How to prepare a book document for printing

No matter what layout program you use, these are the steps to take your book from the screen to paper.

Design
Design your book in the dimensions you want to print it at (except for some of the wacky small/tiny layouts and Six with have to explain those).
If you are making a normal size book (A5 or half-letter), set the page size to that dimension. You may want the inner margin to be slightly wider than the outer one. Set this up in your layout program. If you are maker a smaller book (A6/quarter letter) set up these dimensions. When you are satisfied with the design and want to print, output/export a PDF. Do not "print to PDF" or ask the design program to make booklets, even InDesign is bad at this and you will get a better result using the "community imposer" designed by Cocoa and Six.

Once you export you will get a "straight-paged" PDF -- that is, one where the pages follow each other one after the other. You will use this to make an imposed document where the pages are arranged in signatures to print, fold and stitch.

Important terms to understand

Sheet = sheet of paper
Folio = two book pages side by side on one side of one sheet of paper, with the sheet in landscape orientation
Quarto = four book pages on one side of a sheet of paper, with the sheet in portrait orientation
Octavo = eight book pages on one side of one sheet of paper, with the sheet in landscape orientation
Sextodecimo = 16 pages on one side of one sheet of paper, with the sheet in portrait orientation.

In order to print book pages so they can be folded and sewn together into a book, the pages must be arranged in a different order than in the straight-paged PDF.
Taking a 16-page signature as an example, in an A5/half letter book, you will have a four-sheet signature, with two book pages on each side of each sheet of paper. The odd-numbered pages will print on the right-hand side of each face of each sheet.
Sheet 1 will have page 1 on the right, and page 16 on the left, and on the back of that sheet, page 15 on the right and page 2 on the left, sheet 2 will be page 3 right, 14 left and on the back, 13 on the right, 4 on the left, and so on.
It really helps to understand this if you take sheets of scrap paper, fold them in half, number the resulting pages sequentially and then unfold them and see which numbers are next to each other.

To use the imposer, you need to decide ahead of time how many sheets your signatures will be. The total number of book pages must be divisible by four, because each sheet when folded has four book pages on it.
This is true for quarto, octavo and sextodecimo printing as well, because what you are doing with these set-ups is printing more, smaller book pages on each sheet of paper and then

cutting the printed sheets into folios with two book pages on each side of each resulting smaller sheet.

Working from the top of the Bookbinder set-up page, choose your paper size, and whether your printer does duplex (most do, but not all in the same way). A printer that feeds from the rear will do manual duplex: it will print the front sides of the whole signature first and then wait for you to turn the paper over and send it back through for the backs of the pages to be printed. A front-feed printer may print both sides of each sheet one after the other and will turn the paper over inside the machine. You need to test your printer to understand how it works and whether you have to ask the imposer to perform alternate page rotation. We will discuss printer settings later.

Folio imposing & printing
Say your book is 160 pages, you could break that up into 10 16-page signatures (4 sheets) or 8 20-page signatures (5 sheets), so you would insert 4 or 5 into the "standard signatures" field.
Even if your book doesn't break into perfect signatures, don't worry, this imposer can cope. Say the book is 156 pages, that doesn't break into all 16- or all 20-page signatures, in that case, choose 5-sheet signatures, and the imposer will generate 7 5-sheet, 20-page signatures and one of 4 sheets and 16 pages (you could also before you output the straight-paged PDF add four blank pages at the end to bring it up to 160).
Now you import your straight-paged PDF and the imposer will calculate the signatures and fill in the fields at the end. When you hit "generate output" it will give you a zip file with each signature in its own PDF.

Bookbinder JS

A Javascript-based app for formatting PDFs for bookbinding. For more information, feature requests, or to contribute, view the project's Github repository. If you have issues with this version, you can try the old version instead, which only supports folio layouts.

File Info

Input File: [Browse...] No file selected.
Number of Pages:

Printer

Paper size [A5 ▾]
Printer type [Duplex ▾] ⓘ
Alternate Page Rotation (AKA Flip on Long Side) ■ **NOTE:** Not currently working for folios, sorry! Use the old version for now.

