



# THE PUG PERIPHERAL



THE MONTHLY NEWSLETTER OF THE  
PITTSBURGH USERS GROUP  
SEPTEMBER 1990

As the Floppy Turns...  
by PUG Prez. Don McCalla

Well, here we are again; and after a nice month off of newsletter writing, did I get ahead at all? Of course not! I'm still punching away at the keys at the last minute, as usual; but then again, at least I'm consistent. What's new in the TI World, you ask? Well, while most have taken the summer off for outdoor pursuits, a few have been steadily laboring...

Since it has been officially announced, I think I can mention that TI has a new software company: MS Express Software! This company is brought to you by Mickey Schmitt and Mike Sealy, with the cooperation of several local talents who will remain nameless until they say who has written all this new stuff! In addition, MS Software will be doing several demos at the September meeting! I look forward to lots of interesting stuff from this group. Also, Chris Pratt made a stop at West Penn UG meet last month to answer questions about his new Hard and Floppy Drive Controller card, and stated that General Distribution should begin by October 1st, and that he should be at the Harrisburg Fair. For all interested, the mailing address is:

Electronic Systems Development Corp.  
P.O. Box 23805  
Washington, DC 20026-3805  
(301) 322-6150

I did take notes, but I'm not liable for errors in interpretation; the card will control 4 hard drives, 4 floppys from 90K to 1.44 meg, using 2 floppy connectors and 1 hard drive connector.

EEPROMS will store the DSR routines, which will be sent on disk and configured to suit your needs, and upgrades will be sent by disk and you just run the config again to upgrade. You can also access the drives thru TI Basic CALL routines.

Anything more specific, I'm not going to get into here, but if you call the number above you may find out what you need to know.

I've sent a letter to Australia to get more information on their Quest Ramdisk; what I know so far is that the base price is \$60 US, it is a semi-bare board PE-Box card, that you socket for the 16 32K chips (17 if you want your 32K card included on the ramdisk); it is backed up by a Ni-Cad battery circuit; the DSR is contained in a separate 8K chip; the DSR pgm and the docs are reported to be excellent. Built in commands enable or disable the autoboot pgm, and you can call assembly pgms from basic or XB by installing them in the DSR; for example, Archiver could be CALLED from BASIC with a CALL AR. It has no reported compatibility problems (yay!) and the speed is excellent. In short, it is reported to be a great buy. (Information edited from June 1990 Micropendium). This option is made even more attractive by the rumor that the price of 32K chips has fallen considerably. I'll let you know more when I find out.

I'm currently working on a neat little hardware project of my own; an Extended Basic Module Expander kit put out by William A. Shores, (716) 434-0709. This kit, when built, will give you Extended Basic and 5 other cartridge selections all in One. If I don't fry anything, I should have One Cartridge that I never have to take out of my console! One note for anyone considering this kit; only modules with 16 pin groms can be used. I picked this up at Lima and have been patiently waiting for a chance to try my hand at actual construction; besides, I built a Supercart, didn't I? One more note; my wife, in her infinite wisdom and knowing my hardware capabilities, picked up a semi-constructed model with the sockets already installed. The price is \$25 for the kit, \$3 SH, and if you want one partially made, you'll just have to negotiate! Well, I'm out of room, so until next time...



ULCERS ARE WHAT YOU GET  
FROM MOUNTAIN CLIMBING  
OVER MOLE HILLS



**SUPER MARIO BROS**  
 A review of sorts  
 By Gary Taylor

I ordered Super Mario Bros from Baker Software as advertised in the May, 1990 Micropendium. I also ordered one of the Super Game packs offered in the same ad. I sent my order on July 1, 1990. After the check had cleared the bank for two weeks I called the California number to ask about my order. I was informed that it would be placed in the mail that day. I received the disks via certified US mail within the week. I don't know why it took 5 weeks and one phone call for me to get it but that is not the end of this story.

What I received was an envelope with two diskettes inside. One was marked Super Mario Bros and the other was a floppy with the Super Game pack programs. Each side had a label identifying the programs that were on the disk.

