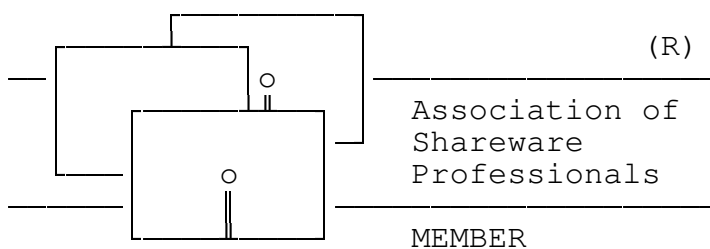


# BOOKLET

Laser Printer Utility  
version 4.2

Users Guide



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Table of Contents

The Shareware Concept.....3

Support.....4

Introduction.....5

Operation.....5

Option summary

- Announce.....6
- Auto Skip.....6
- Binding.....6
- Customization.....7
- Default paper source.....7
- Footer.....7
- Header.....7
- Gutter.....7
- Jump.....7
- Kind of printer feed.....8
- Lines per page.....9
- Margins.....9
- Output file name.....9
- Pause options.....9
- Ring binder order.....10
- Size of paper.....10
- Two up printing.....10
- Vertical marks.....10
- Debug option.....11

Heading Description.....11

Sample Commands.....13

Margins.....14

Recovering from Printer Errors.....15

Paper Curl.....15

Font Selection.....16

ERRORLEVELs.....17

Revision History.....18

### The Shareware Concept

Shareware distribution gives users a chance to try software before buying it. If you try a Shareware program and continue using it, you are expected to register. Individual programs differ on details -- some request registration while others require it, some specify a maximum trial period. With registration, you get anything from the simple right to continue using the software to an updated program with printed manual.

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### Disclaimer

The fact that BOOKLET will print on both sides of the paper does not imply that this is accepted practice for your particular printer. Sympathetic Software is not responsible for damage resulting from ignoring manufacturers recommendations. That said, we have yet to hear of any difficulties worse than paper jams when using this utility. Also, one printer manufacturer who warns against printing on the reverse side of the paper provides for a "cleaning paper" to be used on cartridge changes. The recommended procedure is, in fact, printing on the reverse side of this sheet.

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You are encouraged to pass a copy of BOOKLET along to your friends for evaluation. Please encourage them to register their copy if they find that they can use it. All registered users will receive a copy of the latest version of the BOOKLET system. To register your copy of BOOKLET, send in a completed copy of the enclosed order form.

### Support

The current version of BOOKLET is available from the IBMHW forum on CompuServ. Problem reports may be made to Sympathetic Software or sent by CompuServ E-Mail to:

Stephen L Billard: 71046,1476

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## Introduction

BOOKLET is designed to create PC Booklet sized documents from full page text files on Laser Printers which emulate the Hewlett-Packard LaserJet series. Also supported are the DeskJet family by Hewlett-Packard. It prints four pages of the text file on one sheet of paper. The pages are printed "half size" on the right and left halves of both sides of a sheet of paper turned sideways (Landscape orientation.) It supports all the standard sizes of paper (A4, LETTER, LEGAL, and EXECUTIVE)

BOOKLET will perform transformation on basic LaserJet formatting commands. This means that you can use your word processor to print a formatted document to a file and use BOOKLET to print that file in booklet form. (You must get your word processor to create a file with PCL commands. Generally this is done by a "Print to disk" command. BOOKLET cannot print from your word processor's internal data file format.) For this to be successful, you must have fonts loaded in your printer for the sizes BOOKLET will use. These can be from a font cartridge or may be soft fonts which you have loaded ahead of running BOOKLET. BOOKLET does not create or load any fonts. You will need fonts which are approximately two thirds the point size of the fonts you use in your document. If you do not have exactly the right font, the LaserJet will select the closest match from the ones it has. This match may or may not prove acceptable.

For plain ASCII text BOOKLET will select the 16.67 character per inch landscape lineprinter font. This font does not exist on either the original LaserJet or the LaserJet+. You will need to use a font cartridge having this font or load a soft font equivalent before running BOOKLET.

