

# The Printer's Apprentice



...And Not Go **INSANE!**

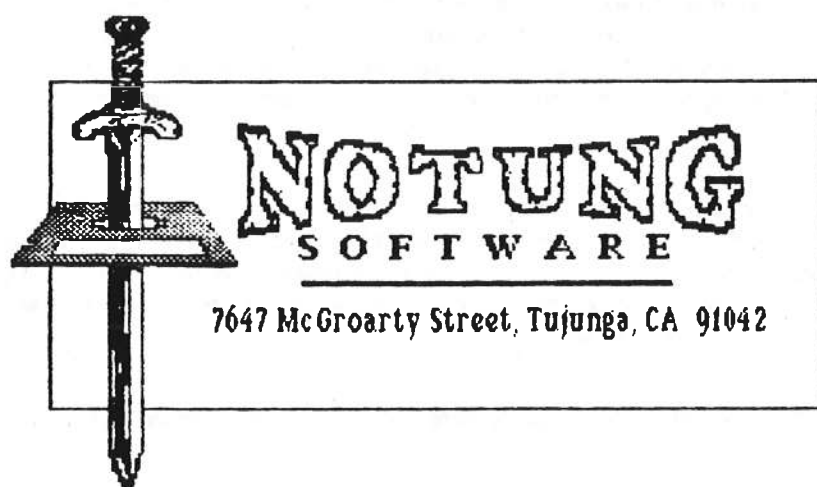
TPA Made Easy by Ken Gilliland



# **How to Use The Printer's Apprentice**

## **...And Not Go INSANE!**

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To Mattie Bush, Harry Hoffman and all the other TPAers who've waited so long for this book...

...And very special thanks to Karen, my copy editor, for putting up with my Gilliganese.

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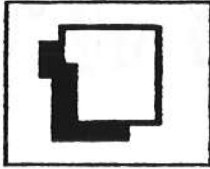
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## **An Introduction...**

It may be hard to believe, but most owners of TPA (The Printer's Apprentice) cannot even do its' primary function-- print something. I'm embarrassed to admit it, but I owned the program for two years before I could even do it myself. This major hurdle comes from the fact that most computer users don't read the manual. They simply plunge into the program. Then, when all else fails, they angrily page through the manual. Anger builds when they find the language of the manual written in an abstract way (that's even similar to the infamous Editor/Assembler manual's tone). Thus, the program gets shelved. It's a shame too, because the Printer's Apprentice is still by far the best desktop publishing program available for the TI-99/4a. TPA MDOS is reason enough to buy a Myarc 9640 computer.

With all that in mind, were going to try a new approach. Step by step lessons that you use with the computer that will slowly build skills in that elusive ability Mr. McCann calls "Pagemanship". Imagine these tutorials as sort of a desktop publishing cookbook. So, let's get out the flour, eggs and blank diskettes and start cooking...



## The Magic Printing Machine

The Printer's Apprentice will allow you to create both fonts and artwork and even display them, quite pleasingly on a page. This should be a relatively easy thing to do, however, with the TI-99/4a limitations, a "What You See Is What You Get" format is next to impossible. Asgard Software's "Page Pro" is the closest thing to a WYSIWYG program, but the printed results pale next to TPA's finished product.

The Printer's Apprentice disk is divided into four sections: 1. The Character Editor, 2. The Picture Editor, 3. The Formatter and 4. The Scheduler. Some of the author's terminology may seem strange at first, but once you start to use each section, the names will make perfect sense.

The Character Editor allows you to alter, edit and create Printer's Apprentice Fonts. The fonts come in two formats, a 36 sector (Sd) font and a 68 sector (Ou) font. Oufonts are printed in two passes with the second pass being slightly off, giving an oufont a smoother appearance than a sdfont.

The Picture Editor allows you to create pictures for use with TPA and convert TI-Artist format pictures to TPA format. I strongly suggest using TI-Artist to create your artwork rather than TPA. It's much easier to use.

The Formatter will print text to the printer or a file (called an Externfile). It will allow TI-Writer text files to be imported into it or text typed in it's no-frills text editor (called the Jotter). You can use a variety of fonts, change the margins, the size of the space between each word, and even between each letter. It allows for ragged right or justified margins and uses microjustification to make smooth flowing sentences.

The Scheduler takes all the Externfiles (created by the Formatter) and TPA Pictures (created or converted by the Picture Editor) and puts them into an orderly printing schedule. It allows you to enter these prepared files as building blocks of a page-- setting up each by row and column coordinates. It even allows you to overlap them (if you wish). Don't bother to use the Scheduler though, UNLESS you have Extern or TPA Picture files-- that's all the Scheduler reads.

If you back-up your TPA disk, make sure you use a sector copy. If you use a file copy on this back-up, it will not work. TPA was written in Forth, and the Forth language looks for areas on the disk rather than filenames.

To show the differences between TPA and Page Pro's finished results, I've created the same page twice-- first using TPA, then Page Pro. To keep things fair, I used TI-Artist format files and converted them to both Page Pro and TPA formats. The Page Pro conversions took at least five times as long to convert. It wouldn't convert my TYPEWTR2\_F font, the "M" and "W" were too big, so I had to use a similar font. I was able to use the script (LEGEND\_F) and spooky-looking font (HORROR\_F) as fonts directly from TPA for my title. The results were unsatisfactory in Page Pro, so I created the title in TI-Artist and imported them as Instances. The assembly of the page took about the same time (but I'm a whiz at TPA and am a bit sluggish at Page Pro). The TPA printing time was about 3/4 of that of Page Pro. Both examples are on the next page. I think you'll see why I'm in the TPA camp...

# Melody of DEATH

by K.K. Gilliland



I was at the end of my rope. Wearily, I sat down staring at the blank canvas. It was the same blank canvas that had been sitting in my easel for nearly a month. Uninspired, I stared out onto the busy boulevard below. From my apartment window, the flickering neon signs played against the endless stream of car's headlights. It was still hot. The air was sticky-- sweat dribbled off my chin. I pulled out my wallet and thumbed through what remained of my last pay check. I had cashed that nearly a month ago, too. Only two crumpled fives remained. I pulled out one of the fives and headed off to the Liquor Store, thinking that perhaps some liquid inspiration might help. But I knew I was fooling myself.

About fifteen minutes later, I returned to my drab building. Quietly, I crept up the stairs-- hoping to avoid Mrs. Brandon, the landlady. But at the top of the stairs there she stood, towering above me with her beefy arms crossed and her red hair aflame. Her eyes, close set, narrowed heatedly at me.

"I thought if I waited I'd catch you. I heard up sneaking up the stairs."

"I wasn't sneaking..."

"The Hell you weren't!" she scolded. I walked up the remaining stairs and tried to get past her.

"Would you excuse me? I'm tired and want to go to my room."

Here is the Printer's Apprentice example



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## The Quest for Keyboard Clatter

The first thing we're going to try to get the Printer's Apprentice to do for us is print something. Nothing fancy-- just get the printer to make some annoying noises for a second or two. So let's stop wasting idle words and get cracking!

### Ingredients:

- 1 The Printer's Apprentice Software Disk
- 1 Blank Disk with the TPA files "TREASURE" and "TYPER" copied on to it.
- 1 Sheet of Printer Paper
- A pinch of patience

### Instructions:

1. Load TPA in Extended Basic. Wait for the menu screen, it will take a while. Consider getting a cup of coffee.

2. Hooray! The menu screen appeared! Press "3" for "3. Formatter". Add sugar and cream, if desired, in your coffee.

3. A miracle! A second menu appeared! The first thing we want you to do, is familiarize with TPA's text editor called the Jotter. Press "J" for Jotter. Wow, yet another menu screen! Press "E" for Edit. Start typing something. Don't worry about falling off the edge of the screen, this editor has word-wrap built in and will automatically put you on the next line. Now press the "ENTER" key. you'll notice the funny little `Cr` symbol. That means carriage return. Once you have finished fooling around in the Jotter make sure your last line ends with a `Cr`. Now you're probably wondering how to get out of the Jotter. Lost? Didn't you leave a crumb or string trail? Well, it wouldn't help anyways. Press "FCTN 9" to escape.

4. Now, we're going to do something quick so we can play around with it later. Press "S" for "Save File".

Oooooowww-- neat! You should now have a prompt blinking happily over a "DSK1.TEXT". Remove the TPA diskette and put in a blank disk. Press "ENTER". Now you have a DFSD file saved under "TEXT" on your blank disk. You could have also changed the disk drive number or the filename, but we didn't since I am running the show and wanted to do it my way. It is important to note that the file was saved in **FIXed** SD format and not **VARiable** SD format. That's the file language TPA understands. In order to use TI-Writer or Funnelwriter with TPA, use "PF" (Print File) to save your file, then add a "F" to the filename (eg. "FDSK1.TEXT"). This will save it in **FIXed** format. And, **VERY IMPORTANT**, always remember to end of last sentence with a `Cr`.

5. You will also note you can press "L" to load a file and "P" to print it (normally-- without font changes). But let's go back to the main menu, so press "B" for "Back".

6. Let's first set up the printer. Press "P" and you'll find you have your prompt over the printer's device name. The default is "PIO.CR". Change it or, if it's okay, just press "ENTER".

7. Now, we'll set up our text to print. Press "B" for "Buffer". You'll notice that the "Txtfile DSK1.TEXT" vanished and "Buffer" has appeared. This means you plan to print what's ever in the Jotter. Yes, your keypunching is still in there.

8. Press "F" for "Fontfile". This allows you to access one of TPA's fonts. For starters let's use the default which is "DSK1.TYPER". Now you know why I asked you earlier to copy that file on to your blank disk. If you feel adventurous, you might try changing the prompt to "DSK1.TREASURE".

9. So far, so easy. Right? Press the "V" for the "Variables" key. Yikes! So much for being easy. We're thrown amidst a long list of choices. Let's go slowly through them...

9A. Prntr Type-Eps Gem... Press "E" if your printer is Epson compatible and "G" if it's a Gemini. If you're unsure, stick with "E" and press "ENTER"

9B. Prnt Dnsy(Sd-Dd-Hs-Qd)... Choose your print density. For starters, press "S" for Single Density. Press "ENTER".

9C. FontStyle (Sdsh-Oush)... To Oush or not to Oush? That is the question. Since we chose a font WITHOUT an "OU" prefix, we won't. So press "S" for "Sdsh" fonts. The difference between Sd and Ou fonts is that Ou fonts are smoother and less blocky-looking than the Sd fonts.

9D. Linefeed Size... You can alter the space in between your lines. "0" is the default, but you could go up to "999" (and have a sentence about every 4 pages or so). It's important to note that these numbers are in pixels, not actual linefeeds (which is about 8 pixels usually). As a rule of thumb, usually 1 or 2 pixels is enough to enter. Try ENTERing "2".

9E. Space(ASC 32)width... This features allows you to change the spacing in-between each word. Normally you'll just want to ENTER the default for now.

9F. Intercharacter Width... Allows you to actually put pixels between each character. Original TPA fonts usually require 1 or 2 pixels between characters, but converted TI-Artist Fonts (see Chapter 6) usually need no space at all. Use the default for now.

9G. Font-ASCII... This feature allows you to print whatever you have in the buffer or text file in different ways. To press "F" for Font means you want the printer to print your entire text out in the font you chose (such as "TYPER"). The "A" for ASCII means you want to print it out in a standard printer font. Now you may be asking why you'd want to do this when you could have it printed in one of those great font styles. The reason is that ASCII will print exactly the same amount of words and in the same amount of space as the font you chose. This is done in seconds rather than the minutes that it will take to print it in the correct font. This allows you to see approximately the space used and where the words lie BEFORE you invest some serious time in printing it in a font type. Make sure you remove "CR" from "PIO.CR" when using the ASCII feature though. Hey, but we're daring thrill-seekers so we'll go for the "F" and see what this font looks like aways.

9H. Wrap-Fixed... This is exactly what it would mean in TI-Writer. Wrap mode will put every word into one paragraph from P<sub>r</sub> to P<sub>r</sub>. In Fixed mode, each line is treated as if it had a P<sub>r</sub> at the end of it. Let's stay with "W". Press "ENTER".

9I. Ragged-Microjust... Choosing "R"agged will justify the left margin, but leave the right margin ragged (or uneven). Microjustification will justify both margins and do something that makes the Printer's Apprentice superior to any TI-99/4a desktop publishing package. It will proportionally space each line. What does that mean, you ask? Well, those familiar with the TI-Writer Formatter's commands (such as .FI;AD) know that the Formatter will justify both margins by filling extra spaces in between the words. Sometimes the gaps between the words are almost bigger than the words themselves, making a very awkward looking sentence. TPA also fills micro-spaces in-between each letter, making the whole sentence flow without Grand Canyons spaces. Choose "M" and ENTER it.

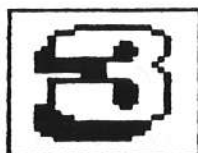
9J. Left Margin... (and Right Margin...) These features will also help you to make an incredible looking page. The defaults are 0 (left) and 400 (right). Ignore them. Using Sd (density), your page will run about 0 (left) to 430 (right). In Dd or Hs (density), your page will run to 959 for the right margin. And in Qd, you guessed it! A 1920 will bring you to the right edge. If you can't remember where the Sd, Dd, Hs and Qd came from, take a look back at step 9B. Please note that these numbers though, really don't allow for any breathing room on either margin. Since we're playing around with Sd, let's make the Left Margin "10" (ENTER it) and the Right Margin "420" (ENTER it). That leaves a 10 pixel breathing space on either side of our text.

9K. Next Breakpoint-Line at: 0... This feature will allow you to set the vertical length of your text and access all sorts of other neat features and yet another frightening menu (which I'll cover in the next lesson). For now,

here's a couple ground rules. An average page is roughly about 2310 pixels in length (from perforation to perforation). So usually about 2200 pixels is a safe length for a page and will stop you from falling off the edge into the next page. So "ENTER" the number "2200". If you do this, and your file is longer than these 2200 pixels, the printing will stop at 2200 (or thereabouts, depending on the vertical height of the font you chose) and you will be greeted with the "Continue" menu. At this time, move your printer paper to the start of the next page and press "C"ontinue. If you were to leave the Next Breakpoint at 0, the text will print out completely, over the printer paper perforation if need be.

10. Hooray! We made it through the dreaded Variables. Now, crack your fingers once. Give a short prayer and press "G" for Go. Your disk drive light should go crazy for a while, if the right disk is in the right drive and the right files are there (DSK1.TEXT, DSK1.TYPER or DSK1.TREASURE), and, of course, if your printer is turned on, eventually the printer should start up and voila! You should have your first TPA print out. If something is wrong, you can press FCTN 4 to break the printer routine or "D" back at the menu prompt for a disk directory.

After you print the Buffer, try printing "DSK1.TEXT". Also try altering the Variables. Use Ds (Density), alter the spacing and margins. Explore! The kettle of TPA Stew is just simmering...



## The Mystery of the Externfile & the Deep Secrets of the "Continue?" Menu

The most powerful feature TPA has is its ability to produce a complex page printed in one pass. In order to do, you'll need to learn about EXTERNing files. In the last chapter, we touched upon it (probably without you knowing) and the "Continue? Menu" which controls the fate and destiny of every EXTERN file. The secret to Externing is blank disk space, a little forethought and lots of disk space.

### Ingredients:

1 TPA program disk

About 1400 sectors of blank disk space (that's 4 SSSD disks)

1 30 sector text file (with content of your choice) saved in FIXEd 80 format.

3 Blank Sheets of Printer Paper

### Instructions:

1. First copy an OU prefix font file and your 30 sector text file on to each of your blank disks or on to one disk if you have more than one drive. If you have only a SSSD system with one disk drive you have your work cut out for you. Why? When Externing, three files will be accessed (or two, if you are using the jotter). These files are the text file you've prepared in FIXEd 80 format, the OU font file and the EXTERNfile you are creating. The EXTERN file you are creating you'll find will be quite large in size. This one column you are reading was about 245 sectors long! You SSSD guys will only be able to get one file per disk. What does all this mean? Simply that Externing takes lots of disk space. A 56 sector file Externed into columns 390 pixels wide by 1900 pixels in length will Extern into about 5 columns. That at about 245 sectors a piece. That's 5 SSSD disks! Yikes! And also remember that there no guarantee all those files are even going to fit on one 360 sector disk. If you have an OU font file (68 sectors) plus a

Text file (56 sectors, that's 124 total-- if you're counting), add that EXTERN file (245 sectors + 124 sectors = 369 sectors on a 360 sector disk) and we have a wonderful message "Forth Error - Disk out of space!". This means a SSSD one drive user would have to break that column in half and then reassemble it on the page. Fun! Fun! Fun!

The truth of the matter is that if you are serious about using TPA, you should consider at least having 2 SSSD drives. A DSDD system, a ram disk or a hard drive would even be better.

2. I'll assume that you have made all the disk preparations by now. So load up TPA and select "3. Formatter"

3. Now that were safely inside the Formatter, let's do Variables first. Here's the variables we want:

3A. PrntrType... Press "E" for Epson or "G" for Gemini.

3B. Prnt Dnsy... We want "D" ouble Density.

3C. FontStyle... We're using an OU font so we want "D".

3D-G.

Linefeed,Space,Font-ASCII,Wrap...

Use the defaults, unless you feeling dangerous (and in that case, you are on your own!) 3H. RaggdMicrojust... Select "M".

3I. Left Margin... Make the left margin "0".

3J. Right Margin... Make the right margin "390" (That will make the same size columns that you are reading now).

3K. Next Breakpoint: Line at... Enter "1900". That will give us a full page column.

4. Whew! Those variables weren't that bad, were they? Let's now select a font. Press "F" and enter in "DSK1.OUFILENAME" (or whatever your chosen OUsh font was). If you can't remember it's name you can use the "D" irectory to find it.

5. Now press "T" for Textfile and enter your textfile.

6. Let's now press "E". Wow! the PrinterType magically turned into ExternFile! Enter a filename such as the default, "DSK1.EXTERNFILE". Make sure though it isn't the same name as your font or text file. My suggestion is to keep things simple. For instance, if my text file is called "TICASINO", I'll call my Extern file "TICASINO1". After it reaches the 1900 pixel breakpoint and asks me to start the next Extern file, it will be called "TICASINO2", "TICASINO3", etc. This system will help you keep track of your files and more importantly add some reasonable organization in assembling your page.

7. Now, assuming you have all the right files on the right disks and the right access names in entered in the TPA program, it's time to be daring. Press "G"o. The disk drive lights should start going crazy and the screen should go blank. Don't worry, that's normal.

8. Now you should have a lot of time on your hands (Aproximately 10 minutes!). Make yourself something to eat, throw some darts or do handstands. Eventually, those drive disk lights will quiet down and you'll see the infamous "Continue?" menu appear with it's options; Continue, Variables, Fontfile, Dir, Printfile and Terminate. Let me explain each of the features before you do anything...

Oh, by the way, if you got the main menu instead of the Continue? menu, one of two things happened. The first is that there was a disk error. Check your files to make sure they're on the disk. It's possible that your Extern file was too big. If so, set the Next Breakpoint at "1200" or "950", then add the balance of 1900 to the next file. The second possibility is that you are done. The Next Breakpoint was never met at 1900. In this case, you didn't follow my instruction about having a 30 sector text file. Get one and start all over. Whew! Now about those Continue? Menu features...

8A. Continue?... This will do exactly what it says. It will continue making an Extern file. If you pressed "C" now, it would write one line and return to the Continue? Menu prompt again because we're past the 1900 pixel breakpoint. To change the breakpoint, you must go to Variables and change it (See STEP 8B). Continue will not overwrite your

Externfile (it appends to it instead) UNLESS you change the Printfile feature to the same Extern file filename (See STEP 8E).

BB. Variables... You'll find this is the same variable list from the Main menu. You can change any of them, including density, margins and character spacing!

BC. Fontfile... Yes, you can even change the font style you are working with mid-way through your column. Just remember that you must change the Fonttype Variable if you switch from an OUSH font to a SDsh font, and likewise.

BD. Dir... You should ALWAYS CHECK your directory BEFORE you Continue. This is important because you may not have enough disk space to create the next Extern file. Check the size of your last Extern file and see if there's enough room. If not switch disks-- But don't do that UNTIL you have used the Printfile feature.

BE. Printfile... This features allows you to start another Extern file and close off your last one. It will ask if it's okay to change the Printfile (aka Extern file). It will then ask you for another filename. Following my example, you'd enter "DSK1.TICASINO2" since "TICASINO1" was your last entry.

BF. Terminate... This returns you to the main menu, avoiding the completion of your Externing.

9. Okay, Let's do it! First, go to "P"rintfile (remember #8E above?) and start a new Externfile. Then check your disk space with "D"irectory. If you don't have enough space left, put in another fresh disk. Check to

make sure your Text and Oufont file are on it. TPA is an unforgiving program and a disk error might mean you have to start over from scratch!

10. Go to "V" ariables, make sure the Next Breakpoint is set at "1900" again. You'll notice that the "Line at:" is now at "0". Now press "C" for Continue and check the icebox again. There's nothing like a scoop of Ben and Jerry's while your standing on your head. Eventually (again), the Continue menu will pop up. Repeat the process, until you finally return to the Formatter, signaling the completion of your Externing chores.

11. Now, if you have your Extern files scattered over quite a few disks you may want to consider combining them. You won't need the Text and Oufont files anymore. I strongly suggest putting the files together in twos (eg.: TICASINO1 and TICASINO2 together on the same disk-- since they're going to be columns-- side by side). Once you've done this, or if you didn't need to because you're DSDD, go to "4. Scheduler" off the main startup menu.

12. I'm not going to dwell on the Scheduler since that is a lesson in itself and will be covered in the next chapter, but we do want to print what we Externed so here's a quick crash course!

Once in the Scheduler, put in your disk containing the first and second Externed files you created. Press "M" for Modify. Now press "E" dit and enter the first Extern file you created. Press "ENTER". Now at the ROW prompt, enter "100". At the COLUMN prompt, enter "65". At the REPS prompt, enter "1". Press "S"

for Size. If the Extern file was read and was Externed correctly, you should see some numbers appear next to the ones you entered. They should be around "2000" (because 100 start spot + 1900 column size = 2000) and "455" (again because 65 start spot + 390 column width = 455). Alright, let's press "D'own.

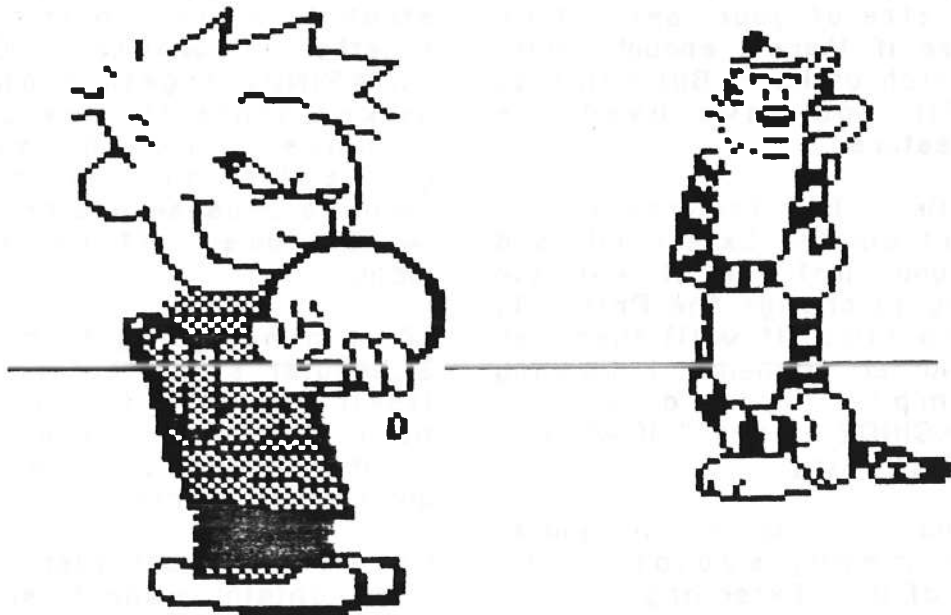
13. The screen should change to "2 Filename: " etc, etc, etc. Do almost the same things you did in step 12. Press "E" dit. Enter the second Externed filename. Under ROW enter "100", COLUMN enter "495" and REPS "1". "S" ize it.

Press "X" to leave Modify. Okay! You now put two Externed columns side by side. Line up your printer at the

top of the page, turn in ONLINE and press "G"o. Hopefully you should see the results of your Externing immediately, though you've find printing the columns takes as long as Externing them.

