INDEX OF DESCENDANTS

MAIN MENU

The Printer's Apprentice
Version 1.00
Serial # xxxxxx
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1. Character Editor
2. Picture Editor
3. Formatter
4. Scheduler
5. Exit to Monitor
6. Exit to TI-Forth

FUNCTION: Main Menu allows user to interface with the four subprograms of this system as well as with the TI monitor system and TI Forth.

OPERATION: Press number key corresponding to choice.

ESCAPE: Press choice 5 or 6.

CHARACTER EDITOR

DESCENDANT: Edit Disk Print Convert
Setup eXit

FUNCTION: Character Editor Menu.

OPERATION: There is one capital letter in each option that appears in this menu. Enter capitalized letter of option corresponding to choice. See Descendant for each option on the following pages:

ESCAPE: Use eXit.

CHARACTER EDITOR/Edit

DESCENDANT: Character Editor design screen.

FUNCTION: Design for single strike and over and under strike characters.

OPERATION: All options available through keystrokes.

(f=Function key; c=Control key)

f-s cursor left	s draw cursor left
f-d cursor right	d draw cursor right
f-e cursor up	e draw cursor up
f-x cursor down	x draw cursor down
k erase cursor left	
i erase cursor up	
l erase cursor right	
, erase cursor down	

f-1 Delete column at cursor.
f-2 Insert column at cursor.
f-3 Delete row at cursor.
f-4 Erase screen.
f-5 Change editing window for over and under strike characters.
f-6 Reflects character through vertical axis.
f-7 Reflects character through horizontal axis.
f-8 Inserts row at cursor (will duplicate current row at cursor).
f-9 Escape to Character Editor Menu.

c-R Redraws window to screen.
c-P Prints character. **NOTE: printer name must previously have been entered using print option at Character Editor Menu.
c-9 Character save and load control. SEE Descendant.
c-= Font Height Control. SEE Descendant.

CHARACTER EDITOR/Setup

FUNCTION: Selects the character style for editing. **NOTE: Must be chosen before any other operation.

OPERATION: Enter S for single-strike, single-height characters.

Enter O for over-under, single-height characters.

ESCAPE: Press enter.

CHARACTER EDITOR/Disk

DESCENDANT: Filename Dsk1.Dir eXit

FUNCTION: Sets up font disk file for editing.

OPERATION:

Filename: Each time a font file is to be edited or created, its filename must be entered. SEE Filename Descendant.

Dsk1.Dir: Creates a catalog of files on disk in drive 1.

eXit: Exits to Character Editor Menu.

ESCAPE: Enter X for eXit.

CHARACTER EDITOR/Disk/Filename

DESCENDANT: Enter xxxx font Filename:

FUNCTION: Creates new font file or activates a previously created font file.

OPERATION: Enter a valid filename (i.e., DSK1.FONTFILE) of a font file you wish to create or edit. See CHARACTER EDITOR/Disk/Filename/Create.

**NOTE: If you are entering the name of a previously created font file, the type (OUSH, SDSH) must match or an error message will appear.

ESCAPE: Press Enter.

CHARACTER EDITOR/Filename/Create

DESCENDANT: OPENING NEW XXXX FILE OK? (Y OR N)

FUNCTION: Allows the user to create a new font file or to check to see if the font file desired is on the disk and drive addressed by the program.

OPERATION: When you enter a filename which does not exist this message will appear.

Enter Y to set up a new font file.

Enter N to return to CHARACTER EDITOR/Disk.

ESCAPE: Enter Y. If an error message appears, press any key to return to escape.

CHARACTER EDITOR/Edit/Load-Save (c-9)

DESCENDANT: ASCII Char:
ASCII Code:
Char Width:

Read Write eXit:

FUNCTION: Character Save and Load control allows characters to be read from and written to the font file on disk.
**NOTE: The font file must have been previously created using the disk option from the Character Editor menu.

OPERATION:

ASCII Char: Enter the ASCII character corresponding to the character image to be loaded or saved.

ASCII Code: Enter the ASCII numeric value of the character image to be loaded or saved (optional).

Char Width: Character width must be saved to create either fixed or proportional width characters. Width is found by positioning the cursor on the rightmost darkened pixel of the character and reading the column indicator at the top of the screen (i.e. C019).

Read Write eXit: Enter R to read character from disk.
Enter W to write character to disk.
Enter X to escape to editing screen.

ESCAPE: Press enter repeatedly without typing R or W at the Read Write eXit option.

CHARACTER EDITOR/Edit/Font Height (c-=)

DESCENDANT: Font Height:
Baseline :
Lc Capline :

Read Write eXit:

FUNCTION: Font heights may be loaded from or saved to the font disk file for formatting and editing purposes.

OPERATION:

Font Height: On the left side of the editing screen there is a vertical ruler. Read the font height (1-24) and enter. Font height is the distance from the line 1 on the editing screen to the lowest point in the font.

Baseline: (optional) enter the line characters sit on.

Lc Capline: (optional) enter line which lower case characters rise to.

DESCENDANT: Read:
Write:
eXit:

Enter R: read font height statistics from current font file on disk.
W: write font height statistics to current font file on disk.
X: do nothing. Exit back to Character Editing Screen.

ESCAPE: Press enter until cursor is over X in Read, Write eXit; type X, then enter. Moves back to Character Editing Screen.

CHARACTER EDITOR/Print

DESCENDANT: Prntfile String Variables Go
Writeindx Readindx Extern Back

FUNCTION: Controls all aspects of printing characters and strings as well as allowing font indexes to be created and read.

OPERATION:

Prntfile -- SEE Descendant

String -- SEE Descendant

Variables -- SEE Descendant

Go -- Prints string to Prntfile in DIS/VAR 80 mode acknowledging set Variables.

Writeindx -- For the current font file chosen in the Disk/Filename descendant, Writeindx will read the width of each character, form an index and store it back to the font file. **NOTE: If this option is not executed after editing or creating a font file, character spacing may not be correct.

Readindx -- For the current font file chosen in the Disk/Filename descendant, Readindx will read the character spacing index into memory, allowing strings to be printed with correct spacing.

Extern -- Prints string to Prntfile (usually disk) in DF-80 mode for use by Scheduler. Don't use this to printer, it makes a mess.

Back -- exits back to Character Editor Menu.

ESCAPE: Use Back.

CHARACTER EDITOR/Print/Prntfile

DESCENDANT: Printer File Name

FUNCTION: Allows filename or device name to be entered for output to printer or disk.

OPERATION: Enter a valid filename (i.e. PIO.CR, RS232.BA=4800.CR.DA=8, DSK1.OUTPUT).

ESCAPE: Press ENTER.

CHARACTER EDITOR/Print/String

DESCENDANT: Input String to Print:

FUNCTION: Allows input of a character string for printing to the current printfile device.

OPERATION: Type in characters press enter. **NOTE: Trailing blanks will be trimmed.

ESCAPE: Press ENTER.

CHARACTER EDITOR/Print/Variables

DESCENDANT:

Printer Type Eps--Gem
Density Sd Dd Hs Qd
Left Margin
Right Margin
Space(ASCII 32) Size
Intercharacter Size
Center Line (Y-N)

FUNCTION: Sets up options for string printing as well as single character printing.

OPERATION:

Printer Type Eps--Gem: Enter E for Epson-99/4 printers.
Enter G for Gemini type printers.

Density Sd Dd Hs Qd: Enter first letter of corresponding print density code.

**NOTE: Not all printers support all print densities.

Left Margin: Enter value of left margin:

Sd allows 480 dots per line.
Dd and Hs allow 960 dots per line.
Qd allows 1920 dots per line.

Right Margin: Enter value for right margin. Right margin must be greater than left.

Space (ASCII 32) Size: Enter the number of pixels the space (blank) character will be increased over the width originallly defined in creating the font.

**NOTE: ASCII 32 must be created in character editor for every font file.

Intercharacter Size: Enter the number of pixels the minimum horizontal gap between characters will be.

Center Line: Center the string between left and right margins when printing.

String Size: Will be computed and displayed using the current values of the characters, space size, left margin, centering and intercharacter size.

**NOTE: Remember to write and read in a new font index whenever you change the width of a character. SEE Writeindx and Readindx.

CHARACTER EDITOR/Convert

DESCENDANT: Filenames Writefile eXit

FUNCTION: Upgrade a Sdsh (single strike-single height) to an Oush (over/under strike) font.

OPERATION:

Filenames: (MUST BE DONE FIRST!!)

1. Enter Sdsh Font Filename.
2. Enter Oush Font Filename.

Writefile: (DO THIS AFTER FILENAMES): actually writes Oush file header and copies characters.

eXit: enter X to exit.

ESCAPE: Use eXit.

CHARACTER EDITOR/eXit

DESCENDANT: Insert PA disk in drive 1.

FUNCTION: Back to Main Menu.

OPERATION: Insert PA disk in drive 1 Press any key.

ESCAPE: Press function 9 (f-9) returns to character editor.

PICTURE EDITOR/

Shows a blank screen with a flashing 't' cursor.

FUNCTION: The picture editor has basic drawing functions and serves as an editor for artwork imported from "Artist" programs.

OPERATION:

S draw cursor left
D draw cursor right
E draw cursor up
X draw cursor down

f-S cursor left
f-D cursor right
f-E cursor up
f-X cursor down

K erase cursor left
I erase cursor up
L erase cursor right
, erase cursor down

M reflect picture through central horizontal axis.
N reflect picture through central vertical axis.

f-1 reduces horizontal width of paint brush

f-2 increases horizontal width of paint brush

f-3 reduces vertical height of paint brush.

f-4 clears screen and erases all drawings.

f-5 toggles marker between current cursor position and marker home position (row 0 col 0) in the upper left hand corner of the screen.

f-7 draws/erases line between cursor and marker depending on whether in draw or erase mode.

f-8 increases vertical height of paintbrush.

f-9 exit to Picture Editor exit menu.

f-0 toggles between draw and erase mode.

f-c draws/erases a circle with center at marker and radius computed as the distance between marker and the cursor depending on whether in draw or erase mode.

SEE Page 11 for Control Options.

PICTURE EDITOR/(Continued)

c-= SEE Descendant Klipper Option.

c-8 SEE Descendant Picture Editor Load-Save Option.

c-9 Toggles the row/column counter.

c-p SEE Descendant Picture Editor Print Picture Option.

ESCAPE: Use f-9

PICTURE EDITOR/Load-Save(c-8)

DESCENDANT: Filename Dsk1.Dir Load Save eXit

OPERATION:

Filename: SEE Descendant.

Dsk1.Dir: CAUTION: displays catalog of directory from disk in drive 1 but overwrites the screen!!

Load: Loads the picture file named in Filename to the screen.

Save: Saves the screen to the file named in Filename.

eXit: returns to the Picture Editor screen.

**NOTE: This save-load option is for use with the PICTURE EDITOR Program. See PICTURE EDITOR/Print/Print Picture Options (c-P) for instructions on printing pictures to file for use with SCHEDULER. It is recommended that each picture is saved both ways; one for use with PICTURE EDITOR, and the other (printed to file) for use with the SCHEDULER.

ESCAPE: use eXit.

PICTURE EDITOR/Load-Save(c-8)/Filename

DESCENDANT: Enter Filename:

FUNCTION: Allows entry of valid filename for a picture file. Must be stored in PGM format referred to as "_P" format or picture file (i.e. DSK2.PICFILE_P)

OPERATION: Enter filename. If the file does not exist an error message is raised.

ESCAPE: Enter DSK.z or some nonexistent filename.

PICTURE EDITOR/PRINT/print picture options (c-P)

DESCENDANT: Filename Printer Density Style Extrn Go eXit

FUNCTION: Allows any portion of the screen to be printed or saved in Extrn format. Several options for density, style and printer type are shown.

OPERATION:

Filename: SEE Descendant.
Printer: SEE Descendant.
Density: SEE Descendant.
Style: SEE Descendant.

Extrn: Prints picture area delimited by marker at upper left of the area and by cursor at lower right. Output to disk file in D/F 80 format for use by the Scheduler.

Go: Prints picture area delimited by marker at upper left of the area and by cursor at lower right. Output is in D/V 80 format for use by printer.

eXit: Return to Picture Editor screen.

ESCAPE: use eXit.

PICTURE EDITOR/Print/Filename

DESCENDANT: Enter Filename.

FUNCTION: Allows entry of valid filename for picture printed output (i.e., PIO.CR, RS232.BA=1200.CR.DA=8, DSK2.PRINTFILE, DSK3.EXTERNFILE

OPERATION: Enter Characters (f-s cursor left; f-d cursor right). Enter X for eXit.

ESCAPE: Press Enter.

PICTURE EDITOR/Print/Printer

DESCENDANT: Epson Gemini

FUNCTION: Selects printer type for proper vertical graphics spacing.

OPERATION: Type E(enter) for Epson
Type G(enter) for Gemini

ESCAPE: Press Enter.

PICTURE EDITOR/Print/Density

DESCENDANT: Density Sd-Dd-Hs-Qd

FUNCTION: Allows selection of output print density.
**NOTE: Not all printers support all densities, consult your printer manual.

OPERATION: Enter character corresponding to first character of density option.

ESCAPE: Press enter.

PICTURE EDITOR/Print/Style

DESCENDANT: Single Double Quad

FUNCTION: Three printing styles are available: Single maps 1 pixel from the screen to 1 pixel on the printer. Double maps 1 pixel from the screen to 2 horizontal pixels on the printer. Quad maps 1 pixel from the screen into a block of 4 pixels, 2 vertical, 2 horizontal, on the printer.

OPERATION: Enter first letter of option.

ESCAPE: Press enter.

PICTURE EDITOR/Klipper(c-=)

DESCENDANT: Klipper: Fontfile Enable/Disable eXit

FUNCTION: Klipper allows a character on the screen to be put into a font file for editing by the Character Editor.

OPERATION: Enter first character of option.

Font file -- SEK Descendant
Enable/Disable -- SEK Descendant
eXit -- Enter X.

ESCAPE: Press Enter.

PICTURE EDITOR/Klipper/Fontfile

DESCENDANT: Enter Sdsh Font Filename:

FUNCTION: Activate a current font file or open a new font file with the entered name.

OPERATION: Enter a valid font file name (i.e. DSK1.FONTFILE)

**NOTE: If the font file does not exist the message: "Opening New Sdsh File OK? (Y or N)" will appear. Press the Y key to open a new file, press any other key to escape. If an invalid file name or name of an existing Oush file is present, a disk error message will appear. Press any key to continue.

ESCAPE: press enter.

PICTURE EDITOR/Klipper/Enable

FUNCTION: Activates the Klipper to save characters to the currently active font file.

OPERATION: Enter E for Enable. When you return to the Picture editor main screen the enter key will cause the klipping functions to activate. SEE Klip Descendant.

ESCAPE: use disable.

PICTURE EDITOR/Klipper/Disable

FUNCTION: Deactivates the Klipper.

OPERATION: Enter D for Disable. When you return to the Picture editor main screen, the enter key will no longer perfom the Klip function.

ESCAPE: use disable.

PICTURE EDITOR/Klip [ENTER]

FUNCTION: The character to be klipped can be chosen as well as the area of the bit map which will be saved to the font file and the record referenced by the character.

OPERATION:

A. Place the marker (f-5) at the upper left corner of the area to be klipped.

B. Move the cursor away and press enter.

C. CHAR A --will appear. Enter the character you wish to represent the 24 X 24 pixel bit map to the lower right of the marker. That is, if the bit map area looks like an A enter the character A.

D. WorX X --will appear. Enter W to Write the bit map area to disk. Enter X to exit and do nothing.

ESCAPE: Enter X.

PICTURE EDITOR/Main Screen/f-9 (eXit)

DESCENDANT: Exit and Erase Screen? (Y/N)

FUNCTION: Returns to Printer's Apprentice Main Menu.

OPERATION: Insert Printer's Apprentice Disk in drive 1. Press Y to exit. Press any other key to go back to Picture Editor screen.

ESCAPE: Press any key but Y.

FORMATTER

DESCENDANT: Please Enter Choice

Fontname Printname Textname Go Dsksys
String Hyphenate Vars Extrn eXit

FUNCTION: The formatter options allow the user to take an ASCII text file and format it into a graphics file using a font of choice.

OPERATION: Press the capitalized letter corresponding to your choice.

Fontname -- SEE Descendant
Printname -- SEE Descendant
Textname -- SEE Descendant
Go -- Press G, begins formatting textfile using Fontfile and Printfile variables set.
Dsksys -- SEE Descendant
String -- SEE Descendant
Hyphenate -- SEE Descendant
Vars -- SEE Descendant
Extrn -- Press E, begins building a file for Scheduler using Textfile, Fontfile, Printfile and Vars set.
eXit -- 1) Press X, returns to Formatter Main Menu.
2) Please insert PA disk in Drive 1 appears.
3) Place the PA disk in drive 1, press enter.
4) to escape, press f-9.