BOOKLET transforms only font, line spacing, and cursor positioning commands. It will discard page control commands such as page size, page orientation, and margins. If your document contains these, it may not print correctly.

## OPERATION

BOOKLET is run from the command line specifying the file to be printed and, optionally, parameters. You can configure BOOKLET with your standard parameters.

### Usage:

```
BOOKLET filename [/option /option...]
```

### Example:

```
BOOKLET readme.lst +h+f/s:A4
```

### Option summary

Note: items enclosed by brackets ([]) are optional. (the brackets are never typed.) If an item is not specified, the default will be used. You may change the defaults for BOOKLET by using the /C parameter to record the options you have selected. The values for your custom options are kept in a file called BOOKLET.INI which will be found in the same directory as the BOOKLET program. BOOKLET-Screen uses this same file, so you the defaults you save will apply to both programs.

Items separated by vertical bars (|) are choice items. That is, +|- means you can use the plus (+) or you can use the minus (-). Plus will set an option. Minus resets it. The slash is not needed when either plus or minus is used. If the file name you wish to print contains a slash, plus, minus, or space you will have to enclose the name within quotation marks.

+|-A      Announce completion of first side printing with beep

This is useful for printers with a small buffer. When the printer has a large buffer, The beep will come way before the printer is finished.

AS:[num][,num]      left and top Auto Skip

This option is used to indicate the amount of space that the printer automatically skips over. This area is a "forced" margin unique to the printer. LaserJet printers have an auto skip left margin of three characters. They have no top auto skip.

You determine left auto skip by multiplying the printers left unprintable area in inches (this is on the short edge of the paper since BOOKLET prints in landscape orientation) by 16.67. (The font BOOKLET uses is 16.67 characters per inch.)

You will need a top auto skip if the printer automatically skips lines before starting printing. The Hewlett-Packard DeskJet printers do this. Compute the top auto skip by multiplying the distance it skips (in inches) by 6.

DeskJet Plus printers have a half inch left margin and a quarter inch top margin. For them you would use a left auto skip of 8.34 and a top auto skip of 1.5.

Note: you must set your margins to be at least as large as the auto skip values.

The defaults are: left auto skip: 3, top auto skip: 0.

B:num      sheets in each Binding

If a booklet contains too many pages, it will be difficult to fold. The resulting booklet will be too thick. This option

allows you to set the number of sheets of paper for each folding. Thus, the booklet could consist of several folios each with up to 'num' sheets of paper. The default is 255 sheets. This is also the maximum value. Booklets with more sheets will be printed as multiple folios.

C save parameter Customization

This option updates the BOOKLET.INI file with the option settings you have selected.

D:Lower|Upper|MP Default paper source

This option specifies the default paper source for BOOKLET. Upper is for the upper paper tray, Lower is for the Lower paper tray and MP is for the LaserJet IIP and IIIP Multi-purpose tray. If you have only one tray, Lower and Upper will be equivalent.

The default is Lower.

+|-F[:"heading description"] print Footer at the bottom of each page

If Footer is set, A Footer will be printed at the bottom of each page. For a description of how to define a Footer, see Heading Descriptions, Page 11.

Default is no Footer.

+|-H[:"heading description"] print Header at the top of each page

If Header is set, A Header will be printed at the top of each page. For a description of how to define a Header, see Heading Descriptions, Page 11.

Default is no Header.

G:num Gutter columns;

The Gutter is the space around the fold. Setting the Gutter adds columns to the right of even pages and to the left of odd pages. This allows extra space for binding the booklet. See MARGINS below for further detail.

Default is 2 columns.

J[S][P]:num[:num] Jump to sheet [page] number;

This option is used when recovering from printer failures during previous runs of BOOKLET. That is, if you have a paper jam on the third sheet, you can rerun BOOKLET using the same parameters but adding /J:3 and it will not reprint the first





L:num     Lines printed per page

A normal LETTER size document has 66 lines per page. A4 documents can have up to 70 lines. You should select the number of lines to be printed per page that is appropriate to the document you are printing.