Once your done, set up the next two Extern files (TICASIN03 and TICASIN04) with the same parameters and repeat the process. Continue until your files have all been printed out.

Don't worry if you don't quite get the Scheduler, in the next few pages it should all become clear. Though, if you are unsure about Externing, please reread this chapter until you do feel comfortable with it.







## Sorry Miss, But I Don't See it on the Schedule

As you may remember from the previous two chapters, in Chapter Two we covered the basics of the Formatter and printed something on the page. In Chapter Three, we covered the uses of the Extern file and the Continue? Menu. Now, it's time to brave the Scheduler and tie those first two chapters into doing something useful. In this chapter, we are going to attempt the impossible! We will not only print a page with two columns in a single printer pass-- we will use two different fonts on the same page and even more unbelievably, we'll throw a TI-Artist picture directly into the center of the paper and make the column jump around it. Wow! we're getting pretty ambitious this time, aren't we?

### Ingredients:

- 1 TPA program disk
- 1 Text file (20-30 sectors in Length) in FIXEd 80 format
- 1440 Sectors of Disk Space
- 1 small TPA Oufont
- 1 large TPA Sdfont
- 1 TI-Artist format PICTURE\_P
- 2-3 Sheets of Printer Paper, a lot of patience and a few hours time

### Instructions:

1. The first thing to do, remembering everything you learned in the past two chapters is to arrange your files on the diskettes. The best way to do this (and the way I strongly recommend) is with a two-drive system. On one disk put the Text file, the TPA fonts and the PICTURE\_P. The second disk(s) will hold all your Extern files. If you are a SSSD single drive user, you'll find TPA a nightmare to use. I suggest investing in another disk drive if you really want to use TPA effectively.

2. Okay, we'll assume you are ready. Load up the TPA program and let's see how many fuses we can blow today.

3. Select "2" for the Picture Editor. Once you're in the Editor, press

"CTRL B". This you gives you the following menu: "Filename Dir Load Save". Press "F" for Filename and enter your TI-Artist picture name (eg. DSK1.PICTURE\_P). Don't forget to add that "\_P" suffix, or the picture won't load. Now press "L" to load it in TPA. If the picture doesn't load, check the disk using the "D"ir command. Press "X" to return to the menu.

Hopefully, your picture did load. Press "FCTN D". This will move the picture editor cursor to the far right. Now press "FCTN X". This will move the cursor to the lower right hand corner (and tell the picture editor that you want the entire TI-Artist picture used). "CTRL P" will bring you into the Picture Print option and that's where we want to be. Now press "F" for

filename again. This time enter the name you want to call your Externed TI-Artist picture. For the sake of avoiding confusion, let's call it something original. How about "DSK1.PICTURE"?

Now it's time to think about variables. Pressing "P" will allow you to set-up the control codes for the type of printer you are using. "E"pson is the default, but you could change it to "G"emini. Next, press "D" for density. The "D" is for Double Density, because I happened to like the nice dark results I get with double over single density. Using double density will, however, leave our TI-Artist picture looking like it's been through a trash compactor so we'll have to fix it. Do this by pressing "S" for Style and that's right, "D" for Double Density. This will unsquash what we squashed. Now press "E" for Externfile and cross your fingers (preferably after you press "E"). The disk lights should go crazy and busily save your TI-Artist picture into a TPA file that we can schedule!

Once everything is done, press "X" to exit the Print menu and "CTRL 9" to exit the Picture Editor.

4. Now that we've got our picture ready, let's get some text externed. At the Main Menu, select "3" for Formatter. First things first! Let's make a headline. Press "F" for Fontfile and enter your large TPA font. Press "E" for Externfile and enter again, for the sake of ease, "DSK1.HEADLINE". Also press "B" to activate the use of the Jotter.

Okey-Dokey, let's use that Jotter. Press "J" and then "E" for Edit. Now type in any one line Headline of your choice. If you're feeling unimaginative,

try mine which is "George Armstrong Custer: Hero or Egomaniac?" Remember to put in that  $\text{Cr}$  after the end of your sentence and one on the next blank line. Got it? Great! let's "FCTN 9" and go "B" ack to the Main menu.

Oh-boyohboyohboyohboy! It's "V"ariable time again. Press "E" or "G" for printer type, "D" for Double Density, "S" for Fonttype (remember the larger font was suppose to be a Sdsh font). Just use the defaults for Linefeed Size, Space Width, Intercharacter Width, Font-ASCII, Wrap-Fixed, Raggd-Microjust and Left Margin. Enter "820" at Right Margin and default on Next Breakpoint. So why "820"? Because a double density page is 950 pixels wide. Now add two margins at 65 pixels (that's 130) plus the 820 pixel Headline and voila! 950 pixels across.

Okay, back at the Main menu, press "G"o and our headline will be externed. If you encounter any problems, "D"ir(ectory) to check what's on your disks.

Ready for more fun? Okay, then it's time to extern the main body of text. This is going to be similar to what we did in the last chapter with a few variable variations. Enter "F" and type in your small OUSH font filename. Press "T" and enter your 20-30 sector text file (saved in FIXed 80 format). Finally press "E" and type in "DSK1.TEXT1".

Yippie-yi-yi-yeah! Yippie-yi-yi-yeah! Yippie-yi-yi-yeah! It's time to select those "V"ariables once again. Use the default with these exceptions: At Font Type, select "O" (since we're now using an OUSH font). At Left Margin, enter "390" (that's the width of our columns). And now

for some tricky stuff, under Next Breakpoint, enter "500". Why? Okay, I'll try to explain the big picture. First, look at the example at the end of this chapter. I'm sure you can figure out where the HEADLINE and PICTURE Extern files went. The text on the left hand column is TEXT1 and the right is TEXT2 (which we haven't got to yet). Now, each of these columns are 1900 pixels in length, but at the 500 pixel mark, the margins change to allow room for the picture. So, how do you know how big the picture is and how much room to leave? Years of practice and a ton of printer paper is one way, but since you bought my book, here's the scoop. We know that the size of a TI screen is 256 pixels wide, correct? (32 columns x 8 pixels each = 256 pixels wide). Well if you make it double density (256 pixels x 2), you come up with a 512 pixels width. The height is much more complicated. We know that the height of the screen is 192 (24 columns x 8 pixels each). Double density doesn't affect the height, so we end up with 192 pixels right? Wrong! For some reason, possibly only know to the author of TPA, the correct height is 573 pixels. So, our TI-Artist picture is 512 pixels wide by 573 pixels tall. We'll want some breathing room around the picture, so let's add some mini-margins and make the picture an even 540 by 600. Have I confused you yet? Sort of? Well, let's actually do it and it may become more clear.

I presumed that you entered that "500" at Next Breakpoint and we're ready to "G"o! So do it! After a few minutes, that dreaded "Continue?" menu should pop up. When it does, select "V"ariables and change the Right Margin to "140". The reason

for 140 is because now we're indenting the column for the picture. Let's add up the values to clear up my choice in 140. We have a 65 pixel margin plus a 140 pixel column (that's 205 total). Now add the picture at 540 pixels (745 total) plus the right column and margin (another 205 + our 745 = 950!). What about that 65 pixel margin? Where do we Extern that? Simple. We don't-- the Scheduler will put it in for us.

Soooooooo... we've entered that 140, next we'll tackle the Breakpoint. You'll notice that the "500" we entered is still there and now there's another number next to it. That is where your Extern file really stopped. If it had stopped directly on 500, it would have chopped off the bottom part of last line saved in the file. WRITE THIS NUMBER DOWN on a scratch pad and label it "Picture Top". You'll need to refer to it later. Now take this number and add the 600 pixel height (of the TI-ARTIST picture) to it. For example, if the number was 528, you add the 600 and have 1128. Type in the number you came up with under Next Breakpoint (replacing that old "500"). Did it? Good. You have just told the computer you want to change the margin for 600 pixels (give or take a few) to a 140 pixel column.

Back at the Continue menu, press "C" and wait patiently for a few more minutes while TPA adds that 600 pixel section to your TEXT1 Extern file. Eventually the Continue menu will pop up once again. Go back to "V"ariables and change the right margin back to..., did you say "390"? Good! You're starting to catch on! Now look at Breakpoint and write down the new "Line at"

number, labeling it "Picture Bottom". At Next Breakpoint, enter "1900" and then "C"ontinue onward!

Eventually, the familiar Continue will appear yet again. This time press, "T" for Text file. It will ask you if you want to change your text file and yes, we do. At the prompt, you'll see the default "DSK1.TEXT1". Change it to "TEXT2". If you keep it at "TEXT1", it will overwrite itself and you'll get to start all over. Oh boy, wouldn't THAT be fun!

Next, go to "V"ariables and change the Breakpoint to "500". Press "C" and we're off to a flying start with the right column!

Once again, the Continue menu will appear. Go directly to "V"ariables. Do not pass Left Margin (and do not collect \$200-- unless, of course, you are planning to share some of it with me). At the Left Margin prompt, enter "250". Why 250 and not that 140? First off, we did that 140 in the Right Margin. Secondly, we're now in the right column, which would mirror the left side. Thirdly, because the Column Width (390) plus indenting the Left Side (250) equals a width of 140.

We wanted to leave the 390 on the Right Margin alone. Remember those numbers I told you to write down, under Next Breakpoint, enter the total you came up with for Picture Top. "C"ontinue again!

After a few more minutes that Continue menu will come once again. Go to Variables by pressing "V". Under the Left Margin enter "000". Why three zeros? Because TPA doesn't delete characters, so you'll have to zero that 250 out. Enter the "1900" to finish off the

column on Next Breakpoint and "C"ontinue once again.

After the pixel counter reaches 1900, you'll again see the Continue Menu. If you're serious about externing your whole text file, make the rest of the columns 390 wide and stop them at 1900. Use what you learned in the last Chapter, changing the filenames with the "T"extfile option to TEXTFILE3, TEXTFILE4, etc. If you're doing this for my sake, "T"erminate and eXit the Formatter.

5. Wow! That last step was sure long! Now's a good time to make sure you have all the right files on the right disks. The files you'll need to print the example are: HEADLINE, PICTURE, TEXT1 and TEXT2. Once you have all those straight, at the TPA Main Menu, select the Scheduler and press "4".

Once in the Scheduler, press "D" for Directory and do one on your Extern file disk. Press "FCTN 9" to escape and then "M"odify. You are now ready to make a Schedule!

6. Press "A"ctive. Presto! Your disk directory has magically appeared again. Move the cursor down to the file HEADLINE and press "A"ctive again. Wow! Isn't that neat how the file got transferred down to the number slot of the Schedule? Okay let's "E"dit it. You'll notice that the cursor is over the file you just "Activated". You could also type in the filename (like we did in the last chapter), but "A"ctivating them is much easier. In anycase, just press "ENTER" since we already have the filename.

Next we'll come to ROW:. You enter the pixel row you want

HEADLINE to start on. We'll enter "0". COLUMN:? Yes, you've probably already guessed that this is what pixel column you want to start on. We want "65" since that's our left and right margin size. And last but not least, REPS:? Rep(etition)s are how many times you want HEADLINE repeated. I think once is quite enough so enter "1".

Now "S"ize it. What this does is to read the Extern file, determine how big it is and add those totals to your ROW and COLUMN variables so you'll have a idea where the HEADLINE file will end. These numbers will be displayed next to the numbers you entered. You'll notice the second COLUMN number is 885. Remember that we have a 65 margin + 820 HEADLINE file + 65 margin. On your scratch pad, write down the second ROW number and label it "HEADLINE BOTTOM"

7. Okay press "D"own. You'll notice that everything went blank and zeroed out. That's because we're in Schedule Slot #2. Press "A"ctive and "A"ctivate the TEXT1 file. Under ROW, enter 100. Check your scratch pad BEFORE you press "ENTER" though. If your HEADLINE BOTTOM number is larger than 100, you'll have to change the row you start TEXT1 on. If that is true, add another 20 pixels between HEADLINE and TEXT1, TEXT2 and PICTURE.

Okay, at COLUMN enter "65" for our margin and "1" for REPS. "S"ize it and your second COLUMN number should be a little over 2000.

8. Go "D"own to Slot #3 and "A"ctivate TEXT2. Start it at the same ROW you did on TEXT1 (which was probably "100"). At COLUMN

enter "495" (because  $495 + 390$  width externfile = 885, add that right 65 pixel margin and we're across the page!). Do "1" REP. "S"ize it and move "D"own to Slot #4.

9. Schedule Slot #4 is a little tricky, since we're going to place the PICTURE in the hole we externed between TEXT1 and TEXT2. First, "A"ctivate it and "E"dit down to ROW. Now, put on your thinking caps and subtract the number you wrote down for PICTURE TOP from PICTURE BOTTOM and label it INDENT SIZE. In my case, that's  $1155$  (PB) -  $528$  (PT) =  $627$  (IS). Now remembering that a TI-ARTIST Externed picture is 573 pixels high, subtract that from your INDENT SIZE. Again in my case, that's  $627$  (Indent Size) -  $573$  is  $54$ .  $54$  is our total Picture margin size. Half it-- for top and bottom (that makes 27!). Now add your PICTURE TOP number (528) to that number (27) plus the number where you started TEXT1 and TEXT2 (100) and you'll come up with where to start your PICTURE (655). Whew! Isn't math fun? Enter the number at the ROW prompt.

COLUMN:... Oh no! Not more math. Just a little. Okay, first let's add some numbers. We have a Left margin (65) plus the thinner column (140). Let's see, that's 205. Good! Now remember that our PICTURE width for the columns was 540, but that was with a margin on each side. 512 was the true size of the PICTURE, so we take the 540 minus the 512 (true size) and come up with 28. Half it since there's two margins (one on each side) and you'll get 14. Add that 14 to the margin and thin column and we enter "219" at the COLUMN prompt. We want only one REP so enter "1"

and "S"ize it.

10. Oh boy! Now you've successfully completed your first schedule. You can view it by going "U"p or "D"own.

I purposely put the HEADLINE file at ROW: 0 to show you how to "B"lockmove in the Modify menu. Press "B" to Blockmove. From here you can move any block of Scheduler Slots by column or row. Since our files only go to about 2000 or so and a full page ends at 2310, let's move everything around a little. Enter at ROW, "100". Press "B"lock and enter "1" to "4" (that means we want to move slots 1 through 4 100 pixels down). Now press "G"o and it's done! If you wanted to move up, you could do so by using a negative number (like -10) provided, of course, your files don't end up below zero. "C"olumn works exactly the same way.

Press eXit to return to the Modify Menu. Then press eXit again to get the Scheduler Main Menu.

11. Okay, before we get bold and try to print this, let's save the Schedule that we just created. Press "S" to get the prompt for the Schedule filename, it should say something imaginative like "DSK1.SCHEDULE". Let's call ours "CHAPTER03". Enter it and press "W"rite. If you ever want to call up an old schedule file you've created use the "R"ead command.

12. Finally we're ready to make the page print! Check your printer and make sure it is Online and properly set to the top of the page. Next, check the "P" command and make sure the printer device name is correct. Take a deep breath and

press "G"o. Within a few seconds your printer should start rattling off your page. You'll find that the Scheduler is much more forgiving than the Formatter was. If it cannot find a file, it will politely ask you where it is-- allowing you to put it where it belongs and not having to restart. You'll notice that the HEADLINE file is not centered. This can be corrected with either Blockmoving the #1 Slot by Columns over to the right or by using TPA Toolbox (that we'll discuss starting in Chapter 5).

If you braved ahead and did extern TEXT3, TEXT4 et al., then just "Z"ap the HEADLINE and PICTURE file slots and rename TEXT1 and TEXT2 to 3 and 4 and so on.

If you are confused by any of this, reread and redo these first three chapters, because with these three chapters you'll do the majority of your regular TPA work.

## GEORGE ARMSTRONG CUSTER: HERO OR EGOMANIAC?

George Custer was the son of an Ohio blacksmith. Given his family background, West Point wouldn't have accepted him. But that won't stop George Armstrong Custer, very much self-assured, he talked himself into an appointment.

There, he earned a reputation for disrespect and a record number of demerits.

He graduated 34th out of 34 in his class, and that, only because the North was short and in need of officers for the Civil War. On a chance meeting between McClellan and himself, he did impress General McClellan enough to be added to his personal staff. Within a year, at the age of 25, he moved from 1st Lieutenant to Brigadier General, due to a fluke. He married Elizabeth Bacon in 1864. In 1865, became a Major General under Sheridan's command.

Custer fit the part of a General well. He was trim, athletic and handsome. His eyes were a vivid blue and he had blond curly hair that fell to his shoulders. He wore a uniform of his own design, that had almost as much gold braid as the rest of the General's jackets put together. He, by most accounts, was an inspiring figure on a horse. He seemed like a natural for men to

follow, and when in sight of the enemy, his instincts were clear. He charged. He never bothered to find out how large a force he was facing, or what tactical problems might develop from such an action. He charged.



His charges rarely failed him. Once, at Gettysburg, he charged Jeb Stuart's invincible force and had to cut his way out twice. The third charge, however, prevailed. In the Shenandoah Valley, Custer led

the way, smashing Lee's forces. After the war, General Sheridan purchased the table that Lee and Grant had used at Appomattox and sent it to Mrs. Custer with a note that said, "I know of no person more instrumental in bringing about (the surrender) than your most gallant husband."

At the end of the war, Custer was dropped to the rank of Captain. With the war at a end, there was a glut of commanding officers with no where to go. Custer, through his connections with Sheridan and his Civil War performance, managed to get close to the front of the line for Posts out West. In 1866, he was granted a second-in-command position, a Lieutenant Colonel, with the 7th Cavalry. He found that he



## The Horrors of Indenting and in the Lair of the Character Editor

Hopefully, by now, you should feel pretty comfortable printing text and graphics with The Printer's Apprentice. You've probably even created pages filled with beautiful columns that far surpass anything you tried before with the TI-99/4a. But still there's that empty feeling because you can't indent any of your paragraphs. Also, there's that Character Editor in TPA you've stayed away from in fear you'll dim the city lights trying to make it work. In this chapter, we'll conquer both of them in one single stroke-- which, of course, is made of lots of tiny key strokes!

### Ingredients:

- 1 TPA Program Diskette
- 1 TI-ARTIST Program Diskette
- 1 Blank Diskette
- 1 Small Oufont
- 1 Small Sdfont
- 1 Large Oufont
- 1 "Disk of Dinosaurs" (by Notung/Asgard) or artwork of your own choice

### Instructions:

Okay, how did I do this? What? The indenting, dummy! There are two schools of thought on the ultimate powers of indenting. The first way seems easier to figure out, but horrifying when considering the amount of work involved. What you would do is extern every paragraph as a different file (eg.: P1, P2, P3). Using the Left Margin and Breakpoint variables, you'd set the Left Margin at, maybe 10 pixels, and set the Breakpoint at 1, then "G"o. When the Continue Menu comes up, you'd change the Left Margin back to "0" and the Breakpoint at whatever you want the column to stop at (for example, "1900"). This method does seem slow and tedious, but does lend itself to some interesting ideas.

Load up the TPA Formatter and go into the Jotter's "E"dit mode. Let's say that the first lines of your text are: "It was dark times. The evil

TPA Dragon barred the doors to the Secrets of Indenting, yet goodly Sir Kenneth was ready to meet the challenge." First, just enter an "I" and make sure to Fr it. There's no need to use Variables this time, so select a large Oufont and called the extern file "TEXT1A". "G"o and do it. Now, enter the rest of the text in the Jotter. Take out the first letter of your text, that's the "I" in "It" (was dark...). Now, go to Variables and under the Left Margin enter "50", the Right Margin enter "390". You'll notice the "Line at" number, that is how big your large "I" was. Enter that number under Breakpoint. Now, use a small Oufont and call the "E"xtern file "TEXT1B". "G"o for it. At the continue menu, change the Variables, Left Margin back to "0" and Breakpoint to "1900". You've just indented for the big "I" in "It". "G"o back to externing. Once that's done, Schedule it, putting both files in exactly the same spot. And you



should get is this:

**I**t was dark times. The evil TPA Dragon barred the doors to the secrets of Indenting, yet goodly Sir Kenneth was ready to meet the challenge.

To improve the look, you might try Scheduling the big "I" right 10 to 20 pixels, as I've done above.

Okay that was clever. Let's try something tricky! Save a graphic letter into the right upper hand corner of TI-Artist as a PICTURE\_P. If you have my "Disk of Dinosaurs". Load up the Instance DINO/B\_1 in the corner and save it out as PICTURE\_P. If you don't have "Dinosaurs", make or get a real fancy "B" and do the same.

Now that you have the Artist Screen go to the Picture Editor and extern it. In case you don't remember the last chapter, here's a quick rundown again. Press CTRL 8 to get the Options. Press "F"ilename and enter "PICTURE\_P". "L"oad it. Okay here's something NEW... eXit and using the arrow keys, move the cursor to the lower right hand corner of the graphic. Got it? Good, that will crop the picture just to the graphic size. You'll also notice that the Picture Editor is kind enough to give you the size in rows and columns. Write these numbers down! Bingo, now you know how big to notch your paragraph! Press "CTRL P", "F"ilename and enter "TEXT2A". "E"xtern it, eXit and "FCTN 9" it to the Main Menu.

Now in the formatter doing the same thing you did in the last example (using the numbers we

were given in the Picture Editor though) extern this as "TEXT2B": "RAVE as he was, he decided to consult McCannzo, the TPA Wizard, before he dared to enter the lair." Got it? Gggrrreat! That's right, Schedule it the same too and you should get something like this:



RAVE as he was, he decided to consult McCannzo, the TPA Wizard, before he dared to enter the lair.

Wow, those are pretty neat, huh? We see the good things about that approach, but what about the drawbacks? There are two major ones. First, you have a separate file for each file (or two, in the case of my examples). Secondly, it's extremely time consuming and no one likes to play nursemaid to their computers. But don't fret! There is hope!

The second school of thought is to use the TPA Character Editor and create a character to do the indenting for you. This should be a character rarely used, like a tilde (~). Then go and put this tilde in front of every paragraph (as I've been doing) and it will painlessly indent it for you! It's sort of like a control code. Wow! That's sound great, doesn't it? Let's do it, okay? Wwwwwwwwait jjust a minute... Yoyoyou mean yoyoyoyou wwwwant mmmme to use the Chchcharacter Editor?

**A**ND McCannzo saidth: "Be sure to taketh thy TPA Manual into the Character Editor's Lair. Ye shall find it invaluable." And so, Sir Kenneth bravely took his TPA Manual as a shield and entered the forbidden lair

of easy indenting.

The Character Editor isn't really that bad, but you'll find the manual a big help. In the manual, under CHARACTER EDITOR/Edit, there's a list of key presses that will help you in a big way. But here's the basics anyways for those of you who just can't remember which stack of papers your manual is under or tore it up out of frustration. If you don't have a manual because you have a pirated copy, shame on you! Send Mr. McCann some money-- the program is well worth it. Okay, okay, enough for lectures, here's a run down on commands... FCTN and the arrows keys move the cursor, the arrow keys (alone) draw and the player #2 arrow keys (alone) erase. Oh! No! Remember the time you played a TI game with a friend and you took the easy (marked) arrows keys and gave him the second set which aren't marked so you could have the advantage? Now you need them. Who says Karma doesn't exist? Okay enough silliness, we ALL know, of course, that the second set of arrows key are K (left), L (right), I (up) and COMMA (down), right? Here's the rest of the commands... FCTN 1 deletes a column, FCTN 2 inserts a column, FCTN 3 deletes a row, FCTN 4 erases the screen, FCTN 5 changes the Sdsh and Oush settings and FCTN 6 inserts a row. CTRL 9 allows you to select a character, CTRL R will draw the selected character and FCTN 9 will allow you to escape.



He stood boldly in front of the TPA Dragon with a Tilde in hand and said, "Move back ye Pierce Dragon! I wish to indent!"

Okay, so we're in the Character Editor, first press "S"etup and the font type you wish to edit. Choose either Sdsh or Oush and eXit. It's a Sdsh font. Now press "D"isk and then "F"ilename. Enter your Sdsh Font (TYPER, for instance). Now eXit and go to "P"rint. Press "R"eadindex and eXit from there. Let's "E"dit now. You'll find yourself on a blank screen, press CTRL 9 so we can edit a character.