ESCAPE: Use eXit.

FORMATTER/Fontname

DESCENDANT: Please Enter Fontfile #

FUNCTION: Requests number of PAB corresponding to the entry for the font file to be used in formatting the text. The file is searched for, if found, the index is read; if not found, WHERE? appears. Correct information should be entered.

OPERATION: Enter the PAB number in the Active File System corresponding to the font file which will be used in formatting the text. The Active PAB chosen must be DIS/FIX/80. The File Type (REL) and Mode (INP) are chosen automatically by the Formatter.

ESCAPE: Enter 0. 0 is an invalid user PAB, and nothing happens.

FORMATTER/Printname

DESCENDANT: Please Enter Printfile #.

FUNCTION: Choose an active PAB corresponding to the file you wish to send graphics output to.

A. For printing choose (PIO.CR or RS232.CR)
   The active PAB chosen must be DIS/VAR/80/SEQ/OUT
B. For Extrn choose a file name (i.e. DSK2.OUTPUT
   DSK1.FILE.OUTPUT). The active PAB chosen must be
   DIS/FXD/80/REL/OUT

OPERATION : Enter PAB number.

ESCAPE: Enter PAB number 0. 0 is an invalid user PAB and nothing happens.

FORMATTER/Textname

DESCENDANT: Please Enter Textfile #.

FUNCTION: Choose an active PAB corresponding to a source text file for formatting. TI Writer can create such a file using the Print File option and Fixed format (i.e. F DSK3.FILE).

**NOTE: The file from TI-Writer must be "pure" text. This version of The Printer's Apprentice will ignore all but LF and CR. All transliterations are accorded their ASCII value.

OPERATION: Enter the PAB number in the Active File System corresponding to the input text file. The active PAB chosen must be DIS/FXD/80. The File Type (REL) and Mode (INP) are automatically set by the Formatter.

ESCAPE: Enter 0. 0 is an invalid user PAB and nothing happens.

FORMATTER/Dsksys

DESCENDANT: Please enter choice.

Active Dir Edit Migrate Zap eXit

FUNCTION: Allows users access to the Active File System.

OPERATION: There is one capitalized letter in each word/option of this menu. To choose an option, press the key associated with the capitalized letter.

Active -- Press A, to display the active PABs.
Dir -- Press D, SEE SCHEDULER/Dsksys/Dir
Edit -- Press E, SEE SCHEDULER/Dsksys/Edit
Migrate -- Press M, SEE Descendant
Zap -- Press Z, SEE SCHEDULER/Dsksys/Zap
eXit -- Press X for eXit

ESCAPE: Use eXit.

FORMATTER/Dsksys/Migrate

DESCENDANT: Please enter PAB number of Source File

FUNCTION: Allows files to be moved from disk to RAM disk.

OPERATION: Make sure the name and parameters of the source and destination files are entered in the Active File System. Mode should be UPD (Update) for both files. Enter the PAB number of the Source File. Then the following descendant appears: Please enter PAB number of Destination. Enter the PAB number of destination file, migration occurs.

ESCAPE: Enter PAB number 0. 0 is an invalid user PAB and nothing happens.

FORMATTER/String

DESCENDANT: Please Enter String to Print.

FUNCTION: This is a test function only. The character editor has better facilities for single string creation or use a one line text file.

OPERATION: Enter a string. Fontfile and Printfile must have been previously set up.

ESCAPE: NONE!! On error, crashes to DO ENTER. Press enter to restart.

FORMATTER/Hyphenate

DESCENDANT: Please Enter Y/N for Hyphen-Help

FUNCTION: Enable/Disable hyphen-help for assisted hyphenation of text in "paragraph" form. Paragraph form is created in TI-Writer in the Word Wrap mode where a CR marks the end of a paragraph.

OPERATION: Press Y or N. When Go or Extrn is chosen the screen is blanked and the text currently being processed appears. A solid block marks the current break or wrap point.

DESCENDANT: Enter Left Right Back.

OPERATION: As follows:

Enter: 1) Press Enter to print the current text as formatted. The text will wrap or break at the first space to the left of the marker.

2) After you have moved the cursor to the point the text is to be hyphenated. Press ENTER and a hyphen will be inserted.

Left: Cursor Left (f-s).

Right: Cursor Right (f-d).

Back: If you have moved the cursor and do not wish to hyphenate press (f-9).

ESCAPE: Press f-9.

ESCAPE: Press N.

FORMATTER/Variables.

DESCENDANT: VARIABLES: Choose, Press Enter.

Prntr Type/ Eps Gem	E
Prnt Dnsy/ Sd-Dd-Hs-Qd	S
Font Style (Sdsh--Oush)	S
Lf Sz/ Eps=216s--Gem=144s	0
Space(ASCII 32) Width	0
Intercharacter Width	0
Font/Ascii	F
Wrap/Fixed	W
Raggd/Mcrojust	R
Left Margin	0
Right Margin	0
Next Breakpoint--Line At xx	xx

FUNCTION: These variables allow a great deal of control and versatility when formatting text.

OPERATION:

Prntr Type/ Eps Gem--Enter E or G corresponding to your printer. The TI 99/4 Impact Printer is Eps type. The Gemini 10X is Gem type.

Prnt Dnsy/Sd-Dd-Hs-Qd--Enter the capitalized letter corresponding to the output density -- single, double, high-speed or quad density. **NOTE: All printers do not support all densities. Consult owner's manual.

Font Style (Sdsh--Oush)--Enter S or O. This must correspond with the font chosen for formatting the text.

Lf Sze/ Eps=216s Gem=144s--Enter the vertical increment between the lines of printed output. Epson type printers have a 216th inch vertical increment as the smallest vertical movement, Gemini type printers have 144th inch movement.

Space (ASCII 32) Width--Enter the amount the default blank or space size is to be increased to enhance the readability of the output.

Intercharacter Width--Enter the minimum distance in pixels or dots between characters. This may be increased automatically by the microjustification option.

Font/Ascii--Output may be in font (graphics) or regular ASCII codes which may be directed to printer or disk file.

Raggd/Mcrojust--Ragged right lines are printed using the character width, intercharacter width and space width as given. Microjustification fills the line with space so that the graphics extend from margin to margin as in a magazine or newspaper.

Left Margin/Right Margin--

Single Density Printing.	0 to 479
Double Density Printing.	0 to 959
Quad Density Printing.	0 to 1919

**NOTE: Left Margin must be lower in value than Right Margin.

**NOTE: If the character width of a word is larger than the distance between the left and right margins the current version will loop infinitely (seldom a consideration).

Next Breakpoint--Line At: xx xxx --The user may halt the formatter after the first line following the breakpoint set. The breakpoint is in 216ths or 144ths depending on printer type (Epson or Gemini).

ESCAPE: Continue to press enter for each variable. At the end you will return to the menu.

FORMATTER/Breakpoint

DESCENDANT: Please Enter Choice

Continue Variables Fontfile
Printfile Abort

FUNCTION: Allows access to variables at breakpoint.

OPERATION:

Continue: Resume execution of Formatter.
Variables: See FORMATTER/Variables.
Fontfile: See FORMATTER/Fontfile.
Printfile: See Descendant.
Abort: Forces Fatal error to DO ENTER press enter to restart system.

ESCAPE: Use Continue or Abort.

FORMATTER/Breakpoint/Printfile.

DESCENDANT: Please Enter Choice

Changing Print Files, OK? (Y/N)

FUNCTION: User may change the output to another file. If using Extrn this writes the statistical information to the disk file and properly closes the file. A new filename must then be chosen to avoid overwriting the previous file.

OPERATION: Press Y or N to change Print files.
SEE FORMATTER/Printfile.

ESCAPE: Press N.

SCHEDULER

DESCENDANT: Please Enter Choice

Edit-sch Save-sch Purge-sch
Load-sch Run Disksys eXit

FUNCTION: Main menu for scheduler program. The SCHEDULER allows the user to print graphics text or graphics picture files created using the Extrn function of the Picture Editor, Character Editor, or Formatter in a precise position on a page.

OPERATION:

Edit-sch -- SEE Descendant
Save-sch -- SEE Descendant
Purge-sch -- SEE Descendant
Load-sch -- SEE Descendant
Run-sch -- SEE Descendant
Disksys -- SEE Descendant
eXit -- SEE Descendant

ESCAPE: use eXit.

SCHEDULER/Edit-sch

DESCENDANT: Filename:

Row:	0	0
Col:	0	0
# Reps:	0	0

Edit Up Down Insert
Print Size Zap eXit

FUNCTION: Allows editing of the scheduler data base. Up to 100 data items consisting of the graphics text or graphics picture filenames as well as the row and column position that file will begin printing and the number of times it will repeat.

OPERATION:

Edit -- SEE Descendant
Up -- SEE Descendant
Down -- SEE Descendant
Insert -- SEE Descendant
Print -- SEE Descendant
Size -- SEE Descendant
Zap -- SEE Descendant
eXit -- Press X, returns to SCHEDULER Menu.

ESCAPE: use eXit.

SCHEDULER/Edit-sch/Edit

DESCENDANT: Edit

FUNCTION: Allows data entry in the data items comprising the schedule data base.

OPERATION: As follows:

FILENAME: Pressing E will place the cursor at the Filename position, enter a valid filename corresponding to a disk file produced by the Extrn function of the Character Editor, Picture Editor or Formatter, (i.e., DSK1.FILENAME, DSK.DISKNAME.FILENAME)

ROW: Enter the row where the file will start printing. An Epson page is divided into 216ths of an inch vertically. A Gemini 10X page is divided into 144ths of an inch vertically. To begin printing a file 1 inch from the top, enter 216 or 144 respectively.

COL: For single density printing, the page is divided into 60ths of an inch horizontally.

For double density and high speed printing, the page is divided into 120ths of an inch horizontally.

For quad density printing, the page is divided into 240ths of an inch horizontally.

To begin printing a single density file 1 inch from the left edge, at COL enter 60.

#REPS: To print the file, enter 1. To skip this file, enter 0. For printing borders, etc., enter a number corresponding to the number of repetitions of the file to be printed.

ESCAPE: Press enter repeatedly.

SCHEDULER/Edit-sch/Up

DESCENDANT: Up

FUNCTION: Data items are numbered at the top of the screen. Up moves from item n to item n-1.

OPERATION: Press U.

ESCAPE: Not Applicable.

SCHEDULER/Edit-sch/Down

FUNCTION: Data items are numbered at the top of the screen. Down moves from item n to item n+1.

OPERATION: Press D.

ESCAPE: Not Applicable.

SCHEDULER/Edit-sch/Insert

FUNCTION: Allows a blank data item to be inserted in front of the current item.

OPERATION: Press I.

ESCAPE: Not Applicable.

SCHEDULER/Edit-sch/Print

FUNCTION: Prints the schedule to an output device as a D/V 80 file. The output device name must have been entered as an active file. SEE Disksys.

ESCAPE: Use PAB #0 as output. This is an invalid user PAB and does nothing.

SCHEDULLER/Edit/sch/Size

FUNCTION: Size reads statistical information from the file named in the Filename field of the current data item. These statistics represent the row and column of the lower right corner of the graphic stored in the file. This is automaticaly added to the row and column that the user has entered as the upper left corner of the graphic. This allows the extent of the graphic, its size or area, to be displayed. The horizontal size is a function of the print density. The vertical size, in pixels or dots, is a function of the smallest vertical increment available on the printer type the graphic was stored under. (216ths inch for Epson, 144ths inch for Gemini) and the number of repetitions indicated. **NOTE: Make sure the file is on the disk in the drive named. If not, a fatal error will occur erasing your database from memory. (After you have typed in the data, save it before you start to arrange things.)

OPERATION: Press S.

ESCAPE: None.

SCHEDULER/Edit-Sch/Zap

FUNCTION: Zap deletes the current data item from the database and moves data up from lower numbered items, if any exist.

OPERATION: Press Z.

ESCAPE: None.

SCHEDULER/Save-sch

DESCENDANT: Please Enter PAB number of Save Sched

FUNCTION: Saves the schedule to a file name declared in the Active File System PAB blocks. The file must be declared as a DIS/FIX 80 file. Sequential (SEQ) must be declared as file type. Update (UPD) is set automatically.

OPERATION: Press S. Enter 1-7 for the PAB number corresponding to the file you wish to save the schedule.

ESCAPE: Enter 0 for the PAB number. 0 is an invalid user PAB and does nothing.

SCHEDULER/Purge-Sch

FUNCTION: Erases all entries in the schedule data base. Resets the current data item to 1.

OPERATION: Press P.

ESCAPE: none.

SCHEDULE/Load-sch

DESCENDANT: Please enter PAB number of Load Schedule.

FUNCTION: Loads a previously saved schedule from a file declared in the Active File System PAB blocks. Schedules are saved as DIS/FXD 80 files. Sequential (SEQ) must be declared as file type. Update (UPD) is set automatically.

OPERATION: Press L. Enter PAB number containing schedule file to load.

ESCAPE: Enter 0 for the PAB number. 0 is an invalid user

PAB nothing happens.

SCHEDULE/Run

DESCENDANT: Please enter PAB number of Print File.

FUNCTION: Run executes the schedule as if it were a program. Each data item is inspected by the interpreter and each graphics record on each file is printed in its proper position based on the row and column number and the number of repetitions in the data item.

OPERATION: Press R. **NOTE: Make sure all files declared in the schedule are in a disk drive. Enter the PAB number of the device name (i.e. PIO.CR) to which the graphics will be printed.

ESCAPE: Enter 0 for the PAB number. 0 is an invalid user PAB nothing happens. When printing Function-4 (f-4) will abort the program when printing causing a fatal error. The system message DO ENTER will appear. Press enter repeatedly until the Schedule menu appears. Reload the Schedule and restart.

SCHEDULE/Disksys

DESCENDANT: Please enter choice.

Active Dir Edit Exit Zap.

FUNCTION: Allows the user to enter the names and parameters of files and device names directly into PABs (Peripheral Access Blocks) for use in input and output from the program.

OPERATION: Press the key corresponding to the capitalized letter of the function chosen.

Active: Press A, displays active files.
Dir: Press D, SEE Dir Descendant.
Edit: Press E, SEE Edit Descendant.
eXit: Press X, escapes to Scheduler menu
Zap: Press Z, SEE Zap Descendant.

ESCAPE: Use eXit, see above.

SCHEDULER/Disksys/Dir

DESCENDANT: Please enter drive number.

FUNCTION: Displays directory of disk chosen and allows user to activate files.

OPERATION: Press D and then enter drive number containing disk to be cataloged.

ESCAPE: None.

SCHEDULER/Disksys/Dir/Active

DESCENDANT: DSK.NAME: XXXX DSKX.

FILENAME X/X NN XXX N

FUNCTION: Allows user to move a filename and parameters from the directory catalog to the active file system.

OPERATION:
enter -- moves cursor down one line.
f-e -- moves cursor up one line
f-x -- moves cursor down one line
f-9 -- escapes Dir
f-6 -- goes to next page of directory
A -- marks the file at the cursor position for movement to active file system.
Space Bar -- unmarks a previously marked file.

ESCAPE: Use f-9.

SCHEDULER/Disksys/Edit

DESCENDANT 1: Please enter PAB number to edit.
DESCENDANT 2: Name Data-Type Record-Type File-type
Length-Rec Mode Status eXit

FUNCTION: Allows editing of all the file parameters of a peripheral access block (PAB).

OPERATION:

DESCENDANT 1: Enter number of the PAB (1 to 7) you wish to edit.

DESCENDANT 2: Press the key corresponding to the capital letter of the option you wish to use. Functions are standard for TI. References: Basic User's Reference Guide p. II-118-121; Extended BASIC Manual p. 138-140. Editor Assembler Manual p. 291 ff. Also see specific settings in formatter print and extern sections.

**NOTE: Use Status with caution and only on disk files.

ESCAPE: use eXit

SCHEDULER/Disksys/Zap

DESCENDANT: Please enter PAB number to Zap.

FUNCTION: Erases a previous PAB active file.

OPERATION: Enter the number of the PAB to Zap.

ESCAPE: Enter 0. 0 is an invalid user PAB, and does nothing.

SCHEDULER/eXit

DESCENDANT: Insert PA Disk in Drive 1

FUNCTION: Allows return to PA Main Menu.

OPERATION: Insert PA Disk in Drive 1, press enter.

ESCAPE: Press f-9, returns to Scheduler menu.

**NOTE: If PA disk is not in drive 1, wait until drive stops press enter until menu appears, or type PA and press enter or reboot.

The following script will demonstrate some of the features of the the CHARACTER EDITOR. If you follow each keystroke and observe the action it will help you along the way toward mastery of this editor. Note the Setup, Disk and Print are entered and set up first this is absolutely necessary to make the CHARACTER EDITOR work correctly.