BOOKLET uses this number to compute line spacing. If you set the number too large, the lines will overprint each other. On A4 paper, 70 lines plus the header and footer works.

Default is 66 lines.

M:[num][,num][,num][,num]     left and right indent columns, top and bottom Margins

The first number is the number of characters each line is indented from the left. The second number is the number of columns reserved for a right margin. The last two numbers are the top and bottom margins.

The amount of non printable margin varies with the printer model. The LaserJet IIP is quite happy with a top margin of 1 line. The LaserJet II will lose a line unless the top margin is 2 lines. See below for a further discussion of margins. Your margins must be at least as large as your printer's auto skip regions for proper printing.

Default is 4 column left indent, 4 column right indent, two lines top indent, and two lines bottom indent.

O:filename     set Output file name

This option allows output to be sent to disk file or to a specific printer on a port. To print on the second printer port use O:LPT2. If output is being sent to a disk file and the second side pause handling is set to Wait, two output files will be created, one for each side. BOOKLET will add a "1" or "2" to the suffix of the filename to indicate side one or two.

Default is LPT1

P:Wait|None|ManualFeed     second side Pause handling

This controls what happens between printing the first side and the second side. Specifying Wait will cause BOOKLET to wait for the Enter key before printing the second side. ManualFeed causes BOOKLET to select manual feed for the first sheet printed on the second side. (This is specially useful if your printer is on a network. The printer stops waiting for a manual feed while you reload the paper for the second side. Just put the top sheet in the manual feed when you are ready. You may have to press continue to get the second sheet to feed

on some printers.) If None is selected, the printing of the second side is continuous with the first.

The default is wait.

+|-R[num] print pages in Ring binder order

When this option is set, the pages are printed in sequential order so that they can be read conveniently if the sheets of paper are left un folded and placed in a ring binder. 'num' is the margin to be provided for the hole punch.

When the option is reset, the pages are printed in booklet order such that they will be in sequential order once the sheets of paper are folded in half.

Default is booklet order. The default ring binder margin is 5.

S:A4|LETTER|LEGAL|EXEC set paper Size

A4 = 210 x 297 mm  
LETTER = 8.5 x 11 inch  
LEGAL = 8.5 x 14 inch  
EXEC = 7.5 x 10.5 inch

Default is LETTER paper.

+|-T print Two pages on each side of a sheet of paper.

Booklet printing prints four pages (two per side) on each piece of paper. If you want your document printed full size, but on both sides of the page, reset the T option.

Default is two pages per side.

+|-U print Uni-sided

When this option is selected, the document is printed on only one side of the paper.

Default is two sided

+|-VC print Vertical Cut marks on each page

When this option is selected cut marks are printed in between each logical page. These marks can be used for alignment of a paper cutter.

Default is no vertical cut marks.

+|-VS print Vertical Staple marks on each page

When this option is selected staple marks are printed in between each logical page. These marks can be used for alignment of a stapler.

Default is no vertical staple marks.

+|-VP print Punch alignment marks on each page

When this option is selected a mark is printed at the center of each inside margin. This mark can be used for alignment of a hole punch.

Default is no vertical punch mark.

+|-VL print a mid Line on each page

When this option is selected a line is printed in the center of each side of the paper. This makes a convenient dividing line between the left and right pages in two up printing.

Default is no line.

ZD:num:num debug dump pages

This option allows copying of pages to a file for debugging purposes. When this option is used, BOOKLET copies source file pages starting at the first num through the second num to a file named BOOKLET.DMP.

? print the usage summary.

If a filename contains spaces, slashes or a plus or minus character you will have to enclose it within quotation marks. Otherwise, BOOKLET will treat the portion of the name following these characters as an option. Either single or double quotation marks may be used so long as the same mark is used to close the quotation as to start it.

## HEADING DESCRIPTIONS

Headers and Footers (headings) are printed based on the heading definition associated with each. You can place any text you wish on a heading. The only constraint is that it must be less than 128 characters total. In addition to simple text, you may include things like the page number or file name by using the tokens defined below. The heading can be highlighted by over bars and under bars and with LaserJet shading and pattern fills (assuming your printer supports this feature.)