To edit a character you simply press character you want to edit. For this example, let's use the Tilde (ASC 126). Enter it and the next line will show you the ASC value. Default that, and the next prompt (character width) too, for now. Now, you have a choice, you can either "R"ead, "W"rite or eXit. Let's "R"ead it. Plop! We're back on the editing screen. You'll notice to the right of you is the character you selected (the tilde) either drawn out once or twice. It will be twice if it's an Oush font, but since we're using a Sdsh font, it will be only once. Press "CTRL R" to draw the character on the editing screen. If no characters were on the right of the screen, character you were accessing wasn't defined at all and doesn't exist. You could draw it in as any character or shape you want. But hopefully, you have a tilde in front of you, so press "FCTN 4" to erase it. Why? Because we're making an indent character out of it. Now press "CTRL 9", default the character and the ASC value (you know it's a tilde and ASC 126). At WIDTH, enter the number of pixels you wish to indent, keeping in mind each font has width limits, in TPA, 24 pixels is the most you can use. I suggest 10 to 15 pixels is more than enough. enter it and "W"rite it. Congratulations! You now have a

working paragraph indenter. Just type a tilde as the first character of every paragraph and it will be indented. While you're visiting the Character Editor, why not make some other changes? Consider making your own personal symbols out of other characters seldom used. The results I'm sure you'll be please with, like changing the ^ to a + so you can do this 49+7=7. How about this: A♠ K♠ Q♠ J♠ 10♥

Before you leave the Character Editor, make sure to return to the 'P'rint option and "W"rite(the)index or none of your editing will be saved.

**T**HE TPA Dragon grunted and slithered deep into it's lair muttering, "Damn that Sir Kenneth, now everyone's going to know my secrets!" and was never seen again!

**P**OSSESSING the powers of Indenting, the goodly Knight forged many other useful and unusual characters while in the Lair of the Character Editor.

**A**ND so, Sir Kenneth, returned to Gilly Land and enlightened those in the ways of TPA forever and ever.

The End.





## **There's no Monkey Wrenches in this Toolbox**

By reading the last several chapters you have acquired the basic TPA skills to do great pages. You have learned to wrap text around pictures, schedule a full page with a headline, use different fonts on a page and even indent a paragraph with a fancy "Cap". All this is quite wonderful, but I'm sure you are still frustrated that you can't do everything in TPA that you can in the TI-Writer Formatter. You know, simple things, like centering a headline! Well, actually you can do that in TPA with some trial and errors-- not to mention a lot of printing and wasted time.

Enter TPA Toolbox, a companion disk to The Printer's Apprentice. This companion disk package will make your TPA powers as least twice what they were previously. So, without further delay, let's open up the toolbox and see what's inside. Who knows, maybe you'll find that socket set you've been looking for...

The Toolbox is divided into five sections; The Page Manager, The Sign Tool, Font Conversion, The Border Builder and The Form Tool. Also, you can set up a default drive, your printer name and even slow the cursor down. Why slow the cursor down? There are two theories on this, one being that if you own a Geneve 9640, the cursor moves much too fast. The other theory (and my personal favorite) is that some people were getting hypnotized by the fast flashing cursor, so by slowing it down, it snaps them out of it. Okay-- okay, enough silliness! Let's look closer at each feature.

The Page Manager is sort of like the

Scheduler except you can see a representation of how the actual page will look. Unfortunately though, while the Page Manager will completely schedule a TPA page, it will not print it. You must go back to the original TPA Scheduler for that. The reason why the "Go Print" part is missing from the Page Manager may have been programming limitations, but my guess is that it was a marketing decision. With a "Go Print" option, the TPA disk probably would have become obsolete.

Okay, so it can schedule, but it won't print, so why even use it at all? Because of the first feature I mentioned. You can schedule a page in it and then see a VISUAL representation of it. All the text columns and pictures are laid out in boxes. Of course, the page is a little squashed, since an 8 1/2 by 11 inch sheet of paper doesn't correspond to well with the 256 by 192 pixel screen. But it's there. You'll soon find this feature a lifesaver, especially when scheduling more than 10 items on a page. There's nothing more irritating than waiting a half hour or more for your printer to reveal you scheduled a file wrong! You can also schedule a dummy page in it with the layout you want and get the values you'll need later to extern it! Wow! Pretty neat, huh?

The Sign Tool is worth it's weight in gold. It's basically a revamped version of the TPA Formatter with several new features. In the Variables section, you can now "Right Justify" the margin (creating a ragged left margin for you arty types) and even "Center" the text on

the paper. Also included is an "Extra Dark" feature for those of you (like myself) who believe in getting the most from their printer ribbons. Incredible is a word that describes this next feature in the Sign Tool. The feature is called "CPixel" and what it does is to expand a font either vertically, horizontally or both ways up to 8 times it's original size. It allows you to make headline size fonts using your normal text. It's a great feature for posters, fliers, signs and newsletters and well worth the cost of the whole disk.

The Font Conversion section allows you to convert also any TI-Artist style font and all CSGD fonts into TPA Sdsh fonts. There's even a conversion to change them into Oush style fonts (and an enhanced version of this on the Companion Disk of this manual). The only hang-up is with TI-Artist fonts larger than 24 x 32 pixels. It will chop off any graphics that goes past that limit. On the plus side, there's literally hundreds of TI-Artist fonts that easily fit in TPA's range.

The font converting capabilities are only half the story though! You can easily convert TI-Artist format pictures and instances and even CPixel them. Provided is an excellent print routine too, that will allow you to pixel the Instances\_I and Pictures\_P directly from Font Conversion. This is by far the best printed results of a TI-Artist image I've ever seen and by using CPixel you can blow them up (portionally!). You can even make them "Extra Dark" and even unmercilessly EXTERN them for later use.

The Border Builder does exactly what it says. It custom builds borders to your size requirements. You can either input the size you

need in pixels or in inches, then position it on the page and CPixel it, use Single, Double or Quad Density and Extern it. Unfortunately, there is no real "Border Builder" that allows you to create your own borders in this Toolbox. Fear not though, in a few chapters, we'll slip under the barbed wire, avoid the patrols and go across to find new borders.

The Form Tool creates blank lines. One might ask why you need blank lines. You'll eventually find needs. It could be anything from separating two thoughts to a questionnaire. We'll explore this feature, too, in a few chapters.

All in all, you'll find many useful tools in TPA Toolbox and should make your TPA productions move much more smoothly.

For those of you who have double-sided disk drives, you might want to consider putting TPA and TPA Toolbox on the same disk. It can be done, if you are careful.

1. First, back-up both disks using a track or sector copier.
2. Initialize a blank disk to double sided (720 sector format).
3. Sector copy the original TPA disk to the first 360 sectors. Not all copiers will do this. (DM 1000 will not work, the Corcomp DM and Nibbler will).
4. Rename the "LOAD" file to "LOAD/P"
5. File or sector copy the original TPA Toolbox to the disk.
6. Rename the "LOAD" file to "LOAD/T"
7. Copy the file "CHAP5/LOAD" and "AUTOUSHXB" from the Companion disk provided with this manual to the disk.
8. Rename the "CHAP5/LOAD" to "LOAD" and that's it!



## That's Pretty Neat, but Can it Roll Over and Wag it's Tail?

Since the last chapter introduced us to the TPA Toolbox, let's open it up and use some tools to build a complex page. We'll make some headlines (and even center'em). Then we'll make some of text (microjustifying some, but also making some with ragged left and ragged right margins). We'll not only put a picture on the page, but several instances as well. And if all that isn't enough, we'll put a border around the whole lot! Now, that should definitely win us a doggie biscuit or two...

### Ingredients:

- 1 TPA Program diskette
- 1 TPA Toolbox Program diskette
- 1 Large TI-Artist FONT\_F 1 Small TI-Artist FONT\_F (examples from Asgard's "Artist Fonts I")
- 1 TI-Artist PICTURE\_P
- 8 Small TI-Artist INSTANCES (examples from Notung's "Disk of Pyrates" and "Disk of Dinosaurs")
- 1440 Sectors of blank disk space
- 1 Sheet of Printer Paper

### Instructions:

1. Set yourself up first-- make sure you have all the required ingredients at hand. Now clutch your TPA Toolbox diskette firmly in your hand and put it into disk drive number one. Selected Extended Basic and boot-up the disk. Select "3. Font Conversions"

Once, Font Conversions is loaded, you'll get a command line that looks like this:

```
Convert Dir Inst->extrn eXit
```

We want to "C"onvert a font so press "C". Inside Convert, the first thing we want to do is to enter our TI-Artist large font. This is done by pressing "A"rtfont and entering its filename (eg.: DSK1.STICKS\_F (that's from "Artist Fonts I")). You can also convert CSGD Fonts by using the "C"SGDfont command. If you want to see what characters are used inside

your Artist or CSGD font, press "R"eview. If fact, let's try it. You'll see the characters pass by, one by one. You'll notice that TPA will only allow you to use 24 by 32 pixel characters. If your Artist font has any characters larger than that limitation, the portion extending past the limit will be cut off. If you used the STICKS font, you'll notice the "W" met with the chopping block (but I like the font so we'll just not try to use any W's!) Once it's converted into a TPA you could use the Character Editor and redraw the "W" to fit.

Now, let's enter the TPA font we want to create. You do this by pressing "T"PAfont and entering the filename (eg.: DSK1.STICKS). Let's convert it now to by pressing "M"odify. A prompt asking you if you want to create a new TPA font should appear. "Y"es we do. You'll

see a flashback of that "R"eview command, only this time it's creating the font. After it's done you can "S"canTPA which is just like "R"eview except it looks at what's inside TPA fonts.

After you've successfully created the first TPA font, convert a smaller font too (such as CTYPE1.F which is also from "Artist Fonts I"). You'll find that the Convert feature only creates Sdsh TPA fonts. You can use the extended basic program on TPA Toolbox called "AUTOOUSH" or my enhanced version of it on the companion disk to create Oush TPA fonts.

Let's move on now, eXit the Convert menu and return to the Font Conversions line prompt.

2. Select "I"nst->Extrn. That means Instances (and Pictures) into Externfiles. First let's extern a PICTURE.P file. Press "A" for Artfile and enter your TI-Artist picture (eg.: DSK1.BATTLE.P (that's from "Disk of Pyrates")). Now "L"oad it and press "FCTN 9" to escape. You could use the arrows keys as we did it the Picture Editor (Chapter 3) to clip a portion of the picture, but we want it all for this example.

Okay, let's go to "V"ariables. Enter your printer type and under Prnt Dnsy (Print Density) make it "D"ouble density. We'll also want it Extra Dark.

Now, since we picked it in double density we'll need to compensate for it (unless you like squished pictures) by using "C"Pixel. So press "C" and add another pixel alongside the one your cursor is flashing over. You do this by using the arrow keys. FCTN 2 draws another

pixel, the SPACEBAR erases a pixel and FCTN 9 escapes. We want only two pixels across because that will double our picture (fixing it's double density squish). If you wanted to really double the the picture (which we don't) you'd fill in two rows of four pixels across.

If you want to print your picture you can do so by pressing "P"rinter and entering the printer name (eg.: "PIO.CR"), then pressing "G"oprint. This feature will print the artwork with all the changes you made (such as Extra Dark and CPixel). You'll find that this feature will give you the best printed results of any TI program by far.

Let's make our externfile! Press "E"xtern and enter your filename (eg.: DSK1.BATTLE!) then press "G"oprint.

Now let's do some instances. They work the same way except you access them by using the "I"nsfile instead of the "A"rtfile. For my example, we'll extern (from "Disk of Pyrates") P\*CREW01.I, P\*CREW02.I, P\*CREW03.I, (and from "Disk of Dinosaurs") DINOSAR1.I, DINOSAR3.I, DINOSAR4.I, DINOCTN1.I, and DINOCTN5.I.)

Whew! Once you are done externing all those, eXit Conversions and head back to the main Toolbox menu.

3. At the Main Menu press "4" to load up "4. Border Builder". There are two border artwork files that come with TPA Toolbox called "BORDER" and "BORDER2". In each each of these files are several borders for use with the Toolbox. Select "DSK1.BORDER" as your "F"ntfile (Borderfile). For kicks, let's "S"how it. You can press the



FCTN E or X keys to reveal your choices. When you have found the one you want press FCTN 9.

Now on to Variables. Enter your Printer Type and "D"ouble density, of course. The fontstyle is "S"dsch, "Y"es we want it Extra Dark and enter "0" at both the line spacing and intercharacter width. Your left margin will be at "0". The Pixel Width and Height will show you the Border's width and height. On "Horiz Size Inches 1 0/8 #Dots 120" (looks frightening, huh?) skip over the "Inches" part and enter at the "#Dots" prompt "465". Presto! You'll see the Inches part change to 3 7/8". On the "Verti Size Inches..." enter the figure in inches. We want the vertical height to be "10 1/4" inches. Presto again! You notice that 10 1/4 inches comes out to 2214 pixel dots.

You'll need to CPixel the border to compensate for it's double densitiness (is that a real word? Oh, well...) Do it the same way you did the Picture and Instances.

When you finished with CPixel enter your Extern filename (eg.: DSK1.BORDR). Make sure you don't call it BORDER or you'll wipe out your TPA border art file. "G"o and extern it, then return to the Toolbox menu.

4. Okay the last step before we start to play. Select "2" for the "Sign Tool". Once it's loaded, enter "F" for our Sdsch font and type in the large font's name (like DSK1.STICKS"). Press "J" for Jotter and "E"dit it. Enter an exciting headline like "HERE'S SOME EXCITING STUFF" (Note that there's no W's!). Press ENTER twice so that you have a  after the line and one on the

next blank line and press "FCTN 9" to escape. Leave ("B"ack) the Jotter and go to "V"ariables. You'll notice that the Variables are almost exactly like the original TPA's. Use the defaults with these exceptions: "D"ouble density, "C"enter, Left Margin at "0", Right Margin at "750" and make it Extra Dark. The "C"enter command will center all text between your margins. If the line is too long, it will word wrap to the next line. The reason for the 750 pixel margin decision is that we are planning a double density page (950 pixels across) with 100 pixel margins.

Now let's CPixel our headline and make it REAL BIG. Fill in two rows, four pixels across and FCTN 9 your way out. That will double the font's size.

Di-di-do-do-ah! It's Extern time once again. Let's call the "E"xtern file "DSK1.HEADLINE". "G"o for it. Once it's saved go back into CPixel and change the CPixel pattern to one row, two pixels across and, of course, FCTN 9 yourself out.

Next change the Sdsch font to your small TPA font (such as DSK1.CTYPE1) and return to "V"ariables. This time change the Margin to Ragged "L"eft and set the Right Margin at "350". This will create a 350 pixel column with a ragged left side and a justified right side.

Go to the Jotter, erase your headline text and type in a couple lines like "Remember a time when Romancer and Adventure were more thanr mere words...? Relive them! With Notung's "Disk of Pyrates".r A 4-disk package filled withr Buccaneer Art, Lore, Music,r a Game and Utility.r All



for \$10. Er Er " Make your Er's, leave the Jotter and extern it as "TEXT1".

Once TEXT1 is externed, return to "V"ariables and switch to Margin to Ragged "R"ight. Jot down this in the Jotter: "DISK of DINOSAURS. Two Er diskettes, full of Dinosaur fun! 8 Er life-like and 8 cartoon dinosaurs, Er a full set of dinosaur alphabet Er letters and even a dinosaur Er hunting license! Also included are Er several background pictures and 3 Er animated cartoons. \$7 through Notung Software. Er Er " Extern this under "DSK1.TEXT2".

Finally, return to "V"ariables once again and switch back to "C"enter margin. Also change Right Margin back to "750". Jot in "NOTUNG SOFTWARE Er 7647 McGroarty Street Er Tujunga, CA 91042 Er Er ." Extern this one as "TEXT3" and eXit the Sign Tool.

5. Oh boy! We're ready to Schedule! Press "1" for the "Page Manager". This feature will look much like the Scheduler with a few extra refinements (which I think you'll appreciate!)

Remembering what you learned in Chapter Four about the Scheduler, build a schedule with these specifications and in this order:

1. DSK1.BORDR\_T (You'll find that the border extern file you created was saved in three sections, BORDR\_T, BORDR39, and BORDR\_B. The "\_T" stands for Top and "\_B" stands for bottom. The "39" means repeat this section 39 times.) Under ROW enter "0" (at the first prompt). You'll then page over to the right. This prompt is the last row your BORDR\_T will occupy. Normally this number is automatically inserted when you

"S"ize it, however in the Page Manager, you have an option of entering a number. Why would you want to do this? Well, if you're scheduling a dummy file obviously you wouldn't be able to size it. Okay, next question then. Why would you want to schedule a dummy file? Answer: to create a mock-up page. If you remember our discussion of the Page Manager in the last chapter, I said that the Page Manager creates a representation of a page using boxes to represent extern files. In creating a dummy page, you'll be able to figure out how long you want your text columns before you extern them, thus having real numbers to input at the "Next Breakpoint" variable. It will become more clear as we continue. Where were we, anyways? Oh yes, ROW, second prompt... just enter it "0". On COLUMN enter "0" and "0". On REPS, we want only "1". "S"ize it and move "D"own to Slot #2.

2. DSK1.BORDR39. Enter ROW: 55 (because BORDR\_T ended at 54). COL: 0 and REPS: 39 (because you want to repeat this center section of the Border 39 times to make it equal to the 10 1/4 inches we wanted it to be. You'll find that the Border Builder will always conveniently tack on the number of REPS you'll need for the center section when externing the file.) "S"ize it and move "D"own into Slot #3.

3. DSK1.BORDR\_B. Enter ROW: 2162 (Again because 39 BORDR39's plus the 55 pixel starting place equals 2161). COL: 0 and REPS: 1.

4. DSK1.HEADLINE. Enter ROW: 65 (because we want to be under BORDR\_T's 54 pixel base). COL: 100 and REPS: 1.

5. DSK1.BATTLE!. Enter ROW: 650, COL: 65 and REPS: 1.

6. DSK1.P\*CREW02. Enter ROW: 800, COL: 600 and REPS: 1.

7. DSK1.P\*CREW01. Enter ROW: 1280, COL: 85 and REPS: 1.

8. DSK1.P\*CREW03. Enter ROW: 1230, COL: 265 and REPS: 1.

9. DSK1.TEXT1. Enter ROW: 1250, COL: 475 and REPS: 1.

10. DSK1.TEXT2. Enter ROW: 1530, COL: 75 and REPS: 1.

11. DSK1.DINOSAR1. Enter ROW: 1515, COL: 440 and REPS: 1.

12. DSK1.DINOSAR3. Enter ROW: 1610, COL: 655 and REPS: 1.

13. DSK1.DINOSAR4. Enter ROW: 1830, COL: 65 and REPS: 1.

14. DSK1.DINOCTN1. Enter ROW: 1810, COL: 400 and REPS: 1.

15. DSK1.DINOCTN5. Enter ROW: 1880, COL: 660 and REPS: 1.

16. DSK1.TEXT3. Enter ROW: 2060, COL: 100 and REPS: 1.

6. Okay now eXit the Modify section and return to the Page Manager menu. Here's a few new commands. "A"llsize will allow you to size everything in your schedule all at once. "B"oxes, which I touched on earlier, will allow you to see a visual representation of your schedule. It will look squashed because you're fitting a 8 1/2 by 11 inch page on a 256 by 192 pixel screen. Hey, those boxes sound kind of fun... don't they? Let's put on our gloves and "B"ox a bit.

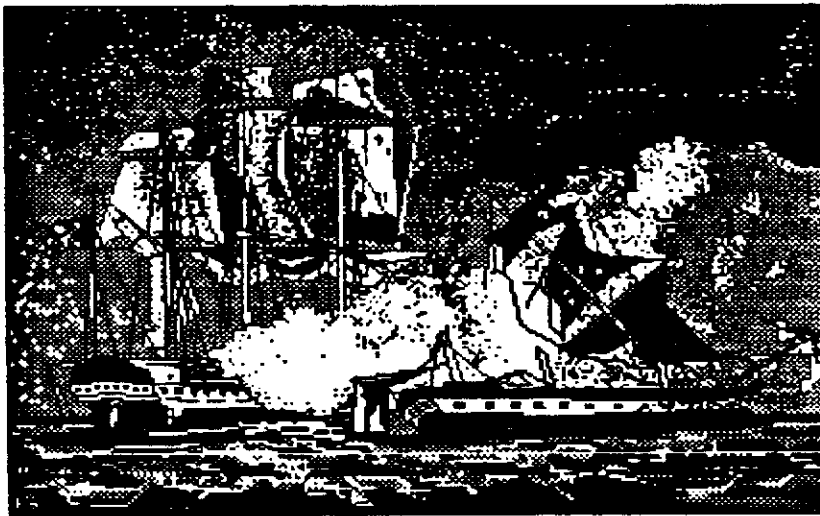
Immediately, you can see how handy this feature can be, especially when making a complicated schedule as we have done. My only gripe (and probably your's too) is that externed artfiles won't show their true column length. You'll notice that they are considerably longer than they should be. Unfortunately, the Page Manager does not take all the guess work out of scheduling. Press "FCTN 9" to escape.

"W"rite your schedule down and call it "DSK1.SCHEDULE".

7. Much to my irritation and probably yours too, we'll have to leave TPA Toolbox and return to the Original TPA program's Scheduler because the Toolbox while it can make a schedule, can't print one. So boot up the TPA's Scheduler, "R"ead your schedule back in, say a short prayer and "G"o for it. After 40 minutes or so, you should have a page that looks similar to my example.

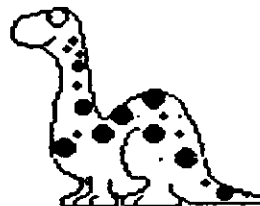
Admittedly, I didn't get this page right on the first attempt, some instances weren't quite right and took some moving with lots of time and printer paper. This schedule was a very complex one and normally you won't get involved in ones quite so crazy. My suggestion is to stray a bit from this example, and when you are comfortable, stray a little farther.

# HERE'S SOME EXCITING STUFF



Remember a time when Romance  
and Adventure were more than  
mere words...? Relive them!  
With Notung's "Disk of Pirates".  
A 4-disk package filled with  
Buccaneer Art, Lore, Music,  
a Game and Utility.  
All for \$10.

"DISK of DINOSAURS". Two  
diskettes full of Dinosaur fun! 8  
life-like and 8 cartoon dinosaurs,  
a full set of dinosaur alphabet  
letters and a even dinosaur  
hunting license! Also included are  
several background pictures and 3  
animated cartoons. \$7 through  
Notung Software



NOTUNG SOFTWARE  
7647 McGroarty Street  
Tujunga, CA 91042



## Miracles Never Cease

Before you dig too deeply into this chapter you should be aware we are now in TPA Advanced classes. What I mean is that if you been skipping chapters, you'll probably get lost on this lesson. But if you survived the last chapter you'll have no problem here...

### Ingredients:

- 1 TPA Program Diskette
- 1 TPA Toolbox Program Diskette
- 1 TI-ARTIST Plus Program Diskette (or GRAPHX Plus)
- 720 Blank Sectors or so
- 2 Sheets of Printer Paper
- A Little TI-Artist skill
- A Photograph or two (optional)
- A pinch of imagination

### Instructions:

Let me tell you a story before we start this chapter... A couple summers ago, some friends of mine asked me to design a new membership application for the social club we belong to. They assumed, me being a "Wizard of Desktop Publishing", I would be able to easily put an application to their specifications down on printer paper and make it look "real cool". I confidently smiled and said, "No Prob, (that's Southern Californian for 'It wouldn't be a problem at all') no prob. So where's your design?" They handed me a crumpled piece of paper with crude drawings scrawled over it. I casually glanced at it, assessing the amount of work it would take and told them that I'd have it in a week. After they left, I looked at it more closely. It was a three fold pamphlet. My eyes about popped out of their sockets when I realized what a three fold pamphlet meant. No big problem you say? Remember that with a three fold pamphlet, everything that comes out

of the printer has to be SIDEWAYS. "Oh... I see... Dhat's diff'rent." I shook my head in despair and couldn't believe I said one week! Well, my reputation was on the line and I only had one choice, so I sat down to do it.

So how do you solve this problem? Well, first look at the end of the chapter and see my finished results. Yes, each side was printed in one pass with the Scheduler.

The first and easiest solution that comes to mind is to use another computer. No, we're not going to do that, there's no challenge and besides, that's not fair. Second guess? Well... how about paste-up? No, that isn't right either. Remember the reason why Mike McCann gave us the Scheduler is so we don't have to do paste-up anymore. Guess number three? Hey, how about making a sideways font! Well, that might work, wouldn't it? You're warmer. I actually

considered doing that myself when suddenly a solution so clear, so simple came to me that I didn't want to believe it could work. My solution (and one that could be done easily within that week) was to use TI-Artist Picture Files and Instances that were flipped sideways and scheduled on to a page. Both could be easily done with the TPA Toolbox. The artwork ported over with "Font Conversions" and scheduled with the "Page Manager".