I immediately went to my 4A and attempted to copy the Super Mario Bros disk with DiskU; after all I had a son who was chopping at the bit to play the new program and I wasn't about to give him the original. I was greeted with a "Disk Not Initialized" message. I loaded MDM5 and was treated to the same disturbing message. I attempted to run the program and got the same results. I tried the other disk and found both sides of the floppy were also bad. In desperation I went upstairs to my son's computer to see if it would work and it DID! It seems that Baker Software protected the disks by clobbering sectors one and two on each of the disks! Well I have a Myarc HFDC disk controller and it has to read sector one to find out how the disk is formatted before it can read the disk. As far as a copy for my son I just loaded Turbo Copy and copied the disk, bad sectors and all. The copy works fine. But it still would not work on my computer. So I copied the files over to a newly initialized disk with a sector editor and then recovered the files with DiskU. A simple enough thing to fix but very annoying. It is written in Extended Basic with some EA subroutines but the extended basic is protected so it can't be listed unless you enter a CALL INIT and CALL LOAD(-32699,0). The first statement in the program turns off the break function with ON BREAK NEXT.

How did the program play. Well, it is a very poor representation of the Nintendo Game. It's graphics are poor and the speed of the game is slow. All in all it was a bad purchase. The documentation was

unreadable. It looked like tenth generation xerox copies.

The second disk had the game that would not even load in its original form on my son's computer. I have not been able to recover it. The others show some merit, however. Recon 17 is a maze game written in assembly that is quick, responsive, and fun. Unfortunately it is a bit buggy. It will crash occasionally but not in the same spot. This program really demonstrates what can be done on the 4A. Another really fun game is Turbo 2056. This is a two player car racing game which uses joysticks. It is quick, responsive and also fun to play.

**WELCOME**

The PUG would like to thank the following members who have recently renewed their memberships...Ted Anderson, Nick Natto, Norm Rokke and George Dick.

FROM THE LIBRARIAN.

by Sue Harper



Well fall is here, the rains are back (back? who said they left?) and we are all tied to our TI's. Here's just a bit about some of the new stuff in the library. Please don't miss Don's column about the stuff from Lima, which will find it's way into the library as time goes on.

Thanks to the winning entry of John Harper in the Chicago contest, our library has eighteen more disks of programs in the MISC section. In time we will find out what they are and what they do. The contest was open to novice programmers and any language was permitted, so some of these programs will be in C, Fort, Lisp, and who knows what else. As we decipher them, we will pass the info on to you. And if YOU decipher them before we do, TELL US!

Some of the titles look very interesting, such as DowJones, Morse/code, Scramble, Alabels, Math, Music, Science, T-writer+, Invoice, Lighcalc, Lernstyl\_t, Karzy, and Toypiano99.

Also new in the Library for the September meeting will be Fort Tidbits nine and ten, a Multi column text converter, and two game disks, one with Sector Patrol, the other with four old favorites. Both game disks have XB autoloads on them.

See you at the meeting.



# NEW-AGE 99

#7 PAGEPRO pt 2

Last time our wee leprechaun wished us a happy goodbye after exploring a few PAGEPRO delights. This exciting installment will uncover & show more ways to desktop publish via PP.

In limiting these explorations to 2-page segments some of the intricate niceties of PP have to be left to your imaginations and time.

We'll show an example of the neat TITLES on the next page but will leave the greeting-card making up to you. Exploring such a program on your own is 8/10ths of the fun!



Okay, what do you need to make PAGEPRO the dream graphics/text program of the TI world?

Not much, really. Last time we suggested getting TIPS from your local user group or Jim Peterson of TIGERCUB for the thousands of graphics that come with it. That'll give you a big picture collection.

PAGEPRO will give you the state-of-the-art tools you'll need!

PAGE PRO 99 v 1.5 by Ed Johnson (& Chris Bobbitt) is the complete page-making software for 4A or Geneve. It includes all you need to make letter-heads, newsletters, pages of all descriptions, text conversions, etc. \$24.95.