The text and tokens be centered or set flush to the right margin. (By default they are left flush.) A header or footer can be made up of a combination of left flush, centered and right flush text. Any text preceded by @C is centered and any text preceded by @R is set right flush. You may have only one each of the tokens @C and @R in a heading.

The text and tokens must be enclosed with quotation marks, otherwise any spaces, slashes, plus signs or minus signs would be interpreted as the beginning of the next command line parameter.

The following tokens substitutions are defined for customizing your heading:

&P        inserts the page number

&#        inserts total number of pages

&F.E      inserts the name of the file being printed

&F        inserts the name of the file without the extension

&FD       inserts the file date

&FT       inserts the file time

&CD       inserts the computer's date

&CT       inserts the computer's time

&U        inserts a line under the header or footer

&O        inserts a line over the header or footer

&Snum    inserts a Shading pattern on top of the header or footer. num is a number defining the pattern. Refer to your printer manual for Rectangular Area Shading Fill.

&Bnum    inserts a Cross-Hatch pattern on top of the header of footer. num is a digit Refer to your printer manual for Rectangular Area Cross-hatch Fill.

&&        inserts an ampersand character

&@        inserts an at sign

&{        inserts a brace

&CT and &FT may optionally be followed by a time format description. This description is enclosed in braces ("{" and "}"). Use H where you want hours, MM for minutes and SS for seconds. Use HH for 24 hour

notation. For example, {H:MM:SS} gives the time as 4:45:17 pm. This is the default format. {HHMM} gives 1645.

&FD and &CD may also have a format description string following. Again, these are enclosed in braces. D gives the date, M the month, and YY the year. DD insures the date is two digits. Likewise MM insures the month is two digits. MMM will print the name of the month. YYYY will give a 4 digit year. Examples of date format: {dd-mm-yy} gives 02-10-91. {mmm d, yyyy} gives October 2, 1991.

### Sample Headings

+H:"&U@C&F.E - &FD{MMM d, YYYY}" gives a header with the full file name and date (separated by a hyphen) centered with a line underneath. This header will look as follows:

---

BOOKLET.PCL - September 26, 1991

---

+F:"&O@C- &P -" gives a footer with the page number between two hyphens. This is centered and has a line over it. This footer looks as follows:

---

- 5 -

---

+H:"&o&u&s5&f@r&dt{m/d/y}" will create a shaded bar with solid lines at the top and bottom. On that bar, to the left will be the file name (without the extension). The date the booklet was printed will be flush to the right. Try this one if your printer supports Rectangular Area Fills. It makes an attractive header bar.

+F:"@rPage &p of &#" will place a page indicator at the bottom right corner of each page of your booklet. For example: Page 5 of 10.

### SAMPLE COMMANDS

```
booklet booklet.pcl +vs-h-f/m:11 /l:66 /s:letter
```

Prints the document BOOKLET.PCL in booklet format (the default) on 8.5x11 inch paper (the '/s:letter' option). The '/l:66' option is used to specify that the BOOKLET.PCL document expects to have 66 lines on each page. '/m:11' indents each logical page by eleven columns. (When BOOKLET.PCL was created, it was created without any left margin. This command adds it back.) '+vs' causes staple locating marks to be printed between each logical page. Finally, '-h-f' insures that there no footer ('-f') and that there is no header ('-h').

```
booklet booklet.pcl -t+r:0/l:66/m:11/jsp:12:12 /s:a4
```