So let's do it!

1. First, use a safe format to rotate the TI-Artist Picture with. Remember that a full TI-Artist screen is 256 by 192 pixels. Obviously, you can't rotate a full 256 pixels width into a 192 pixel height. So you are going to have create a 192 by 192 pixel working screen (which you'll find I've already made for you on the companion disk called "ROTAT192\_P" and "ROTAT192\_C"). The remaining 64 pixels are drawn in a different background color. By using a background color rather than the foreground color this blocked out portion will not appear on the "\_P" file. It is written only to "\_C". And since TPA only uses only the "\_P" files, you don't have to worry about the blocked-out section appearing on your finished TPA picture.

Well, in anycase, you'll find you can put about 2 1/2 Artist Pictures per panel on your pamphlet. Now remember that a TPA full page is 2310 pixels in length by 950 pixels width (in double density). Dividing that 2310 pixels into three panels we come up with three 770 pixel sections. Now, of course we all remember that a TI-Artist picture

saved in TPA extern format is 572 pixels tall by 512 pixels wide (except we're only using 192 of those 265 pixels so our real total is 384). Anyways, we take our 770 pixel panel and put a 572 pixel tall image in it and we have margins of 99 on each side (99 huh? Kind of symbolic, isn't it?). Lengthwise (which is really widthwise since we're working sideways), we can fit two Artist Pictures (768 pixels total) and still have 182 pixels to play around with.

So, type in your text using the TI-Artist Font section or Instances in the Enhancement section or use both and create all your screens.

2. In the summer of 1989 when I made my pamphlet, TI-Artist Plus and it's VECTOR section didn't exist. So, I had a bit more challenge (oh boy!). I created the sections in TI-Artist, converted them to Graphx Plus, rotated them there, then reconverted back to TI-Artist. Now that TI-Artist Plus exists, the VECTOR section is considerably easier. In VECTOR, select Vector and save out your 192 by 192 pixel screen. Then load the saved file back in and rotate it 270 degrees (not 90 degrees because the downside would be on the left side of the paper).

Once, you have a screen completed, use a CTRL C (Clear Color) and save it with some original filename like (DSK1.PANEL1A\_P").

3. Once you have all your PICTURE\_P and INSTANCE\_I files completed convert them using the Toolbox's "Font Conversion" and bring yourself over to the "Page Manager".

4. In the Page Manager, you'll need to

do some math to set up the layout of the three folds. Here's a little formula to help you:

```
LMARGIN1 (ROW:0) + PICTURE1  
(ROW:99) + RMARGIN1 (ROW:671) +  
1ST FOLD & LMARGIN2 (ROW:770) +  
PICTURE2 (ROW:869) + RMARGIN2  
(ROW:1441) + 2ND FOLD & LMARGIN3  
(ROW:1540) + PICTURE3 (ROW:1639)  
+ RMARGIN3 (ROW:2211) + END OF  
PAGE (ROW:2310)
```

As for panel placement, I can't help you much there. It depends entirely on the size of your Artfiles. If they are full TI-Artist pictures, you'll

have 384 pixels each in length. If you're using actual photographs, you might want to read ahead to a chapter I call "Picture This" in which I give you actual amount of pixels you'll need to leave blank for the photograph. Then after it's printed, just paste down the photograph in the space.

5. Once you manage your page, save it and load up the TPA Scheduler to print it (which it turn will impress your friends and make them ask even more difficult tasks of you, since you made it look so easy to do.)

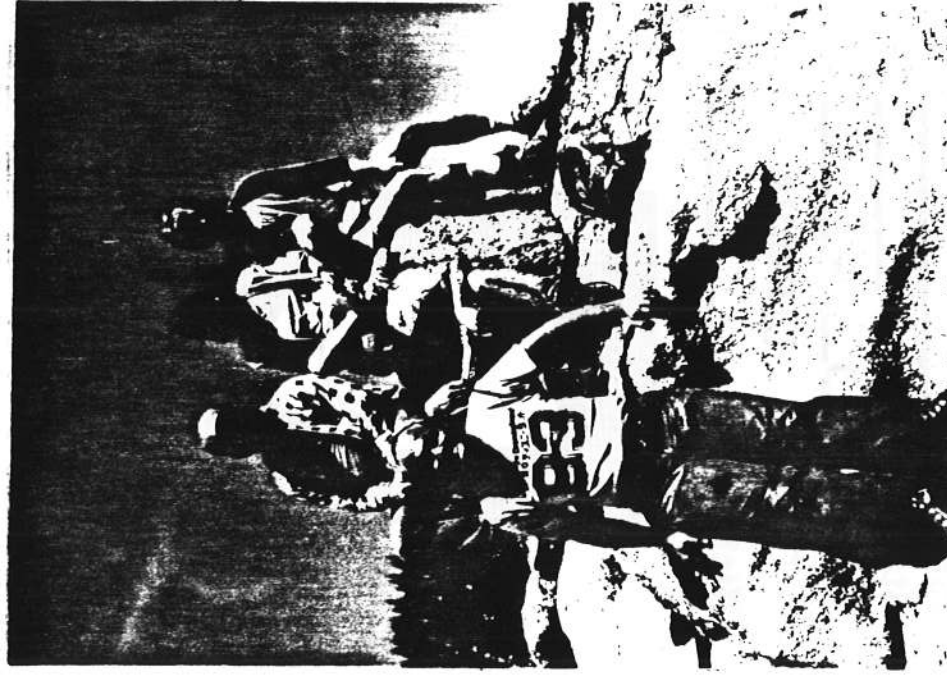
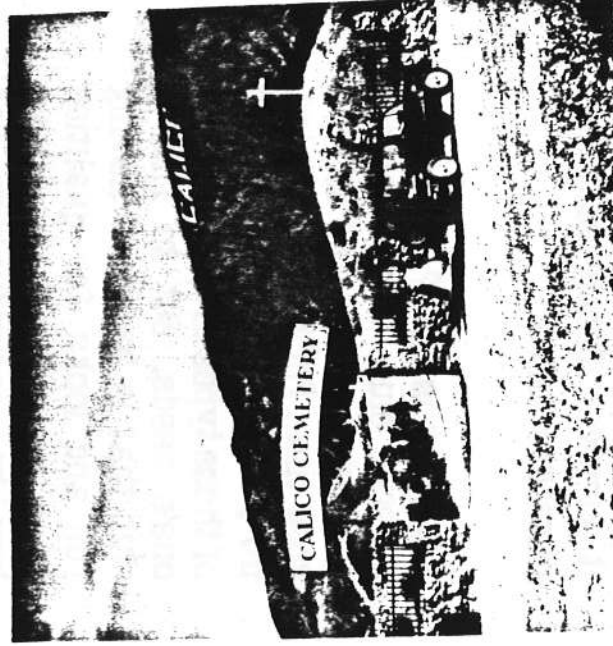


# KBGB SPELLS ADVENTURE!

Do you enjoy?

✓ Check one or more

- ☐ Parties
- ☐ Hiking
- ☐ Meeting People
- ☐ Sports
- ☐ Museums
- ☐ Drive-in Movies
- ☐ Amusement Parks
- ☐ Camping
- ☐ Adventure
- ☐ General Silliness



FORGET

Approved by the NEW ORDER of  
KBGB Enterprises

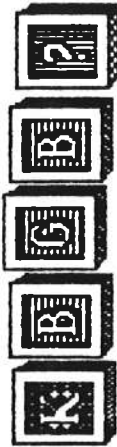
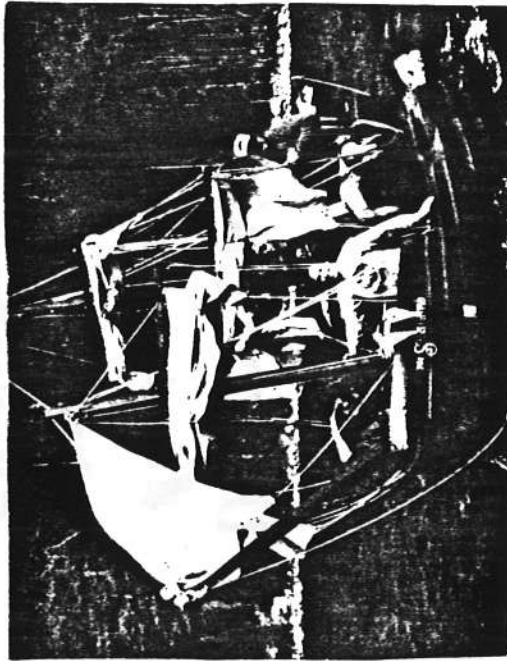
Information and Newsletters about KBGB  
Enterprises can be obtained by calling  
818-951-2718 or writing:

KBGB Enterprises Membership Information,  
7647 McGroarty Street,  
Tujunga, CA 91042

FORGET


FORGET





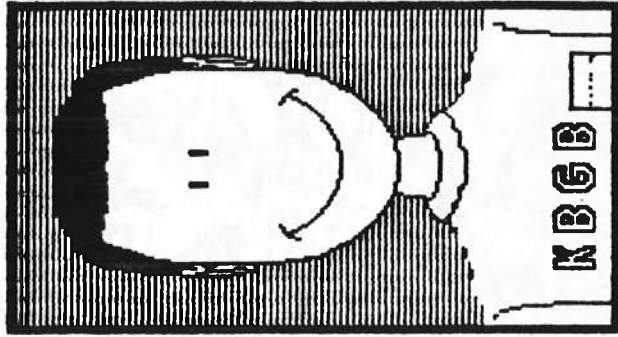
WHAT IS KBGB? You wouldn't believe how many times I've been asked that difficult question. In the 12+ years the answer still comes no easier. KBGB survives despite itself. We charge no dues, enforce little to no responsibility, provide a free monthly newsletter and even sometimes provide aid to needy members. So why does it survive? Simply said, it's members CARE.

But what is KBGB? It's a club, a social club, where friends can get together and have a good time. Period. No religion, no politics. There's plenty of those types of clubs to fill one's needs. But to find a club that is based on having fun and looks for qualities in a person as creativity, loyalty, individualism and even silliness, that indeed is a rare thing.

  
KEN GILLILAND  
EMPEROR of KBGB

## KBGB Membership Application

Name \_\_\_\_\_  
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Apt# \_\_\_\_\_  
City \_\_\_\_\_  
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☐ Male ☐ Female  
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Your picture could  
be here





## Aren't You a Card!

We are once again going to play around in the TPA Toolbox, though having just the Printer's Apprentice will work too (but it's much much painstaking!). And again, as a friendly reminder (and warning!), we're playing around in the TPA Advanced Class now. I assumed you've REALLY read through the last chapters so I don't have to wade through all the basics again. I'll still go step by step through, so even if you have been SKIMMING through a bit, you'll still be able to amaze someone.

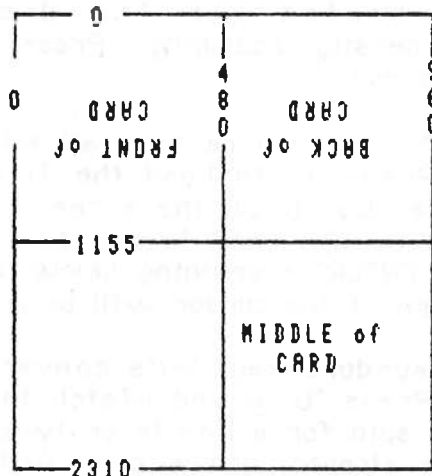
As you may have guessed by now, we're going to make a greeting card using TPA. I promise that our greeting will blow the socks (and maybe even the envelopes) off of any other TI greeting card program and definitely will give Hallmark a run for their money.

### Ingredients:

- 1 TPA and TPA Toolbox Program Diskettes
- 1 TI-Artist Plus Program Diskette
- 1 Sheet of Printer Paper
- About 600 Sectors of Blank Disk Space
- 1 Ounce of Imagination

### Instructions:

Before we start with the 1-2-3 STEPS, let's first figure out our objective: To make a card for a piece of printer paper, we will have to fold it in fourths. I'd think by now you know that a full Double Density TPA printed page registers 959 x 2310 pixels. So let's fourth it!



Now, you've probably also noticed the fact I've also shown you how the front, back and middle panels are layed-out. We're going to do all the artwork in TI-Artist, then convert it to TPA format. Both the Front and Back Panels will need to be Flipped upside-down which can easily be accomplished in TI-Artist's Enhancement Feature.

In this tutorial, we will fill three of the four 480w x 1155h pixel panels. As you may remember, in height, a TI-ARTIST-TPA converted picture measures (saved in Double-Density) 512w x 577h. Now this presents a little bit of a problem as that 32 pixels will spill over into the next panel. Therefore the TI-ARTIST pictures must have comfortable, blank right margin. The Height presents no problem at all, in fact, we're going to stack two pictures on top of each other for each

panel (577h x 2 pictures = 1154 pixels). All right, let's start playing them keys...

**STEP 1:** Create your 3 panels (Front, Back and Middle) of your card using TI-ARTIST. Create six TI-Artist Black and White pictures. Call each file the following: FRONT\*T, FRONT\*B (T=Top, B=Bottom half), BACK\*T, BACK\*B, MIDDLE\*T, MIDDLE\*B. Remember to leave a blank margin on the right side of the artwork (about one quarter of the horizontal screen).

**STEP 2:** Now using the ENHANCEMENT feature of TI-ARTIST, turn the files (FRONT\*B, FRONT\*T, BACK\*B, BACK\*T) upside down and save them as pictures that way. To turn something upside down in the Enhancement Feature, press M for Move without color, then press the SPACEBAR. Now position the cursor on the lower right hand point of your artwork and press fire. Move the joystick upward and to the left until you have completely boxed in art. Press fire again. The image should disappear. Now move your cursor (and box) to the upper left hand corner of the screen and press fire again. Voila! It's turned upside-down. Now press the SPACEBAR, FCTN + (QUIT) and boot up TI-ARTIST again to save the Picture. Repeat the steps until you have all the front and back files flipped.

**A TIP:** I found that the easiest way to work the Artist Pictures was to have the lettering-message on one picture and the art on the other...

**STEP 3:** Now that you have all your artwork done, clean up your art disk. You won't need any of the \_C Artist color files since you are only working in black and white. TI-Artist Plus has a built-in feature that detects if the file has any color in it and if it doesn't, it won't save out those \_C

files. This eliminates that step.

**STEP 4:** Boot up the TPA Toolbox and select "3. Font Conversion". At the prompt choose "Inst->Extern" which means we're going to convert Artist files to TPA format.

**STEP 5:** Press "A" and enter the Art (ist) File (name), such as "DSK2.FRONT\*T\_P". Now press "E" and enter the TPA Extern (save) File (name), again, like "DSK2.FRONT\*T". Now we've set up the "Load" and "Save" filenames.

**STEP 6:** Let's move on to Variables so press "V". First enter your Pr(i)nt(e)r Type, "E" for Epson or "G" for Genimi. Next choose the Pr(i)nt D(e)ns(it)y. We want "D" for Double-density. And finally we do want to make it Extra Dark so press "Y".

Now since we are creating the image in Double Density, it will make the image all squished together horizontally, so we're going to need to correct that. Press "C" for CPixel. You'll notice a dot in the upper left-hand corner. Using the arrow keys, position the cursor on the blank dot to the right of it. Now press 'FCTN 2". Voila! You've now doubled the width of the picture and thus compensated for the dreaded double-density squishing. Press 'FCTN 9" to escape.

**STEP 7:** Okay, we're now all set up to play. Press "L" to Load the TI-Artist Picture. Got it on the screen? Good, press the spacebar to escape. If you press "ENTER" everything below and to the right of the cursor will be cropped.

O-key-doke-key, let's convert that file! Press "G" o and watch the disk drives spin for a minute or two. Once they've stopped, you're done with that

file. Repeat STEPS 5 through 7 until you've converted all 6 of the Artist pictures.

STEP 8. Press "X" to exit the "Inst-Extrn" Menu and again to return to the main menu. Then press "I" for the Page Manager.

STEP 9. Once inside the Page Manager, press "S" to name your Schedule file, such as "DSK1. SCHEDULE". Now press "D" for Directory and enter the drive number your data disk is in. Once you have the directory on the screen, press "FCTN 9" to escape. We're now set up and ready to build our schedule.

STEP 10: Let's first start on the top, left-hand corner of the piece of paper, that will soon be our incredible looking card. This quarter will be the Front, thus we would want files FRONT#T and FRONT#B. Remember though, that this quarter is upside down so we'll want to start with the bottom first (FRONT#B).

Select "A" to activate the directory again. Find "FRONT#B" and press "A" to activate onto the schedule. Then press "S" to size it (which means to get it's height and width).

STEP 11: Okay, now were ready to position it so press "E" to edit it. The filename is already activated so just default by pressing "ENTER". That moves us to ROW. You may want to adjust this a little later, but right now let's assume that FRONT#B has no vertical white space (It's artwork from head to toe). Enter "0" at the first prompt. The second row prompt is only used when you are creating a dummy file and want to see it's shape on the page. Since we have the real McCoy, there is already a number there so just ENTER over it.

At the COLUMN prompt, there's a

few items to consider. First of all, remember that the printer has a natural margin on both the left and right sides of the page. And since the printer's printhead can't jump over those tractor feed holes you might as well use it to your advantage. Thus, don't worry so much about the margin on the left side of your FRONT upside-down quarter, let's be more concerned about the center of the paper (aka: your right side of the FRONT panel). We'll want a margin there. My suggestion is to set the COLUMN Prompt at "0" for now, Print out the whole card, then adjust the prompt accordingly to center the artwork on the panel. So enter "0" (or whatever if you're brave) at the first COLUMN prompt and default over the second "dummy" prompt.

We're now at the REPS prompt. We'll want just one repetition of this file so enter "1".

STEP 12: Okay, we're back at the Modify Command Menu. First jot down the second Row prompt, which if you entered "0" (at the first prompt) should read "577". You'll need this number for the FRONT#T file. You'll also notice that the second COLUMN prompt reads "800". Ignore this, the picture really doesn't go to column 800, it's just a strange quirk in the program.

Forward and "D" own, I say, says I, so press "D" so we can enter the next file in our schedule.

STEP 13: Next file as you've probably already guessed is FRONT#T, since on the upside down panel we're going bottom to top. Remembering what we've learned in STEPS 10 through 13, enter FRONT#T, the only differences being that we want FRONT#T to start below FRONT#B, that's why we wrote down that "577" because that's where FRONT#B ends. So on "578" we'd want FRONT#T to start!.

Once you've Edited FRONT#T, let's move "D" own again to the start the next panel.

STEP 14: Let's now enter it's neighbor, the Backside, files BACK#B and BACK#T. Again work through STEPS 10 to 13, this time the COLUMN has changed from "0" to "480" (or more).

Here's some things to remember about entering Schedule files "3. DSK2.BACK#B" and "4. DSK2.BACK#T".

First of all remember again, on this panel you are upside-down, so the Bottom file is on top of the Top file. Secondly, remember again you have a "Natural" margin as described in STEP 11. Only this time it's on the right side of the page. Starting your BACK of the card files at COLUMN 480 will put them right on the fold. You'll want a margin there too, thus my comments above "'480" (or more)'. For starters, I'd add an extra 25 pixels to the COLUMN for a center margin, pushing the start COLUMN prompt to "505". Again, after a first printing you'll probably want to adjust the files on make sure they're centered on each panel. If you push the margin too far to the right you'll lose some of your artwork (Anything past the 960 pixel point won't appear on your printed page).

Once you've entered the BACKside files, "D" own again we go to pursue the MIDDLE quarter.

STEP 15: The middle quarter is similiar to the Back side in that the COLUMN prompts must start at "480" (or more... A suggested "505" to start). The ROW will be different too, since we're now working the lower half of the page. Another important item to note is that we have returned to normal, printing now TOP to BOTTOM, or MIDDLE#T to MIDDLE#B, so to speak.

So under schedule file 5 we have "5. DSK2.MIDDLE#T", Start ROW: 1155, Start COLUMN: 505 and for schedule file 6 we'll have "6. DSK2.MIDDLE#B", Start ROW: 1732, Start COLUMN: 505.

STEP 16: Now press "X" to eXit the Modify Menu and "W" to Write the schedule. Want to see what it will sort of look like? Press "B" for Boxes and "FCTN 9" to escape when done. Now eXit and Return to Screen because we're now done with the TPA Toolbox and ready to go to that ol'Stand-by, The Printer's Apprentice.

STEP 17: Load THE PRINTER'S APPRENTICE, and select "4. SCHEDULER". Once at the Scheduler, press "S" and enter the filename of your Schedule. Now "R" ead it. Set the printhead on your printer even with the sheet of paper and turn your printer on.

Press "G" to Goprint. Within 5 to 10 minutes, you should have the beta-version of your card. Take the page, fold it into quarters and examine each panel. If they're off center then go to the "M" odify command in the Scheduler and alter the Row and Column prompts to center them and print it again. If you want to save your alterations, be sure to "W" rite the Schedule again. Don't be discouraged if the centering process takes three or four times, it took me that many (grin). For my trendy Mutant Ninja Turtle example look on the following page. Don't be afraid to experiment, these tutorials aren't written in concrete--they're merely stepping stones to unlock your vivid imaginations...



I AM THE BATMAN  
 I AM THE BATMAN  
 I AM THE BATMAN  
 I AM THE BATMAN  
 I AM THE BATMAN  
 I AM THE BATMAN



"Holy Hallmark, Batman! It's a  
 greeting card done with the TI  
 Printer's Apprentice by  
 Ken Gilliland"



HEY DUDE,  
 I just want  
 to tell you.



## South of the Border, Down TPA Way...

Once again we're going to explore the TPA Toolbox. As you may remember in my sixth chapter, when discussing the Border Builder, I mentioned that one of the drawbacks was that there was no way to create new borders. That was entirely true-- though there is no documentation on it, I've found a way to create my own borders. So let's find that hole in the fence and slip on through...

### Ingredients:

- 1 TPA Program Diskette
- 1 TPA Toolbox Program Diskette
- 1 Sheet of Paper
- 1 Blank Disk with a BORDER TPA artfile copied on to it

### Instructions:

#South of the Border,  
Down TPA Way,  
That's where I had to compose,  
Some very silly prose,  
When instead I wanted to play.  
But my Deadline was call-- ing!  
And could not be sway-ay-ay-ayed!  
South of the Border,  
Down TPA Way.

Now upon close examination of the two BORDER TPA artfiles on the Toolbox disk, you'll notice a very interesting fact. They're 36 sectors, the same size as Sdsh Fonts. It occurred to me at once that the fonts and borders could possibly have the same structure, so I did the next logical thing. I booted up the TPA Toolbox and loaded the Border Builder. I used the Sdsh font "TYPER" instead of one of the Border artfiles and then pressed "S"how. Something very interesting happened-- my

onscreen border looked something like this:

```
! " " " " " #  
$           &  
$           &  
$           &  
$           &  
$           &  
$           &  
'(((((((
```

Ah-ha! Now that was a revelation! Using the arrow keys, page up and down and you'll see the rest of the border in ASCII characters. Trying to be clever, I noted the positions of the ASCII in relation to their part in the border. I then loaded up the TPA Character Editor and proceeded to make some incredible borders. I defined the "!" character as my upper-left corner and so forth.

I then rushed back to the Toolbox, loaded the Border Builder back up to

to see my handiwork. What I saw was garbage, a slight resemblance of what I had spent the last hour creating.

```
AI-Yi-Yi--Yil  
I-Yi-Yi--Yil
```

```
I-Yi-Yi--Yil  
I-Yi-Yi--Yil
```

Something was obviously wrong. But what? I then reloaded the Character Editor and decided to do some reverse engineering. This time I loaded the BORDER font into the Character Editor to see what ASCII characters corresponded with the border shapes. Focusing on the upper left hand corner of the border which we know from our first experiment is CHR\$(33), the ! symbol, you'll notice my error right away. The standard border format does NOT take up the whole editing screen. It only takes a 15 pixel wide by 20 pixel high section of the editing screen.

```
AI needed a Border,  
And could not delay,  
It had to be my very own,  
Not a TPA clone,  
For my Tutorial today.  
So I used the Character Edit--or,  
And began to pray-ay-ay-ay!  
South of the Border,  
Down TPA Way!
```

To make your very OWN Border fonts (now that you hopefully get the gist of how it might be accomplished), I suggest the following:

1. First copy the BORDER file from the TPA Toolbox disk to a blank disk, renaming it something original

like "BORDER3".