PP FONTS by artist Paul Scheidemontle comes on 2 disks. There are 50 of

by Jack Sughrue, Box 459  
E Douglas MA 01516

of them (small & large); PP PICS are 7 volumes of excellent thematic pictures; PP TITLES (see next page) are pretty dramatic eye-catchers; PP UTILITIES are extraordinary graphic manipulation tools essential for quick layout (cards), design, inversions, rotations, etc.; and PIX PRO, the single converter you'll need for converting to and from PAGEPRO, TI-ARTIST (pix & instances, ideal for CSGO & GRAPHIC LABEL users, too), RLE, PICASSO and even MACPIX. Yes, PAGEPRO does print full-page graphics!

A NEWSLETTER  
EDITOR'S  
DREAM COME  
TRUE!



As a matter of fact, PAGEPRO even lets you save any part of a page or THE ENTIRE PAGE as a single picture, thus giving you endless clipping and overlaying possibilities and greater reprint abilities than ever before imagined.

[This article, for example could be saved as two pictures on disk and sent to an editor elsewhere who has PAGEPRO. That person would simply load the program and load a picture (not a page) & what you see printed before you, including all the graphics and borders are exactly what the editor would get fresh on his or her printer. Neat package, no?

I thought I'd complete this two-part review of PAGE PRG 99 from Asgard by a few bits of dazzle. It's so easy. Below, in case you didn't notice, is an example of PP TITLES. The font I'm using SCRIPT for small fonts. For the larger ones I'll use

**LOOK**

**Antique**

which is quite different from any of the others I've shown so far in this lengthy review of PAGEPRG. Next I'd like to fill up and overlay a bunch of this page with pix of all kinds.

**AT THIS!**



**WHEE!**

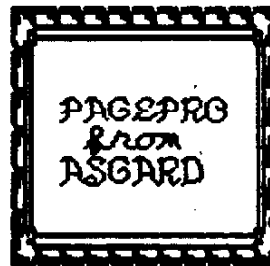
You can see that with such a wonderful graphic program, you are limited only by your imagination.

There is NO



with this program. Only  stuff.

As you have undoubtedly gathered by now, NEW-AGE/99 rates this program a solid A+. I haven't used anything so often since FUNNECDED, nor had so much fun since the invention of the yo-yo.



To get yours contact:

ASGARD SOFTWARE  
P.O. Box 10306  
Rockville, MD 20850

Ph. 703-255-3085



DIVIDING ONE DATABASE INTO FIVE IN TI-BASE

By Lynn Gardner  
Pittsburgh User's Group

When my TI-BASE mailing list reached 700 records, I realized it had gotten completely unwieldy. Sorting it with TI-SORT helped, reducing sorting time from 1-1/2 hours to 12 minutes. But I still had the problem of sluggishness when editing or appending records.

I decided to break it down alphabetically into five databases: AC, DH, IM, NR, and SZ (the first letter of each last name). I first copied the structure file five times, naming each file for the desired section of the alphabet. I then used the following command files to move the records from the original MLIST to each new database. This had to be done five times, changing the name of the new database and the letters I wanted in it each time.

```
*MOVED1
*Move data from MLIST to AC
*REM to change new database name
CLEAR
CLOSE ALL
SET RECNUM OFF
SELECT 2
USE AC
TOP
SELECT 1
USE MLIST
DO MOVED2
SET RECNUM ON
SET HEADING ON
RETURN
```

```
*MOVED2
*REM to change letters in database
WHILE .NOT. (EOF)
IF (LN="A") .OR. (LN="B");
SELECT 2
APPEND BLANK
REPLACE 2.LN WITH 1.LN
REPLACE 2.FN WITH 1.FN
REPLACE 2.AD WITH 1.AD
REPLACE 2.CITY WITH 1.CITY
REPLACE 2.ST WITH 1.ST
REPLACE 2.ZIP WITH 1.ZIP
ENDIF
SELECT 1
MOVE
ENDWHILE
CLOSE ALL
RETURN
```