Location	Keystroke	Action
TPA Main Menu	1	Loads CHARACTER EDITOR
CHARACTER EDITOR/Setup	S Enter	Setup for Single Strike-Single height Character
CHARACTER EDITOR/Disk	D Enter	Disk Setup Menu
CHARACTER EDITOR/Disk/Filename	F Enter	Enter Filename as as follows:
	DSK2.BAUHAUS	Verifies Character set is present.
CHARACTER EDITOR/Disk/Exit	X Enter	Return to CHARACTER EDITOR
CHARACTER EDITOR/Print	P Enter	Print Menu
CHARACTER EDITOR/Prnt/Prntfile	P Enter	Printfile Setup
	PIO.CR*	Address printer
CHARACTER EDITOR/Prnt/Variable	V Enter	Variable Menu
	EorG Enter	Enter Printer Type
	S Enter	Single Density Printing
	Enter	Left Margin 0
	479 Enter	Right Margin 479
	4 Enter	Space Size
	2 Enter	Intercharacter Size
	N Enter	Do not Center Line
CHARACTER EDITOR/Print/Back	B Enter	Return to CHARACTER EDITOR
CHARACTER EDITOR/Edit	E Enter	Character Design Screen
CHARACTER EDITOR/Edit/Load and Save Control (C-9)	C-9	Character Save and Load Control
	P Enter	Calls individual Letters
	Enter	Skip ASCII Code
	Enter	Skip Width
	R Enter	Read in character

CHARACTER EDITOR/Main Screen	C-R	Rewrites window to screen
	F-1	Delete Column at Cursor
	F-2	Inserts Column at Cursor
	F-3	Deletes Row
	F-8	Inserts Row (with fill)
	F-6	reflects through vertical axis
	F-7	reflects through horizontal axis
	C-P	Prints Character
CHARACTER EDITOR/Font Height	C-=	Font Height Control
Enter	Enter	Just step through
	to see where to	
	Enter	enter font
	Enter	heights
CHARACTER EDITOR/Edit	DDDDDD	draw cursor right
	KKKKKK	erase cursor left
	F-X F-X	cursor down
	F-4	erase screen
	F-9	escape to character editor
CHARACTER EDITOR/Print	P Enter	Print menu
CHARACTER EDITOR/Print/String	S Enter	String Function
"The Printer's Apprentice"	Enter a string	
CHARACTER EDITOR/Print/Go	G Enter any key	Prints String
CHARACTER EDITOR/Prnt/Prntfil	P Enter	Printfile name (use an empty disk)
	DSK2.TPA	Address Disk Print
CHARACTER EDITOR/Print/Extern	E Enter	Prints String to Disk
CHARACTER EDITOR/Print/Back	B Enter	Returns to CHARACTER EDITOR Menu
CHARACTER EDITOR/eXit	X Enter	Exits CHARACTER EDITOR

* Your printer may be RS232.BA=4800.DA=8.CR or some other name.

This script is a little introduction to the PICTURE EDITOR and JuliBear. When you see f-X that means press the function key and the X key. When you see c-X press control key and X key. Using the script will give you an idea of some of the options in the PICTURE EDITOR and how cute our little bear is.

PICTURE EDITOR

Location	Keystroke	Action
TPA Main Menu	2	Load PICTURE EDITOR
PICTURE EDITOR Editing Screen	c-8	Picture File Load/Save
PICTURE EDITOR/Load-Save/Filename	F Enter	File Name Editor
**Make sure the font disk is in a disk drive)		
	DSK2.JuliBear_P	Enter the Filename
	L Enter	Loads the Picture
	X Enter	Exits to Editing Screen
PICTURE EDITOR Editing Screen	f-D	Cursor Right
**Hold f-D until cursor is right of our little bear.		
	f-X	Cursor Down
**Hold f-X until cursor is at little bear's feet		
PICTURE EDITOR/Print	c-P	Picture Print Option.
	F Enter	Filename Editor
	PIO.CR	Enter Print File Name*
	P Enter	Printer Type Variable
	E or G Enter	Epson or Gemini(choose)
	D Enter	Print Density Variable
	D Enter	Choose Double
	S Enter	Style Variable
	D Enter	Choose Double Density
	G Enter	GO--Prints JuliBear.
	X Enter	Exits the Print Option
**Hold f-X until cursor is at little bear's tummy		
PICTURE EDITOR Editing Screen	c-9	Turn on the r/c pointer
	K K K K K	Try drawing
	f-2	Fatten your brush
	S S S S S	Paint with the keys
	L L L L	Erases too
	N	Flips the Pic
	f-4	Erases Screen
f-S f-D	f-K f-X	Use the cursor keys to to move to screen center
	f-5	Places the marker
	f-D	Use f-D to move about 20 spaces to the right of the marker.
	K	Draw one pixel (draw on)
	f-C	Draws a Circle
	f-7	Draws a Line
	f-O	Erase Mode on
	f-C	Erases Circle
	f-9	Moves to Exit PICTURE EDITOR.

The following script will get you started with the FORMATTER. It demonstrates the Active File System and how to set up the many options available through the FORMATTER variables page. Please note that the fontfile, printfile and textfile as well as all the variables must be set before you hit Go or Extrn. The hyphen help is also explained. If you are not sure about the operation look in the index for the function you are using.

FORMATTER

Location	Keystroke	Action
TPA Main Menu	3	Loads Formatter
FORMATTER/Dsksys	D	Opens Active File System
FORMATTER/Dsksys/Dir	D	Loads Directory of Disk
	2 ENTER	Addresses Disk Drive 2

You will now see the directory of the disk in the drive chosen. To activate a file, cursor down with F-X or enter and place a capital "A" beside the file (or files). **NOTE: There are only 7 spaces on the FORMATTER Active File System.

FORMATTER/Dsksys/Dir	A (by OUBAUHAUS)	to activate font file
	A (by TEXT)	to activate text file
	ENTER DOWN THROUGH MENU	
FORMATTER/Dsksys/Active	A	Activates files chosen
FORMATTER/Dsksys/Edit	E ENTER	Editing Active Files
	3 ENTER	Making Active File to Address Printer
	N PIO.CR **NOTE: (1) Space to end of highlighted file block; and, (2) Your printer may have different address, check your printer manual for this.	
	R VAR ENTER	Changing Record Type
	L 80 ENTER	Setting length of file
	M OUT ENTER	Changing Mode
	X	Returns to FORMATTER/ Dsksys
FORMATTER/Dsksys/Edit	E	Addressing Disk file to save text
	4 ENTER	
	N DSK2.PRINT ENTER -naming file (See notes above.	
	F REL ENTER	Changing filetype
	L 80 ENTER	Setting File Length
	M OUT ENTER	Changing Mode
	X	Returns to FORMATTER/ Dsksys

FORMATTER/Dsksys/Active	A	Activates files.
	**NOTE:	PAB blocks 1 to 4 now show active files on screen.
FORMATTER/Dsksys/eXit	X	Returns to FORMATTER
FORMATTER/Variables	V	Displays Variable Menu
	E or G ENTER	Choosing printer
	D ENTER	Setting double-density
	O ENTER	Setting over-under strike characters
	ENTER	leaving linefeed at auto
	5 ENTER	Space size
	3 ENTER	Intercharacter space
size		
	F ENTER	Choosing Font Printing
	W ENTER	Choosing wrap
	M ENTER	Choosing microjustify
	0 ENTER	Leaving Right Margin 0
	440 ENTER	Setting Left Margin
	ENTER	Not setting breakpoint
FORMATTER/Fntname	F ENTER	Choose 1; (font file)
FORMATTER/Prntname	P ENTER	Choose 3; (printer)
FORMATTER/Txtname	T ENTER	Choose 2; (text file)
FORMATTER/Hyphenate	H ENTER Y	Turns on Hyphenation
FORMATTER/Go	G ENTER	

Your machine will start working the disk drives, and soon, the screen will show some text. The blinking cursor shows the last space available in the line. If you want the line to end on the last space before the cursor, press enter. If you want to move the cursor use F-S and press enter where you want the hyphen to appear. Use F-9 if you have moved the cursor, but do not want a hyphen inserted. This will return you to the original cursor position. The printer will start soon after you have made this hyphenation decision.

FORMATTER/Prntname	P ENTER	Choose 4; (disk file)
FORMATTER/Hyphenate	H ENTER N	Turns off hyphenation
FORMATTER/Extern	E ENTER	

The program is now printing your text reformatted into a font display to the disk for use wittb tbe SCHEDULER.

FORMATTER/eXit	X	Returns to PA Main Menu

SCHEDULER

Location	Keystroke	Action
TPA Main Menu	4 ENTER	Loads Scheduler
SCHEDULER/Dsksys	D	Opens Active File System
SCHEDULER/Dsksys/Active	A	Activates the Active File System

If you have gained access to this portion of the program directly after using the FORMATTER, the printer is already addressed. If not, please consult FORMATTER instructions for proper addressing of printer and disk files.

SCHEDULER/Dsksys/Edit	E	Opens up file for saving schedule
	N DSK2.SCH	Naming file
	F REL ENTER	Changing filetype
	L 80 ENTER	Setting file size
	M OUT ENTER	Setting Mode
SCHEDULER/Dsksys/eXit	X	Exiting to SCHEDULER
SCHEDULER/Edit-Sch	E	In Scheduler
	E DSK2.JuliBear_X	ENTER Schedules Picture
	216 ENTER	Sets Epson Printer 1" from top
	240 ENTER	Sets quad density picture 1" from right side
	1 ENTER	Sets 1 repetition
	S ENTER	Sizes picture
	D ENTER	Brings down next SCHEDULER blank (U brings up last one)
	E DSK2.PRINT	Entering next file
	350 ENTER	Setting down 3"
	120 ENTER	Brings Double Density file in 1"
	1 ENTER	One repetition
	S ENTER	Sizes Text
	X	eXits to SCHEDULER
SCHEDULER/Save-Sch	S 5 ENTER	Saves Schedule to file
SCHEDULER/Run	R 3 ENTER	READY TO PRINT SCHEDULE
	X	Exit from Scheduler

THE PRINTER'S APPRENTICE
McCann Software
P.O. Box 34160
Omaha, NE 68134

THE PRINTER'S APPRENTICE -- VERSION 2.00

Version documents for the redesigned FORMATTER and SCHEDULER. Please read these documents carefully. For the fastest start using TPA please work through the scripts on the last page of the version documents.

Configuration Program/

The text and screen colors and print file defaults may be changed using the following procedure.

1. NEVER configure your original system disk! Make a copy then configure the copy. The configuration program writes to the disk and if there is some problem it may corrupt your disk.

2. At the TPA main menu/copyright screen and with the copy of TPA in disk drive 1, press FCTN-9.

3. After a few moments, instructions will appear allowing you to enter the two digit (01 -- 15) of the text and background colors and the default print file name. Consult the TI-Basic or other manual for the color codes.

4. Enter your choices. You will be asked Y/N to write the choices to disk. If you made an error or don't like your choice press N. You may rerun this program any number of times.

NOTE: The PICTURE EDITOR uses two cursors. The main cursor is white, the secondary cursor is red. Changing the foreground or background color to one that is incompatible with these is not advised. Since TPA is NOT COPY PROTECTED, you may wish to configure more than one copy for separate uses.

Version 2.00 Notes:

This version of The Printer's Apprentice is being distributed on "flippie" diskette media. For safe keeping please make a copy of the "front" (label side) of the disk using Disk Manager 2, DM-1000 or other suitable program. The copy must be in single-sided single-density format only and should be copied in bit-map, disk-copy or disk-clone mode. Flip the flippie diskette over and copy the back side to another diskette. The "back" contains the fonts.

The files BAUHAUS, TREASURE and TYPER are font files we call SDSH (single strike) fonts. The files OUBAUHAUS, OUARTDECO and OUFINE are OUSH (over-under strike) fonts. We developed the OUSH technique to create a more dense, smoother character than is possible with any other font producing program for the 99/4A.

Using TI-Writer files with TPA: The FORMATTER will format TI-Writer files if they have been "printed" to disk in "fixed" format. Instead of SaveF use PrintF and the F (fixed) prefix (i.e. F DSK2.TEXTFILE).

FORMATTER

```
FORMATTER/Main Menu

Go Dir Vars Hyphen Jotter eXit

E Printer PIO.CR
B Txtfile DSK2.TEXTFILE
  Fntfile DSK2.TYPER
```

FUNCTION: The FORMATTER main menu allows access to all the program's features including the three files necessary for creating formatted output, the jotter word processor and other utilities including variables, directory and hyphenation.

OPERATION: Press the captialized letter corresponding to the option to be used. This includes the E or B adjacent to the Printer and Txtfile options which switch to Extrnfile or Buffer respectively.

E Printer -- See Descendant.

B Txtfile -- See Descendant.

Fntfile -- See Descendant.

Go -- Initiates the formatting procedure using the three files represented by the filenames below the menu as source and destination files for the formatting procedure.

Dir -- Obtains a directory of the chosen disk drive: The option will prompt the user for drive number. Fctn-6 (PROC'D) gets the next page of filenames Fctn-9 (BACK) releases back to the menu.

Vars -- See Descendant.

Hyphen -- See Descendant.

Jotter -- See Descendant.

eXit -- Press X to return to TPA main menu screen. Prompt "PLEASE INSERT PA DISK IN DRIVE 1" will appear. To exit press any key. To escape press FCTN-9.

FORMATTER/E Printer
FORMATTER/P Extrnfile

FUNCTION: Output may be sent to either of two destinations. The Printer option creates Display Variable 80 files suitable to be sent directly to a file like PIO.CR or RS232.BA=XXXX.CR.DA=8 either would represent a graphics printer. The Extrnfile option creates an 'Extrn' file in Display Fixed 80 format using a compression technique and a special header/footer for use by the SCHEDULER. Extrnfile output should only be sent to a diskfile. Output will be sent to the destination represented by the option name (Printer or Extrnfile) currently visible.

Operation: To modify the filename for or select Printer type output press P. This will move you to the Printer option filename which you may modify to suit your graphics printer filename. To modify the filename for or select an Extrnfile press E. This will move you the Extrnfile option filename which you may modify to suit your disk drive specification.

Escape: Fctn-9 will escape back to the menu.

NOTE: This option must be selected before Go is pressed. The correct file name for your choice of output must be visible. When printing make sure the last paragraph ends with a carriage return mark.

FORMATTER/B Txtfile
FORMATTER/T Buffer

FUNCTION: The FORMATTER will format text from either of two sources. The Txtfile option accepts a disk file in Display Fixed 80 format. The Buffer option formats the contents of the Jotter (the FORMATTER'S own word processor). This formatting is done according to the Fontfile and variable settings; and sent to the printfile or extrnfile.

OPERATION: To modify the filename or select the Txtfile input option press T. To select the Buffer input option press B. Pressing T will move the cursor to the Txtfile filename for modification. Formatting will take place using text from which ever source option name is visible when Go is pressed.

ESCAPE: FCTN-9 will escape the Txtfile option back to the menu.

NOTE: To create a Textfile that can be read by the FORMATTER you may use the TI-WRITER Printfile utility and the Fixed file option. Simply press PF at the command line and preceed your file specification by an F (i.e. F DSK2.TEXTFILE)

Since the FORMATTER uses every byte possible in formatting, even the area where the characters are stored, we have room for only two disk files. Using a Fixed file allows us to use relative accessing mode to read the next line of text. This saves a lot of time and makes use of quad-density printing possible.

FORMATTER/Fntfile

FUNCTION: The FORMATTER uses your choice of fontfile to format text into text graphics output. The fontfile may be specified by the Fntfile option.

OPERATION: To modify the font filename press F. When Go is selected the FORMATTER will use the font file name currently visible to format the text.

ESCAPE: FCTN-9 will escape the Fntfile option.

NOTE: The file specification must be a proper filename (i.e. DSK1.FONT or DSK.DNAME.FONT). Hint: If you are formatting lots of text and using a diskette. put the fontfile on the diskette as the first or only file-this speeds disk access. Better yet, install the fontfile on one of the fine ramdisks available.

FORMATTER/Go

FUNCTION: Go initiates the formatting process.

OPERATION: Press G. If the FORMATTER cannot find the text file, the error message "Where's DSKn.name" will appear. Press enter, install the proper diskette and repeat.

If the FORMATTER cannot find the font file the error message "Where's DSKn.name" will appear. Press enter, install the proper diskette and repeat.

ESCAPE: If output is to the Printer option, press FCTN-4 until the error message "DISK ERROR PRESS ENTER" is raised. Press ENTER until the main menu reappears. If output is to the Extrnfile there is no option currently available to interrupt disk activity.

FORMATTER/Vars(Variables)

DESCENDANT:

Variables: Choose, Press Enter.