2. Load the Printer's Apprentice and boot-up the Character Editor.

3. Once in the Character Editor, press "D" for Disk and "F" filename. Enter "DSK1.BORDER3" and load it.

4. Go to "P"rint, "R"ead(the)index, and then "B"ack-out and go to "E"dit mode.

5. First, escape out the Editor by pressing "CTRL (not FCTN) 9". Enter under ASCII Char:, a "!" (or press ENTER and at the next prompt enter ASCII Code: "33").

6. Default over Char Width: and press "R" to Read in character 33.

7. You'll then find yourself in Edit Mode again. Press "CTRL R" to redraw the corner of the border on the editing screen.

8. Press "FCTN 5" to get yourself into (OUSH) Overstrike mode.

9. Whew! Now you're set to draw. Redraw the corner with your own corner pattern. Here's a command reminder:

```
FCTN S,D,E,X move the cursor  
without drawing or erasing.  
S,D,E,X move the cursor and  
draw.  
K,I,L,(comma) move the cursor and  
erase.  
FCTN 4 erases the whole screen.
```

For the rest of the commands, consult your TPA manual.

10. When you've finished the upper left hand corner of the border press "CTRL 9". Remember again that your border cannot be larger than 15 by 20! In anycase, default over the "!"

and "33" and "W"rite it.

11. Again, you'll find yourself in Edit Mode. Press "FCTN 4" and erase the screen and "CTRL 9" to escape.

12. Repeat Steps 9 to 12 using CHR\$(34), CHR\$(35), etc, until you've created all the sections of the border (there will be 8 of the them). You'll find you can reuse the left hand corner again by flipping it over and reversing it (FCTN 6 and FCTN 7) and moving it to it's proper location by using FCTN 3 (delete row) or FCTN 1 (delete column).

Use your imagination and fill in the rest of BORDER3 with new and exciting borders. You may consider converting some existing TI-Artist borders into Artist Fonts, then converting them to TPA Sdsh Fonts. From there, you can use the Character Editor to clean them up. The sky's the limit!

Remember, however, before you leave the Character Editor to go back to "P"rint and "W"rite(the)index, or your hardwork will be lost and the INS will put you back where you started.

♫I-Yi-Yi-Yi!  
I-Yi-Yi-Yi!

I-Yi-Yi-Yi!  
I-Yi-Yi-Yi!

(musical interlude)

(hum along, if you want to)

♫I-Yi-Yi-Yi!  
I-Yi-Yi-Yi!

I-Yi-Yi-Yi!  
I-Yi-Yi-Yi!

♫South of the Border,  
I decided to stray,  
And Character Editor made,  
Borders that were top-grade,  
And every dog had it's day.  
So this chapter is end--ding!  
But new borders has just  
begun-un-un-un!  
South of the Border,  
TPA all the way!

♫I-Yi-Yi-Yi!  
I-Yi-Yi-Yi!

I-Yi-Yi-Yi!  
I-Yi-Yi-Yi!

OLE!







## Fill in the \_\_\_\_\_.

So we've done about everything one can do with the Toolbox except one thing. That's right it's time to explore the Forms Tool. You may remember, from Chapter Eight, that I belong to a social club and had to create a Three-Fold Pamphlet. Well, the same group of members, definitely impressed by my work, assumed I could perform yet another miracle. They wanted a Questionnaire with blanks to write names in and boxes with "Yes" or "No" responses. Yes, this was quite a challenge! And one that I'll share with you. Together, we'll create KBGB's infamous "Twenty Questions" and hopefully in doing so, we'll have some fun creating the questionnaire, learn something and make our most complex schedule to date. Alrighty, let's do it!

### Ingredients:

- 1 TPA Program Diskette
- 1 TPA Toolbox Program Diskette
- 1-2 Sheets of Printer Paper
- About 600 sectors of blank disk space
- 1 small TPA font (I'm using OUMACTYPE)
- 1 large TPA font (I'm using OUFUTURA)
- 3 tablespoons of Silliness
- 1 ounce of Courage

### Instructions:

1. First Boot-up the Toolbox and press "2" for the "Sign Tool". Once inside the Sign Tool, go to the Jotter, type in the single word, "YES" and do a `Fr.` Enter your TPA small font filename (e.g.: DSK1.OUMACTYPE). For the Extern filename, enter "DSK1.YES1". Don't forget to turn on the "B"uffer. Now, go to "V"ariables and default over everything with these exceptions: Choose "D"ouble Density, "O"ufont (if you're using one), say "N"o on Extra Dark, Linefeed Size make "2" and Right Margin "40". (You want to make the right margin as tight as possible to the "S" in "YES". You might want to try "G"oPrinting it to make sure you didn't cut it too tight though!)

Okay "G"o and extern it. Once that's

done, go back to "V"ariables and change "Extra Dark" to "Y"es. Rename the externfile "DSK1.YES2", too, and extern it.

Now, erase the "YES" in the Jotter and jot in "NO" with a `Fr.` Do the same process as with the "YES" creating one normal "NO1" externfile and one extra dark "NO2" file. You can probably trim the Right Margin to "30" (but check it out first!).

One last thing, before we leave the Sign Tool, go back into Variables and write down the Breakpoint number (which in my case is "16"), we'll need it later. Go and eXit the Sign Tool.

2. Select "5" for the "Forms Tool". You'll immediately notice it looks a

lot like the Page Manager and Scheduler. It even has a Boxes command like the Page Manager. Before I start, let me explain what we're after. We want two little boxes, one before the "YES" and one before the "NO". That's why we wrote down that breakpoint number. Let's go to "M"odifyF(orm). Yes, it is like the Scheduler. Press "E"dit and under ROW (first prompt): "0", (second prompt) "12" (that's a little smaller than our breakpoint number (16)). Under COL (first prompt): "0", (second prompt) "24" (because we plan to make it Double Density which will turn it into 12). We want only "1" V(ertical)Rep(etition) and "1" H(orizontal)Rep(etition) but keep it mind the powers VREP and HREP could have. You could make a whole line of boxes or a graph! Under Dens(ity): enter "2" (that's for Double Density).

EXit the ModifyF Section and name an Externfile "DSK1.BOX". If you want to see how it prints you can use "P"rinter and "G"o for it-- but first extern our box. Once you're done playing, eXit the Forms Tool (we'll be back again later) and boot up the Page Manager.

3. Once in the Page Manager, use the "D"irectory to call up your YES, NO and BOX files and FCTN 9 yourself out. Then go to "M"odify Schedule and do the following:

1. DSK1.BOX, ROW:0, COL:0, REPS:1
2. DSK1.YES1, ROW:0, COL:29, REPS:1
3. DSK1.BOX, ROW:0, COL:75, REPS:1
4. DSK1.NO2, ROW:0, COL:75, REPS:1

and "W"rite it to the disk as "DSK1.SCH/NO". Now create another Schedule using the following

variables:

1. DSK1.BOX, ROW:0, COL:0, REPS:1
2. DSK1.YES2, ROW:0, COL:29, REPS:1
3. DSK1.BOX, ROW:0, COL:75, REPS:1
4. DSK1.NO1, ROW:0, COL:75, REPS:1

and "W"rite it to the disk as "DSK1.SCH/YES". Now eXit the Page Manager and TPA TOOLBOX and load the TPA Scheduler.

4. Load the "SCH/NO" Schedule in the Scheduler and print it. Hopefully you should get a result that looks something like this: ☐YES ☐NO. You'll notice that the "NO" is darker than the "YES". The reason for this is simply a visual joke for the person answering our questionnaire. We want them to get hints on the right answers!

Examine your printed result, too. Make sure the spacing between the boxes and the YES and NO are okay. Now is the time to modify them if they aren't quite right. If you used my example with OUMATYPE as the font, you'll probably want to drop the ROW on the "YES" and "NO" from "0" to "2". Make sure you make the same changes to the "SCH/YES" file as well. When you're done, we'll do something new.

Instead of our traditional "G"oPrinting of the Schedule we're going to "E"xtern it. So extern "SCH/NO" as "NO" and "SCH/YES" as "YES". Yes, that will make those four extern files into one easy to handle file. Once you've accomplished this, leave TPA and boot up a Disk Manager. Delete all files except the final "YES" and "NO". Once that's done load up the TPA Toolbox again and go to the Sign Tool.

5. First, let's make our big headline-- you know the name of the Questionnaire-- which is "The Twenty Questions of KBGB Enterprises". For mine, I used "OUFUTURA" (it's on the Companion Disk) "D"ouble Density, Extra Dark and Centered between 0 to 950. Then externed it as "DSK1.HEADLINE". So do it!

Next, I entered a description of the Questionnaire in the Jotter which read, "This is a test. This is a very serious test. This test will test your skills at testing. This may be your only chance you will ever get to take this test, so one word of advice-- don't screw it up! Each question is carefully designed to measure your abilities as a KBGB Member. Answer each of the following questions to the best of your ability using any method of lying, cheating or stealing you see fit." Whew! I then went back to my smaller font "OUMATYPE" and named the Externfile "DSK1.FINEPRINT". Under Variables, I change to "Microadjust and set the Right Margin at "820" (I using two 65 pixel margins,  $65 + 820 + 65 = 950$ .) So now... do that!

Now, come the Questions. I suggest creating each of these twenty questions as a separate externfile. The reason for this is simple. Some questions will occupy more than one line and you'll need to line up each "YES/NO" box with the start of each question. So I suggest that we create twenty externfiles named "Q01", "Q02", "Q03", all the way to "Q20".

The first thing to remember is that we've already used up about 125 pixels for the "YES/NO" boxes. So we'll want to change our Right Margin to a smaller area. Let's say

for the Questions area we decided on 50 pixel margins. That's leaves us 850 pixels, right? Add the "YES/NO" box-- that's a 125 pixels making our area 725 pixels across. We'll want a little breathing room between the Boxes and the questions so let's settle on a 700 pixel margin. Enter "700" at Right Margin. I won't bore you and consume space by typing each of the questions here. Look at the example at the end of the Chapter if you are actually set on creating "The Twenty Questions". Type each of the Questions into the Jotter and extern it as I've described above.

Whew! That's was a lot of externing! The last section of our questionnaire will be comprised of some blanks to write the Questionee's name in, the date they took the exam, the score they got and the tester's name-- oh and I almost forgot! An area for the truly official, not a fake, KBGB New Order Seal (And you probably think I'm kidding, don't you?).

First "C"enter at 820 pixels, this line "I have faithfully answered the Twenty Questions," and extern it as "DSK1.LINE01". Next, using the same technique I showed you in making the "YES" and "NO", make the right margin as tight as you can to these lines: "signed," (my example the Right Margin was at 75) and "on this day of" (again, my Right Margin was at 130). It may take a few tries to cut their blank right side down to size. Use the "G"oPrint feature. If you've cut off too much, Word Wrap will actually move the last letter(s) to the next line. Call "signed," "DSK1.LINE02A" and "on this..." "DSK1.LINE02C".

Do the remaining text on the

Questionnaire the same way. Here's my figures for help:

Signed,.....Right Margin at: 075  
                    Externed as "LINE02A"  
on this day of....Right Margin at: 130  
                    Externed as "LINE02C"  
SCORE: .....Right Margin at: 075  
                    Externed as "LINE03A"  
/20 .....Right Margin at: 050  
                    Externed as "LINE03C"  
Approved by....Right Margin at: 120  
                    Externed as "LINE04A"

Once you finished here, eXit the Sign Tool and go to the Forms Tool again so we can make our blanks.

6. Wowie! That last step was pretty long, huh? Okay, let's make some blanks-- after all that's what this chapter's about anyways, isn't it?

We're going to make the blanks somewhat like we made the "YES/NO" boxes. First, let's take the blank between the LINE02A and LINE02C externs. We know that LINE0 is 75 pixels long and LINE02C is 130, so that's 205, right? Now we add another 130 pixels for both margins making it 335 pixels used. Subtract from our 950 pixel page width and we have 615 pixels of blanks to create. Obviously, we'll want the signature blank to be bigger than the date blank so let's make the signature blank 415 pixels, leaving 200 pixels for the date.

So let's do it! Go to ModifyF and enter ROW: 0 and 1, then on COL: 0 and 415. Make Vreps and Hreps equal to "1" and Dens: 2. Extern it as "DSK1.LINE02B". The reason for making the second figure on ROW equal to "1" was to squash our box to two pixels, thus making a blank.

Now do, the second (date) blank line, making COL's second number "200" and calling it "DSK1.LINE02D".

For the Score blank line, extern the same variables in Form Schedule as call it "DSK1.LINE03B".

Last, but not least, we have the Scorer's blank line. We'll line this one up with "LINE02B"'s length. Remember that "Approved by" was 45 pixels larger than "Signed," so make the second COL number equal to 370 (that's 415 - 45) and extern it as "DSK1.LINE04B".

Ooops! I almost forgot! We'll need a box for the New Order Seal to be stamped in. Let's take the remaining space to the right of our "Score" and "Approved by", let's say-- oh, how about 200 pixels square. Enter at ROW: 0 and 120, at COL: 0 and 200, VREPS:1, HREPS:1, DENS:2 and extern it as SEALBOX.

7. Return to the Page Manager and create this Schedule (calling it "DSK1.SCH/20?S"):

1. DSK1. HEADLINE,....ROW: 050,  
                                    COL: 000, REP: 1
2. DSK1. FINEPRINT,....ROW: 125,  
                                    COL: 065, REP: 1
3. DSK1. YES,.....ROW: 330,  
                                    COL: 050, REP: 1
4. DSK1. Q01,.....ROW: 332,  
                                    COL: 200, REP: 1
5. DSK1. YES,.....ROW: 376,  
                                    COL: 050, REP: 1
6. DSK1. Q02,.....ROW: 378,  
                                    COL: 200, REP: 1
7. DSK1. YES,.....ROW: 422,  
                                    COL: 050, REP: 1
8. DSK1. Q03,.....ROW: 424,  
                                    COL: 200, REP: 1
9. DSK1. YES,.....ROW: 468,  
                                    COL: 050, REP: 1

10. DSK1.Q04,.....ROW: 470,  
                                   COL:200, REP:1  
 11. DSK1.YES,.....ROW: 514,  
                                   COL:050, REP:1  
 12. DSK1.Q05,.....ROW: 516,  
                                   COL:200, REP:1  
 13. DSK1.NO,.....ROW: 560,  
                                   COL:050, REP:1  
 14. DSK1.Q06,.....ROW: 562,  
                                   COL:200, REP:1  
 15. DSK1.YES,.....ROW: 606,  
                                   COL:050, REP:1  
 16. DSK1.Q07,.....ROW: 608,  
                                   COL:200, REP:1  
 17. DSK1.YES,.....ROW: 652,  
                                   COL:050, REP:1  
 18. DSK1.Q08,.....ROW: 654,  
                                   COL:200, REP:1  
 19. DSK1.YES,.....ROW: 764,  
                                   COL:050, REP:1  
 20. DSK1.Q09,.....ROW: 766,  
                                   COL:200, REP:1  
 21. DSK1.YES,.....ROW: 844,  
                                   COL:050, REP:1  
 22. DSK1.Q10,.....ROW: 846,  
                                   COL:200, REP:1  
 23. DSK1.YES,.....ROW: 890,  
                                   COL:050, REP:1  
 24. DSK1.Q11,.....ROW: 892,  
                                   COL:200, REP:1  
 25. DSK1.YES,.....ROW: 970,  
                                   COL:050, REP:1  
 26. DSK1.Q12,.....ROW: 972,  
                                   COL:200, REP:1  
 27. DSK1.YES,.....ROW: 1050,  
                                   COL:050, REP:1  
 28. DSK1.Q13,.....ROW: 1052,  
                                   COL:200, REP:1  
 29. DSK1.NO,.....ROW: 1096,  
                                   COL:050, REP:1  
 30. DSK1.Q14,.....ROW: 1098,  
                                   COL:200, REP:1  
 31. DSK1.YES,.....ROW: 1142,  
                                   COL:050, REP:1  
 32. DSK1.Q15,.....ROW: 1144,  
                                   COL:200, REP:1  
 33. DSK1.NO,.....ROW: 1222,  
                                   COL:050, REP:1  
 34. DSK1.Q16,.....ROW: 1224,  
                                   COL:200, REP:1

35. DSK1.NO,.....ROW: 1268,  
                                   COL:050, REP:1  
 36. DSK1.Q17,.....ROW: 1270,  
                                   COL:200, REP:1  
 37. DSK1.YES,.....ROW: 1348,  
                                   COL:050, REP:1  
 38. DSK1.Q18,.....ROW: 1350,  
                                   COL:200, REP:1  
 39. DSK1.YES,.....ROW: 1428,  
                                   COL:050, REP:1  
 40. DSK1.Q19,.....ROW: 1430,  
                                   COL:200, REP:1  
 41. DSK1.NO,.....ROW: 1474,  
                                   COL:050, REP:1  
 42. DSK1.Q20,.....ROW: 1476,  
                                   COL:200, REP:1  
 43. DSK1.LINE01.....ROW: 1700,  
                                   COL:065, REP:1  
 44. DSK1.LINE02A.....ROW: 1750,  
                                   COL:065, REP:1  
 45. DSK1.LINE02B.....ROW: 1779,  
                                   COL:140, REP:1  
 46. DSK1.LINE02C.....ROW: 1750,  
                                   COL:560, REP:1  
 47. DSK1.LINE02D.....ROW: 1779,  
                                   COL:685, REP:1  
 48. DSK1.LINE03A.....ROW: 1850,  
                                   COL:065, REP:1  
 49. DSK1.LINE03B.....ROW: 1879,  
                                   COL:140, REP:1  
 50. DSK1.LINE03C.....ROW: 1850,  
                                   COL:350, REP:1  
 51. DSK1.LINE04A.....ROW: 2000,  
                                   COL:065, REP:1  
 52. DSK1.LINE04B.....ROW: 2029,  
                                   COL:185, REP:1  
 53. DSK1.SEALBOX.....ROW: 1820,  
                                   COL:685, REP:1

Double Whew! Was that the "Mother of all Schedules" or what? Look at the bright side though, imagine if we wouldn't have scheduled those 4 extern files that now make the YES or NO files, hmmm, that's 4 times 20 plus 53-- on second thought, let's not even think about that. Scheduling those repetitive files into one extern file did save us time and space-- not to mention the fact that

all those files wouldn't have fit in the Scheduler! If you ever run into space problems on the Scheduler, externaling a portion of the page is a good way to lighten the scheduling load.

8. Alright, before you leave the Page Manager, check out 'B'oxes and see your handiwork. Boxes saved me some time. I noticed that my blanks (LINE02B, 02D, etc) were at the top of the line rather than the base. It's hard to use a blank when

it's up here ————. I quickly matched up my blank ROW bases with the text ROW bases (Don't worry, the Mother of all Schedules are already corrected). Okay, make sure you've saved that Schedule file (unless you want to enter the whole thing again in the Scheduler!) and go to the TPA Scheduler to print it.

... And yes, it will take a long while to print.



# The Twenty Questions of KBGB Enterprises

This is a test. This is a very serious test. This test will test your skills at testing. This may be your only chance you will ever get to take this test, so one word of advice, don't screw it up! Each question is carefully designed to measure your abilities as a KBGB member. Answer each questions to the best of your ability, using any method of lying, cheating or stealing you see fit.

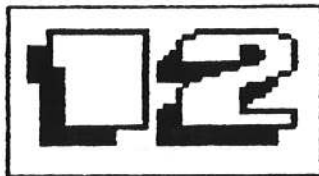
- |                              |                             |   |
|------------------------------|-----------------------------|---|
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 1. Do you know what KBGB is?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 2. Do you feel that KBGB is a worthwhile organization?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 3. Are you sometimes a Silly-Billy Cuckoo?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 4. Have you ever Domeclimbed before?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 5. Do you ever lie, cheat and steal?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 6. Would you ever lie, cheat or steal from KBGB?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 7. Do you believe that there is money in Fountains?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 8. Do you believe that if KBGB were to collect a penny from every person who went to Magic Mountain that they would be millionaires?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 9. Do you believe that BABA Beer's 'Extra Wooly Stout' is probably the best beer in the world?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 10. Do you enjoy informal apologies?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 11. Would you accept a present from KBGB, even if you had to go to Luischesi's Shoe Shop at the end of the wharf to pick it up?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 12. Do you know how to drive a steamroller while being half-crazed?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 13. Would you remain loyal to KBGB, no matter what happens?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 14. Do you believe that KBGB is just a smelly pile of cow dung?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 15. Do you believe that all KBGB Presidents are no longer conceited because now they're perfect?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 16. Are you perfect?  |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 17. Are you a power hungry pig who will only be satisfied when you reach the top?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 18. Do you believe that if Oranges were purple instead of orange that they would be called Purples?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 19. Do you believe that lamb chops are delicious?   |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | 20. Have you been or are you affiliated with any Toilet Company, a group called 'KBGB Haters, Inc.', Kurt Ackerman or any other person or group that might be considered dangerous to the well being of KBGB Enterprises? |

I have faithfully answered the Twenty Questions,  
signed, \_\_\_\_\_ on this day of \_\_\_\_\_

SCORE: \_\_\_\_\_ /20

Approved by \_\_\_\_\_





## Picture This:

In this chapter we're going to try to kill two birds with one stone, or at least wing'em (pun intended). I want to create a TPA page that incorporates some foreign material (non-computer created-- in this case photographs). Also I love the size and look of the MacPaint (aka MacFlix) format pictures, but there's wasn't too much else I could do with them except print them. Well, until now... we'll put one on a TPA page with some text for part two of this chapter. So why are we just babbling along? Let's do the TPA Shuffle...

### Ingredients:

- 1 TPA and TPA Toolbox Program Diskette(s)
- 1 PIX-PRO Program Diskette (by Asgard Software)
- 1000 blank sectors or so of disk space
- 2 Sheets of Printer Paper
- 2 Photographs
- 1 Letterhead, Masthead, or Title Heading (see Chapter 13)
- 30 Sectors of Exciting Text
- 1 Small Oufont
- 1 Large Oufont
- 1 or 2 MacPaint Picture files
- A lot of Courage

### Instructions:

Among other things, in the past years, I've produced two monthly newsletters. These newsletters have allowed (or should we say forced) me to hone my skills at Printer's Apprentice. One newsletter, for my local TI User Group, was pretty easy to produce. It was mostly just externed columns with a couple graphics here and there. The other newsletter is what provided a constant nightmare and challenge. That one, for KBGB Enterprises (a social club I'm leader of), heavily relied on photographs taken at the previous month's activities mixed with captions under the photographs, externed column text, headlines, graphics and an occasional complex schedule. Most of that TPA stuff, I could handle, but figuring out how much space to

leave for a photograph was always a guessing game. We could have used that information in making that 3-fold pamphlet, huh?

Let's create the KBGB Staff and Stockholder's Report's front page and solve this great mystery (of course, you really don't have to call it the KBGB Report since you probably have never been to a KBGB activity or even know what KBGB is about. You could make it an advertisement, or your User Group newsletter, or ah-- a cook book, or... well, use your imagination!)

1. To set-up for this project, you'll need a couple photographs, some text (we'll create the Headline and Captions) and a Masthead externfile. You probably have no idea what I



mean by a Masthead externfile (that's what the next chapter's about. It's okay to skip and do that one first. You have my permission.)

2. First let's extern that Headline. You probably know me well enough by now to know that means. Yup, we'll "C"enter the Headline in "D"ouble Density in a 820 pixel space sandwiched between to 65 pixel margins. I'll use "C"Pixel to make it twice as big (that's 2 pixels down and 2 pixels across-- not 4, I want the headline tall and thin). In the "J"otter, my headline reads "KBGBers Reunite!" and it's externed as "DSK1.HEADLINE".

3. Next comes the tricky part-- I had two photographs, one 4 7/8 high by 3 1/2 wide (we'll call it PHOTO1) and the other, 3 1/2 high by 4 1/2 wide (we'll call in PHOTO2), both obviously different sizes. Now I want to put a caption under each of them, but where do I make the margins? For years, I guessed, which took lots of wasted time and printer paper. When I hit the correct amount, I'd write it down (and eventually lose that piece of paper it was written down on and figure it out all over again!) There's a much easier way! I feel very stupid for not seeing it sooner. While I was writing Chapter 6 ("That's Pretty Neat, but Can it Roll Over...") I realized that in TPA Toolbox, there's an inches to pixels calculator. Where? In the Border Builder of course! So let's go there...