The following command files will print out one complete alphabetical listing of records in all five databases:

```
*LIST1
*Makes one list of 5 databases
CLEAR
CLOSE ALL
SELECT 5
USE SZ
TOP
SELECT 4
USE NR
TOP
SELECT 3
USE IM
TOP
SELECT 2
USE DH
TOP
SELECT 1
USE AC
TOP
DO LIST2
SET HEADING ON
RETURN
```



```
*LIST2
PRINT ALL LN FN AD CITY ST ZIP
SET HEADING OFF
SELECT 2
PRINT ALL LN FN AD CITY ST ZIP
SELECT 3
PRINT ALL LN FN AD CITY ST ZIP
SELECT 4
PRINT ALL LN FN AD CITY ST ZIP
SELECT 5
PRINT ALL LN FN AD CITY ST ZIP
CLOSE ALL
RETURN
```

The following command files will print labels for all records in these five databases:

```
*LABEL1
*Prints label from 5 databases
SET RECNUM OFF
SET HEADING OFF
SET PAGE=0
CLEAR
CLOSE ALL
SELECT 5
USE SZ
TOP
SELECT 4
USE NR
TOP
SELECT 3
```

(Continued next page)

(Continued from page 5)



## THE KIDDIE CORNER

by Sue Harper  
Pittsburgh User's Group



```
USE IM
TOP
SELECT 2
USE DH
TOP
SELECT 1
USE AC
TOP
LOCAL TEMP C 40
LOCAL BLNK C 1
DO LABEL2
SET RECNUM ON
SET HEADING ON
CLOSE ALL
RETURN
```

```
*LABEL2
SELECT 1
DO LABEL3
SELECT 2
DO LABEL3
SELECT 3
DO LABEL3
SELECT 4
DO LABEL3
SELECT 5
DO LABEL3
RETURN
```

```
*LABEL3
WHILE .NOT. (EOF)
REPLACE TEMP WITH TRIM(FN);
  | " " | LN
PRINT TEMP
PRINT AD
REPLACE TEMP WITH TRIM(CITY);
  | " " | ST | " " | ZIP
PRINT TEMP
PRINT BLNK
PRINT BLNK
PRINT BLNK
ENDIF
MOVE
ENDWHILE
RETURN
```

Next month we'll talk about dividing five databases into ten.



For kids of all ages - a series of articles on how to get started making your own programs.

So, how did "Wallpaper" turn out? Hopefully, just fine. Here is the answer to how to print TI-99 in the upper right hand corner of the screen.

```
10 CALL CLEAR
20 CALL HCHAR(2,2,84)
30 CALL VCHAR(2,3,73)
40 CALL VCHAR(2,4,45)
50 CALL HCHAR(2,5,57,2)
60 GOTO 60
```

If you had trouble with this, let's talk about how it works.

Each symbol on the keyboard has an assigned number called an ASCII number. The number for the letter T is 84. The number for t is 116. Each symbol has it's own number, and there are some numbers that have no assigned symbol. These you can make up the symbol for - but that's a different article.

Notice that HCHAR and VCHAR can be used interchangeably, EXCEPT the next to last line - line 50. Also, notice that there are four numbers in that line instead of just three. The fourth number tells the computer to put 2 of ASCII 57 on the screen, horizontally next to each other.

Now for another little program.

This little program will print a letter in the middle of the screen and wait until the user types the same letter. make sure your alpha lock is DOWN!

```
10 CALL CLEAR
20 RANDOMIZE
30 Q=INT(RNDO)
40 IF Q<65 THEN 30
50 IF Q>90 THEN 30
60 CALL HCHAR(12,14,Q)
70 CALL KEY(O,K,S)
80 IF S=O THEN 70
90 IF K=Q THEN 30
100 GOTO 70
```

The only way out is FCTN 4. Have fun.

See you next month . . .

