habits of Formatter is to Print to a disk file ("Dskn.filename") in order to get the margins, fill, adjust, etc., and then use the Editor to add or move lines to make nice, even pages on the 66-line lengths. Print device from Editor could be "PIO.LF" or "RS232.LF", since the file will be full of l/f characters. This may not

work anyway, because if your right margin is greater than 80, the file lines that Formatter prints can not be picked up by Editor anyway!

A BETTER WAY IS TO get rid of the L/F's by doing a ReplaceString > /Control+U Shift+j Control+U/ / which will replace each l/f with a blank. This beats the heck out of the usual technique of Printing (again to disk with a "C" before the filename (PF > "C DSK2.filename") which will strip the l/f codes, but all others also, and takes longer. EITHER way, you had better be on "hollow cursor" on these files, since there will be NO c/r characters in them after Formatter processes them!

Formatter always turns a single space after a period into two spaces. The way around this is to "tie " initials, etc., together with a caret "^", which is considered a character for joining other characters (not a "space"), but does not print (prints a space):

Mr. A. B. Charles looks funny, but Mr.^A.^B.^Charles will print through Formatter as Mr. A. B. Charles.

Formatter (blast it's stubborn streak!) ALWAYS starts each page with a blank line, header line, and another blank line, and ends with blank--footer line-blank, EVEN IF the Header and Footer printing is not active! For Christmas some year, I want a Formatter that formats the way I want, not the way TI's minions thought would be best.

If you happen to be brave enough to try to use the Header or Footer commands with the percent sign for page numbering, keep in mind that the command .PA n will reset the "page counter" to "n" at the NEXT Footer or Header. "n" does NOT PRINT if it is zero, therefore, "PA 0" on the first page, ahead of the .FO or >HE lines, will cause the first printed page number to be "1", on the second page "Current value" of page number defaults to "1" if "PA has no number included, and also each time Formatter is re-started.

MailMerge and Defined Prompt are some of the most powerful labor-saving TRUE "WORD PROCESSING" devices created, and are activated through Formatter. The TIW manual has tons of details on them. If you are using FWB or TIW2 and YOU DO NOT HAVE A TIW MANUAL, get a copy from someone even if you have to photocopy it.

PAGE PRO CATALOGER

BY NORMAN ROKKE

GIVES YOU A QUICK
HARDCOPY PRINTOUT
OF ALL OF THESE
PAGE PRO FILES

A MUST PROGRAM
FOR ANY
PAGE PRO USER

- LINE FONTS •
- SMALL FONTS •
- LARGE FONTS •
- BORDERS •
- PICTURES •
- PAGES •
- TEXT FILES •

Distributed By

MS EXPRESS SOFTWARE

P. O. Box 498
Richmond, Ohio 43944

ONLY \$14.95

Plus \$1.00

Shipping and Handling

Page Pro Cataloger requires a TI-99/4A console, a monitor or TV screen, a disk drive system (minimum configuration of 2 SS/SD drives), 32K memory expansion, a TI-99/4A compatible printer, and the Extended BASIC Module.

Page Pro Cataloger is a graphics printing utility program that should prove to be quite useful to all Page Pro users, young and old alike.

Now, no more wondering what characters are included in any particular Page Pro Font...or what that font even looks like in the first place.

No more wondering what a Page Pro Border looks like.

No more wondering what a Page Pro Picture looks like.

No more wondering what a Page Pro Page looks like.

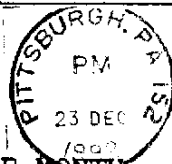
No more wondering...period!

With Page Pro Cataloger, you can choose to print out any combination of the various Page Pro file formats, or you can choose to print out all of the Page Pro file formats that are on any particular disk.

In addition, our Page Pro Cataloger program prints out a "File Type Listing" (similar to a modified disk directory) so you'll always know what Page Pro files are on each of your disks.

If that wasn't enough, Page Pro Cataloger prints every page with ample space on each side of the page, making it easy to keep your pages in any full-page notebook. It automatically skips over your page perforations and prints each new category at the start of a new page, thus making it possible for you to catalog all of your disks without ever having to move any of your files.

ORDER YOUR COPY TODAY!



THE PUG MEETS
ON THE 2ND SUNDAY OF THE MONTH
AT WHITEHALL BOROUGH COMMUNITY ROOM
100 BOROUGH PARK DRIVE
WHITEHALL, PA.

DEC 1992	
S	M T W T F S
6	
13	MEETING
20	
27	

CLASSES BEGIN AT 3PM
GENERAL MEETING BEGINS PROMPTLY AT 6PM

PUG OFFICERS		
Pres:	Gary Taylor	412-341-6874
V Pres:	Rick Keppler	412-941-3559
Treas:	Art Gardner	412-835-4304
Rec Sec:	George Dick	412-793-5834
Librarian:	Susan Harper	412-464-0525
Paper Lib:	Tom Puhatch	412-885-3183
Cor. Sec.:	Gary Taylor	412-341-6874
NL Editor:	Audrey Bucher	412-881-5244

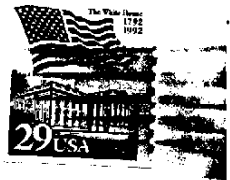
JAN 1993	
S	M T W T F S
3	
10	MEETING
17	
24	
31	

SCHEDULE	
3PM...	SET UP
4:30PM....	CLASS..SCREEN DUMP PROGRAMS
6-8PM	MEETING
	DEMO FIRST DRAFT

DUES \$15/YR



PITTSBURGH TI USER'S GROUP
P.O. Box 8043
Pittsburgh, PA 15216



President's Page.....	1
Ramdisks and More.....	2
Why Didn't Indent Work?.....	3
Backup Copy?.....	4
3 1/2 Inch Drives on 994/A.....	4
Waterworks...A Revue.....	5
Library News.....	6
Command Land #2..S.Harper.....	7
Formatter Facts.....	7
MS Express Software Ad.....	9

DALLAS TI HC UG
BOX 29863
DALLAS, TX. 75229

011 5



PUG BBS
412-885-3483
300/1200/2400 BAUD
24 HOURS