Prntr Type/ Eps Gem	E
Prnt Dnsy/ Sd-Dd-Hs-Qd	S
Font Style (Sdsh--Oush)	S
Linefeed Size	0
Space(ASCII 32) Width	4
Intercharacter Width	2
Font/Ascii	F
Wrap/Fixed	W
Raggd/Mcrojust	R
Left Margin	0
Right Margin	400
Next Breakpoint--Line At	0

FUNCTION: The variables control virtually every aspect of formatting.

Prntr Type/ Eps Gem--enter E or G corresponding to your printer type. The TI 99/4 Impact Printer is Eps type. The Gemini 10X is Gem.

Prnt Dnsy/Sd-Dd-Hs-Qd--enter the capital letter of the output density you desire. Not all printers support all densities, consult owner's manual.

Font Style (Sdsh--Oush)--enter S or O. We try to label our font files with OU for Oush fonts. Oush are about 68 sectors Sdsh are about 35.

Linefeed Size--enter the size of the vertical space between lines. Eps type printers have 216ths inch micro linefeeds Gem types have 144ths inch.

Space (Ascii 32) Width--This is the amount of space allowed between words where normally a blank character is placed.

Intercharacter Width--enter the minimum distance in pixels or dots between characters. This may be increased automatically by the microjustification option.

Font-Ascii--Output may be in font (graphics) or ASCII codes which may be sent to the printer. Formatting in ASCII then checking the "Line At" may be a good way to plan the size of your text vertically without formatting it again and again in font.

Raggd/Mcrojust--Ragged right lines are printed using the character width, intercharacter width, space width and word wrap to determine where each character is placed. Microjustified text does the above, plus, it fills from left to right by increasing the size of the space and intercharacter width like in a newspaper or magazine.

Left/Right Margins--

Single Density Printing -- 0 to 479.
Double Density or Hs -- 0 to 959.
Quad Density -- 0 to 1919.

**NOTE Left margin must have smaller value than the right.

Next Breakpoint--Line At: xx xx --The user may set a breakpoint which will halt the formatting process when the number of vertical linefeeds goes beyond this value. See linefeed size above and see FORMATTER/Go/Break.

ESCAPE: Continue to press enter for each variable at the end you will return to the menu.

FORMATTER/Go/Break Menu

DESCENDANT:

Please Enter Choice

Continue Variables Fontfile
Dir Printfile Terminate

FUNCTION: The Break Menu is displayed when the break point set in the variables has been reached in the formatting process. The options displayed are available to modify the environment and continue the formatting job.

OPERATION: Press the capitalized letter corresponding to the option to be used.

Continue -- allows the job to be continued at the point in the formatting process where it was broken.

Variables -- See Variables descendant. Note: If you reset the break point to zero, formatting will proceed to end of text. If you leave the break point as is, the break point will be raised again after the next line.

Fontfile -- places the cursor on the current fontfile name to allow choice of a new font file. FCTN-9 escapes.

Dir -- calls up directory of the chosen disk drive. Enter 0 to escape.

Printfile -- changes the output file, for use with Extrn files allows file to be closed and new Extrn file opened.

Terminate -- Abend the job.

ESCAPE: Use Terminate or Continue.

FORMATTER/Hyphen

DESCENDANT: Please Enter Y/N for Hyphen-Help

FUNCTION: Enables or disables hyphen-help for assisted hyphenation of text in paragraph form. Paragraph form means a carriage return mark occurs in the text only at the end of the paragraph, end of stand alone line or on a blank line.

OPERATION: Press Y or N. When formatting commences if there are appropriate places in the text for optional hyphenation the current text line will appear. A solid block marks the break or wrap position.

DESCENDANT: Enter Left Right Back

FUNCTION: The above choices appear when formatting is halted awaiting the user's choice for hyphenation of the text displayed at the top of the screen.

OPERATION:

Enter -- continue formatting, if the cursor has been moved to the left of the block a hyphen will be inserted in the text at that point.

Left -- FCTN-D moves the cursor left.

Right -- FCTN-S moves cursor right.

Back -- continue formatting ignoring the cursor movement (i.e. ESCAPE).

ESCAPE: Press N at Y/N for Hyphen Help.

FORMATTER/Jotter

DESCENDANT:

LoadF SaveF PrintF Edit Back Clear

FUNCTION: The Jotter is a small, forty column word processor. It allows text files to be created or text in its buffer to be directly formatted into graphics text using the Buffer option at the main menu.

OPERATION: Pressing J will move the user to the Jotter's menu.

LoadF -- See Descendant

SaveF -- See Descendant

PrintF -- See Descendant

Edit -- See Descendant

Back -- Escape Back to the FORMATTER main Menu.

Clear -- Erase all text from the Jotter's text buffer. The warning "SURE Y/N" allows you to reaffirm your choice to erase the buffer.

ESCAPE: At the Jotter's menu press B for Back to the main menu.

FORMATTER/Jotter/Edit

FUNCTION: The Jotter edit function allows text creation.

OPERATION: Press E for Edit. The cursor is placed in the buffer and text may be entered. Automatic word-wrap is in effect. The following functions are available:

Delete Character: FCTN-1 deletes the character under the cursor and closes the line.
Insert Character: FCTN-2 breaks the line at the character under the cursor.
Delete Line: FCTN-3 deletes the line of text the cursor is on.
Roll Down: FCTN-4 scrolls the editing window down.
Roll Up: FCTN-5 scrolls the editing window up.
Insert Line: FCTN-8 inserts a blank line under the current cursor position.
Back: FCTN-9 back to the Jotter menu.
Reformat Buffer: CTRL-R reformats the entire buffer using the Carriage Return marks as end of line, paragraph and blank line markers.
ENTER places the carriage return mark and moves cursor to left margin.
FCTN-S,D,E,X move the cursor left, right, up and down respectively.

ESCAPE: FCTN-9 returns to Jotter menu.

FORMATTER/Jotter/LoadF

DESCENDANT:

Txtfile: DSK2.TEXT

FUNCTION: LoadF option allows a text file in forty column Display Fixed 80 format to be loaded into the text buffer of the Jotter. The LoadF option will only load the first 48 lines of any file.

OPERATION: Press L for LoadF. This places the cursor at a position to modify the current Txtfile file name of the file to be loaded. Loading will occur when enter is pressed. The buffer will be erased before the file is loaded.

ESCAPE: At the file name you may press FCTN-9 to escape back to the Jotter menu.

NOTE: To create a Textfile that will be read into the Jotter you may use the TI-WRITER PrintFile Utility and the Fixed file option. Only the first forty characters on each line will be loaded. Simply press PF at the command line and preceed your file specification with an F (i.e. F DSK2.TEXTFILE).

FORMATTER/Jotter/SaveF

DESCENDANT:

Txtfile: DSK2.TEXT

FUNCTION: SaveF option allows a text file in forty column Display Fixed 80 format to be saved from the text buffer of the Jotter.

OPERATION: Press S for SaveF. This places the cursor at a position to modify the current Txtfile file name under which the file is to be saved. The file will be saved to disk when enter is pressed.

NOTE: TI-WRITER will read the short Display Fixed 80 text files created by the Jotter SaveF option.

ESCAPE: When the cursor is on the file name you may press FCTN-9 (BACK) to escape back to the Jotter menu.

FORMATTER/Jotter/PrintF

DESCENDANT:

Printer PIO

FUNCTION: Prints the Jotter buffer to a Display Variable 80 file using the current Printer file name.

OPERATION: Press P for PrintF. The cursor is moved to a position that will allow modification of the currently specified file name. When enter is pressed the buffer is printed.

ESCAPE: FCTN-9 escapes back to the Jotter menu.

NOTE: The print file option does not use the ".CR" option and inclusion of this may cause the file to print erratically.

SCHEDULER

SCHEDULER/Main Menu

Go ModifyS ReadS WriteS ClearS
Directory eXit

E Printer PIO.CR
Schfile DSK2.SCHEDULER

FUNCTION: The SCHEDULER main menu allows access to all the program's features including options for managing schedules and producing pages of graphics using those schedules.

A "schedule" is a data base. Each data item in it represents an "extrn" graphics file produced by either the FORMATTER, CHARACTER EDITOR, PICTURE EDITOR or SCHEDULER itself. The SCHEDULER allows these extrn files to be "glued" together to form a page. This program allows all extrn files to be printed at a precise row and column on the page.

OPERATION: Press the capitalized letter corresponding to the option to be used. This includes the E adjacent to the Printer option which switches output to Extrnfile mode.

E Printer PIO.CR-- See Descendant.

Schfile -- See ReadS and WriteS Descendants.

Go -- Initiates execution of the schedule represented in the data items. The output is routed to either Printer or Extrnfile (depending on which is visible at the bottom of the screen).

ModifyS -- See Descendant.

ClearS -- Clears the schedule data base of all entries. The warning "SURE Y/N" is available as an escape.

Directory -- See Descendant.

eXit -- Press X to return to TPA main menu. At that time the message "PLEASE INSERT PA DISK IN DRIVE 1" appears. To exit press enter, to escape press FCTN-9.

SCHEDULER/E Printer
SCHEDULER/P Extrnfile

FUNCTION: Output may be sent to either of two destinations. The Printer option creates Display Variable 80 files suitable to be sent directly to a file like PIO.CR or RS232.BA=XXXX.CR.DA=8 either would represent a graphics printer. The Extrnfile option creates an 'Extrn' file in Display Fixed 80 format using a compression technique and a special header/footer for use by the SCHEDULER. Extrnfile output should only be sent to a diskfile. Output will be sent to the destination represented by the option name (Printer or Extrnfile) is currently visible.

Operation: To modify the filename for or select Printer type output press P. This will move you to the Printer option filename which you may modify to suit your graphics printer filename. To modify the filename for or select an Extrnfile press E. This will move you the Extrnfile option filename which you may modify to suit your disk drive specification.

Escape: Fctn-9 will escape back to the menu.

NOTE: This option must be selected before Go is pressed. The correct file name for your choice of output must be visible.

SCHEDULER/Go

FUNCTION: Pressing G for Go executes the schedule.

SCHEDULER output will be directed to either the Printer or Extrnfile. This depends on which has been selected and is visible at the time G is pressed.

OPERATION: Press G.

ESCAPE: If output is directed to a Printer it may be stopped by pressing FCTN-4 (Clear).

SCHEDULER/Directory

DESCENDANT:

DSK2.EXTRNFILES
USED 170 FREE 188.

FILENAME D/F 80 33 P

f-e,f-x,f-9,Act

FUNCTION: The directory function will read a catalog of the files on the diskette in the chosen disk drive.

OPERATION: Press D for Directory. You will be prompted for the number of the disk drive you wish to obtain the directory from. The cursor will then jump to the directory window. Use FCTN-E, or FCTN-X, to move the cursor or the window through the directory. Use FCTN-9 to escape back to the menu. A only works at the editing menu.

ESCAPE: Use FCTN-9.

SCHEDULER/ModifyS

DESCENDANT:

xx Filename:
DSKn.extrnfile
Row: 0 0
Col: 0 0
#Reps : 0

Please Key Choice

Edit Up Down Insert Active
Print Size Blockmove Zap eXit

FUNCTION: The Modify Schedule option allows the SCHEDULER data base to be edited and managed.

OPERATION: Press the capitalized letter corresponding to your choice of option at the menu.

Edit -- See Descendant.

Up -- Move to the next lower numbered data item.

Down -- Move to the next higher numbered data item (Maximum 75).

Insert -- Insert a blank data item at the current location in the schedule.

Active -- See Descendant.

Print -- See Descendant.

Size -- See Descendant.

Blockmove -- See Descendant.

Zap -- Delete the current data item.

Exit -- Back to SCHEDULER main menu.

SCHEDULER/ModifyS/Edit

DESCENDANT:

xx Filename:
DSKn.extrnfile
Row: 0 0
Col: 0 0
*Reps : 0

FUNCTION: Each data item in the schedule consists of four fields.

The filename field contains the name of a disk file in "extrn" format created by one of TPA's four programs.

The number on the left in the Row field indicates how far down the page the graphics in the extrn file should begin printing. Vertical distance is measured in the microlinefeed size of the printer being used. Epson type printers have 216 microlinefeeds per inch. Gemini type have 144 per inch. So, if you want to print DSKn.extrnfile beginning one inch from the set Row: equal to 144.

The number on the left in the Col field indicates how far from the left page edge the graphics should print. Horizontal distance is determined in pixels or dots. The number of dots per inch is determined by the print density. Single and Double are typical print densities. In single density Col 120 is one inch from the left margin. Col 120 in double density is one half inch. Not all printers support all densities, please consult your owner's manual.

See the Size function about the number on the right in these fields.

The *REPS field allows vertical repetition of an extrnfile without repeated schedule entries. This works good for borders. Also, in arranging a page, setting *REPS to zero for all but the items you are trying to perfect will prevent those items zeroed from printing.

OPERATION: Pressing E begins the edit. After each field is completed press enter, this will advance the cursor to the next field for entry. Note the number to the left of the filename, each item in the schedule data base is individually numbered with a maximum number of 75.
ESCAPE: Press enter in each field and return to the menu.

SCHEDULER/ModifyS/Active

DESCENDANT:

DSK2.EXTRNFILES
USED 170 FREE 188

FILENAME D/F 80 33 P

f-e,f-x,f-9,Act

FUNCTION: Active is used in conjunction with the Directory function of the main menu. Active will move a filename from the directory directly into the Filename field of the schedule.

OPERATION: Press A for Active. The cursor will jump up to the Directory window. Use FCTN-E, or FCTN-X, to move the cursor or the window through the directory. Use FCTN-9 to escape back to the menu. Use A to activate or move the disk and filename into the filename field of the schedule data item currently visible. A only works at the editing menu.

ESCAPE: Use FCTN-9.

SCHEDULER/ModifyS/Print

FUNCTION: Print the contents of the Schedule with appropriate headers.

OPERATION: Press P for Print. The current Printfile name is shown with the cursor in position to edit. The cause erratic printing. However, remember to include .CR when running the schedule (see Go).

ESCAPE: FCTN-9 returns to the menu.

SCHEDULER/ModifyS/Size

FUNCTION: Size reads the size information stored in the header of an extrn file into the right numbers in the Row and Col field of a data item.
The right number in the Row field indicates the number of microlinefeeds down the page the graphic extends. The right number in the Col field indicates the number of dots the graphic extends to the right across the page. As the left number is modified the right number is automatically adjusted. The *REPS also adjusts the right Row number.

OPERATION: Press S for Size.

ESCAPE: None.

SCHEDULER/ReadS
SCHEDULER/WriteS

FUNCTION: ReadS is the command to read the file named on the screen next to the Schfile label into the schedule data base. WriteS is the command to write the current contents of the schedule data base to the disk file whose name appears next to the Schfile label on the screen. Schfile may be changed by pressing S at the main menu, typing in the change and pressing enter.

OPERATION: Press R to read. Press W to write. WriteS over-writes any file on the disk with the file name as shown next to Schfile.

SCHEDULER/ModifyS/Blockmove

DESCENDANT:

Go Up Down eXit

Row+ : 0
Col+ : 0
Block from: to:

FUNCTION: Blockmove allows a number of contiguous data items in a schedule to be translated (moved) vertically or horizontally as a block. The block is defined in the "from:" and "to:" fields as the item numbers included in the move. The Row+ indicates the number each Row field in each data item in the block will be changed. Similarly for Col+.

OPERATION: Press the Capitalized letter corresponding to the Blockmove option desired.

Go -- executes the modification based on the Row+, Col+, from and to fields.

Up Down -- Move Up or Down through the schedule data items.

Row+ -- The amount of vertical change.

Col+ -- The amount of horizontal change.

Block -- defines the block to be modified including the "from" and "to" data items.

ESCAPE: Press X to return to main menu.

NOTE: Column block translation of mixed print densities (Single, Double) may cause spurious results.

FORMATTER/Script I

The FORMATTER preset defaults allow a quick test if your system happens to meet all the default settings.

The default Script:

1. Boot TPA.
2. Choose 3. Formatter
3. Put the fonts side of the TPA disk in drive 1.
4. Press G for Go.

The non-default situations.

1. If you have a serial printer you will need to press P at the main menu and change the Printer setting.
2. If you have a Gemini 10X type printer you will have to press V for Variables, change the E to G on the Prntr type then press enter through the remaining variables until you return to the main menu.

FORMATTER/Script II

1. Complete Script I. Leave the font disk in drive 1.
2. Press J for Jotter.
3. Press L for LoadF.
4. When DSK1.TEXT appears press enter.
5. Press X for eXit.
6. At the main menu press B to change from text file to buffer.
7. Press G for Go.

The output from the above scripts should be identical. In the first we formatted the file TEXT. In the second we read the file text into the Jotter's buffer and formatted it from there. Press J for Jotter E for Edit to observe the file in the Buffer.