## WHAT IS DESKTOP PUBLISHING??

BY ED MCNISH

( Reprinted w/ permission from July 90 issue of "B.C. 99 NEWS", the newsletter of the B.C. 99'er Users Group, of New Westminster, British Columbia, CA )

DESKTOP PUBLISHING is the use of personal computers to design and print professional-quality typeset documents. A desktop publishing program is more versatile than a word processor; in addition to typing documents, the user can specify the layout in great detail, use multiple typefaces, insert pictures, and, in some programs, preview the appearance of the printed document on the screen. Desktop publishing is more complicated than word processing. A knowledge of typography and graphic design is helpful.

Below are some definitions of words associated with "Desktop Publishing" and some of the definitions can also apply to "Printer" specifications as well, ie. an EPSON LX810 expresses its "NLQ" font as "Roman" and "Sans Serif".

TYPOGRAPHY is defined as the art of printing, style or appearance of printed matter.

TYPEFACE--impression made by inked part of type, set of types (or letters etc. otherwise printed) in one design. Most of the typefaces on computer printers fall into the following categories.

1. ROMAN TYPE: proportionally spaced, with serifs (PROPORTIONALLY spaced means that different letters are different widths, eg., "M" is wider than "I". Serifs are the marks at the ends of strokes, eg., the horizontal marks at the top and bottom of "I"). Roman type is the most readable kind of type and is used for the text of most books.

2. SANS-SERIF TYPE is proportionally spaced. Two popular typefaces are GENEVA and HELVETICA. This kind of type is better for short captions, posters, or labels, but can be tiring to read for long periods.

3. FIXED-PITCH, TYPEWRITER-LIKE TYPEFACES, COURIER and similar "faces" are used when all characters must be the same width in order to line up properly like financial tables and listings.

4. NOVELTY TYPEFACE, such as Old English should be used sparingly to make dramatic-looking titles.

FONT is a collection of characters with a consistent size and style.

SERIFS are small ornaments at the end of the lines that constitute a letter or digit, such as the flat parts on the top and bottom of the letter "T". Serifs make type more readable by helping the reader's eye stay on the line.

PITCH of a printer is the number of characters per inch (most commonly 10). Fixed-pitch type has every character the same width; proportional-pitch type has some characters wider than others, and the pitch can only be measured approximately as the average of many different letters.

POINT in typesetting, a point is 1/72 inch. The height of the type is usually expressed in points. However, this is not a measurement of the size of the letters, but rather of the metal blocks on which letters were originally cast for printing presses. Therefore different typefaces of the same point may be somewhat different sizes. In a typical book-sized line type, about 25 picas wide, readability is greatest with 10-point type with 2 points of leading. Greater width calls for larger type, lesser width (as in a newspaper column) calls for smaller type. This works out to 6 lines to the inch.

LEADING (pronounced "ledding") is the insertion of extra space between lines of type.

"PRINTERS APPRENTICE" is the only TRUE desktop publishing software package currently available for the TI-99/4A. A quick introduction to some of the features was demonstrated during the last two "Graphic Nights".

Like most of the programs demonstrated, FILE PREPARATION is very important. It is important because the idea is to prepare a list of files to be used by the "Scheduler" option. This option allows positioning of files at any Row/Column pixel (Of course, depending on size).

(Continued next page)

(Continued from page 7)

Try to plan your page ahead of time. Visualize in your mind what you want your page to look like then draw it out on a piece of paper. List all the text files and picture files that you are going to use. All files are prepared or converted within Printers Apprentice to an D/F 80 type external file. The picture files are converted using the "Picture Editor". Text files can be prepared using TI-WRITER, selecting "PF", then instead of PIO use F DSKn.filename. This option will save the file to disk in the D/F 80 format required by the Scheduler of Printers Apprentice. The other way is within the Formatter and saving to an external file.

Printers Apprentice offers many tools to the user like border creation, enlarging pictures and fonts with the "C-pixel" option.

The foregoing have been words and definitions found in the world of "desktop publishing". Also the software package for the TI that most emulates what a "desktop publishing package" is supposed to do and a few of the features (more to be explored and experimented with).