Page Layout

◉ Folio (two pages per side of sheet)
○ Quarto (four pages per side of sheet)
○ Octavo (eight pages per side of sheet)
○ Sextodecimo (sixteen pages per side of sheet)
Add Foldlines ■ ⓘ
Add Cutlines ■ ⓘ
▸ Folding instructions for quarto/octavo
Page scaling [Keep proportional ▾]
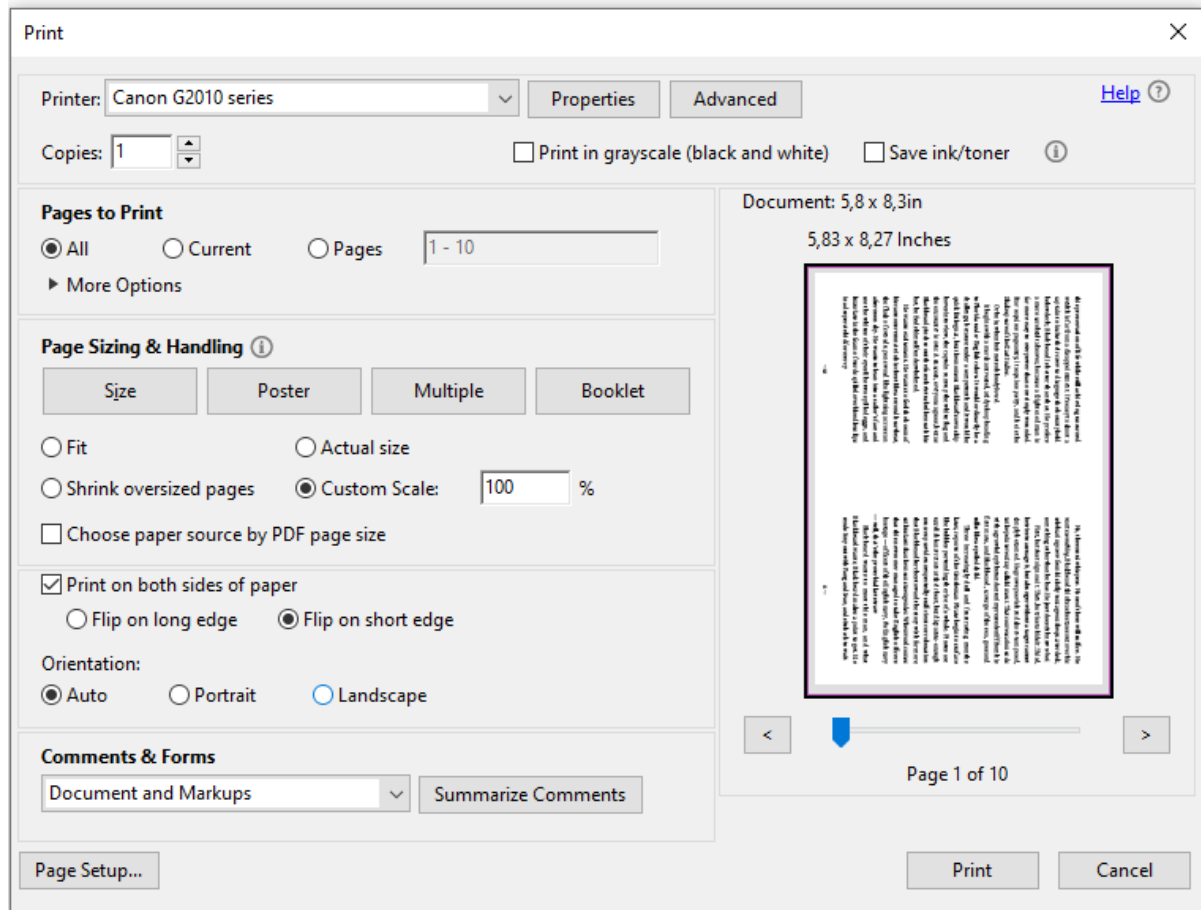Margins [Preserve spine fold margin ▾] ⓘ