4. Once in the Border Builder, press "V"ariables. Make it "D"ouble Density and default down to "Horiz Size-Inches..." and enter our PHOTO1 measurement "3 4/8" and we'll get "#Dots 420". Write it

down! Enter under "Verti Size-Inches..." Uh-oh! We're not going to be able to enter our 4 7/8 because it only figures in quarters. So enter "4 3/4" and write down the number (1026). Press "ENTER" twice to get out of variables and then go right back in to "V"ariables. Default back down to Verti(cal) Size and this time enter "5 0/4". You'll get an answer of "1080 pixels". Now, we've taken the measurements of a picture an 1/8 too small (1026) and 1/8 too big (1080). Subtract them (1080-1026=54), half it (54÷2=27) and add it to the first measurement (1026+27=1053). Whew! Now we know that 4 7/8 vertical inches equal 1053 pixels! That means the space needed for PHOTO1 will be 1053 pixels high by 420 pixels wide.

Okay, figure out PHOTO2. If you came up with 756 pixels high by 540 pixels wide, you're on the right track! So write down the measurements and go back to the Sign Tool.

5. Now that we have our measurements, let's make the Captions. First off, if you add the two picture widths together you'll get 970 pixels. And that's without a margin between them or on the sides. Don't worry though. Remember that the 959 pixel TPA page doesn't in fact go from page end to page end. The printer won't let you do that. So you do have some breathing room, about an extra half inch. The reason I bring this up is that we won't be able to make our Cap stretch the full length of the picture in this case. I suggest knocking off 75 to 100 pixels off each.

Let's start out with the externfile "DSK1.CAP1" (that will go with PHOTO1). First, switch to a smaller font and don't forget to turn CPixel back to just a single pixel. Then enter a line or two describing the photograph in the "J"otter. I put, "PICTURED ABOVE: Emperor Ken helps KBGBers up a steep crevice on the way to the Surprise gold mine." Under "V"ariables, select "D"ouble Density, "M"icrojustification and at Right Margin enter "320" (that 420-100=320). Extern it!

Call the next externfile, "DSK1.CAP2" (wasn't that original?) and it will go with... anybody? Anybody? "...photo two?" Good, CAP2 goes with PHOTO2. Clever how that works, isn't it? In the "J"otter, I wrote: "PICTURED ABOVE: By 9pm or so, Max and Howie were already on their ways to having a very happy "Happy New Years!" and a miserable next morning." I kept the same variables except under Right Margin, since the photograph was a different size. I entered "440" (again because 540-100=440). Extern that one too.

Let's also extern the two story headlines "A Surprise Adventure" and "Babies, Babies, Babies...". Do these in a larger font, "C"entered in a 390 pixel column, calling them "DSK1.SUBHEAD1" and "DSK1.SUBHEAD2" respectively. Hey, while we're at it, let's make the two bylines that fit below the Story Headlines and the "Continued on Page 3".

First, switch to the smaller font again. You can keep the same variables we did in the Story Headlines. Enter the Bylines in the "J"otter, saving them as "DSK1.BYLINE1" and "DSK1.BYLINE2". If

you haven't figured it out yet, all the 1's go under PHOTO1 and 2's under the PHOTO2.

To create the "Continued on Page 3". I simply changed the variable to "L" for Ragged Left, and of course, we're calling that externfile "DSK1.CONT3".

6. Next, I suggest going to the Page Manager and seeing how much space you have left for externing the story's text. Make your Schedule in the Page Manager. Here's where some dummy files will work. I've create two extra files in the "M"odifyS(chedule) to help us plan our page. These two files, DSK1.PHOTO1 and DSK1.PHOTO2, we won't size them because don't exist and we'll get an error. However by inputting those Photograph pixel measurements, it will draw the area PHOTO1 and PHOTO2 will take. We can easily see'em too in the "B"oxes command! Here's my schedule for the page (with some help where needed):

```
1. DSK1.MASTHEAD
ROW: 50    500
COL: 0     950
REPS:1 DENS:2
"S"ize it and press "D"own.
```

```
2. DSK1.HEADLINE
ROW: 516   630
COL: 65    885
REPS:1 DENS:2
"S"ize it and press "D"own.
```

```
3. DSK1.PHOTO1
ROW: 650
Now enter the height of PHOTO1 on
the next prompt which is 1053.
COL: 0
Now enter the width of PHOTO1 on
the next prompt. Wait just a second
though... since were going to have
```

the photograph over further left than the printer can go, enter "400" instead of the 420 real width.

REPS:1 DENS:2

Yes, we do need to input REPS and the DENS(ity). Don't "S"ize it, just press "D"own.

#### 4. DSK1.PHOTO2

ROW: 650

On the second row prompt enter PHOTO2's height, "756".

COL: 420

We enter "420" here because that gives us a 20 pixel margin between where PHOTO1 ends (400) and PHOTO2 starts (420). On the Column second prompt, enter "530", which isn't our true photo width, but again, it's as far as TPA believes a page should go.

REPS:1 DENS:2

Press "D"own and finish out the Schedule...

#### 5. DSK1.CAP1

ROW: 1720 1821

COL: 40 360

REPS:1 DENS:2

#### 6. DSK1.CAP2

ROW: 1420 1521

COL: 465 905

REPS:1 DENS:2

#### 7. DSK1.SUBHEAD1

ROW: 1850 1923

COL: 65 455

REPS:1 DENS:2

#### 8. DSK1.SUBHEAD2

ROW: 1560 1710

COL: 495 885

REPS:1 DENS:2

#### 9. DSK1.BYLINE1

ROW: 1940 1976

COL: 65 455

REPS:1 DENS:2

#### 10. DSK1.BYLINE2

ROW: 1715 1751

COL: 495 885

REPS:1 DENS:2

#### 11. DSK1.TEXT1/A

ROW: 2000 2184

COL: 65 455

REPS:1 DENS:2

#### 12. DSK1.TEXT2/A

ROW: 1788 2184

COL: 495 885

REPS:1 DENS:2

#### 13. DSK1.CONT3

ROW: 2200 2236

COL: 65 455

REPS:1 DENS:2

#### 14. DSK1.CONT3

ROW: 2200 2236

COL: 495 885

REPS:1 DENS:2

I went ahead and showed you the two TEXT externfiles. TEXT1/A breakpoint length should be 184, while TEXT2/A's would be 396. Go look at the "B"oxes. Pretty neat, huh? When you're done looking, FCTN 9 out and "W"rite the Schedule.

Next, return to the Sign Tool and create "DSK1.TEXT1/A" and "DSK1.TEXT2/A" using the Breakpoints I suggested (of course, also using my standard variables, "D"ouble Density, "M"icrojustification and "R"ight Margin at 390.

7. Last and definitely not least, boot up the TPA Scheduler, and "R"ead back in the Schedule you created. Go to "M"odify and page "D"own to slot 3 and "Z"ap it. This will remove it from the Schedule. It will also move slot 4 into slot 3's spot, 5's into 4's, etc. "Z"ap "PHOTO2" too, because they really don't exist.

Once the two dummy files are "Z"apped, re"W"rite the Schedule and "G"o and print it and you should get the following page...

# kbgb enterprises

## staff and stockholders' report

APRIL 1992

TUJUNGA, CALIFORNIA

VOLUME X, NUMBER VIII

## KBGBers Reunite!



PICTURE ABOVE: Emperor Ken helps KBGBers up a steep crevice on their way to the Surprise Gold Mine.

### A Surprise Adventure

KBGB Adventure Hike Story by K.K.Gilliland

For once the Surprise Mine was actually a surprise again. Emperor Ken led a troop of virgin mine explorers to the Upper and Lower Surprise, perched high above Pasadena in Pine Canyon. The KBGBers assembled at KBGB Headquarters and were treated to freshly ground coffee

Continued on Page 3



PICTURE ABOVE: By 9pm or so, Max and Howie were already on their ways to having a very happy "Happy Years!" and a miserable next morning.

### Babies, Babies, Babies...

by soon-to-be Father, Mike "Boss" Demke

I'm glad I had the chance to write in this newsletter. The K.B.G.B. NEW YEARS EVE PARTY was a blast, you see I'm very pro babies at this point in time and all the babies seemed to have such fun at our parties. And pretty soon I'll get the chance to join in all the fun. I think the little ones were impressed with the cactus cake, especially with the way it tasted. The ones that could walk were playing wild indians that night until Mark Gilliland started telling stories of loud noises and bright lights and fun times had at the 4th of July ceremony and how he was returning to his car with his baby on his shoulders when Ricky La

Continued on Page 3

As you may, or may not know, one add-on feature that Page Pro 99 does boast is that it can import MacPaint (MacFlix) files using Pix-Pro. So how do we "one-up" on Page Pro (or can we)? Yes, we can, but admittedly, Page Pro's direct conversion is easier than the approach we'll have to take.

For my example, I had a friend of mine scan of my drawings with his PC. We then converted it to MacPaint format and ported it over to my 99. From there, I used Asgard's "Pix-Pro". There's a section of the program called "McPix" which you'll need to use first. This is where the Page Pro guys have it easy, there's a direct MacPaint to Page Pro conversion here. But we need to convert the MacPaint file to Page Pro's Pix format. From there, you load up the main Pix-Pro program and then load the MacPaint picture (now in PIX format). Now we'll need to save the picture in TI-Artist (Picture) blocks. First, save exactly what you see on the screen (that being the upper left corner of the picture). Press "ENTER" to escape from the picture and select "TI-ARTIST PICTURE FORMAT" for the format to save it into. Call the Artist file "DRAW\*TL". Now reload the MacPaint picture and page over to the right using FCTN D. Count every keypress, you'll need this number later. When you hit the right edge of the picture, press "ENTER" and save this one as "DRAW\*TR". Reload the MacPaint file again and this time page down (one full screen or as far as it will go), again remembering the number of keystrokes in took. Save this file as "DRAW\*BL". Load the picture once more and page across and down the number of keystrokes you were suppose to remember, saving this section as "DRAW\*BR". Still remember those numbers, though, we'll need'em later!

Now, using TPA Toolbox, go to Font Conversions (the Ins->extrn side) and load

up "DRAW\*TL\_P" and press ENTER. We'll need to crop this picture because DRAW\*TR and DRAW\*BL\_P overlap it. But how much do we crop? That's why I told you to remember those numbers. First, let's talk about the "ACROSS" number. I pressed FCTN D ten times. In Pix-Pro, every key press equals eight pixels, so that means that DRAW\*TL\_P you go eighty pixels before DRAW\*TR\_P begins to overlap it. So move your FCTN D to 78 and stop. Why not 80? First, because the screen goes from 0 to 255, not 1 to 256. Secondly, because our DRAW\*TR\_P should start at 79.

Now, we need to figure out how much DRAW\*BL\_P overlaps our first picture. I pressed the FCTN X keys 22 times in Pix-Pro. Let's see,  $22 \times 8 = 176$ . Move your cursor, which should still be on 78, down to 174. The cursor should now be on Row: 174, Column: 78. Press FCTN 9 to escape. Under "V"ariables, make it "D"ouble density and Extra Dark-- don't forget to CPixel to bring it back to the right shape tool! Then "E"xtern it as "DSK1.DRAW\*TL"

Next load in DRAW\*TR\_P and press ENTER. The only crop we'll need to make here is for where DRAW\*BR\_P will overlap it. We know from our last file that that means to crop at ROW 174. Our column would be 255 here. Extern this file as "DSK1.DRAW\*TR".

Third on our externing list is DRAW\*BL\_P. We'll want to crop the right side of it for DRAW\*BR\_P's overlap. Move the cursor to ROW: 191, COL: 78 and extern it as "DSK1.DRAW\*BL".

Last is our DRAW\*BR\_P file which has no overlap since it overlaps everyone else. Move the cursor to ROW: 191, COL: 255 and extern it as "DSK1.DRAW\*BR".

Next, we'll want to schedule, all four

parts together into one picture again, so go to the Scheduler. Some things to remember when scheduling are that you are in double density which means that our "R"ight files will not start at plus 80 pixels but plus 160 pixels. Also, scheduling is (probably) not going to be as easy as simply putting the four files butted up against each other, using the numbers we saved. It is rare when a MacPaint file comes in an exact size that is divisible by 8. Thus, your last key press wasn't probably equal to eight pixels. Some adjustments may be needed. It wasn't until the third printing of my drawing that the image come out correct. You may need to fudge or subtract pixels here and there. One this point, Page Pro definitely comes ahead. On the next few pages I've printed four examples of my drawing. First is the untampered version printed straight from Pix-Pro. Next is the converted Page Pro 99 image with some added text. Then, my version I created with this chapter (below you'll find my Schedule figures, and last, a TPA MDOS version (which I'll be covering in Chapter 14). I think you'll find the variations interesting to say the least...

Here's the SCHEDULE file for the example:

```

1. DSK1.DRAW*TL
ROW:200 731
COL:100 900
REP:1 DENS:2

2. DSK1.DRAW*BL
ROW:732 1308
COL:100 900
REP:1 DENS:2

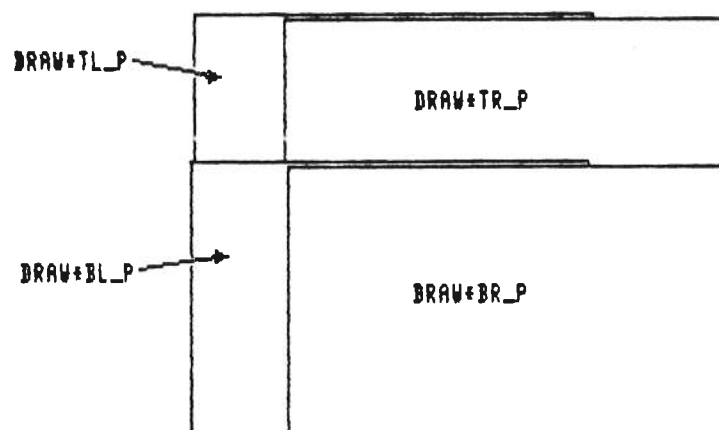
3. DSK1.DRAW*TR
ROW:200 731
COL:260 1060
REP:1 DENS:2

4. DSK1.DRAW*BR
ROW:732 1308
COL:260 1060
REP:1 DENS:2

5. DSK1.HEADLINE
ROW:1490 1564
COL:065 895
REP:1 DENS:2

6. DSK1.TEXT1
ROW:1600 2055
COL:065 895
REP:1 DENS:2

```



Some notes of interest about the versions are that all three products, Page Pro 99, TPA and TPA MDOS came out slightly distorted from the original image, fattening it up a bit. I would say that Pix-Pro did the distortion except that the TPA MDOS version was imported directly through TPA MDOS's MacPnt feature. The headline on the TPA version was of course transferable to the MDOS version, but Page Pro didn't like it at all, thus an alternate font was used. Interestingly enough, the text font, OUNLO, would not transfer to the MDOS version, pixels in the characters were missing! My guess is that this particular OU has differences between the the first and second pass graphics, which TPA MDOS doesn't support. Again, I ended up using an alternate font with Page Pro since the font conversion, again, provided disappointing results.







## WHAT I DID ON MY VACATION

Being an Artist and travelling to National Parks around the country is an incredible experience. I find that I'm very visually in tune with my surroundings. It seems there's so much people miss. I remember being at the Visitor's Center at Zion

This was printed by Page-Pro 99



## What I did on my Vacation

Being an Artist and travelling to National Parks around the country is an incredible experience. I find that I'm very visually in tune with my surroundings. It seems there's so much people miss. I remember being at the Visitor's Center at Zion Canyon National Park in Utah when a young couple approached me. They were just getting ready to leave when one of them asked me if there was anything worth seeing up the canyon. I looked in astonishment and said, "Just the whole National Park".

"Oh, well I guess we'll see that next time", the wife replied.

If you've never been to Zion, plan on spending at least the whole day— it's beauty and grandeur cannot be matched.

The drawing pictured above is from Bryce Canyon National Park, also in Utah.



## **What I did on my Vacation**

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If you you've never been to Zion, plan on spending at the least the whole day-- it's beauty and granduer cannot be matched.

The drawing pictured above is from Bryce Canyon National Park, also in Utah.

This was printed by TPA MDOS



## Let's Play, "Mr. Bigshot"

Being somewhat of a TI celebrity has some unusual benefits. I find myself graced with letters from all over the world, commenting on my work and asking questions. Many of these letters come typewritten (or should I say "computerwritten") with elaborate letterheads and artwork. Most of my return letters came back to them with my almost unreadable scrawl on a torn sheet of lined notebook paper. It was embarrassing to say the least. Still I continued this practice (and still do sometimes!) until I formed Notung Software (my software company). Planning and creating a letterhead that is effective takes some hard work and forethought. If you haven't guessed by now, that's what this chapter is about. We're going to make a real cool letterhead that will make all your TI and even normal friends jealous. So let's start on our way to playing the part of Mr. Bigshot...

### Ingredients:

- 1 TPA and TPA Toolbox Program Diskette
- 1 TI-Artist or like program
- 1 Sheet of Printer Paper
- 4 Cups of Inspiration
- 2 ounces of Vision
- 1 pound of sweat
- And some skill with TI-Artist or some ready-made Clip-Art

### Instructions:

So how do you go about creating a letterhead in TPA? Well, first and most important, is design. Being an artist (as long as I can remember) and 4 years of college (managing to get BFA in the process), not to mention an additional year at Art Center, College of Design (in Pasadena) (whew! That's a respectable list of credentials, isn't), anyways, has given me a quite a prospective on the fine art of letterhead design. After we decide on a design, we'll talk about it's implementation, but first let's talk about design.

Design is definitely the most crucial element of your letterhead. Decide on how you want to be represented. Do you want a relaxed, friendly design or a more formal, business-like approach. Let me tell you about some of the letters that I have received. A good friend of mine (and

business partner), Ray Kazmer, has Garfield and Woodstock (the Comic Characters) running around his letters. It gives a friendly, humorous approach which is associated with Ray's personal side. Secondly, it associates himself with two of his most popular TI-99/4a programs that use those characters. On the flip-side is Asgard Software's letterhead which sports a Viking Ship and a hard edge font. This identifies the company and sets a more formal, business-like tone. So where do we fall? Well, that decision is really yours, but let me invite you into my head and I'll try to work through my design decisions for Notung's Letterhead for you.

First, let's take the name,... "NOTUNG". Why did I choose it and what does it mean? Well, Notung is the name of the great sword used by Siegmund and his

son, Siegfried, in Wagner's Ring cycle. At the time of forming my company, I was publishing through Asgard Software. I felt the need to keep a "Teutonic" feel (as a nod to the company who first published me) and also to associate the company name with some of my most popular programming efforts (the Wagner fairware disks). What the actual word, NOTUNG, loosely translated from German means "Needful", which describes the market I was after (and my financial state at that time). The image was quite powerful, too... a sword. The sword image represents an aggressive company, one sure of it's self... one on, (excuse the pun)... the cutting edge. Back when Notung was first born, the Letterhead sported this sword wrapped in drapery with the company name, address, etc. It never really worked for me. So for the most part, people continued to get my scrawl. I claimed it was a more personal touch. The truth was I really didn't like my own letterhead!

Time passed, and a more satisfying revision came to my logo. The drapery was removed and the Sword was thrust through a disk, making the logo finally work. The logo finally worked, but I really didn't want such a hard-edge greeting to customers and friends, so I added a portrait of myself. This lightened the harshness of the design and gave the name of letterhead a whole new meaning.

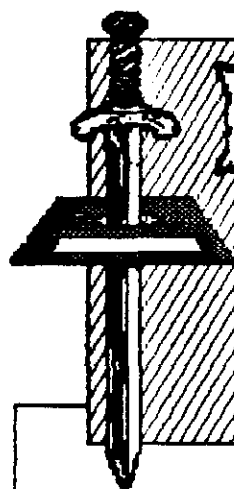
The reason why I've gone to such lengths to discuss design is that the design is 9/10ths of the letterhead. Why waste the time to create and print something that's going to represent you poorly. Your design doesn't have to be elaborate either. Some of the best letterheads I've seen are made with a simple border and tastefully placed text.

Okay, enough of this erty talk, let's talk

turkey. Gooble, gooble. Gooble, gooble. (Sorry I couldn't resist). How do we create a TPA format letterhead? Well again, let's talk about my letterhead. I created it in TPA MDOS, but it could just as well have been created in the original version of TPA. I used two (not quite full width) TI-Artist pictures for the top of the letterhead. The one on the left carries the Notung logo and address, the right, my portrait. I framed the text (letter writing) area with a thin border and added a moto at the base of the letter. It is very important to note the location of your writing area. For example, my writing area is starts at ROW: 800 to ROW: 1950 and is given comfortable margins inside the borders, it goes from COL:120 to COL:820.

Once you have all the components externed and scheduled where you want them, do a test printing. If everything is acceptable, "E"xtern (instead of "G"oPrint) the Schedule as "DSK1.LETTERHEAD".

Every time you have to answer a letter. Write the letter in the "J'otter, extern it into the writing area size and then Schedule and GoPrint it. I know it sounds like a lot of work to make a simple letter this way, but I think the response you'll get from it's recipient will be well worth it.



# NOTUNG

## SOFTWARE

7647 McGroarty St.  
Tujunga, California  
91042  
(818) 951-2718



Dear "INSANE" user,

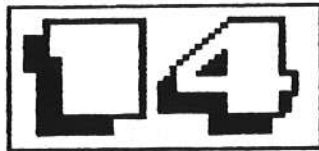
This is how my final letterhead looks. The top is comprised on two TI-Artist pictures. The circle around my portrait was created using the "E"llipse feature in TPA MDOS, though could have been created around the picture using TI-ARTIST. The shading that's inside the circle was created using the "F"ill command then going back in and erasing pixels close to the head. The area entirely filled was just too dark.

This letterhead took quite a while to create. Yours doesn't have to be near as elaborate to be just as effective. Sometimes some carefully placed text and a simple border will produce an incredible result. For the border, use the "Border Builder". If none of the borders fit your needs, create one, using the tools I gave you in Chapter 10.

Well I better get running, the cooking timer just went off!

Yours Sincerely,

Ken Gilliland  
Notung Software



## TPA MDOS and the other 6 Wonders of the World

Imagine formatting, scheduling and printing three full pages in the time it takes you to extern one 1900 pixel column. Imagine having a "what you see is what you get" full TPA page with most of TI-Artist's drawing function ready to use at a keypress. Imagine being able to use TI-Artist fonts, pictures and instances without conversions. Imagine being able to print a sideways page without turning everything sideways. Should I stop because you don't want to wake up now and face the real TPA? Well, you want to give yourself a sharp pinch because this is no dream. All of what I said is "real" and it's called... TPA MDOS.

### Ingredients:

- 1 TPA MDOS (and of course, a Myarc 9640 to go along with it)
- 1 Mouse (Squeak! Squeak!)
- 1 Blank Diskette
- A Variety of Artwork (in .P, .J, .F and MacPaint Formats)
- 2-3 Sheets of Printer Paper

### Instructions:

Of course, there is one catch to fulfilling the dream. You probably already have a strong hint probably, too. You do need a Myarc 9640 or "Geneve" as it is more fondly known. I said this many times before and still believe it to this day, that TPA MDOS is a reason enough to have a "Genny".

TPA MDOS's manual is considerably more friendly than it's TI-99/4a cousin. When the menu boots up you are presented with several choices:

Draw Artwork Fonts Print Variables  
Colors Swapic Jotter Quit Wipefront

Let's go through some of these functions.

#### Swapic, Wipefront and Artwork

TPA MDOS's screen size is big enough to place one double density page on it (It's actual size is 1024 pixels wide by 768 pixels high (or 2304 TPA pixels high)). TPA MDOS has two of these pages in memory. All graphics

are loaded on to the back page. All draw, editing and formatting is done on the front page. To get items off the back page (that you may have loaded), you can press "S"wapic, which swaps the front and back pages. You can also get graphics off the back page using "G"etpic in the "D"raw command (I'll cover that a bit later).

If you want to clear a page (which you'll need to do when loading graphics), press "W"ipefront. This will erase EVERYTHING on the FRONT page. If you have something you want on the Front page, press "S"wapic to move it to the Back page and then "W"ipe(the)front page. Now you can press "S"wapic again to return the Back page (which had the stuff you wanted to save on it) to the Front page and the Front (Wiped) page to the Back page, so you can load graphics on it. How do you load graphics on to the Back page? I thought you'd never ask...