If there is further interest in exploring and learning this fine software package let me know!...otherwise, the "END"

MEETING MINUTES OF PITTSBURGH  
USERS GROUP

Date: Aug. 19, 1990



Location: South Campus, Allegheny Community College

Meeting called to order by Pres. McCalla at 6:00 P.M.

Minutes of the last meeting were read by Secretary Reich. Approval of them was moved, seconded passed.

Treasurer Gardner gave a Report.

News Editor Bucher gave her Report. She called for more original articles by PUG members. She emphasized that such articles would be reprinted in other newsletters.

Librarian Harper gave her report. The Library has 16 new disks which came from the Chicago contest. They are in the Miscellaneous Section. Disks from the Lima Faire will be sorted out and put in the Library. Some are duplicates of what we have in the Library.

In Sysop Taylor's absence, Pres. McCalla reported that the BES is up and running. We now have a Panasonic 5-1/4", LSDD drive.

Pres. McCalla gave his Report:

The picnic in July was a success in spite of the weather. Approx. 29 people attended. Norm Rokke won the Trivia contest. Rick Keppler played the guitar.

Dean King has donated some good books re the TI. They will be used for door prizes and raffle prizes.

He welcomed the new members.

The dollar disks were 2 games and a Multicolumn text convertor.

He passed around miscellaneous pieces of mail offering programs, equipment etc.

The 2nd disk of Cookbook was switched for those who purchased that program.

He reviewed pieces of correspondence received.

Frank Zic has a drive for sale.

OLD BUSINESS:

There was no old business.

NEW BUSINESS:

Pres. McCalla asked for input on what classes would be good for the PUG to conduct. Members will submit suggestions. One suggestion made at the meeting was a review of Picasso.

Pres. McCalla deemed the Disk of the Month.

Meeting adjourned at 8:00 PM.

Respectfully Submitted  
Herbert H. Reich, Recording Secy.



PRINTERS #8

BY JOHN F. WILLFORTH (SEPTEMBER, '90)

THIS IS THE ARTICLE ON DOWN LOADING CHARACTERS TO YOUR PRINTER (IF IT SUPPORTS DOWN LINE LOADING OF CHARACTERS). MOST PRINTERS THAT DO SUPPORT THIS NIFTY FEATURE REQUIRE THE DISABLING OF THE COMMUNICATION BUFFER IN ORDER TO FREE UP THE RAM TO BE USED TO STORE THE DEFINED CHARACTERS. THE PROGRAM BELOW WAS PRINTED OUT AFTER THE PROGRAM WAS RUN. THIS IS WHY YOU SEE STRANGE CHARACTERS EMBEDDED IN THE PROGRAM LISTING. A= APPLE, B=BOAT AND C= EYE. THE PROGRAM BELOW ACCOMPLISHES THIS BY FIRST COPYING THE ROM WHERE THE FIXED CHARACTER

```

100 REM DOWNLOAD @H@R@E@T@E@R@S
110 REM BY JOHN WILLFORTH
120 REM HOW TO REDEFINE THE
130 REM @H@R@E@T@E@R @ P@R@I@N@T@E@R
140 REM THINKS IT PRINTS.
150 REM EN@L@E @N@Y H@R@D-
160 REM W@R@E S@W@I@T@C@H@E@S Y@O@U@R
170 REM P@R@I@N@T R@E@Q@U@I@R@E@S T@O
180 REM P@R@M@I@T T@H@E D@O@W@N@L@I@N@E
190 REM L@O@A@D@I@N@G F@E@A@T@U@R@E I@N
200 REM Y@O@U@R P@R@I@N@T@E@R F@I@R@S@T.
210 REM *****
220 OPEN #1:"PIO"
230 PRINT #1:@HR$(27)&" ":"&@H
R$(0)&@HR$(0)&@HR$(0)
240 PRINT #1:@HR$(27)&"E"
250 PRINT #1:@HR$(27);"&" ;@H
R$(0);
260 PRINT #1:@HR$(65);@HR$(6
7);
270 PRINT #1:@HR$(137);
280 PRINT #1:@HR$(28)&@HR$(3
4)&@HR$(1)&@HR$(32);
290 PRINT #1:@HR$(17)&@HR$(9
6)&@HR$(123)&@HR$(34)&@HR$(2
8);
300 PRINT #1:@HR$(0)&@HR$(0)
;
310 PRINT #1:@HR$(9);
320 PRINT #1:@HR$(8)&@HR$(4)
&@HR$(10)&@HR$(1);
330 PRINT #1:@HR$(248)&@HR$(
65)&@HR$(42);@HR$(4);
340 PRINT #1:@HR$(8)&@HR$(0)
;
350 PRINT #1:@HR$(152)
360 PRINT #1:@HR$(28)&@HR$(3
4)&@HR$(65)&@HR$(8)&@HR$(35)
;
370 PRINT #1:@HR$(8)&@HR$(65
)&@HR$(34)&@HR$(28)&@HR$(0);
380 PRINT #1:@HR$(27)&"%&"&@H
R$(1)&@HR$(0)
390 FOR O=1 TO 26
400 X=O+64
410 FOR I=1 TO 20
420 PRINT #1:@HR$(X);
430 NEXT I
440 PRINT #1:""
450 NEXT O
460 @L@O@S@E #1
470 END
    
```

