

There are three ways of producing book pages on a laser printer. They can be printed as a series of sequential four page folios and glued together in the same order, or the typeset file may be physically divided into separate pages. These are then rearranged as 'printer's pairs' for stapled booklets or sewn into sections for traditionally bound covers. The third method is to arrange the pages into eight or sixteen page 'nested sections' for folding up into pocketbooks like the one you are reading.

### Laser Book Impositions

Works of non-fiction, like instruction manuals, text books, and illustrated guides, frequently have text and related illustrations which must remain wedded together, even if others are added or removed elsewhere. The typesetting is more complex as illustrations have to be imported and placed accurately on the page, and the file sizes may become very large. Such books are best produced using a PostScript document manager such as Letter RIP.

### Types of Book

Broadly speaking, there are two types of book. Novels, short stories, and biographies, have more or less continuous text with perhaps an occasional illustration. Chapter headings start on a new page, but otherwise the text is not confined to a specific page and flows in a consecutive numbered sequence from beginning to end. Many thousands of words may be typeset quickly and easily using Direct PostScript codes and if the pages are printed in successive four page folios, no collating is necessary.

### Distribution

Distribution is even more of a headache. National book distributors refuse to handle any titles that are self-published and prefer those by well-known authors whose books have received wide media promotion in advance. Even when copies are distributed to the bookshops, some major chains demand 40% of the cover price with 90 day sale or return invoicing. Any unsold books have to be returned at the publisher's expense and are frequently found to be shop-soiled or damaged.

## Self-Printing Books

A TINYHELP

1

Compiled by  
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The Cappella TinyHelps offer some suggestions for book production for those who wish to typeset and print on demand limited editions either for local or personal sale, or as taster copies for submission to commercial publishers.

This first of the series considers some of the problems of book production; the types of page imposition suitable for laser printing; and the variety of possible editions.

### Cappella Archive

Book on Demand Limited Editions

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Typeset in Direct PostScript by the Cappella TinyDict

Unlike folio printing, which stacks single folded sheets in consecutive groups of four pages, eight page nested sections may be laser printed by using US legal size paper, which is 14 inches long and 8 inches wide. This results in a finished pocket book size of 4 by 7 inches when folded. Happily enough, this is the same size as many French paperbacks and only fractionally narrower than the original British Everyman or Penguin series. Normal library size nested sections of

### Nested Signatures

Typeset pages for stapled booklets or sewn book sections are imposed into Printer's Pairs by arranging each page in its proper sequence into one of two files. The front (odd) file is in facing page pairs of 16-1 : 14-3 : 12-5 : 10-7 : the back (even) file contains 2-15 : 4-13 : 6-12 : 8-9. The first page number of each file must always be the odd number of the pairing or the facing pages may emerge opposite handed. A control file may be needed to select pages or graphics from the typeset book file and 'impose' them in their correct order for printing.

### Printers' Pairs

A particular advantage of laser folio printing is that any single set of four pages may be reprinted individually to replace misprints or mistakes. It is also not necessary to collate sections, as the pages are automatically printed in numerical order and only need folding in as a check for any misplaced folios. Pages can be wired or thermally bound but not sewn or stapled.

### Folio Binding

A single folded sheet of paper will produce four pages when laser printed in the sequence 4—1 on the front and 2—3 on the back and successive folios produced in this way will stack into a neat pile after folding. Because there are no sectioned inner folds, there is no need to trim or groove the spine, and the glued joint is much stronger than those cropped for commercial perfect binding. The spine may be further strengthened with a muslin lining and the book remains flat when opened.

### PostScript

PostScript is a digital page description language devised in 1984 by Adobe Systems Inc. to describe the position and outline of drawn lines or typographical characters placed on a page. The resulting scripted instructions are rather like a map for buried treasure; so many paces north; so many east, and so on.

The paces are not measured in yards or metres but in typesetter's 'points', each being one seventy-second of an inch. The interpreter in a PostScript laser printer rasterises the instructions into microscopic dots of toner that are fused on to the paper when a page is printed. The PostScript language is used by computer printing equipment throughout the world.

### What is Direct PostScript?

Text to be typeset is given some simple codes from an accompanying PostScript typesetting dictionary and is sent to a laser printer using a downloading utility. The files are application-independent and do not rely on third party DTP software such as PageMaker or Quark XPress to convert text and illustrations into the PostScript language. The files may be viewed on-screen by conversion into the Portable Document Format using Adobe Acrobat.

Direct PostScript book files may be archived for the foreseeable future; edited without needing software translators; are easily transmitted by electronic mail; and may be transferred to film or plates for offset printing in the happy event of large orders.

cut after printing both sides

PRINT THE PAPER HERE BEFORE PRINTING THE REVERSE

The competition is very severe. Whitaker's Bibliographic Services report that about 80,000 titles are produced every year by some 22,000 publishers in the European Union and in May 1996 'The Bookseller' magazine recorded the publication of 280 children's titles in one week alone.

Most large offset machines require a minimum print run of two or three thousand to achieve the economies of scale. However, a nationally distributed average first novel in the United Kingdom is unlikely to sell more than between 250 and 750 copies over twelve months and any greater success depends not so much on the quality of the writing or the price, but on controversial publicity and some favourable reviews. In the fullness of time, the unsold copies are returned to the warehouse and eventually remaindered, pulped, shredded, or used as land-fill.