SCHEDULER/Script

This script starts off where the FORMATTER Script II left off.

1. Put a blank disk in drive 1.
2. Press E for Extrnfile and enter.
3. Press G for Go.
An extrn file is written to drive 1.
4. Return the TPA program disk to drive 1.
5. Press X for eXit. Press any key to reload the TPA Main Menu.
6. Choose 4. Scheduler.
7. Choose M for ModifyS.
8. Choose E for Edit.
9. Type DSK1.EXTRNFILE, press enter.
10. For Row: press enter.
11. For Col: press enter.
12. For #Reps: type 1, press enter.
13. Press X for eXit to SCHEDULER main menu.
14. Check Printer for correct name.
15. Put the disk removed in step 4 above to drive 1.
16. Press G for Go.

The SCHEDULER will print the same graphics as previously printed by the FORMATTER.

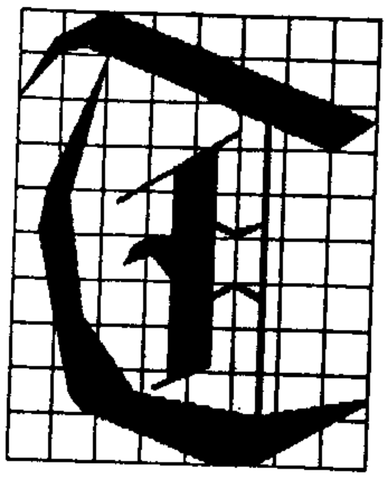
Suggestion. Go back to step 7 above, enter a small value in Row: and Col: and complete the script again. This is the main function of SCHEDULER placing graphics on the page in the location where you want them.

MCCANN SOFTWARE

PRESENTS

TPA TOOLBOX

INCLUDING



PAGE MANAGER
SIGN TOOL
FONT CONVERSION
BORDER BUILDER
FORMS TOOL
FONTS & BORDERS

McCann Software creates tools for the Art of Pagemanship.

Other McCann Software products include The Printer's Apprentice, TPA Fonts Disk 1 and Business Graphs 99.

This page was created using The Printer's Apprentice, TPA Toolbox and fonts from TPA Fonts Disk 1.

TPA Toolbox requires: 32K memory, Disk System and either Editor/Assembler or TI Extended BASIC. Works with TI-99/4 printer, Gemini 10X and Epson compatible graphics printers including Panasonic 1091, Star NX and IBM.

McCann Software
P.O. Box 34160
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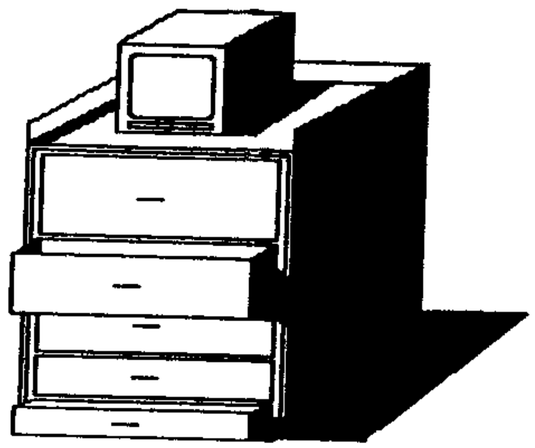


Table of Contents

Introductory Notes

Booting TPA Toolbox

1. From TI Extended BASIC the program will autostart. Put the TPA Toolbox disk in Drive 1. At the title screen choose the Extended BASIC option. The drive should come on and the program will load. **NOTE the Extended BASIC cartridge is notorious for having dirty contacts and not loading properly. If you have difficulty loading with the XB cartridge clean the cartridge contacts and the cartridge port or boot the program with Editor Assembler cartridge.

2. From Editor/Assembler the program will start using the Load and Run option. Place the TPA Toolbox in disk drive 1. Choose "3. Load and Run" then enter DSK1.TOOLBOX.

Printer Information:

The proper file name for parallel printers is PIO.CR or PIO.CR.LF. Our experience with The Printer's Apprentice indicates that some printer's have a dip switch that performs an automatic linefeed after each line of print sent. To do graphics this switch should be set so no automatic linefeed is sent. In order to use TPA Toolbox with the TI-99/4A Impact Printer you must set the dip switch for 8 wire graphics. The instructions are on page 51 of the owner's manual for that printer. The proper file name for th TI-99/4A Impact Printer is RS232.BA=xxxx.CR.DA=8. Where xxxx is the baud rate chosen in the printer dip switches.

Copying the Program Disk.

McCann Software believes that your software investment should be protected. For that reason we do not copy protect our software. You are encouraged to make a back-up copy. Please do not make any other copies as this is in violation of our copyright and in violation of federal law. With the new version of TI-Forth we created for TPA Toolbox you do not have to follow any special copy instructions. The only restriction of the new program is that the initial boot-up must be done from drive 1.

**NOTE: TI-99/4A, TI-99/4 Impact Printer, TI Extended BASIC, TI-Writer, TI Editor/Assembler are trademarks of Texas Instruments Inc. TI-Artist is trademark of Inscebot Inc. CSGD is distributed by Texaments.

********** TPA Toolbox Main Menu **********

McCann Software
&
The Printer's Apprentice

Presents

TPA Toolbox

Version 1.00

1. Page Manager
2. Sign Tool
3. Font Conversion
4. Border Builder
5. Forms Tool
6. Default Drive
7. Printer Name
8. Exit to Monitor
9. Exit to TI-Forth
0. Slow Cursor

****

The TPA Toolbox main menu allows access to the various programs of the system. Each program may be accessed by pressing the key on the keyboard with the corresponding number. The items numbered 1-5 are the programs of the system. The documentation on the following pages explains in detail each of these programs.

The item 6 on the menu "Default Drive" is an option which allows the user to run the TPA Toolbox system from other than the boot drive which is drive 1. Pressing the 6 key will show a message " Enter the number of the default drive". At this time a drive number must be entered. Enter 1 if you do not wish to change the default drive. If you enter another number the entire set of TPA Toolbox system files should be residing on that drive. After you change the default drive number selecting an option 1-5 from the menu will cause the system to search the default drive for the corresponding program file. Similarly if you exit from a program the system will search the default drive for the main menu files.

The item 7 on the menu "Printer Name" is the option to create a file which contains a default printer name, text and screen colors. The file will be read as each program is loaded thus making it unnecessary to type the in printer file name or change the text and screen color each time. When 7 is chosen and the message "Enter default printer file name" is shown you may enter a valid printer name (i.e. PIO.CR or RS232.BA=4800.CR.DA=8). If you enter a printer name you are then presented with the options to enter text and screen colors. The color values are in the range (0-15). These colors may be looked up in any 99/4A manual (note, some manuals show the colors as (1-16) in this case subtract 1 to get the correct value). Please also note, the Page

Manager, Forms Tool and Font Conversion programs use white and red cursors their use of bit-map graphics utilities. If you set your text or screen color white or red you will probably have difficulty using these programs. After t printer name and both colors have been entered, a short file called PRINTER written to the disk with the printer and color information on it. ****NOTE*** Never write to your original system disk. Please make a backup copy and wri your PRINTER file to that disk. Replacement system disks are provided at $10.0 if you send in your original system disk.

The item 8 on the menu will return to the 99/4A's monitor/color bar/ title screen.

The item 9 will exit to TI-Forth. If you exit to TI-Forth accidentally you ma restart TPA Toolbox in the following manner. Place the TPA Toolbox in th default drive. Type the word COLD and press enter. The system should restar If you get an error message press enter a of couple times and try again. ***NOT for programmers*** The version of TI-Forth that has been created to write TP Toolbox will not allow BLOADS of binary files previously BSAVED usin "standard" TI-Forth. The kernel has been recompiled to allow the use of file rather than screen based Forth programs. Recompile your utility programs an then they should function normally including BLOADing.

The item number 0 on the main menu has been added to assist users of the MYAR 9640 in using TPA Toolbox. The 9640 processor is faster than the 99/4A which i good in every respect except that the cursor flashes too fast. Pressing 0 wi switch between two available cursor flashing speeds.

********** PAGE MANAGER **********

The Page Manager is a tool for page planning. Our theory of pagemanship is that the best pages are planned thoroughly and then the plan is followed rigorously. Page Manager will allow both a graphical plan to be printed as well as a detailed program or "schedule" for printing. The schedule, properly produced, can be executed directly by the Scheduler program of The Printer's Apprentice or it can be used to guide other techniques in page production.

********** Page Manager Main Screen **********

****

ModifyS ReadS WriteS ClearS eXit
Directory Boxes Variables Allsize

Printer PIO.CR
Schfile

****

The Page Manager screen looks very much like the The Printer's Apprentice Scheduler main screen. It looks this way because it uses and produces schedules for use by the Scheduler. The Page Manager adds the visual dimension to the schedule by use of a graphics display accessed by the Boxes option. Why "Boxes"? Well, graphical objects, either text objects or picture objects, can be simply outlined by a rectangular box. These simple boxes give a good idea of the relative size and placement of graphics on the page. Good pagemanship demands a plan and Page Manager provides a tool to do good planning in the TI-99/4A environment.

Each option at the main screen may be accessed by pressing the key corresponding to the first capitalized letter in the option name. Thus ModifyS (Modify Schedule) is accessed by pressing "M". The eXit option is accessed by pressing "X".

********** Overview of Page Manager **********

ModifyS--The Modify Schedule option allows the user to access the database manager functions. These allow the easy creation and editing of the database called a schedule. A schedule is a series of data items which represent the name, placement, size and density of a graphical object, either text or picture. These graphical data items represented in the schedule are stored in "extrn" (external graphics) form on disk files. With the Page Manager either actual extrn files or "dummy" items without filenames may be created to assist the user in planning the page. A data item may be created by completing its fields using the ModifyS function or by simply drawing a box in a graphical environment using the Boxes option.

ReadS--Read Schedule. This option is available to read in a previously created schedule. When "R" is pressed the file with the name represented in the Schfile field at the bottom of the main screen is read into the Schedule database. When ReadS is invoked any items previously in the Schedule database are lost.

WriteS--Write Schedule. When "W" is pressed the data items in the current Schedule database are written to disk. The filename they are written to is represented in the Schfile field at the bottom of the main screen. To successfully write the schedule the name in Schfile must be a valid filename (i.e., DSK1.MYSCHEDULE).

ClearS--Clear Schedule. Press "C" to empty all data items from the schedule data base. The "Sure Y/N" warning will give you a chance to escape this option.

Directory--Disk Directory. You may get a directory or catalog of any disk device attached to your system (which follows TI disk filing system rules). The directory is displayed at the top of the screen in a "scrolling window" display. Fctn-E scrolls up, Fctn-X scrolls down and Fctn-9 escapes back to the menu.

Boxes--Boxes is the name of the graphical display environment. Each data item previously entered in the schedule database will be displayed when the Boxes environment is entered. This graphics environment also has options for drawing boxes.

Variables--The graphical display relative size and column mode are controlled by variables. A simple variable sheet is entered by pressing "V".

Printer--The Schedule may be printed and/or the graphical display may be "screen dumped" to your printer. Please remember, if you are printing the schedule this uses regular printer characters so remove the .CR option on your printfile or it will cause everything to print on one line. On the other hand, if you don't have the .CR present and "screen dump" the graphics environment you'll waste a lot of paper so you must return the .CR when printing the graphical interface with CTRL-P.

Schfile--This is where the schedule file name is to be entered. Remember, before pressing "W" or "R" you must have a valid disk file name entered here (i.e DSK1.MYSCHEDULE).

Allsize--This option is used to read the information from existing "extrn" files into the Page Manager data base. This is useful when you wish to include a file already created into the page you are planning.

eXit--Pressing "X" for eXit will allow you to exit to the TPA Toolbox main menu. The message "Insert System Disk" will appear. At this point you may press FCTN-9 to escap e from the exit function or any other key to exit

As with all other aspects of page creation and pagemanship, learning to use the tool effectively is a good part of the battle. In the following pages there are short explanation on how to use each feature of the Page Manager. At the end there are some short "scripts" to get you started with the Page Manager.

########## ModifyS##########

########## The ModifyS Screen ##########

The ModifyS screen is composed of the menu options at the bottom and the database item fields above. The current data item in the schedule data base is represented by the filename and numbers in the fields. These include the Filename itself the Row, Col, #Reps and Dens fields. The number to the left of the "Filename" label indicates which data item (out of a possible 88) you are currently looking at.

########## The data item fields: ##########

Filename--This is a valid disk filename of an "extrn" file created by one of the programs of TPA or TPA Toolbox. This field may be blank and filled in at a later time when page planning. The field must contain a valid filename (ie DSK1.EXTRNFILE) if the Size or Allsize options are to be executed.

Row:--Pages consist of imaginary rows and columns. Rows are horizontal lines which could be thought of as being numbered from the top of the page. Each row is thought of as being one pixel (picture element) in height. On the screen representation you see above the Row item has two zeros next to it. For purposes of definition these will be called the Row "sub-fields". The two sub-fields will be called left and right. Entering a number into the left Row sub-field represents the top row on the page where the graphics represented in the data item would print. The number shown in the right Row sub-field represents two values. If the cursor is in the field for

data entry the value is the height, in rows or pixels of the graphics item. If the cursor is not in the field, the value represents the height of the graphics item times the #Reps (number of vertical repetitions) plus the value in the left Row sub-field.

Col--The Col (column) item also has 2 sub-fields, left and right. The number shown in the left Col sub-field represents the left most edge of the graphic represented in the data item. The number shown in the right Col sub-field represents two values. If the cursor is in the field for data entry, the value is the width in pixels of the graphics item. If the cursor is not in the field, the value represents the width of the graphics item plus the value in the left sub-field.

#Reps--The Schedule has the capability to repeat a graphics item a number of times vertically. The number shown or entered into this field is the number of times the graphics item will be repeated vertically. If a zero is in this field the extension is not shown, the item is not displayed by Boxes, and the item would not be printed by the TPA Scheduler program.

Dens--The Dens(density) field is unique to the Page Manager and is used by this tool but not by the TPA Scheduler. Dens helps in planning when using items which are in different densities. The only valid values in this field are 1,2 or 4 corresponding to single, double or quad density graphics capabilities of many printers. For example there are 60 horizontal dots per inch in single density graphics but 120 in double density graphics. If you plan for a double density graphics item one inch wide but only allow 60 dots of space you will run into problems when the schedule prints out. Dens is automatically set by Boxes and may be obtained automatically from an existing schedule by running Allsize. Dens can be modified manually during normal data entry.

********** ModifyS/Edit **********

Pressing "E" for Edit moves the cursor up into the data item fields for editing. Editing can be accomplished by use of the normal keys and the left and right arrow keys. The Enter key moves to the next field. You may move quickly through any field by pressing enter.

********** ModifyS/Up **********

Pressing "U" for Up will display the next smaller numbered data item for editing. The items are numbered 1 through 87.

********** ModifyS/Down **********

Pressing "D" for Down will display the next larger number data item for editing. The items are numbered 1 through 87.

********** ModifyS/Insert **********

Pressing "I" for Insert will "slide" all data items "down" one numeric position and clear the current item for editing. You can think of this as inserting a blank line while using a word processor.

********** ModifyS/Active **********

Pressing "A" for Active will move the cursor up to the top of the directory scrolling window, activate the "A" key so a filename may be quickly copied from the directory scrolling window to the current data item filename. This option makes it easy to quickly create a schedule that includes filenames. **NOTE there must be a current directory of the disk before you can use Active. Boxes writes over the current directory so it must be read again before Active will operate.

********** ModifyS/Print **********

Pressing "P" for Print will print a list of the data items that are currently active. Remember, when you print the data items you will need to remove the .CR extension from your printfile name.

********** ModifyS/Size **********

Pressing "S" for Size will go to the disk and read the Row, Col, #Reps and Dens information from the "extrn" file named in the Filename field. This makes the Page Manager a powerful tool for planning pages using both existing and planned graphics objects.

********** ModifyS/Blockmove **********

********** The Blockmove Screen **********

Go Up Down eXit

Row+: 0
Col+: 0

Block from 1 to 1

****

Pressing "B" for Blockmove will pop-up the Blockmove menu. Block moves come in handy when a number of data items need to be moved on the page. Figuring moves manually is time comsuming and error prone. Blockmoves are clearly the answer to this problem. The Block to be moved must be composed of contiguous items (i.e data items 7,8,9 and 10). All items named in the block must have data in them. Note, when doing Col+ moves the user must keep in mind that moving a single density item 60 pixels to the right means moving it one inch, and moving a quad density item 60 pixels to the right means moving it one-quarter inch. Multi-density block moves should be avoided.

Simply, to move the four data items 2,3,4 and 5 down the page 10 units press "R" for Row+ and enter 10. Next press "B" for Block enter 2 in the first field, press enter then enter 5 in the next field. Finally press "G" for Go. You will see that 10 has been added to the Row field of each data item in the Block.