DEFINITIONS RESIDE, INTO THE RAM (LINE 230). IF I DID NOT COPY THE ROM OVER TO RAM, I WOULD HAVE HAD ONLY A, B, AND C BECAUSE THESE ARE THE ONLY THREE I DOWNLOADED TO THE PRINTER AT THIS TIME AND THE RAM COMES UP EMPTY EVERY TIME YOU POWER THE PRINTER UP OR INITIALIZE IT.

FIRST SET UP YOUR PRINTER ACCORDING TO YOUR PRINTER MANUAL TO ACCEPT DOWNLOADS. SOME PRINTERS, SUCH AS MY SEIKOSHA, REQUIRE A HARDWARE SWITCH TO BE SET. KEY IN THE PROGRAM STARTING AT LEAST AT LINE 220, AND SAVE IT TO CASSETTE OR DISK. MAKE A GRID 9HX10W TO DRAW OUT THE CHARACTERS YOU WANT TO CUSTOMIZE. YOU SHOULD MAKE A LOT OF PHOTO-COPIES OF THIS GRID BECAUSE ASIDE FROM ERRORS YOU MAY WANT TO REDEFINE THE ENTIRE UPPER/LOWER CASES OF THE ALPHABET AS WELL AS THE SPECIAL CHARACTERS. I CAN REDEFINE UP TO 128 CHARACTERS IN MY PRINTER. LINE 240 IS OPTIONAL FOR EMPHASIZED PRINT. LINE 250 BEGINS THE DOWNLINE LOAD BY ITS ESCAPE SEQUENCE: ESC & O ON MY PRINTER AND CONTINUES IN THE SAME SEQUENCE WITH TWO CHARACTERS (LINE 260) THAT TELL THE PRINTER THE CODE FOR THE FIRST CHR\$ AND THE LAST CHR\$ ("65" TO "67" OR "A" TO "C"). LINE 270 IS THE ATTRIBUTE CHARACTER USED TO TELL THE PRINTER WHICH SET OF 8 PRINT WIRES OF THE 9 AVAILABLE TO USE FOR THIS ONE CHARACTER, AS WELL AS WHERE THE FIRST AND LAST DOT COLUMNS ARE. LINES 280, 290 AND 300 DESCRIBE EACH DOT COLUMN BY BINARY WEIGHTS IN A STRAIGHT BINARY FORMAT. LINE 310 IS THE ATTRIBUTE FOR THE SECOND ("66" OR "B") CHARACTER) AND LINES 320, 330 AND 340 DEFINE IT'S BINARY EQUIVALENTS. LINE 350 IS THE ATTRIBUTE CHARACTER FOR THE THIRD ("67" OR "C") AND AFTER THE CHARACTERS THAT YOU WISH TO BE DEFINED ARE TAKEN CARE OF, LINE 380 ACTUALLY ENABLES THE USE OF THE RAM INSTEAD OF THE ROM FOR CHARACTER DEFINITION DURING THE PRINTING PROCESS.