Flyleaf

Add flyleaf ■ ⓘ

Signature Format

○ Perfectbound
◉ Standard signatures - length [5 ⌃⌄] ⓘ
○ Custom signatures [_____] ⓘ
▸ A note on calculating signature lengths

Wacky Small Layouts

These layouts contain one or more signature per printed page. They do not use many of the other settings
○ 6 per side (3 folio signature)
▸ Instructions
○ 16 per side (16 folio signature)
▸ Instructions
○ 16 per side (4 folio signature x 2)
▸ Instructions
○ Little (20 per side, 3/3/4 signatures per side)
▸ Instructions
○ Mini (60 per side, 2/3 signatures per row, 6 rows per side)
▸ Instructions

Signature Info

Total Pages:
Total Sheets:
Number of Signatures:
Signature Arrangement:

To print, having determined how your printer handles duplexing, choose the paper size, which must match the sheet size you used in the imposer and be twice the size of your book pages (A5 book pages print on A4 paper), and leave it on normal printing, not multiples or booklet. Choose actual size or custom: 100% and check print on both sides, flip on SHORT edge.

Quarto imposing & printing
To print a smaller book, you can print more book pages on each sheet of standard size paper. For an A6/quarter letter book, you will have 8 book pages on each A4/letter sheet of paper, four on each side.

The number of sheets per signature here is a bit more complex because each sheet of paper will yield two folios. So, if you want 16-page signatures, you will insert 2 into the signature length field, because after printing, you will cut each sheet in half, thus yielding twice the number of smaller (A5/half letter) sheets to arrange and fold. You can't have a signature that is x and a half sheets long, so you must choose signature lengths where dividing by 4 gives you a number that is also divisible by 2: 16, 24, 32, that you then divide by 8 to determine the sheet number -- 16 pages = 8 pages per sheet, therefore 2 sheets of A4, cut in two will be 4 sheets A5; 24 pages will be 3 sheets, cut in 2 = 6 A5 sheets. I think 8-sheet signatures are unwieldy, so I would not choose 32 page/4 A4 sheet signatures.

You must select "Alternate page rotation" for quarto printing. It helps to select "add cutlines". I personally get a better result when I cut each flat sheet and then arrange and fold the resulting smaller folio sheets, so ignore the "add foldlines" option

To print quarto, in the print dialogue, select the paper size and check print on both sides, flip on LONG edge.

When the sheets are printed, cut each in half following the cut lines and then arrange the A5 sheets in order. Some printers leave a bigger margin at the bottom of the sheet, so you will have to trim an extra sliver off the bottom of half of the cut A5 sheets in order for the text to line up across the pages of the book.

Octavo imposing and printing

To make an even smaller book, A7 or one eighth letter, the imposer will arrange eight book pages that you have designed in the correct dimensions on each side of a sheet of A4/letter paper. The signature size here must be divisible by 8, so you can have 16- or 32-page signatures, 1 sheet (16) or 2 (32).

Do not select alternate page rotation.

When you print, check flip on short edge. Cut each A4 sheet in half and in half again, following the cutlines, and arrange the resulting A6/quarter letter sheets to fold and stitch.

Sextodecimo imposing and printing

To make a yet smaller book (A8/ 1/16th letter) the imposer will arrange 16 pages on one side of an A4/letter sheet. You can only do 32-page signatures (1 full size sheet), so your book page count must be divisible by 32.

You must select alternate page rotation, 1 sheet signatures, and when you print, flip on LONG edge.

You may have noticed the pattern: if the book pages are arranged with the full size sheet in landscape orientation (folio, octavo) you will flip on the short edge, and so must not select alternate page rotation, if the book pages are arranged with the full size sheet in portrait orientation, you will flip on the long edge and must select alternate page rotation -- AT LEAST THAT'S HOW IT WORKS ON MY REAR FEED PRINTER.

If you work in A sizes, minimal trimming will be needed, because the A sizes scale proportionally, letter sizes don't (I think) so you will have to trim the for edges more (again, I think).