To load graphics in TPA MDOS, press "A"rt. TPA MDOS will import four types of artwork. Unfortunately though, it will only save into one type, TPA MDOS format which is called "S"creen. It will also load "I"nsfiles (INSTANCE\_I's), "A"rtfiles (PICTURE\_P's) and MacPnts (MacPaint, McFlix files). With Insfile and Artfiles, TPA MDOS will automatically clear the Back page and put the graphic image in the upper left-hand corner. It will put Macpaint and Screen files in the same place they were saved but will not erase the Back page. If you left something on the back page, it will merge the two graphics together. You'll find with TI-Artist and MacPaint graphics that they will be in single density mode. You'll need to KPixel'em (which is exactly like CPixeling) in "D"raw mode using the "X"pand feature. One disappointing note is that TPA MDOS does not allow the use or saving of 99er TPA's Externfiles. (The original version of TPA MDOS had it-- but it was deleted in later versions).

When calling a "D"ir(ectory) you can "A"ctivate files just like in 99er TPA, too.

#### Colors, Fonts and Patterns

If you don't like the screen colors, TPA MDOS allows you 256 color choices by pressing "C". Just enter 0 to 7 in the Red, Blue and Green prompts and the Genny will mix your custom colors for you.

The heart of TPA remains it's fonts and text formatting abilities. In the "F"ont feature you can load "A"rt(ist)fonts, "T"PAfonts (either SDSH or OUSH Types) and "C"har(a)files. Most TI-Artist fonts will load, but again you'll run into the 24 x 36 pixel limits. Anything beyond

that limit will be cut off. TPA fonts will, of course, load flawlessly. An exception are some OUSH fonts. TPA MDOS does not support the OUSH double pass printing. It treats all OUSH files as SDSH fonts.

TPA also allows the use of CHARA files (like the ones that are used with TI-Writer). It will even allow us to create new ones or edit existing ones using "E"dchar. But the most powerful feature is not the font itself, but the pattern graphics each CHARA file carries. You can use these pattern files to "F"ill with a "D"raw mode. Just select "P"tnedit, use the arrow keys to select the pattern you want and FCTN 9 out. If you press ENTER on a pattern, you can edit it using the FCTN 1 key to erase, FCTN 2 to draw and FCTN 3 to turn erase/draw off. Press FCTN 9 to escape and "S"vchar will save your efforts on to the CHARA file.

#### K and CPixeling

To use KPixel (off the main menu or in "F"onts, or CPixel in "P"rint) press FCTN 1 to erase, FCTN 2 to draw and ENTER to confirm your new pixel size. KPixel will change the pixel size of "D"raw mode's "T"ext, "K"line and "X"pand. It will also affect the output from the "P"rint option.

#### The Jotter

The "J"otter work similiar to the TPA 99er's Jotter with one big exception. You must put the cursor at the front of the word you want to start with. For example if you've just formatted a column using the jotter, you must move the cursor to the place where your formatted column left off. Also this Jotter has a 100 lines of text buffer.



### Variables

The Variables section is much like the TPA Toolbox's variables with a couple of great modifications. Since MDOS is mouse driven, it makes sense that you should be able to control the mouse speed (which, of course, you can in TPA MDOS). There's a "Arc" feature in the "Draw mode and in Variables you can control the arc of it's curve. Of course you can Microjustify, make Ragged Left and Right Margin and still even Center your text. You can still control the character, line and blank spacing too. There's a neat "Polygon" feature in "Draw too. In Variables you decide what type of Polygon to make it. For example, typing a 90 in the Polygon variable spot would make a box (because  $90 \text{ degrees} + 90 \text{ degrees} + 90 \text{ degrees} + 90 \text{ degrees} = 360$ ). To make a triangle, you'd type "120", a octagon would be "45" and typing 180 would make a straight line. You can also change the numbers of Pixels you page in "Draw Mode with the "Screen Step" variable.

Press FCTN 9 to escape the Variables.

### Draw Mode

Draw mode is the centerpiece of TPA MDOS. Here we find combined the TPA Formatter and Scheduler with a glimpse of "G"oprint too. In order to present the entire page in memory TPA uses a windowing technique similar to TI-Writer's. Pressing CTRL S, E, D and X will page the screen. Pressing the arrow keys (or using the mouse) will move any where on the screen. You cannot move the screen, though, unless you have selected a drawing function.

You'll notice that many of the commands are exactly like that of TI-Artist's.

### Ray, Kline and Box

With the "Ray and "K"line commands you draw lines. The difference between the two is that with "Ray all lines drawn with that command originate at a common point. With "K"line, the line continues at the last point you drew with it. To start with either, press FCTN 2 to set down a point. Now, move the arrow keys or mouse to where ever to want the line to be drawn and press ENTER. If you're using Kline, next line will originate where you pressed ENTER. With Ray, it will go back to the point where you started. Press FCTN 9 to exit. With Kline, after you draw a line, you can press the NUM LOCK and use the Number keys arrows to create parallel lines. Also with Kline, I've found by continually pressing down the ENTER button on the mouse and moving the mouse, you are able to simulate drawing.



You make a "Box, press FCTN 2 where you want the upper left hand corner to be, then move the mouse and make your box. Press ENTER to set the box. FCTN 9 will escape, but you can continue to make boxes with the same starting point if you wish.

Ray, Kline and Box are all affected by the KPixel size. You can also reset or change the starting point any time you like by simply pressing FCTN 2 again. One more thing before we move on, I've found that using Kline after the Fill command can lock-up the

computer. I suggest "Z"apping something (even if it's blank space) in between these commands.

#### Fill, Zap and Magnify

You can "F"ill a space with one of the CHARA font patterns found in the Font section. Just move the cursor to the area desired and press ENTER. Before you do this, make sure you are filling an enclosed area. If you have a blank gap in the perimeter of the area you are filling, even one pixel, it will leak and spill that "now not so wonderful" pattern anywhere else on the screen. If this happens you can minimize the damage by escaping with a fast FCTN 9. I've also found that if you fill again the edges of the screen, sometimes the fill will leak on the side or bottom row of pixels. And sometimes, if you accidentally "fill" an already drawn (pixel "on") area, it may cause leaking as well.

Leaks? Let'em happen! That's why we have "Z"ap object! "Z"ap works just like "B"ox except everything within your box will be erased with "Z"ap.

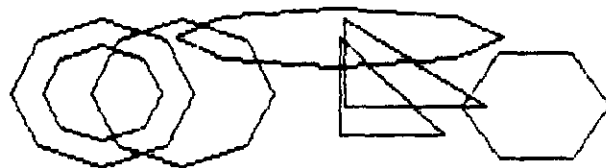
For those hard to get areas, you can "M"agnify a section of the screen and edit that. First press "M" and then FCTN 2. This will create a box giving you a idea of the area you are going to magnify. Press ENTER to magnify it. Just like in KPixel and Ptnedit, FCTN 1 erases, FCTN 2 draws, FCTN 3 disables erase and draw. Pressing ENTER in Magnify mode will save your edits and FCTN 9 will abort with no edits. I've found the magnify command to be quite handy in correcting minor typos discovered on my finished pages.

#### Ellipse, Poly, Curve and 3angle

You can create circles and ellipses too, in "D"raw Mode. After you press

"E", find the place you want to put your circle and press FCTN 2. The cursor will appear on the screen. This is your center point. Using the mouse or arrow keys will make your circle or ellipse. Press ENTER to draw it. You can draw more circles from that point, FCTN 1, move the cursor, then press FCTN 2 for a new center point or press FCTN 9 to escape.

"P"oly(gon) works the same as Ellipse. Use "V"ariables to determine the shape of your Polygon. You can use the NUM LOCK arrow key to rotate the polygon. "3"angle creates triangles and uses the NUM LOCK features as well.



"C"urve is similar to TI-Artist's ARC command. Press FCTN 2 to set an anchor point then move the cursor to the desired area and press ENTER. The curve of the ARC can be controlled through Variables as well.

#### Hflip, Vflip, and Invert

Pressing "H"flip or "V"flip will flip the entire editing screen horizontally or vertically, while "I"nvrt turns all the "ON" pixels off and the "OFF" pixels on. These can be very powerful features, the only problem with them is that sometimes you won't want the entire screen flipped or inverted. My suggestion is to "S"wap pictures and move it to the now front "Back" page for easier editing.

#### +90, -90, Getpic, Xpand and Objmov

"+" and "-90 degree rotate do exactly what I wished the flips and invert would do. They allow you to make a

box around the object you want to rotate WITHOUT effecting the rest of the screen. Press FCTN 2 to start your box and then move the mouse and press ENTER when you've boxed it. The cursor will disappear for a second or two and then reappear. Press FCTN 2 and move the rotated shape where you want it to be. Press ENTER to set it down.

"G"etpic allows you to browse around on the Back page and pull a graphic or text to the Front page. Move your cursor to the upper left hand corner of what you want and press ENTER. Now, you'll find yourself on the Front again. Press FCTN 2 and create a box big enough to enclose the object (unfortunately you no longer see the object, so you'll have to guess) and press ENTER. You can move it to where ever you want. Press ENTER once again to set it down.

"O"bject move allows you to pick up an object on the screen and move it. Make a box around the object and press ENTER. Now you have a choice, pressing FCTN 1 will erase the original object, while simply moving the mouse will just copy it. Move it to where you want, press FCTN 2 to anchor it and FCTN 1 to cement it down. FCTN 9 escapes. Make sure you see the object BEFORE you press FCTN 9 otherwise "O"bjmove will work like "Z"apobj.

To CPixel something use the "X"pand command. Box it and press ENTER. It will be eXpanded on the Back page. It will not "W"ipe the Back page, it will become one with anything on that Back page so I suggest making sure that page is blank unless you want those two images to mate.

### Alpha and Dalpha

Alpha allows you to type a line of text across the screen. You should set the text for any carriage returns by using "Z"apobj first. Zap the area where you plan to put your text and press "A". This will tell the computer to set up the proper carriage return from that point. "D"own allows you to type text vertically. KPixel does not affect "A"lpha or "D"alpha text.

### Text

Whew! finally we get to the most important feature of "D"raw mode-- that being "T"ext, of course. You'll immediately notice that you have a representation of your full page (squashed a bit, but it's there!) and another set of commands. Some of these commands we've talked about before. "Z"apobj and "B"ox work exactly the same as before, just on a larger scale.

"G"oto allows you to move to an area much quicker than CTRLing your way there.

"T"ext will print anything you have in the Jotter, using what variables, font and Kpixel settings you've chosen. To set up a column, press "T" and make a box. Press ENTER to format it. Depending on the size it will take 2 to 10 seconds. If you want the formula for how long it take in 99er TPA, try this:  $TPA \text{ MDOS time} \times 120 \text{ seconds} = TPA \text{ time!}$  Yikes! That is why I love TPA MDOS. Seriously, You'll find that the columns are exactly the same as TPA 99. as for the rows, try this formula:  $TPA \text{ MDOS row} \times 3 = TPA \text{ 99 row}$ . Once you format your text column, you'll need to move the cursor to the next block of text in the Jotter. FCTN 9

will allow you to escape from the Text submenu.

#### Print

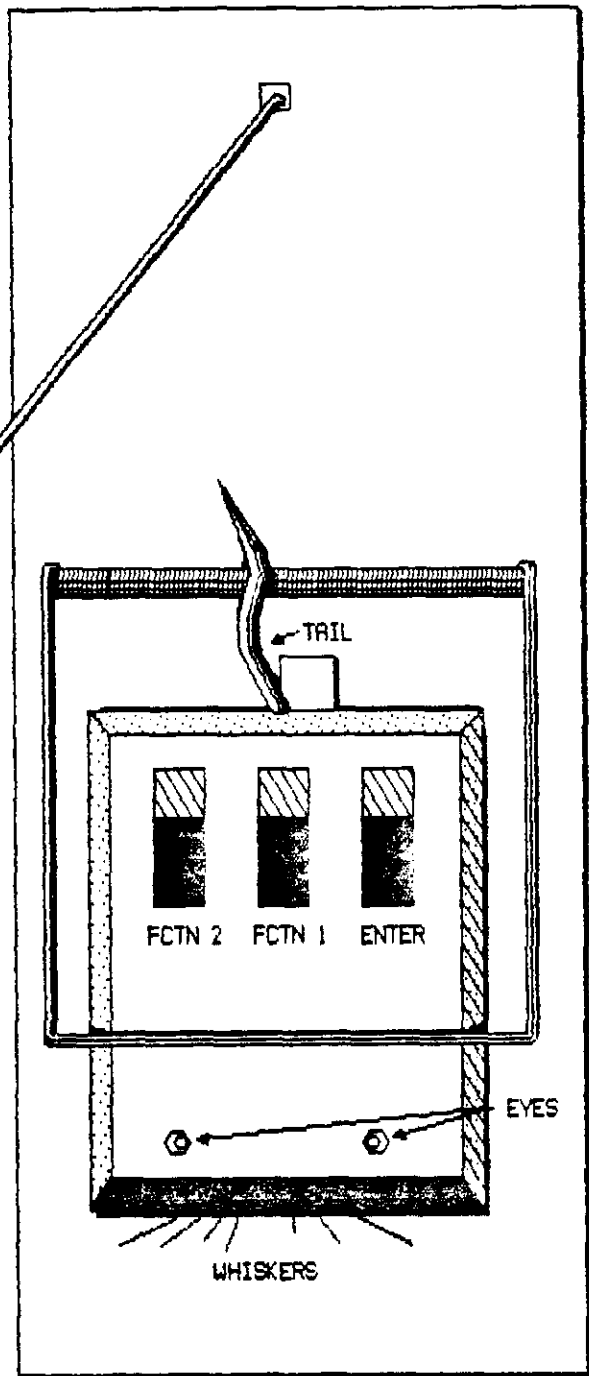
The print menu allows you to choose your "P"rinter device name and set any "C"Pixeling you want. The "V"ariables are pretty straight forward with the exception of the last choice.

"P"ortrait mode is basically what you've been doing in the TPA Scheduler. It prints the page exactly as it appears. "L"andscape mode prints your page sideways even though your page is really right side up. And "B"igpage prints the first 950 columns of the Front Page then the first 950 columns of the Back Page next to it in Portrait mode. Only do this feature in Quad density.

#### In Closing...

You'll find all sorts of charts in the book's Appendix for both TPA and TPA MDOS pages. Where's the Appendix, well it's on the right side just above the small intestines and--okay, okay, it's at the end of Chapter 15.

I think that once you start using TPA MDOS you'll learn to treasure your 9640. I know I did (and do). In the production of this book, I used both TPA and TPA MDOS. Guess which one was used to produce this book? If I used 99er TPA for this book, I'd still be externing, scheduling and printing...



ANATOMY OF A TPA MDOS MOUSE



## TPA in Three Dimensions

Besides giving us an incredible Desktop Publishing program, McCann Software has also given us a first rate CADD program. This program will make three-dimensional objects of our own design and even allow us to rotate, spin, shade and squish'em any way we want. Best of all, TGA (The Geometer's Apprentice) saves in TI-Artist PICTURE\_P format (TGA MOOS will even save in Externfiles!). Knowing all there is to know about TGA is a book in itself, but hopefully this Chapter will at least, blaze a trail for further adventures in TGA. So together, let's slide off our printer paper and fall in the third dimension and into the TGA zone... (do---do-do-do, do---do-do-do, do---do-do-do...)

### Ingredients:

- 1 TI-99/4a Version of The Geometer's Apprentice
- 1 TPA, TPA Toolbox and TI-Artist (optional)
- 1 Blank Diskette
- 1 Sense of Humor

### Instructions:

1. Put the "Geometer's Apprentice" diskette into disk drive #1 and select Extended Basic. The program will load for a while so try not to get too excited. Next, a prompt will ask you to type in "TGA". Do so, even though it wasn't polite and didn't say "Please". The program will, however, thank you by changing the screen color and presenting you with a menu.

2. The menu is reminiscent in many ways of the TPA programs. It reads:

```
Dir  Load_obj  Save_obj  New  Edit
Pics  Zepfile
```

Let's start off by using an already existing TGA\_O file. To find it, press "D"ir(ectory) and then "I" (for DSK1). All the files with "\_O" are called Object files. Let's load "GLOBE\_O". Using the arrow keys, move down to "GLOBE\_O" and press "A"ctivate.

3. Hey, this is almost like TPA, isn't it? Now "L"oad\_obj our GLOBE. A

word about the other commands before we push off. "S"ave\_obj should be pretty obvious, but in case you're a bit slow,... It would allow us to save what's we've drawn. "Z"apfile erases a file from the disk and Pics allows you to Load or Save pictures in TI-Artist\_P format. "N"ew allows you to create an object from scratch. There are two different types of objects, Extrude or Spin types. Extrude objects are like columns, bars, poles, long-stretchy things while Spin objects are round and ball-like. "E"dit allows you to see and alter your object to your heart's content. A "FCTN 9" will bring you back to the main menu.

Once it's loaded, let's "E"dit and see if we can lock-up the program... okay?

4. Another menu! Hmmm, maybe this isn't like TPA after all. Really it's not that bad! Here's the menu:

```
New  Edit  Vars  Tog  Blank
```

Palette Auto Wire Faces Color  
Solid

First let's clear the screen by "B"lanking it. Now let's draw it out in a wire frame by pressing "W"ire. The screen will go blank and the words "CALCULATING" will appear. The length of time it will calculate will depend on the complexity of your object. But it should start to appear in about 10 seconds or so.

Wow, pretty neat, huh? Press any key to return to the Editing Menu.

5. For fun try "F"aces, "S"olid and "C"olor. Please sure to "B"lank the screen before each time though. "T"oggle (Well... that's what Mike McCann suggests, I think it's pretty neat to see it draw over the old image, personally...)

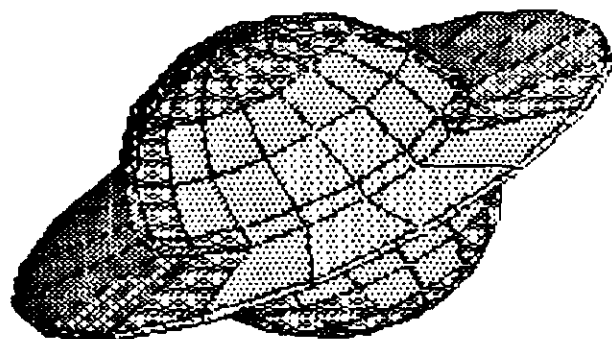
When you finish playing, we'll get back to work.

6. Back to work already? Okay... "B"lank the screen and press "V"ariables. You'll notice immediately that these variables don't look like TPA's variables either. Use the arrows keys to page down to the bottom. The variables magically appear. Let's alter all the "1200" numbers to "0700". Once you've done that, "FCTN 9" yourself out of variables and get "W"ire(d) again. A little different, huh? Go back to "V"ariables and turn Xaspect to "300". Again "FCTN 9", "B"lank and "W"ire it. It sort of looks like we forgot to CPixel a Double Density Externfile, doesn't it? Let's turn to Xaspect back to "700" and switch the Yaspect to "300". Look at it again. Talk about squish and squash. Okay, okay... do the Z at "300" with others at "700". Whoooooah! Is there a spider in the monitor or what?!?

Try Z at "1600". Yes, Z controls the size of the object. Okay turn everything to "800" and change Pitch to "90". Look at again and you'll see the straight-on view of our sphere. Now turn Pitch to "15" and #Deg/Seg (that's Number of Degrees per Segment) to "40". Look at it once again.

You'll notice the angle again has changed and there are less lines and faces. that's because we've doubled up that 20. Pressing "T"oggle will remove the menu from the screen.

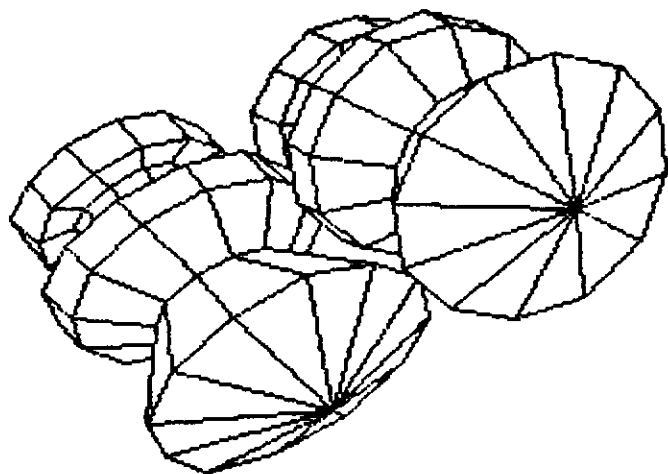
7. Okay, enough with variables, let's "E"dit. You'll see a big plus appear with a half circle along on side of it. If you can remember back into your school days when you were



dozing during Geometry class, you'd remember that that big plus is really an X and Y axis. Now, we'll really try to lock-up that 99 (and you think I'm kidding, don't you?). Pressing the "FCTN 1" will delete one segment of your half circle. Each time you press "FCTN 1" you'll delete another circle. Pressing "FCTN 2" then using the arrow keys will draw a segment and "ENTER" secures it. "FCTN 1" half of the circle off and then redraw to your own design. Try not to get too wild. Real wild shapes WILL lock-up

your computer. Your last segments **MUST** end on the Y axis. "FCTN 9" yourself out, "B"lank the screen and "W"ire it. If the "CALCULATING" message stays on the screen for more than a minute, you're probably locked up. You'll be okay as long as you try not to put any segments under already drawn segments.

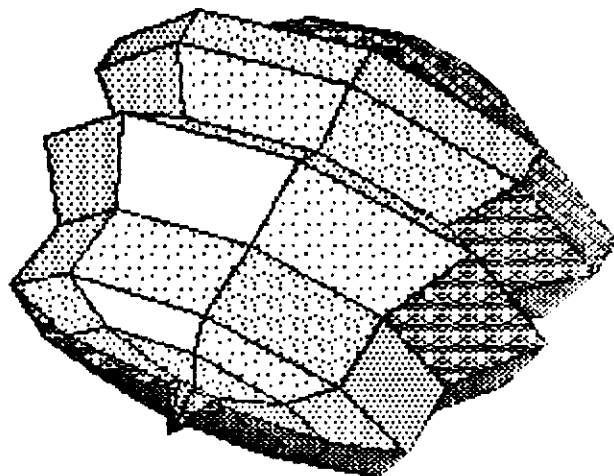
8. Press "P"alette. Here you can alter your shading on the object. The "O" box is the darkest and "F" is the



is the lightest. The number below the "O to F" number is the preset shading number. They go from 0 (darkest) to 7 (lightest). Use the arrow keys to move over to "F". Press "ENTER". You'll find yourself inside a box where you can edit the pixels. "ENTER" draws, the "SPACEBAR" erases and "FCTN 9" escapes. If you escape, you'll be greeted with another prompt. "FG" means "Foreground Color" and "BG" means "Background Color". You can enter 0 to 9, A to F. The colors are as follows: 0-Transparent, 1-Black, 2-Med.Green, 3-Lt.Green, 4-Dk.Blue, 5-Med.Blue, 6-Dk.Red, 7-Lt.Blue, 8-Med.Red, 9-Lt.Red, A-Dk.Yellow, B-Lt.Yellow, C-Dk.Green, D-Magenta, E-Gray and F-White. "FCTN

9" will escape back to the pattern boxes.

9. Lastly, "B"lank the screen, draw in your shape "S"olid and "FCTN 9" yourself to the Main menu (not the Editing one). Change the "O"bjfile to a new name of your choice and "S"ave\_obj (if you want to). Then, press "P"ics because we'll want to

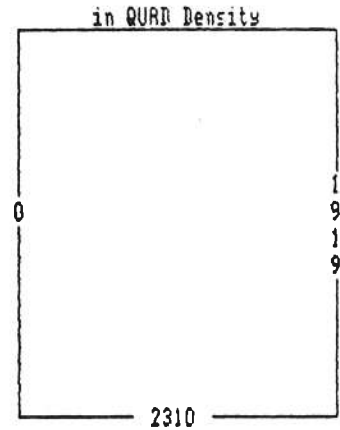
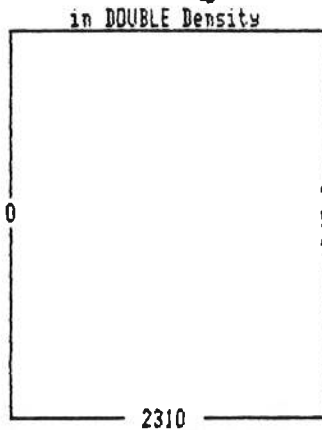
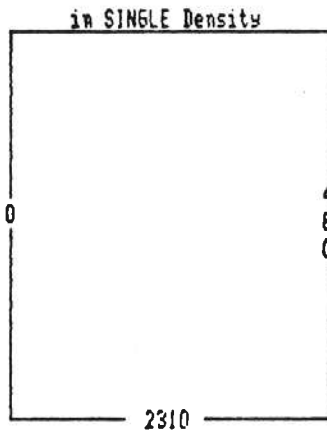


save it into a format we can use in TPA. Pressing "T"og(gle) will show you the image you're planning to save. Press "P"icfile and enter your filename. By adding a "\_P" suffix, you'll be able to play around with it in TI-Artist. Why not call it "DSK2.PICTURE\_P", that way you won't even have to think about the filename. Press "S" to save it and now you're set to convert it with the Toolbox and extern it where ever you want! Before I end this chapter, there's probably one burning question still on your lips. That being why would you want to "L"oad an Artist picture in TGA? Load one at random, don't "B"lank it, and "W"ire or "S"olid something over it. I think you'll find some benefits...