ModifyS/Zap

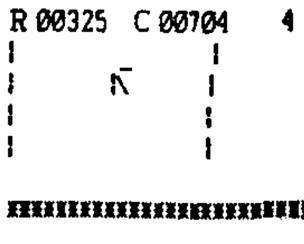
Pressing "Z" for Zap will delete the current data item from the data base. Unfortunately the menu scheme already used "D" for Down so Zap was chosen instad of the more natural Delete. Zap is not reversible or recoverable so use it with caution.

Modify/eXit

Pressing "X" for eXit will return the main Page Manager menu. All data created or modified in the ModifyS menu will be preserved.

Boxes

The Boxes Screen



Pressing "B" for Boxes at the Page Manager main menu causes the graphics display screen to be called up. In addition, all the data items which have data and #Reps greater than zero are drawn on the graphics display in proportion to the margins set in the Variables options.

Boxes Functions

Several keystrokes control the functions that are available for use on the graphical display screen.

Cursor Control

The FCTN key and the S-D-E-X keys in combination are used to move the cursor around the display.

Marker Control

There is another object shaped like the cursor but in another color which is used as a marker. FCTN-5 is used to turn this marker on and off.

When you turn it on this marker is visible at the current cursor position. Using FCTN-5 again will make the marker invisible again although it is "parked" at the upper left position (R 0000 C 0000). This marker is used as the upper left corner marker of a box.

Box Drawing

To draw a box move the cursor using the FCTN-S,D,E,X key combinations to the Row and Col location where you want the upper left corner of the box to be. Press FCTN-5 once or twice until the marker is under the cursor. Move the cursor down and right to the place where you want the lower right corner of the box. Press the space bar to preview the box. Press enter to draw the box.

Flashing Box Indicator

A box may be "previewed" without pressing enter to draw it by pressing the space bar. This will "flash" the perimeter of the box and allow fine adjustments to the size and location of the box before it is drawn.

Column Mode

Trying to figure out exactly where evenly spaced columns lie on the page, their width and the space between them is difficult. Many page creation programs use what are called "snap-to" lines for column planning. The Page Manager provides these snap-to lines for easy column creation. The number of columns and the space between columns must be set up by the Variables before going into the Boxes option. If the column variables have been set up, pressing FCTN-C while on the Boxes graphics screen enters the column mode. The cursor is snapped to the nearest column on the left margin of that column. The cursor may then be moved up and down vertically in order to set the marker. When the marker (FCTN-5) has been set the cursor will now snap-to the right margin line of the column. The cursor may be moved down this right margin line in the column to establish a box representing a picture or text graphic object. Using the left or right arrow keys will move to the next snap-to line. Pressing FCTN-9 will move out of the column mode but remain in the graphical display.

The Column Mode with its snap-to lines is one of this program's most powerful features and a graphics technique used in various forms in many graphics packages--Column Mode is well worth learning.

Screen Dump

Pressing CTRL-P will dump the current display screen to the Printer name which is showing on the main screen. Before using CTRL-P be sure your printer is attached and that the Printer and your printer filename is showing. The printer filename must have the .CR extension for proper printing (i.e., PIO.CR--RS232.BA=4800.CR.DA=8)

Exiting Graphics Mode

Pressing FCTN-9 will return the user to the Page Manager main menu.

Editing a Screen of Boxes

Erasing a line in graphics or changing the size of a box could pose a problem if you attempt to do it in graphics mode. It is much easier to determine its approximate Row and Column from the display, then exit to ModifyS, find the item and Zap or Edit it.

Horizontal Density

On the upper right of the display screen is a number 1,2 or 4. This indicates the current drawing mode--single, double or quad density. To change this number press the 1,2 or 4 key. The Column indicator will change to reflect the corresponding relative position of the cursor.

Variables

The Variables Screen

Variables

```
L_Margin  0
R_Margin  1919
T_Margin  0
B_Margin  2376
#Columns  0
#Between  0
```

The Variables control the relative resolution or the amount of page seen on the display The number of columns and the space between columns for the Column Mode is also determined by the Variables.

The L_Margin (Left Margin) is set at zero initially, it must be less than the right margin in value.

The R_Margin (Right Margin) is set at 1919 initially, this is the width (0-1919) of the page in pixels in quad density mode.

The T_Margin (Top Margin) is set at zero initally, it must be less than the bottom margin in value.

The B_Margin (Bottom Margin) is set at 2376 initially. This is "Epson" mode page length. Since there is potenitally 216 pixels per inch that can be accessed by Epson style printers, 2376 is 216 times the 11 inch page. For Gemini 10X users this value can be set at 1584 which is the 144 possible pixels per vertical inch times 11 inches.

There is no bottom margin line drawn as there is with top, left and right since the page length is arbitrary and set by the user. However the user may wish to set the value much smaller to better visualize or "zoom" in on a particular area for editing.

The #Columns is used when creating columns using the column mode and snap-to lines in graphics or Boxes mode. Enter the number of columns and the number of pixels between columns in the #Between field.

General Notes on Boxes

The Boxes graphics mode is limited in its resolution and accuracy by the number of pixels resolution provided by the TI-99/4A screen graphics mode. The 99/4A will display 256 pixels horizontally and 192 pixels vertically. This limits the accuracy of representing a page that can range to 1920 pixels wide or 2376 pixels high so all boxes drawn or represented are approximate. More exact values can be entered in the ModifyS/Edit option.

Allsize

The Allsize Option is unique to the Page Manager. It is intended for use in reading in the relative sizes of a Schedule which consists of previously created extrn files. Allsize will go to each Schedule data item and search for the file on the disk. If found, the size information will be read into the respective fields. Next, the file itself will be searched for graphics density information. When the first graphics command is found it will be read into the Dens field. You will need to have all the files mentioned in the Filename field in their corresponding drives before invoking Allsize.

Page Manager Scripts

The following scripts may be used to familiarize yourself with some of the functions of the Page Manager. This tool has a lot of options. The scripts are not intended to be a complete course on page design but are useful in getting you started with the Page Manager.

Script 1.

1. Boot TPA Toolbox.
2. At the Main Menu choose "1. Page Manager".
3. When the Page Manager menu appears choose C for ClearS.
4. ClearS will ask Sure? Y/N. Answer "Y" to clear the Schedule.
5. Choose "B" for Boxes.
6. Press the Space Bar to see the "flashing box".
7. Press Enter.

When you press enter a box should be drawn between the upper left corner and the white flashing cursor.

8. Use the FCTN-X or FCTN-D keys to move the cursor and press Enter.
this will draw another box.

9. Press FCTN-5. This will cause the marker to appear under the cursor.
10. Move the cursor to the right and then down below the marker.
11. Press space bar to preview or enter draw another box.
12. Press FCTN-9 to return to the Page Manager menu.

Script 1 has demonstrated how to draw boxes with the Boxes option using the marker and cursor. Of course there were other things happening while you drew the boxes. For instance, the row and column marker at the top of the page was keeping track of where your cursor was and each time you drew a box it was recorded in the Schedule data base.

Script 2.

This script begins immediately where Script 1 left off. Script 1 should be completed in order to use this script sucessfully.

1. Again press B for Boxes. The boxes you drew before will now be drawn on the graphics screen.
2. Press FCTN-9 to return to the menu.
3. Press "M" for ModifyS.
4. Please observe the data item fields. The Row: and Col: items should have some value in the right subfields. This is the location of your cursor at the time you pressed enter for the first time in the Boxes graphics mode.
5. Press "E" for Edit and notice the cursor pops up into the Filename field of the current data item.
6. Press Enter in the Filename field to jump to the Row: left sub-field. Enter 100 in this field then press enter through the rest of the fields until the cursor is back on the menu line.
7. Press "X" to eXit to the main Page Manager menu.
8. Press "B" for Boxes again. Notice this time that the first box drawn has moved down from the top margin corresponding to your entry of 100 in the left Row sub-field.

If you will look through these two short scripts again you will see the correspondence between the Boxes graphical representation and the Scheduler data base accessed by ModifyS. To continue learning the Page Manager, ClearS again and this time pick a magazine page and try drawing boxes to represent each column of text and each picture in its actual size. If you do this carefully you will begin to notice things about pages you had not consciously realized before. A well composed page consists of many small, seemingly unimportant details like page headers, column lines, headlines, borders, margins and white space. Your eye is aware of these details when it is attracted to a well composed page and you read the message the author wanted to convey.

After you have practiced drawing a few pages of boxes you are ready for the next script.

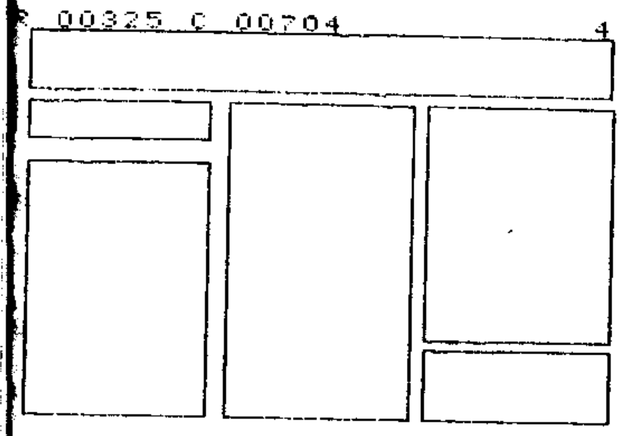
Script 3

1. Do a ClearS.
2. Choose "V" for variables.
3. Enter 120 at L_Margin.
4. Enter 1800 at R_Margin.
5. Press Enter for T_Margin and B_Margin.
6. Enter 3 in #Columns.
7. Enter 50 in #Between.

Remember, if you get extra digits, you will need to enter leading zeros (ie 0050) to correct it.

8. Press B for Boxes.
9. Press FCTN-C to enter Column Mode. Notice that the cursor snaps to the left margin.
10. Press FCTN-5. You will see the marker under the flashing cursor. 11. Press FCTN-D once to move the cursor to the next snap-to line. This is the right margin of the column.
12. Use FCTN-X to move the cursor down the column a short distance.
13. Press Enter to draw a box.
14. Press FCTN-D to move to the next column snap-to line and repeat steps 10-13.
15. Now move the cursor using FCTN-D and FCTN-S and note how it jumps to the column margins.

At this point you should continue to draw boxes in the columns until you are comfortable with how the snap-to lines work in column mode.
FCTN-9 will get you out of column mode. Enter FCTN-9 again to go back to the Page manager main menu. Now go back into variables and set the L_Margin at zero and R_Margin back to 1919. Press enter through the rest of the variables. At the menu again press Boxes one more time. Now when the boxes are drawn you will see that you have left and right margins as well as columns. Get the idea? See an example below.



LENAME	COL1	ROW1	COL2	ROW2	#REPS
Headline	120	0	1790	325	1
Column Headline	120	400	645	600	1
Column One	120	730	645	2140	1
Column Two	700	400	1225	2140	1
Picture	1270	400	1795	1690	1
Column Three Text	1270	1750	1795	2140	1
	0	0	0	0	0

Sign Tool

The Sign Tool is the most fun of any program in the TPA Toolbox package. It combines most all features of TPA's Formatter with the ability to make really big letters and unusual pixel shapes. The Sign Tool includes a small "Jotter" (text editor) for easy creation of those eye catching signs. Sign Tool uses all of the TPA fonts (either SDSH or OUSH) and now with the Font Conversion tool (also a part of TPA Toolbox) the possibilities are unlimited for the creative mind.

Sign Tool Main Screen

```
Goprint Dir Vars Jotter Cpixel eXit

E Printer PIO.CR --- P Extfile
B Txtfile      --- T Buffer
Fntfile        ---  Fntfile
```

As with the TPA Formatter, the idea behind the three lines at the bottom of the Sign Tool's main screen is to show at a glance where the output is going, where the text is coming from and which font is being used. With Sign Tool both direct printer output and "extrn" file output are available. Source text may come from a textfile (created by TI-Writer, saved in fixed format (i.e., PF "F DSK1.TEXT")) or the Jotter's buffer and any TPA font may be chosen to shape the output. The "E Printer" and "B Txtfile" lines operate on the premise that output can only go to one place at a time (Printer or Extfile) and input may come from only one place at a time (Txtfile or Buffer).

Each option at the main screen may be accessed by pressing the key corresponding to the first capitalized letter in the option name. Thus Goprint (output the sign) or Printer (direct output to the printer) are accessed by pressing "G" or "P" respectively. The eXit option is accessed by pressing "X".

The Options--an overview.

Goprint--The Goprint command will begin transforming the text from the textfile or buffer (depending on which option is selected) into font graphics using the chosen font and sending the output to either the printer or an extrnfile.

Dir--Disk Directory. A directory/catalog of the files on any disk device attached to your system (which follows TI disk filing system rules) may be obtained. The directory is displayed at the top of the screen. If there is more than one page of filenames pressing FCTN-6 will show the next page any other key will exit back to the menu.

Vars--Variables are available to set margins, change print densities and more. A simple variable screen is displayed by pressing "V"

Jotter--The Jotter is a small word processor built right into the Sign tool. It has a subset of TI-Writer options like word-wrap and its keystroke operations are similar to that popular TI word processor.

Cpixel--Change Pixel is a unique function which allows the user to change the size and shape of the pixel being used to produce the font graphics output. At its normal setting the pixel is one tiny dot just like that used with normal dot matrix output. The Cpixel option allows each dot to be blown up to a maximum 8 by 8 dot size. This means if you had a single character that was one half inch wide it could be enlarged to four inches wide. In addition to enlarging, the pixel shape can also be defined. This option has been fun and useful to everyone that has tried it.

eXit--Exits back to the Toolbox main menu. When the "Insert system disk" message is showing you may escape the exit by pressing FCTN-9.

E Printer--This line is really two options. If you press "P" the cursor jumps down and allows you to change the name of your printer file. (ie RS232.BA=4800.CR.DA=8 or PIO.CR). By pressing E the display changes to "P Extfile" and the cursor jumps down so you can change the name of the "extrn" disk file where your font graphics output will be sent. (ie DSK1.EXTRNFILE).

B Txtfile--This line is also two options. If you press "T" the cursor will jump down and allow you to change the name of your source text file. Remember from TPA source text must be in Fixed format files created by the TI-Writer PrintFile option and the "F" prefix. If you press B the display will change to "T Buffer". This indicates the source of your text is the Jotter's buffer where you have loaded or typed in some text for formatting.

Fntfile--Font File. Pressing F will jump the cursor down to where you can enter the name of the font file you wish to use to create your sign. Remember if you use an OUSH file like OUCOURIER you will need to go to the Vars screen to change the font type to "O".

The Options--Detailed explanations, scripts at the end.

Goprint

When the Goprint command is given the Sign Tool program begins by checking if the named font file in the Fntfile field is present in the designated drive. If the font file cannot be found the message "Where's DSK1.FONTFILE" is given. Press any key to return to the menu. Next the program checks to see if the text file named in the Txtfile field (if Txtfile is used rather than Buffer) is present.

Again, if it cannot be found the message "Where's DSK1.TEXTFILE" is given. The creation of the sign then proceeds. Enough text is read from the source to fill a line then the font graphics are read and formatted. Finally the pixel shape is added and the output routed either to the Printer or the Extrn file. If the Goprint command encounters an error the "I/O ERROR PRESS KEY" and "DO ENTER" messages are given. At this point the user should press the enter key until the menu returns.

Vars (Variables)

The Variables Screen

```
Variables: Choose, Press Enter


Prntr Type/Eps  Gem   E
Prnt Dnsty/Sd-Dd-Hs-Qd S
Font Style(Sdsh Oush)  S
Extra Dark(Y/N)        N
Linefeed Size          0
Space(Ascii 32) Width  4
Intercharacter Width   2
Font/Ascii             F
Wrap/Fixed             W
Rrag/Mjust/Lrag/Ctr    R
Left Margin            0
Right Margin           400
Next Breakpoint        0

Line At:               0
```

The variables may be used to control many aspects of the printed output. Since the variables sheet uses primitive input any numeric input corrections need leading zeros (i.e. 0050). To move through the variables without changes press enter at each item.

Prntr Type/Eps Gem

The Epson and Gemini 10X type printers differ in several ways as far as graphics printing goes. For instance, Epson's fundamental micro-linefeed increment is 1/216th of an inch. Gemini 10X printer's fundamental increment is 1/144th of an inch. For this reason you must enter either E or G so that the font graphics output looks correct.

Prnt Dnsty/(Sd-Dd-Hs-Qd)

Font graphics may be output in four basic densities of which some Epson and Gemini 10X printers are capable. Sd is single density, Dd is double density, Hs is hi-speed and Qd is quad density printing.