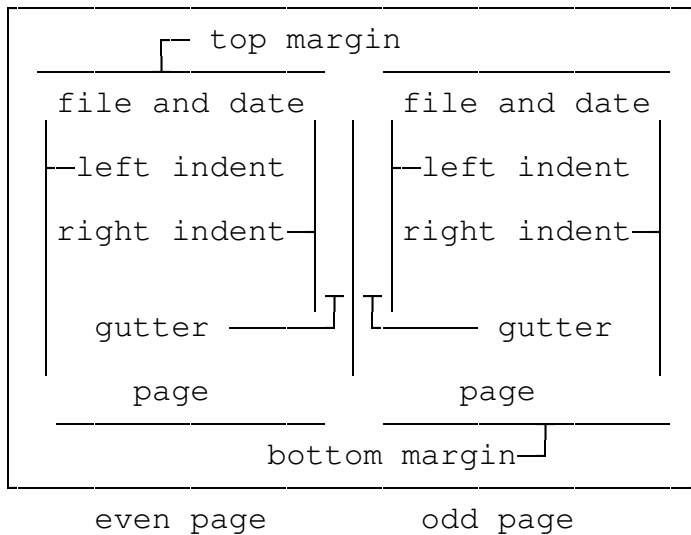
Prints page 12 ('/jsp:12:12' jumps to page 12 of the document and begins printing on the second side) of BOOKLET.PCL on A4 paper ('/s:a4'). Printing is full size ('-t' option). The '/r:0' option insures that only page 12 is printed as it causes the page order to be sequential. (The ':0' eliminates the extra margin for ring binder holes.) The 'm:11' and 'l:66' options are as above.

```
booklet booklet.pcl /o:formatted.prn
```

Formats BOOKLET.PCL using the default options and writes it to the file FORMATED.PRN for later copying to the printer. You could use this if you wish to make multiple copies of the document. Just copy FORMATED.PRN to the printer for as many copies as you wish.

MARGINS

Illustration on left indent, right indent, top and bottom margins, and gutters.



Laser printers have an unprintable area of about three columns around the edges of the paper. A left indent of three (on a LaserJet) is required to prevent loss of characters at the left side of the paper. Likewise, a right indent of three is needed. If your printer clips characters at the end of the right side of the paper it is because the unprintable region is larger than three columns. To correct this you will need to adjust the left and right indents. A similar situation exists with the top and bottom margins. If you get character clipping from your print out, increase the these margins.

With mono-spaced 12 point fonts you can compute the characters which can be printed across the logical page. The formula for this is:

$$C = \text{Truncate}((L * 16.67 - 1)/2) - \text{RightIndent} - \text{LeftIndent} - \text{Gutter}$$

L is the long dimension of the page

C is the characters per line on the logical page

For example on 8.5x11 inch paper (LETTER) with a three column left indent and no gutter, the formula is:

$$C = \text{Truncate}((11 * 16.67 - 1)/2) - 3$$

which gives 88 characters per logical page. Remember that the left indent must be at least three characters because of the unprintable left margin.

### RECOVERING FROM PRINTER ERRORS

BOOKLET will detect and recover from temporary print interruptions such as Out of Paper or Printer Not Ready. It will display a message when it has detected such a condition and will erase the message and resume printing once you have corrected the problem. It may display an error number rather than a text message. These are traps for errors for which I do not know the meaning. Should one of these occur, you will be given the option of Retrying or Aborting the printing. The state of the printer may be lost due to the error. If so, continuing will not produce correct output.

One cause of print interruption is paper jams. Recovery from these may take some effort on your part. Generally Laser printers will reprint pages involved in paper jams. If you let it do so during the second side printing of your document, you may find that the back sides may not be printed on the appropriate front side. If the original page is undamaged, you should re feed it. Otherwise, you can feed a blank page for the reprint and use the /J option to reprint the damaged page.

It may be simplest to abort printing when the jam occurs. You then reset the printer and start again using the /J option. You can reprint the sheet involved with /J:n:n (n is the sheet number of the jam.) Then you can resume printing of the second sides (on the remaining front sides) by using the /JS parameter to print the remainder of the pages. Note: When you restart printing of the second sides, BOOKLET assumes you have already placed the first sides into the paper feed tray ready for printing. It does not prompt you for this.

If you find it necessary to stop BOOKLET from printing at any time, just press the ESC key. BOOKLET will stop and offer you the chance to continue or abort the printing.