### Over-production

There may be several difficulties. The many folds usually skew the paper, so some pages have to be deliberately slanted to appear straight when the book is bound. The thickness of the paper makes the inner pages creep forwards towards the outer margin and their position has to be adjusted backwards accordingly. Finally, each page should remain in register with its twin on the reverse when held up to the light.

The traditional method of producing books uses large presses to print 16, 32 or even 64 pages on flats or impositions. Each sheet is folded several times after printing both sides so that the pages appear in their correct numerical order on both sides of the paper. These folded impositions are now called signatures or sections and either sewn together with thread for quality binding, or 'perfect bound' by trimming or grooving the spine to reach the inner folds, which are then glued.

### Traditional Methods

## Book Production

IT IS very peculiar that whether an author's work is printed or not should depend on the editorial caprice of a publisher. After all, theatres and recording studios do not reject their prospective hirers on the grounds of incompetence, lack of artistic merit, or profitability, although some purists may wish the contrary. Frequently, an author's work may involve several years of hard work and it is only right and proper that it should be printed, however arcane or mundane the subject.

On the other hand, neither should an author expect a publisher to be an unholly trinity of money lender, literary midwife, and spin doctor; who provides free of charge three thousand copies to be scattered like grapeshot to the Sale or Return trade winds of chance, in the expectation of selling one third of that number over two years, for a royalty of less than ten percent.

Despite the snuffy attitude of booksellers and publishers to what they like to call 'vanity publishing', many successful authors have paid for their work to be printed. Charles Dickens paid for 'A Christmas Carol' and Jane Austen for 'Mansfield Park'. More recently, Jill Paton Walsh, after fourteen rejections by commercial publishers, set up her own publishing company to produce her 1994 Booker prize-winning 'Knowledge of Angels', and Timothy Mo produced 'Brunmout in Breadfruit Boulevard'.

One solution is to print a Book on Demand; laser printing copies as they are ordered to sell by mail order or through clubs and societies. It provides a much greater financial return than selling through bookshops; encourages authors to take a more active role in the selling of their product; and minimizes the waste and storage of unsold returns.

This suggests a return to the eighteenth century English method of publishing, whereby an author compiled a list of 'subscribers' whose purchasing number would cover the cost of typesetting the edition.

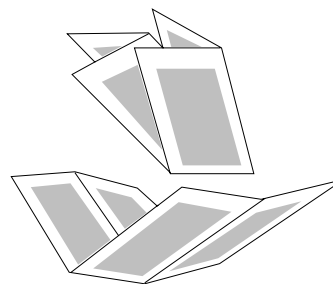
In addition to the small capital outlay and avoidance of wasted copies, an equally important benefit of Book on Demand printing is the ability to edit the archived book file at any time. It is rare for any book to be printed without typographical errors and, indeed all too often, authors wish that some text were added or removed, or phrased more factually or correctly.

### Editing

One solution is to set up separate half-sheet book pages and use a utility, such as Click Book, to print them in their proper order. Of course, Direct Postscript pages may be typeset using a word-processor but must be saved as Ascii files before being printed using a Postscript downloader.

Many word processors are not very suitable for typesetting book pages. If two columns are set up on a landscaped text area to represent the two facing pages of a book, it is very difficult to get the text in the right hand column to stay in the correct place if text is added or taken away from the left hand side. This makes pairings of such pages as 4 and 1 or 2 and 15 almost impossible.

### Word Processors



Nested sections

up to 5 by 8 inches may be printed using a tabloid A3 laser printer.

As editing can be done so easily, it is a good idea always to provide a printing date on the copyright page of each copy, comparable with the Impression year of traditional publications.

### Possible Editions

Printing and publishing a book is lengthy process and you should consider the work involved and the cost. Here are some tasks and decisions that have to be done, the first of which is probably the most important.

1. Reading: seek the opinions of five unrelated people.
2. Grammar editing: pay a higher level English teacher or lecturer.
3. Typesetting: buy a compositor's guide, such as Hart's Rules.
4. Archiving: how? make generation backups: father/son/grandson.
5. Paper: pay for proper quality book paper, shortgrained for folios.
6. Artwork and photos: pay for drawing or camera expertise.
7. Printing: how? by whom? laser or copy-printing or offset.
8. Production: how many? collated or one at a time: copy storage.
9. Binding: spiral, sewn, glued, paperback, hardback, dustjacket.
10. Sales: by whom? outlets - clubs, societies, academic bodies.

What kind of edition?

1. Taster copies: about 30 to send to commercial publishers.  
*Send a summary first and only post to an interested respondee.*
2. Limited edition: some 50 for arm-twisted family and friends.
3. Book on Demand edition: personal sales of 50-100 copies p.a.
4. Commercial copyprint edition: usually 200-500 paperbacks.
5. Full commercial edition of 2-3000 copies: average costs are:  
20% printing: 5% warehousing: 15% invoicing and returns  
10% distributor: 33-40% booksellers' markup: 10% royalty

Royalties are only paid on sold copies and it may take twelve months before payment. Eventually, remainders will be returned or otherwise disposed of when the warehouse space is needed.