Please check your printer manual to see which densities of print your printer is capable of. For instance, the TI-99/4A printer can do Single and Double density printing but not Hi-Speed or Quad density print. **NOTE: Hi-speed printing produces output identical to double density but requires an extra pass of the printhead. We recommend using double density.

Font Style (Sdsh Oush)

The TPA system uses two basic font styles. The Sdsh style is the more simple "dot art" style of font. The Oush style of font simulates the technique used by some near letter quality printers in creating smoother more refined characters. The Sign Tool can use either font style. However, enlarging pixels effectively nullifies the Oush enhancement so we would encourage you to use TPA Formatter for regular size text output. The Oush technique and the TPA Formatter produce output that no other package for the 99/4A can rival. Use the Sign Tool for signs and enlarged pixel characters.

Extra Dark (Y/N)

Enlarging pixels may have nullified the Oush advantage but we still have the capability to fill the little vertical gaps between the print wires. Entering "Y" for Extra Dark will allow two print passes with a micro-linefeed between which will effectively fill the small spaces left between the print wires.

Linefeed Size

The linefeed size is the amount of space between two lines of print. Each time a line of font characters is finished printing the paper is advanced by the amount specified in the linefeed size variable. The linefeed size is in micro-linefeed increments (i.e. 1/216th inch for Epson printers and 1/144th inch for Gemini 10X type printers).

Space (Ascii 32) Width

The space or blank character default size may be specified precisely by this variable. The number entered here is in dots. If you enter 4, a blank space four dots wide will be left wherever the formatter encounters a blank or space character in the text. **NOTE the microjustification option may increase the default blank size to "fill" the line from left to right margin..

Intercharacter Width

The intercharacter variable sets the default size in dots that will be allowed between each character that the formatter encounters. If you make this value large there will be a lot of space between each character. If you make this value zero there will be no space between characters. **NOTE the microjustification option may increase the intercharacter width to "fill" the line from left to right margin.

Font/Ascii

Although the main thrust of the Sign Tool formatter is to output font graphics it is capable of sending regular printing characters to your printer as well. By entering "A", for Ascii you will direct regular printing characters to the printer. The characters printed on each line will be the same characters that will be printed in font when "F" is entered for this option. **NOTE the Printer filename should not have the .CR option when using Ascii output.

Wrap/Fixed

The Wrap/Fixed option turns on or off the word wrap function of the Sign Tool's formatter. The Wrap mode is the default. Caution should be exercised when turning on Fixed mode as this will force each line of text to be formatted into font. A very large line of text input may cause buffer overflow especially if the pixel size is large.

Rrag/Mjust/Lrag/Ctr

The formatting options include Rrag (Ragged Right Margin), Mjust (Microjustification), Lrag (Ragged Left Margin) and Ctr (Center). These four types of formatting make the Sign Tool very versatile. Ragged Right Margin is the default and is similar to type writer output where the left margin is set and the right margin fluctuates on each line. Ragged Left Margin sets the right margin and the left margin fluctuates on each line. Microjustification sets both the left and right margin and requires the text to fill between these margins. The Center mode centers each line between the left and right margins. **NOTE as has been pointed out the algorithm used in Sign Tool and TPA's formatter will not microjustify a single word if it is the only word on the line.

Left Margin

The Left Margin is the number of pixels or print dots from the left edge of the print area on the page. The translation of horizontal dots into inches depends on the print density. Sixty dots is one inch in single density, one half inch in double density and one quarter inch in quad density print.

Right Margin

The Right Margin is the number of pixels or print dots from the left edge of the print area on the page. See Left Margin above for dot to inch translation.

Next Breakpoint

The Sign Tool provides a way to change the variables, font files and output files while formatting a single source text.

To do this, a "breakpoint" can be set which will suspend formatting and allow changes. Formatting can then be resumed. The breakpoint is set as the number of microlinefeeds from the start of printing. When the paper has reached a breakpoint, printing will be suspended. Breakpoints may be disabled by entering zero in this variable. If a small value such as 1 is entered printing will be suspended after every line.

Breakpoint Menu

Please Enter Choice

Resume Variables Fontfile Cpixel
Directory Printfile Terminate

The menu options Variables, Fontfile, Cpixel, Directory and Printfile have the same actions as at the main menu.

Resume

Once the breakpoint menu has been entered, printing may be resumed at any time by pressing "R" for resume.

Terminate

Pressing "T" for terminate will force an error condition which will close all open files (if any). In case of an error, when the error messages "I/O ERROR PRESS KEY" and "DO ENTER" are encountered, press enter until the Sign Tool main menu reappears.

**NOTE: When using the Breakpoint, caution should be taken that the environment be preserved with regard to the Textfile being formatted. If the Textfile disk is removed and not returned to the same drive, a fatal error condition will occur and the formatting session must be restarted. If the environment is degraded (i.e., a disk left out of a drive) the fatal error condition may also occur.

Line At:

Line At shows the current number of vertical microlinefeeds which have been issued to the printer to move down the page. This is useful in planning breakpoints. **Special Note: using the Ascii formatting option will show the same number of microlinefeeds in the Line At variable as if font output was being generated. This allows the user to run a piece of text to the printer without using the additional time that it takes to format in font. The Line At will show how far down the page the formatting has come. We find this very useful in planning for columns of text, etc.

********** Sign Tool Scripts **********

1. Boot TPA Toolbox.
2. At the Main Menu choose "2. Sign Tool"
3. At the Sign Tool Menu press "J" for Jotter.
This will move you to the Jotter menu.
4. Press "E" for Edit.
5. Type "Sign Tool Test"
6. Press FCTN-9 to return to the Jotter menu.
7. Press "B" for Back to return to the Sign Tool menu.
8. Press "B" for Buffer to make the source of text the Jotter's Buffer.
9. Press "F". When the cursor appears on the Fntfile line type DSK1.CURSIVE then press enter. This selects the CURSIVE font as the current fontfile.
10. Make sure the fontfile CURSIVE is in drive 1. The font CURSIVE is on the FRONT of the TPA Toolbox disk.
11. Make sure your printer is on and the Prntfile name is correct for your printer. If you have a Gemini 10X type printer you will need to press "V" for variables, change the Prntr Type to "G", then press enter through each of the rest of the variables to return to the menu.
12. Press "G" for Goprint.

The words "Sign Tool Test" should print in the CURSIVE font to your printer. If not, try again.

Script 2.

Script 2 takes up at the end of Script 1. If you have not just successfully completed Script 1, please do so before attempting Script 2.

1. Press "C" for Cpixel. The pixel editing matrix will appear.
2. Press any key (except the space bar or enter) three times. This will darken three blocks in the matrix.
3. Press FCTN-9 to go back to the Sign Tool Menu.
4. Press "G" for Goprint.

Notice how the change in pixel shape has changed the size and shape of the output. This is the Sign Tool technique in a nutshell. It would be good at this point to explore by changing some of the variables like Prnt Density and Right Margin. Try using the Center function to further familiarize youself with the use of the Sign Tool options.

********** Extrn Files Note **********

The Sign Tool will produce "Extrn" files just like the other programs of the TPA system will. These will be very useful when making up a sign page that includes borders, text, pictures, etc. Please note that even with file compression, a large quad density sign file may take up a large amount of disk space.

********** Font Conversion Tool **********

There have been a large number of requests from owners of TPA for the ability to translate the TI-Artist (tm) and CSGD (tm) fonts that they have previously purchased into the TPA format for use with The Printer's Apprentice. The Font Conversion tool will convert these fonts. It will also translate and custom print TI-Artist style instance ("_I") and picture ("_P") files including files produced by TPA's own Picture Editor.

********** Font Conversion Main Menu **********

Convert Dir Inst->Extrn eXit

****

The Font Conversion main menu shows two basic options: Convert is the font conversion tool and Inst->Extrn which is a tool to convert instances and pictures to extrn files or directly to printed output.
In addition, there is a Dir (Disk Directory) option and the eXit option.

********** Convert Main Menu **********

Review Modify ScanTPA eXit

C Artfont -- A CSGFont
TPAfont -- TPAFont

****

The font conversion option allows the user to select the type of font to be converted on the "C Artfont" line and the TPA font to be created on the TPAfont line. In addition to converting the fonts the TPAfont may be "scanned" (looked at) and the Artist or CSGD font can also be "reviewed" (looked at). This program once again uses the premise that the font to be converted can only be of one type, so the type that is visible, Artfont or CSGFont, is the type that will be modified. If the type is incorrect, an error or unpredictable results may follow.

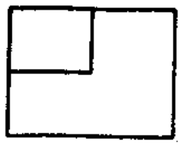
The conversion program attempts to convert all of the characters that are present in each type of font. New or modified versions of the basic font types may not convert.

Both CSGfonts and Artfonts are converted to SDSH fonts which may later be upgraded to OUSH using the TPA's Character Editor or the AUTOOUSHXB utility on the Toolbox disk. Please remember, many of the Artfonts and CSGfonts do not contain all 96 characters like TPA fonts do. Many are upper case only, they may not contain symbols, punctuation, lower case or numeric characters. The conversion program can only convert what is already in the original font to be converted.

Review

Pressing "R" for review will switch the display from text to graphics mode, draw a window and begin reading and displaying a character at a time from the Art or CSG font which is shown on the Convert main screen.

Review Screen



The large box on the screen represents the maximum size of an artist font. The small box represents the maximum size of a standard SDSH font. If each character of the font you are reviewing will fit within the small box, the font will convert correctly. You may still want to convert a font that does not exactly fit, then modify it using the Character Editor of TPA.

ScanTPA

The ScanTPA option functions just like the Review function for the other fonts except it works on TPA fonts. When you press "S" for ScanTPA the graphics screen with the display box appears and each character from the font, in turn, is displayed.

Modify

Pressing "M" for modify begins converting the Artfont or CSGfont shown in the file name on the screen to the TPA font name showing on the screen. The warning message "OPENING NEW FILE OK? (Y/N) will appear if there is no TPA font file by the name shown on the screen. Answering "Y" will cause a new fontfile to be opened then conversion of the font will occur. Answering "N" will return you to the Convert main menu.

eXit

Pressing "X" for eXit will return you to the Font Conversion tool main menu.

Inst->Extrn Menu

Load Goprint Show Varbls Cpixel eXit

E Printer -- P Extfile
A Insfile -- I Artfile

The Inst->Extrn tool is available to print TI-Artist "_I" instance files and "_P" picture files either directly to the printer or to an "extrn" file. In addition, each picture or instance may be "cropped" to size and printed using a user defined pixel shape and size.

The Inst->Extrn Options

To use a specific option of the tool the first capitalized letter of the option word is pressed. Hence to use Load press the "L" key, to use the eXit option press "X".

Load

The Load option will load the Artfile or Instance file specified in the filename on the bottom of the screen in the "A Insfile" field. Since only one or the other (i.e. an instance or an artfile) can be loaded at one time, only one of the two filenames can be visible at one time on the "A Insfile" line. The one visible is the one that will be loaded. Once loaded the graphical display is activated and the instance or artfile is shown. At this point you may press FCTN-9 to return to the menu or press enter to use the clipping functions available.

Show

The Show option will show a previously loaded artfile or instance that is still in the memory. Pressing "S" for Show will switch to the graphical display. At this point you may press FCTN-9 to go back to the Inst->Extrn main menu or press enter to activate the clipping functions available for changing the amount of the instance or artfile that will be printed.

Clipping Functions

Both the Load and Show options make available functions that are useful in "clipping" the instance or artfile (or some part of them) for later printing. These functions operate on the graphical display screen.

Clipping Screen

R 00090 C 00050

The "Clipping" graphical display screen is where the artfile or instance is displayed. When this screen is showing you may press enter to activate the clipping functions.

FCTN-S,D,E,X -- Cursor control options left, right, up, and down respectively.
FCTN-9 Move back to the Inst->Extrn main menu.
FCTN-0 Move the Row and Column indicators to the general vicinity of the cursor. This allows the user to move these indicators if they are obstructing the view of the artfile or instance.
FCTN-5 "Toggles" the marker from its invisible position in the upper left corner of the display screen to its visible position at the current cursor position. The marker represents the upper left corner of a rectangular box. The cursor represents the lower right corner. This rectangular box is the approximate area of an instance or artfile that will be printed.

********** Varbls **********

Pressing "V" for Varbls (Variables) will display the variable screen. There are three variables available for printing instances or artfiles.

********** Variables Screen **********

```
Variables: Choose, Press Enter
Prntr Type/ Eps  Gem    E
Prnt Dnsy/Sd-Dd-Hs-Qd    S
Extra Dark(Y/N)          N
```

********** Prntr Type/Eps Gem **********
********** Prnt Dnsty/(Sd-Dd-Hs-Qd) **********

See Page 16.

********** Extra Dark (Y/N) **********

See Page 17

********** Goprint **********

Pressing "G" for Goprint will print a portion of or the entire instance or artfile that has previously been loaded. The printing takes place either to the Printer or Extrnfile depending on which option and filename are showing. Since output cannot be routed to both an extrnfile and the printer at the same time only one option is shown in the "E Printer" file at once. The printed output is dependent on the variables and the pixel shape and size defined using the Cpixel option.

********** Cpixel **********

See Page 20.

********** Font Conversion Script **********

Since McCann Software respects the copyrights of the owners of the TI-Artist and CSGD fonts, we cannot demonstrate the conversion of one of these fonts from our disk. This script will review one of our fonts.

********** Script 1 **********

1. Boot TPA Toolbox.
2. At the Main Menu choose "3. Font Conversion".
3. When the Font Conversion menu appears press "C" for Convert.
4. Press "T". The cursor moves to the "TPAfont" line.
5. Type "DSK1.COURIER", press enter.
6. Make sure the fontfile COURIER is in drive 1. (This font is included with TPA Toolbox, on the back of the flippie disk).
7. Press "S" for ScanTPA.

The review screen will appear and the font COURIER will be reviewed.

8. Press any key when the review is completed to return to the menu.
9. Press "X" to eXit back to the Font Conversion main menu.

********** Script 2 **********

To do this script you will need the JuliBear_P file from the back of the original TPA disk or a "_P" art file created in the TPA Picture Editor or by TI-Artist. It should be in drive 1.

1. If you are not at the Font Conversion main menu complete enough of Script 1 to get there. Press "I" for Inst->Ext.
2. Press "P" for Printer. Type your printer file name and press enter. (i.e., PIO.CR or RS232.BA=4800.CR.DA=8).
3. Press "A" for Artfile. When the cursor appears in the Artfile field type "DSK1.JuliBear_P" (or the name of the "_P" file you are using. Press enter.
4. Make sure the Artfile from step 3 is in the correct drive. Type "L" for Load. When the drive stops you will see the picture displayed.
5. Press FCTN-9 to return to the menu.
6. If you have an Epson style printer, make sure it is on and press "G" for Goprint. If you have a Gemini 10X style printer press "V" for Variables. Change the printer type variable to "G" (i.e. press "G" and press enter). Press enter for Prnt Dnsty and Extra Dark so as not to change those variables. Then press "G" for Goprint.

When the Artfile has printed you may wish to press "S" for Show and try clipping a part of the artfile for printing. To do this, go back and read the section about clipping functions in the text. Instances (Insfile) are printed the same way. You can also send the output to an extrn file for use by the TPA Scheduler. Be sure to try Cpixel!

********** Border Builder **********

The Border Builder makes it easy to do a difficult task, building a border to a specific size. The TPA Toolbox disk contains two border fonts Border and Border2. Border fonts are just the same as regular SDSH fonts but the Border Builder uses the fonts in a specific manner that makes borders easy to create. Border Builder output may be sent directly to the printer or sent to a block of three "extrn" files for later printing by the TPA Scheduler program.

The Border Builder uses fonts in a specific way. Each border is composed of nine consecutive characters in a font. The characters represent the upper-left, upper-center, upper-right, mid-left, mid-center, mid-right, lower-left, lower-center and lower-right portions of the border. Each of the characters is the same size--fifteen dots wide and eighteen dots high. This makes each character 1/4 inch high by 1/4 inch wide in single density print. (The vertical dots are 1/72 of an inch rather than the micro-linefeed that is 1/144 or 1/216 depending on printer).

********** Border Builder Main Screen **********

Goprint Dir Vars Show Cpixel eXit

E Printer -- P Extfile
Fntfile -- Fntfile

****

The Border Builder main menu shows the various options and active files which can be used to print a border. To select a specific option press the key corresponding to the first capitalized letter of that option word. Thus to Show the possible borders on the border font disk press "S". To exit the Border Builder press "X" for eXit. The Border Builder allows print either to a printer or extrn file but not both at once so you must select "P" for Printer or "E" for Extfile and enter the corresponding file name. When "G" for Goprint is pressed, the output will be sent to the device whose name is visible at the time.