### PAPER CURL

Most problems with jamming are caused by paper curl. The heat of the printing tends to cause paper to warp. There are two things you can do to minimize this problem. The first is to use good quality laser printer paper stock. The second is to manually take the curl out of the

paper. Since good quality paper costs up to three times ordinary copier paper, the second option is often chosen.

Take the output from the first pass printing. Hold it face up by the short sides. Find a sharp edge, such as the edge of a desk. Draw the paper across the edge as if you were polishing shoes with it. This will introduce a curl opposite the one caused by the printer.

#### FONT SELECTION

When BOOKLET prints a document containing font selection codes, it converts those codes by scaling the pitch and point size parts of the code. These are scaled such that the effect is for fonts to be specified with all the same type face characteristics as the original, but with the size of the type face about two thirds the original.

If the printer you are using is a LaserJet III and you have selected a scaleable type face, then the printout will be a page of text which is an image of the original but two thirds the size. When the selected type face is not scaleable, the printer will use a font selection matching algorithm. Hewlett-Packard printers use a priority selection scheme which considers, in order of priority, orientation, symbol set, pitch (if the font is not proportional), font point size, type face style, and stroke weight. For a full treatment of this algorithm, see your printer's reference manual.

The effect of this algorithm is for the printer to use a font it believes is the "closest" to what was requested. For BOOKLET, in most cases this means it will use the 16.67 character per inch lineprinter font. Even when there is a small font with the right type face for the printer to select, the results may not be what you would expect. The selection algorithm may result in a font which does not work well for the reduced document. This will often be the case when you have used proportional fonts and proportional spacing in your document. The result may be words overlapping each other.

There is not much BOOKLET can do about problems of font selection. You can experiment with different fonts to find the most pleasing result.

Other difficulties you may have with format transformations are that centering and tab spacing may not scale proportionally. This is due to differences between the scaled font size and the actual font used by the printer. If you use spaces to do your formatting and stick to one font size, the output will generally look correct.

Also, often the small fonts selected by the font scaling do not have bold or italic type faces. If this is the case, you will lose these accents. Underline is always present (except for the DeskJet series printers), so you can substitute it.



ERRORLEVELs

Booklet returns the following ERRORLEVELs which may be tested in batch files.

0	no error
1	Parameter syntax error
2	Could not open requested file
3	Customization attempt failed
4	Operator interrupted printing
10	Out of Memory
999	Registration failure

## Revision History:

- 1.0 - First Upload to CompuServ 29-Oct-90
- 2.0 - Added Folio handling
  - Implemented Gutter
  - Implemented Right Margin indent
  - Implemented Underline for Header & Footer
  - Duplex printers supported
  - Implemented Ring binder page ordering
  - Implemented Font transformations
  - Implemented Jump to restart sheet
  - Added Jump to page number
  - Added debug options
- 3.0 - Added vertical marks options
  - Added Single page per side capability
  - Added Jam recovery features
  - Added shareware registration
- 3.1 - Added support for WordPerfect documents
  - Added support for DeskJet printers
  - Fixed problem setting duplex printers into duplex mode
  - Became member of ASP
- 3.2 - Fixed printing junk when Nothing To Print
  - Changed algorithm to re-setup the printer for the second pass
- 3.3 - Fixed margins for one-up printing
- 3.4 - Reduced memory requirements
  - Fixed gutter handling for one-up printing
  - Fixed one-up printing of PCL documents
- 3.5 - Added Customizable headers and footers
- 3.6 - Added check for out of memory
- 3.7 - Added BOOKLET.INI file for defaults
  - Added Manual feed second side option
- 3.8 - Fixed error in registration code
- 3.9 - Fixed handling of some Word Perfect PCL output
  - Added Punch marks
  - Added % complete
  - Fixed recognition of lower case printer names
- 4.0 - Fixed unclosed files
  - Changed default top and bottom margins
- 4.1 - Added Midline
  - Changed Ringbinder so that the ring margin on back is at bottom
  - Changed output to disk to create front and back files
  - Fixed underline handling on Word Perfect documents
  - Changed Font Scaling to be an exact ratio of the page reduction
- 4.2 - Fixed Punch and Staple mark odd page problem