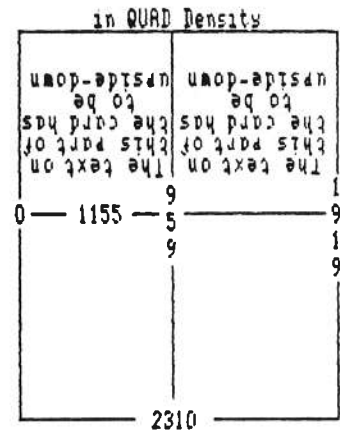
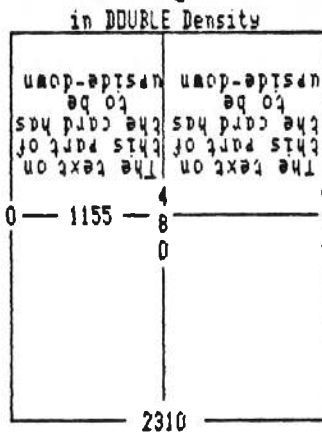
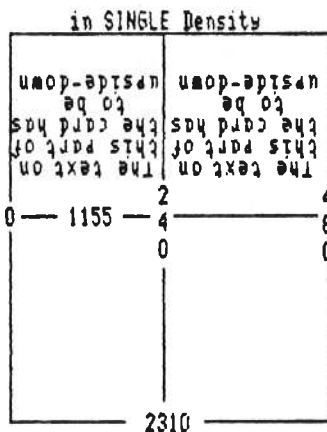
# APPENDIX-A

Here are some page measurements you'll find helpful when using the TI-99/4a version of TPA & TPA Toolbox.

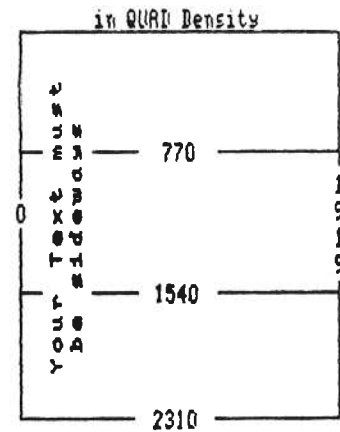
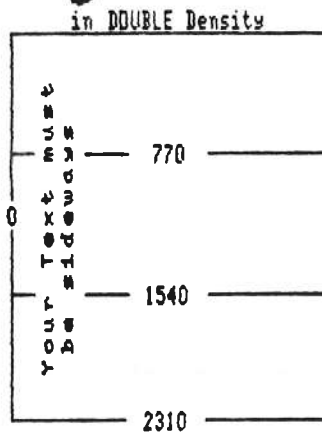
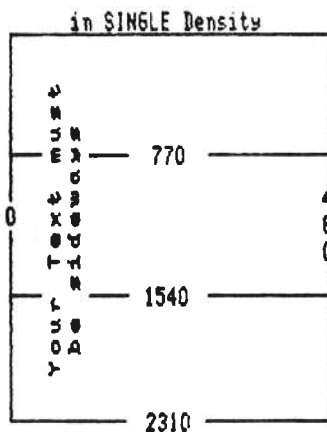
## Formatting a Page...



## Creating a Card...

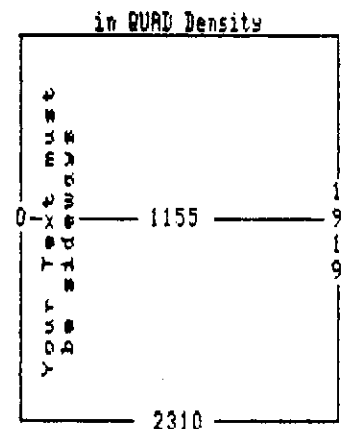
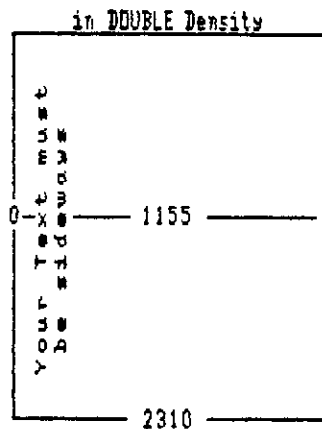
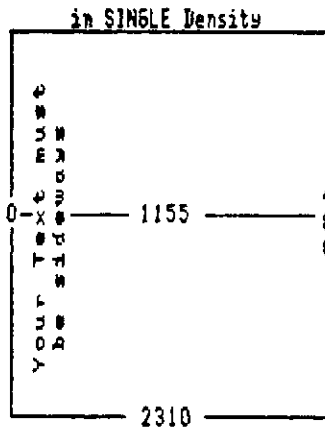


## Creating a 3-Fold Pamphlet...





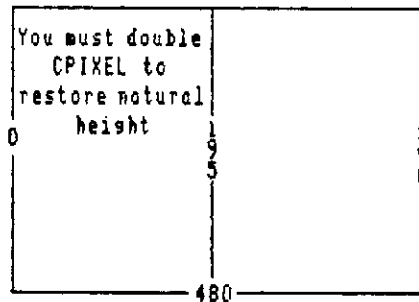
## Creating a 2-Fold Booklet...



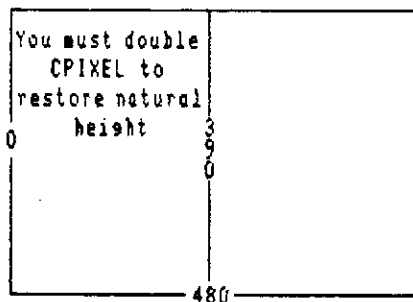
## Page Formats for TPA MDOS

### Creating a 2-Fold Booklet...

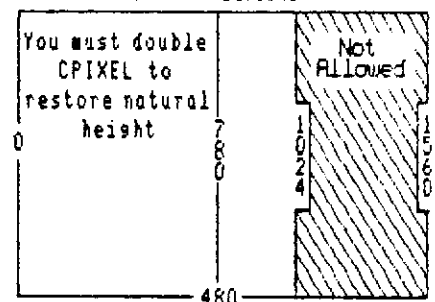
TPA MDOS (landscape mode)  
in SINGLE Density



TPA MDOS (landscape mode)  
in DOUBLE Density

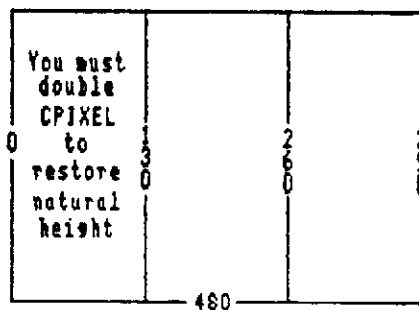


TPA MDOS (landscape mode)  
in QUAD Density

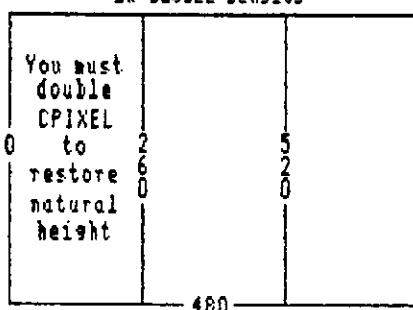


### Creating a 3-Fold Pamphlet...

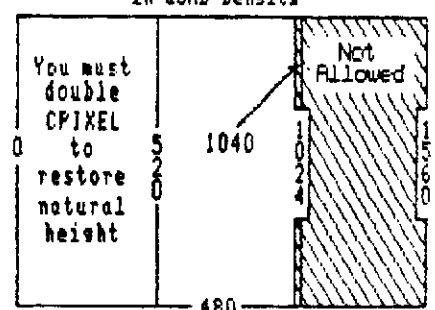
TPA MDOS (landscape mode)  
in SINGLE Density



TPA MDOS (landscape mode)  
in DOUBLE Density



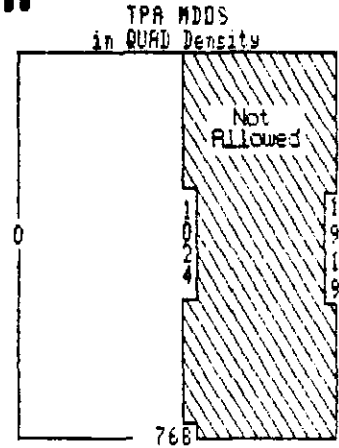
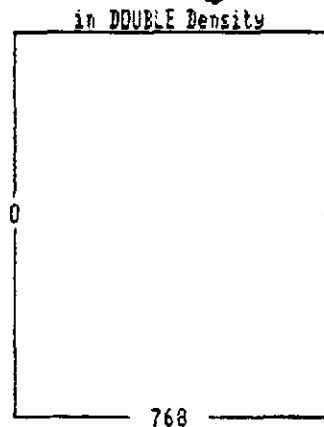
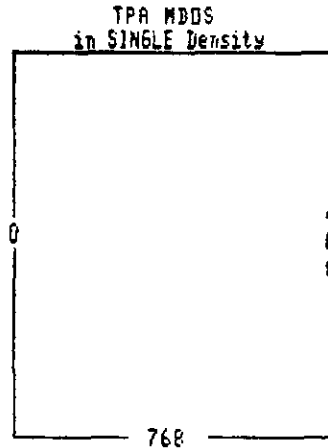
TPA MDOS (landscape mode)  
in QUAD Density



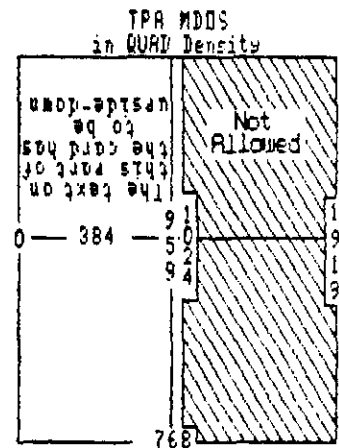
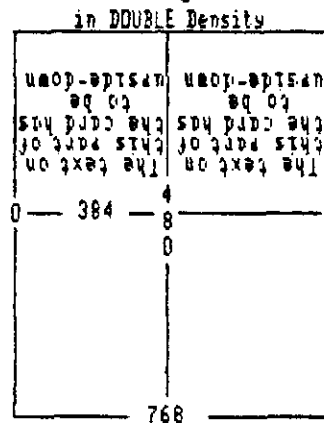
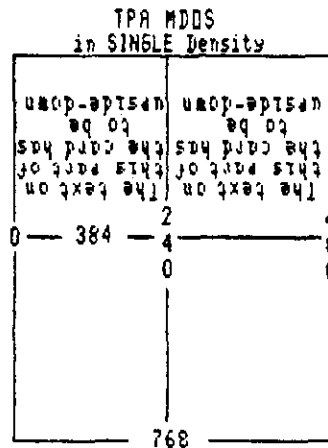
# Page Formats for TPA MDOS

Here are some page measurements you'll find helpful when using the Myarc Geneva 9640 version of TPA.  
(All pages below are printed in PORTRAIT mode)

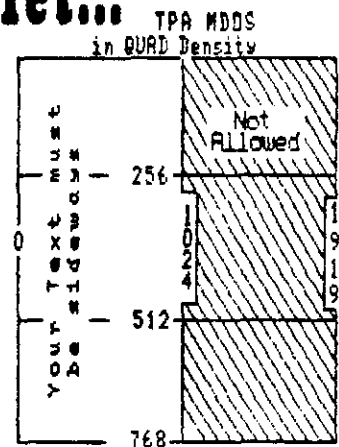
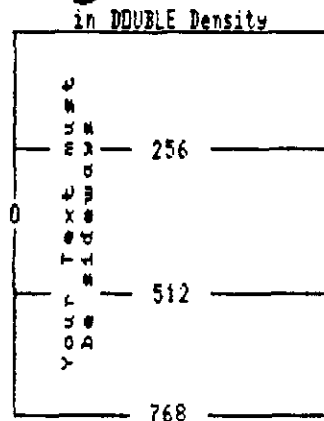
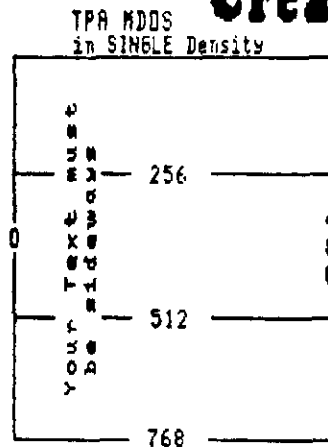
## Formatting a Page...



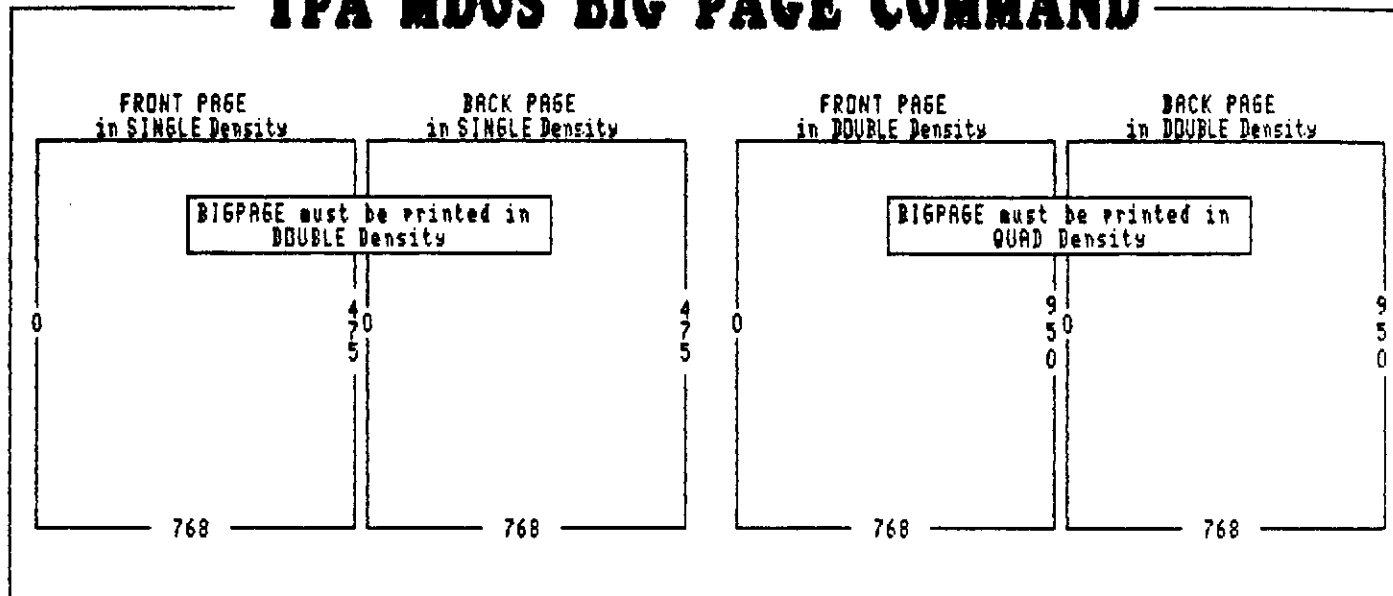
## Creating a Card...



## Creating a 3-Fold Pamphlet...



# TPA MDOS BIG PAGE COMMAND



## APPENDIX-B

### Formulas for Scheduling and Externing

TI Artist PICTURE\_P Size: 192H x 256W  
 TI Artist PICTURE\_P Externed(SD): 576H x 256W  
 TI Artist PICTURE\_P Externed(DD): 576H x 512W (with CPixel x2)  
 TI Artist PICTURE\_P Externed(QD): 576H x 1024W (with CPixel x4)  
 TI Artist PICTURE\_P in TPA MDOS: 192H x 256W

Change TPA MDOS Length to TPA 99/4a Length:  

$$\text{TPA MDOS Length} \times 3 = \text{TPA 99/4a Length}$$

Change TPA 99/4a Length to TPA MDOS Length:  

$$\text{TPA 99/4a Length} \div 3 = \text{TPA MDOS Length}$$

Change TPA MDOS Width to TPA 99/4a Width:  

$$\text{TPA MDOS Width} = \text{TPA 99/4a Width}$$

**SPECIAL NOTES:** The special capabilities of OUSH fonts will only work when the font is formatted in the TPA Formatter. OUSH fonts can be used with TPA Toolbox and TPA MDOS, but they will be treated as SDSH fonts.

# APPENDIX-C

## Font Styles found in this Book

Below you'll find a complete list of fonts used in this book and their source (and author if known). This font you are looking at right now is POGHKEEPSIE and is available on "Genial Font Pack #1" by Peter Hoddie (1987)

**Cooper Black** is available on Notung Software's "Fonts and Borders Volume III" and in TPA format on the enclosed companion disk. The font was created by Ken Gilliland.

**CTYPE1 (aka OUMACTYPE)** is available on Asgard Software's "Artist Fonts Volume I" and in TPA format on the enclosed companion disk. The font was created by Ken Gilliland.

**3D VERSION 2** is available on Notung Software's "Fonts and Borders Volume I". The font was created by Ken Gilliland.

**COFFEE CAN** is available on Notung Software's "Fonts and Borders Volume IV". The font was created by Ken Gilliland.

**BETON** is available on Notung Software's "Fonts and Borders Volume IV". The font was created by Ken Gilliland.

**Legend** is available on Notung Software's "Fonts and Borders Volume IV". The font was created by Ken Gilliland.

**Futura** is available on Asgard Software's "Font Writer II". A TPA version is on the Companion disk. The font was created by Ken Gilliland.

**Baskerville 1** is available on Notung Software's "Fonts and Borders Volume I". The font was created by Ken Gilliland.

**Baskerville 2** is available on Notung Software's "Fonts and Borders Volume I". The font was created by Ken Gilliland.

**Typewriter 2** is available on Notung Software's "Fonts and Borders Volume I". The font was created by Ken Gilliland.

**WETTER** is available on Notung Software's "Disk of Horrors". The font was created by Ken Gilliland.

**Pirate 3** is available on Notung/Asgard's "Disk of Pirates". The font was created by Ken Gilliland.

**Koster** is available on Notung Software's "Fonts and Borders Volume III". The font was created by Ken Gilliland.

**Cartoon** is available on JP Software's "Genial Font Pack Volume I". The font was created by Peter Hoddie.

**Long Island** is available on JP Software's "Genial Font Pack Volume I". The font was created by Peter Hoddie.

**SINALOA** is available on Genesis Systems Software's "Artist Art I". The author is unknown.

**USA** is available on David Rose's "CSGO User Disk #4". The font was created by David Rose.

**GOOOO** is available on Asgard Software's "Artist Fonts Volume I". The font was created by Ken Gilliland.

**STICKS** is available on Asgard Software's "Artist Fonts Volume I". The font was created by Ken Gilliland.

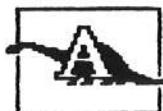
**OUNIQ** is available on McCann Software's "TPA Fonts Disk I". The font was created by Mike McCann.

**OUNINE** is available on McCann Software's "TPA Toolbox". The font was created by Mike McCann.

ELECTRONIC is available on J6P Software's "Genial Font Pack II". The font was created by Peter Hoddie.



is available on Notung Software's "Font and Borders Volume II". The original author is unknown, enhancements made by Ken Gilland.



is available on Notung/Asgard's "Disk of Dinosaurs". The alphabet blocks were created by Ken Gilland.

PAGE PRO 99 fonts used were PLAINLSM and BKNKLG from Asgard Software's "Page Pro Fonts Volume I". The fonts were created by Paul Scheidemantle.

## Artwork used in this Book

Below is a page by page description of any artwork enclosed in this book and its source. The artwork is by Ken Gilland unless otherwise noted.

COVER- "Insane". From Notung Software's "Disk of Horrors". The filename is "INSANE.P".

PAGE i "Notung Logo". From the author's private collection.

PAGE 4,5 "The Vampire". From Notung Software's "Disk of Horrors". The filename is "VAMPIRE2.P".

PAGE 14 "Calvin & Hobbes". From Notung Software's "How to Use TPA.". The filenames are "CALVIN.I" and "HOBBS.I".

PAGE 21 "George Armstrong Custer". From Notung Software's "Disk of the Old West". The filename is "CUSTER.P".

PAGE 26 "TPA Knight". Original Author unknown, enhanced by Ken Gilland. From the author's private collection.

PAGE 35 "Pirate and Dinosaur Artwork". From Notung/Asgard Software's "Disk of Pirates" and "Disk of Dinosaurs". The files used were "BATTLE.P", "P-CREW01.I", "P-CREW02.I", "P-CREW03.I" (from "Pirates"), and "DINOSAR1.I", "DINOSAR3.I", "DINOSAR4.I", "DINOCTNLI" and "DINOCTNELI" (from "Dinosaurs").

PAGE 37 "The Gator Skater". From Notung Software's "Disk of Horrors". The filename is "G-SKATER.P".

PAGE 45 "Ninja Turtles" and "Batman". by Authors Unknown. From public domain and Notung Software's "How to Use TPA.". The filenames are (as the Companion Disk) "MIDDLE.T.P", "BACK.T.P" and "FRONT.B.P".

PAGE 49 "Gunfighter". From Notung Software's "Disk of the Old West". The filename is "OUTLAW02.P".

PAGE 56 "Ceratopsaurus". From Notung Software's "Bride of the Disk of Dinosaurs". The filename is "DINOSR26.P".

PAGE 60-70 "The Portal at Red Canyon". Original drawing by Ken "Keith" Gilland, scanned by Raymond Kazner. From Notung Software's "How to Use TPA." and public domain. The filename is "KGDRAWL.MAC".

PAGE 76-84 "Doodles, drawings, examples, etc." From the author's private collection.

# Using your Companion Disk and not going INSANE

Disk:HOW2USETPA Size: 360 Free:42			
CHAP10*ARK	50	Int/Fix	128
CHAP12*ARK	175	Int/Fix	128
CHAPT6*ARK	8	Int/Fix	128
EXTRAS*ARK	8	Int/Fix	128
ROT192*ARK	3	Int/Fix	128
STICKS	36	Dis/Fix	80
TPAFNT*ARK	72	Int/Fix	128

Hi, I'm a Sdsh FONT

ArcFile: CHAP10*ARK				ArcFile: CHAPT6*ARK			
BACK*B_P	25	Program		AUTOOUSHXB	3	Program	
BACK*T_P	25	Program		CHAP6/LOAD	11	Program	
FRONT*B_P	25	Program					
FRONT*T_P	25	Program					
INSIDE*B_P	25	Program					
INSIDE*T_P	25	Program					
SCHEDULE	3	Dis/Var					

6144

ArcFile: EXTRAS\*ARK

CALVIN_J	12	Dis/Var	80
HOBBS_J	8	Dis/Var	80

ArcFile: CHAP12*ARK			
DRAW*BL	61	Dis/Fix	80
DRAW*BR	86	Dis/Fix	80
DRAW*TL	21	Dis/Fix	80
DRAW*TR	68	Dis/Fix	80
DRAW/SCH	3	Dis/Var	80
EXAMPLE	9	Dis/Fix	80
HEADLINE	15	Dis/Fix	80
KGDRAW_MAC	42	Dis/Fix	128
TEXT1	95	Dis/Fix	80
WESTKG_MAC	48	Dis/Fix	128

ArcFile: ROT192*ARK			
ROTAT192_C	25	Program	6144
ROTAT192_P	25	Program	6144

ArcFile: TPAFNT*ARK			
OUBASKRVL1	68	Dis/Fix	80
OUBASKRVL2	68	Dis/Fix	80
OUCOOPERBK	68	Dis/Fix	80
OUFUTURA	68	Dis/Fix	80
OUMACTYPE	68	Dis/Fix	80
OUTYPEWTR	68	Dis/Fix	80