********** Goprint **********

Pressing "G" for Goprint directs the Border Builder to print a border to the currently selected output file, either a printer or extrnfile. The border printed is the last border viewed using the Show option. The border Fntfile must be present in its appropriate disk drive for successful printing and the variables must have been set. The Cpixel option will determine the size and shape of the pixel which will be used to construct the border.

********** Dir (Disk Directory) **********

Dir--Disk Directory. A directory/catalog of the files on any disk device attached to your system (which follows TI disk filing system rules) may be obtained. The directory is displayed at the top of the screen. If there is more than one page of filenames pressing FCTN-6 will show the next page. Any other key will exit back to the menu.

********** Show **********

The Show option will display the borders available on the border font disk currently named at the bottom of the screen. When "S" is pressed the display screen is shown and the first border is read from the disk and displayed on the screen. At this point pressing FCTN-E or FCTN-X will move "up" or "down" through the border font showing each possible border in this font. When you exit the display screen using FCTN-9 the last border shown will be the border the Border Builder will use when given the Goprint command.

********** Cpixel **********

See Page 20

********** Vars (Variables) **********

********** The Variables Screen **********

Variables: Choose, Press Enter

Prntr Type/Eps Gem E
Prnt Dnsty/Sd-Dd-Hs-Qd S
Font Style(Sdsh Oush) S
Extra Dark(Y/N) N
Linefeed Size 0
Intercharacter Width 0
Left Margin 0
Pixel Width 1 Pixel Height 1

Horiz Size -- Inches 1 0/4 #Dots 60
Verti Size -- Inches 1 0/4 #Dots 216

Actual Width = width times pixel width

****

The variables may be used to control many aspects of the printed output. Since the variables sheet uses primitive input any numeric input corrections need leading zeros (i.e. 0050). To move through the sheet without changes press enter at each item.

********** Prntr Type/Eps Gem **********
********** Prnt Dnsty/(Sd-Dd-Hs-Qd) **********

See Page 16.

********** Font Style (Sdsh Oush)**********
********** Extra Dark (Y/N) **********

See Page 17.

********** Linefeed Size **********

The linefeed size should be zero unless you want to leave space between each vertical element in the border as a special effect. The linefeed size is the amount of space between two lines of print. Each time a line of font characters is finished printing the paper is advanced by the amount specified in the linefeed size variable. The linefeed size is in micro-linefeed increments (i.e. 1/216th inch for Epson type printers and 1/144th inch for Gemini 10X type printers).

********** Intercharacter Width **********

The intercharacter width should be zero unless you want to leave space between each horizontal element in the border as a special effect. The intercharacter variable sets the default size of blank space in dots that will be allowed between each character that the formatter encounters. If you make this value large, there will be a lot of space between each character.

********** Left Margin **********

See Page 18.

********** Pixel Width & Height **********

The Pixel Width & Height is automatically computed from the Cpixel definition of the pixel shape. The pixel shape defined in Cpixel causes the printed output to change shape and size. Close attention should be paid to how Cpixel quickly multiplies the size of the font characters to be printed. An eight inch wide line of characters multiplied by a pixel width of 8 becomes 64 inches wide. The solution to this is to make sure Cpixel is used before setting the other variables.

********** Horiz Size--Inches #Dots *******

Horiz Size (horizontal size) is the overall outside width of the border. It is computed by taking the #Dots (the number of dots wide the border will print) and translating into inches and fractions of an inch.

You may set the horizontal size either in inches and fractions or in dots. The fraction base changes depending upon the density (single density is in quarters, double density is in eighths and quad density is in sixteenths). Fractions are set this way because the fundamental horizontal unit or character used in the Border fonts is fifteen dots wide.

********** Verti Size--Inches #Dots *******

The vertical size is the overall outside height of the border. It is the #Dots from the top of the border including linefeed size, if used, translated into inches. You may set the vertical size either in inches and fractions or dots. The fractions are shown based on quarters of an inch. Fractions are in quarters because the fundamental vertical unit or character used in the Border fonts is eighteen dots high (approximately one quarter inch).

********** Line At **********

The Line At indicator will show, following a printing, the vertical extent in micro-linefeeds the Border Builder has advanced the paper.

********** Border Script **********

This border script shows how to view and print a basic border. To complete the script you will need to put the BORDER font from the back of the TPA Toolbox disk in drive 1. Do this after you have booted Toolbox and disk drive activity has stopped.

1. Boot TPA Toolbox
2. At the Main Menu Choose "4. Border Builder".
3. When the Border Builder main menu appears press "P" for Printfile.
4. Type in your printer file name and press enter. (i.e., PIO.CR or RS232.BA=4800.CR.DA=8).
5. Press "F" for Fntfile. When the cursor moves to the "Fntfile" line type "DSK1.BORDER" and press enter.
6. Press "S" for Show. The first border in the BORDER font will be displayed.
7. Press FCTN-E. This will show the next border in the font.
8. Press FCTN-9. This will move you back to the Border Builder menu.
9. If you have an Epson type printer press "G" for Goprint. If you have a Gemini 10X type printer you will need to press "V" for Variables. When the variables screen appears, enter "G" for Gemini type printer. Press enter continually until the Border Builder menu reappears. Now, press "G" for Goprint to print the sample border.

After completing the Border script you may wish to begin experimening with the variables and using the Show function to move to and print other borders. Remember, when viewing borders with the Show function the last border you look at before pressing FCTN-9 (to come back to the menu) is the border that will be printed.

Forms Tool

The Forms Tool is a special purpose tool which is very versatile. It can be used to create blank forms, graphs and other designs. In fact, it can be used to create almost any printed output that relies on the use of rectangular boxes as building blocks. The forms tool allows the placement of a rectangular box of virtually any size on the page at any location. It allows the box to be repeated vertically or horizontally as many times as desired. Thus a single small box repeated horizontally and vertically will instantly form a piece of standard graph paper using any size box desired.

The Forms Tool uses a "schedule" type environment as well as a graphical display to facilitate the form building process. The forms created may be printed either to a printer directly or to an "extrn" file for inclusion in a document arranged by the TPA scheduler. The "template" used to create the form may also be saved to disk for use at a later time.

Forms Tool Main Menu

ModifyF ReadF WriteF ClearF eXit
Directory Boxes Goprint Variables
E Printer -- P Extfile
Frmfile -- Frmfile

Each option of the Forms Tool may be accessed by pressing the key corresponding to the first capitalized letter of the option word. The "E Printer" option line uses the fact that output cannot go to both the printer and a "extrn" file at the same time. Pressing "P" will allow the entry of a printer file name such as "PIO.CR" and while that name is showing the print will be routed to that file. Pressing "E" will change the display to "P Extfile" and allow the entry of a file name to which output will be routed in the "extrn" format. Output will be routed in extrn format as long as the "P Extfile" option is visible.

ModifyF

ModifyF (Modify Form). Pressing "M" for ModifyF will move you to the form database editing screen. The purpose of the form database is to keep track of the size and location of each box to be drawn in the form.

ModifyF Editing Screen

1 Row: 0 0
Col: 0 0
Vreps: 0 Hreps 0
Dens: 0

Edit Up Down Insert
Print Blockmove Zap eXit

The ModifyF Editing Screen allows each rectangular box or box system to be edited. The top part of the screen showing "Row:" etc. is called data item. At the upper left is a number which indicates which data item in the data base is being displayed or edited. Each data item describes a box or a system of boxes which can be displayed or printed.

The Data Item Fields

A data item consists of a several of fields. Each field has a name. The name "Row:" is a field name. In the representation of the ModifyF Editing Screen above there are two zeros to the right of the "Row:" name. These zeros represent the left and right sub-fields of the Row. The fields and sub-fields hold numbers which describe where on the page you wish to print the boxes used in creating your form.

Row:

The Row field contains a left and right subfield. The left sub-field indicates the number of dots (equal to 1/72 of an inch) down the page that the box or box system will begin to print. The right Row sub-field will display two values. The data entry value is the number of dots (1/72nds of an inch) down the page that the box will extend from the position in the left Row sub-field. This value may be entered when the cursor is in the field. The other value displayed is the overall distance that the box or box system will extend down the page. For instance, if a box is to begin at Row one and extend three dots down the page, a one would be entered in the left subfield and a three would be entered in the right subfield. If the Vreps (vertical repetitions) field contained a three, after data entry, the right subfield would show 10. Three boxes down the page each with a height of three dots plus the original one dot equals 10.

Col:

The Col field contains a left and right subfield. The left sub-field indicates the number of dots across the page that the box or box system will begin to print.

The right Col sub-field will display two values. The data entry value is the number of dots across the page that the box will extend to the right from the position in the left Col sub-field. This value may be entered when the cursor is in the field. The other value displayed is the overall distance that the box or box system will extend across the page. For instance, if a box is to begin in Col 10 and extend 15 dots across the page, a 10 would be entered in the left sub-field and 15 in the right subfield. If a two was then entered in the Hreps (horizontal repetitions) field, after data entry the right Col subfield would show 40. Two boxes across the page each 15 wide plus the 10 dots offset from the left margin equals 40.

Vreps:

Each box defined in the Row and Col fields may be duplicated any number of times down the page. The entry in Vreps indicates the number of vertical repetitions. Each subsequent box uses the bottom line of the vertically adjacent box above as its top line.

Hreps:

Each box defined in the Row and Col fields may be duplicated any number of times across the page. The entry in Hreps indicates the number of horizontal repetitions. Each subsequent box uses the right side line of the horizontally adjacent box to the left as its left side. Additionally by placing a zero in the Hreps field the box will not print or show any horizontal value.

Dens:

The horizontal density of the print output may be specified in the Dens field. Valid values in this field are 1 for single density printing, 2 for double density printing, and 4 for quad density printing. The default is single density printing. As has been stated before, the density of the printing changes the width (in inches) of the same number of dots. Sixty dots in single density yields one horizontal inch. Sixty dots in double density yields one-half inch of print.

ModifyF Editing Options

ModifyF/Edit

Pressing "E" for Edit moves the cursor up into the data item fields for editing. Editing can be accomplished by use of the normal keys and the left and right arrow keys. The Enter key moves to the next field. Numeric entry is primitive requiring leading zeros to change high order digits if necessary (i.e. 0050). You may move quickly through any field by pressing enter.

ModifyF/Up

Pressing "U" for Up will display the next smaller numbered data item for editing. The items are numbered 1 through xx.

ModifyF/Down

Pressing "D" for Down will display the next larger number data item for editing. The items are numbered 1 through xx.

ModifyF/Insert

Pressing "I" for Insert will "slide" all data items "down" one numeric position and clear the current item for editing. You can think of this as inserting a blank line with a word processor.

ModifyF/Print

Pressing "P" for Print will print a list of the data items that are currently active as well as a header to identify each item. Remember, when you print the data items you will need to remove the .CR extension from your printfile name.

ModifyF/Blockmove

The Blockmove Screen

```
Go Up Down eXit

Row+: 0
Col+: 0

Block from 1  to 1
```

Pressing "B" for Blockmove will pop-up the Blockmove menu. Block moves come in handy when a number of data items need to be moved on the page. Figuring moves manually is time consuming and error prone. Blockmoves are clearly the answer to this problem. The Block to be moved must be composed of contiguous items (i.e data items 7,8,9 and 10). All items named in the block must have data in them. Note, when doing Col+, moves the user must keep in mind that moving a single density item 60 pixels to the right means moving it one inch, while moving a quad density item 60 pixels to the right means moving it one-quarter inch. Multi-density block moves should be avoided.

To move the four data items 2,3,4 and 5 down the page 10 units: Press "R" for Row+ and enter 10. Next press "B" for Blockmove enter 2 in the first field, press enter, then enter 5 in the next field. Finally, press "G" for Go. You will see that 10 has been added to the Row field of each data item in the Block.

ModifyF/Zap

Pressing "Z" for Zap will delete the current data item from the data base. Unfortunately the menu scheme already used "D" for Down so Zap was chosen. Zap is not reversible or recoverable so use it with caution.

ModifyF/eXit

Pressing "X" for eXit will return you to the main Page Manager menu. All data created or modified in the ModifyF menu will be preserved.

ReadF--Read Formfile. This option is available to read in a previously created form. When "R" is pressed the file with the name represented in the Formfile field at the bottom of the main screen is read into the form database. When ReadS is invoked any items previously in the form database are lost.

WriteF--Write Formfile. When "W" is pressed the data items in the current Form database are written to disk. The filename they are written to is represented in the Formfile field at the bottom of the main screen. To successfully write the form the name in Formfile must be a valid filename (i.e., DSK1.MYFORM).
ClearF--Clear Formfile. Press "C" to empty all data items from the form data base. The "Sure Y/N" warning will give you a chance to escape this option.

Directory--Disk Directory. You may get a directory or catalog of any disk device attached to your system (which follows TI disk filing system rules). The directory is displayed at the top of the screen in a "scrolling window" display. Fctn-E scrolls up, Fctn-X scrolls down and Fctn-9 escapes back to the menu.

eXit--Pressing "X" for eXit will allow the user to move back to the TPA Toolbox main menu. When the "Insert System Disk" message is displayed , press any key to load the menu. To escape the eXit option press FCTN-9 when the "Insert System Disk" message is displayed.

Boxes

See Page 8 for all Boxes functions.

Variables

The Variables Screen

Variables

```
L_Margin   Ø
R_Margin   1919
T_Margin   Ø
B_Margin   792
#Columns   Ø
#Between   Ø
Prntr Type/Eps  Gem   E
Extra Dark(Y/N)       N
```

See Page 10 for explanations of margins and columns.

Prntr Type/Eps Gem

See Page 16.

Extra Dark (Y/N)

See Page 17.

Forms Tool Script

In this script we will show how to make a piece of graph paper using the Forms Tool.

1. Boot TPA Toolbox.
Before doing instruction 2 you will need to make sure you have the file TBOX_FORM in your default drive (probably drive 1?). TBOX_FORM was put on the back of the flippie (the front was full). 2. At the Main Menu choose "5. Forms Tool"
3. When the Forms Tool main menu appears press "P" for Prntfile.
4. Type in your printer file name and press enter. (i.e. PIO.CR or RS232.BA=4800.CR.DA=8).
5. Press "C" for ClearF. At the SURE?(Y/N) press "Y" to clear the forms database.
6. Press "M" for ModifyF. The forms database editing menu appears.
7. Press "E" for Edit.
8. At the Row: left subfield (where the cursor is) press enter to to leave zero. This indicates that this data item of our form will start at Row Ø.
9. At the Row: right subfield (where the cursor is) type 18 and press enter. This means that this data item will extend 18 dots down the page.

10. At the Col: left subfield enter zero. (start at the left margin).
11. At the Col: right subfield enter 15. This data item will extend 15 dots to the right.
12. At the Vreps field enter 40. Since we entered 18 dots in the Row right subfield we have a box one quarter inch high. Forty of these will equal about 10 inches.
13. At the Hreps field enter 32. Since we entered 15 dots in the Col right subfield we have a box one quarter inch wide (we are going to enter 1 in the Dens field). This will make our graph paper 8 inches wide.
14. At the Dens field enter 1 for single density printing.
15. Press "X" to exit the ModifyF screen.
16. If you have an Epson type printer press "G" for Goprint. If you have a Gemini 10X type you will need to press "V" for Variables. When the variables screen appears then press enter continually until the cursor is on "E" for Prntr Type. Enter "G" for Gemini type printer. Press enter until the Forms Tool menu reappears. Pressing "G" for Goprint will print the example form.

When you have your piece of graph paper printed you may wish to press "B" for Boxes to see the same piece of graph paper printed in graphics on the screen. FCTN-9 will get you back to the menu from the Boxes screen. To gain some skill, do ClearF, then Boxes and draw some boxes using the "draw boxes" options explained earlier in this text. When you have several, print them out using "Goprint". Next, go into ModifyF and look at each data item. Each one was created when you pressed enter to draw a box.

This is the last script and the end of TPA Toolbox documentation. If you made it this far, congratulations you are well on your way to a degree in pagemanship.

********** UPDATES AND WARRANTY **********

The enclosed registration card is your ticket to future updates of TPA Toolbox and warranty service. You must complete the card and return it to us in order to become a registered user. If you buy TPA Toolbox from a registered user you may write to us and apply for registered user status.

1. Update policy--all registered users (see above) are eligible for any update of TPA Toolbox that is released. To receive your update you will be required to return your original TPA Toolbox system disk with its serial number label intact and a small fee to cover shipping, materials and handling.

2. Warranty--Any defective disk or software will be replaced if returned within 90 days. McCann Software will make the judgement as to whether the disk or software is defective and will repair or replace it at our option. If you erase or damage the original TPA Toolbox system disk, return it with $10 for replacement (i.e., please make a backup copy). This software is like a do-it-yourself book, it is for your use and you are the judge of the accuracy of its usefulness. The author is not responsible for any damage incurred by you, your associates or customers as a result of the use of TPA Toolbox.

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