RUN THIS PROGRAM (IF IT WILL RUN ON YOUR PRINTER), THEN USING THE INFORMATION IN LINES 270 TO 370, DRAW THE CHARACTERS THAT ARE PRINTED HERE. THE ATTRIBUTE CHARACTER TAKES A LITTLE STUDY BECAUSE OF THE VALUES ASSIGNED TO THE BINARY POSITIONS, IF ENTERED INCORRECTLY WILL MAKE THE PRINTER PRINT "THINGS" THAT ARE NOT EVEN CLOSE TO WHAT YOU SEE ON THE LEFT. LINES 390 THROUGH 450 ARE THERE JUST TO PRINT OUT A LISTING OF THE UPPER CASE ALPHA CHARACTERS WITH THE FIRST THREE BEING SHOWN AS THE REDEFINED CHARACTERS YOU SEE DISPERSED THROUGHOUT THE LISTING ON THE LEFT. JUST THINK, IF YOU REALLY WANTED TO ENCODE MESSAGES, YOU COULD ENCRYPT CODE TO REDEFINE AND DOWNLOAD NEW CHARACTERS TO THE PRINTER AND HAVE THE PRINTER CREATE A HARD-COPY THAT WOULD REALLY BE DIFFICULT TO DECIPHER.

SOME MAY BE LOST HERE, (I WAS) BUT DUG THIS OUT BY USING MY PRINTER MANUAL AND SPENDING THE TIME. IT DID'NT COME EASILY BUT I'M NOT A PROGRAMMER AND I WAS STILL ABLE. I KNOW YOU CAN TOO! JFW

THE PUG MEETS  
 ON THE 3RD SUNDAY OF THE MONTH  
 AT COMMUNITY COLLEGE OF ALLEGHENY COUNTY  
 ROUTE 885 NEAR CENTURY III MALL

SEPT 1990	
S	M T W T F S
2	
9	
16	MEETING
23	
30	

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

PUG OFFICERS		
Pres:	Don McCalla	412-488-7677
V Pres:	Gene Kelly	412-829-0469
Treas:	Art Gardner	412-835-4304
Rec Sec:	Herb Reich	412-531-9023
Librarian:	Susan Harper	412-464-0525
Mem Chair:		
Cor. Sec.:	Gary Taylor	412-341-6874
NL Editor:	Audrey Bucher	412-881-5244

OCT 1990	
S	M T W T F S
7	BOARD MTG.
14	
21	MEETING
28	

SCHEDULE	
3-4:30	Questions, Problems, Answers.....Rm. 482
4:30-6	TIWriter Class with Don McCalla.....Rm. 482
4:30-6	Hardware Class with John Willforth.....Rm. 475
6:00-?	General Meeting
	Demo...MS Software
	SEE YOU THERE

DUES \$15/YR



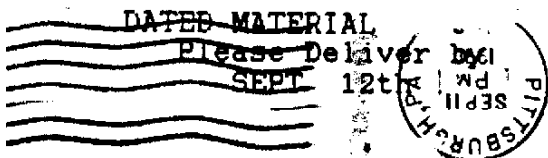
PITTSBURGH USER'S GROUP  
 P.O. Box 8043  
 Pittsburgh, PA 15216



President's Page.....	1
Super Mario Bros..A Review.....	2
Library News.....	2
New-Age #7 by Jack Sughrue.....	3
TIBase Command File.....	5
Kiddie Korner.....	6
What is Desktop Publishing?....	7
Minutes.....	8
Printers #8 by J. Willforth....	9

DALLAS TI HC UG

BOX 29863  
 DALLAS, TX. 75229



PUG BBS  
 412-341-4820  
 300/1200/2400 BAUD  
 24 HOURS