

The Complete Guide to Creating Press Ready Print Files

Even the best designers break out in a cold sweat when it comes time to send a project to a printer. There are a ton of moving parts, checklists and details to keep in mind when it comes to getting your project ready for commercial printing. This guide will cover the technical do's and don'ts, give you tips and best practices and walk you through how to take a project from your computer to the printing press.

How to Plan For Perfect Colour Printing

One of the most common issues with [professional printing](#) is sending your printer graphics files that are in the wrong colour space. Here's what you need to remember about colour before you send your file to your printer.

CMYK not RGB

Your computer uses a colour space called RGB to produce the colours you see on your screen. A printing press uses a colour space called CMYK to produce similar colours using just four colours of ink: cyan, magenta, yellow and black, also known as 4 colour process. When you send your files to a commercial printer, they must be in the CMYK colour space.

Spot Colours

Most of the colours produced in colour printing are created by blending just 4 colours of ink: cyan, magenta, yellow and black. But sometimes you need a very specific colour. Despite all of the advanced techniques and technology at a professional printer, matching the exact colour from printer to printer and even from one order to the next can be a challenge. Consistent colour-matching is what separates good printers from great ones.

When you need a very exact colour, such as Coca-Cola's trademarked red or John Deere's famous green, you'll need to use a spot colour. A spot colour is not created by mixing other types of ink, but rather it is made to order for the project at hand. This also means the printer must make an additional plate for the spot colour, which usually makes using a spot colour more expensive.

If you have to use a spot colour, you're likely using a colour from the [Pantone Matching System](#). It is a commonly used system of spot colours that helps press operators achieve the exact same shade, every time. We do not provide Spot colour printing.

Planning Image Quality for Professional Printing

Low quality and low resolution images produce terrible, ugly, hideous printing but many people don't understand the relationship between quality and resolution. You must plan for your final output at the beginning of your design; otherwise you'll be left with an unusable final product.

Print will always look better with higher resolution images. Let's get clear on what we mean by resolution.

Image resolution is how much data is in a digital image, it is directly related to how many pixels are in the image. When you print an image, you must transfer that data into dots per inch (DPI) which determines the image quality of a printed piece. Usually, 300 DPI is what you'll need. Most images on your computer are not at 300 DPI, but 72 DPI. This is because 72 DPI looks good on most computers and the files are much easier for the computer to store and display. Be sure to check your images for print quality and insure that they are 300 DPI or higher.

How to Resample Images for Printing

Resizing images can lead to problems when they are printed because the resolution can be unintentionally changed.

When you resample an image, you are changing the amount of data in the image. Down sampling removes data and up sampling adds data. When you make an image smaller than its original size, you are down sampling it, when you make it larger you are up sampling.

You should always avoid up sampling your images. Adding data to an image will usually result in a very poor printed image.

Which Image Formats Are Best For Printing?

When sending press ready design files to a printer you should send your images in the highest quality (not fastest) image format possible. Different image formats compress image data differently. PNG and TIFF images work the best for most print projects. JPG images work Ok at 100% quality, but every time the JPG is saved it is recompressed, so the quality can drop quickly if it is saved often at less than maximum quality.

When Are Vector Images Important for Printing?

Most images are created using a bitmap, or series of dots, and are called raster images. Vector images are not made of dots, but a shape plotted by points along a mathematically generated path. Vector images can change to any size without losing quality. Popular vector image formats are AI, SVG and EPS formats. When you are printing commercially, vector images are very important.

- Your text should always be in a vector format.
- Line drawings, such as plans or blueprints, should always be in vector format.
- Logos work best in a vector format.

Really, anything that isn't a photograph will work better as a vector.

Tips for Designing Great Images for Print

When possible, do the following:

- Do not up sample your images.
- Make sure your images are at least 300 PPI (or 300-600 DPI).
- Use vector formats for text, line art and logos.

Use image formats with less compression like PNG, TIFF and maximum quality JPG.

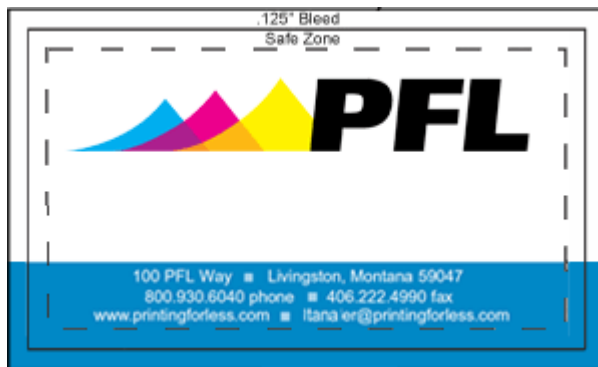
What Are Bleeds? Why are Bleeds Important?

A bleed is printed content that extends beyond the trimmed edge of your final printed piece. Bleeds are important because they allow your artwork to be cut without artefacts. If there is no bleed you may have a small white space around the cut edge. The bleed should be 0.25" larger than the trim size (0.125" on all sides. You should design your project within the trim size and add bleed settings

How to Plan Your Bleed

A bleed is needed when printing extends to the edge of the paper, so when the piece is trimmed or cut to the final size, the artwork goes all the way to the edge. A full bleed describes a print project that has artwork that touches every edge. When in doubt, include bleed in your document.

- Create a bleed that is 0.125" on all sides.
- If you're making multi-page InDesign documents add the bleed in document settings.



How to Plan Margins or Safe Zones

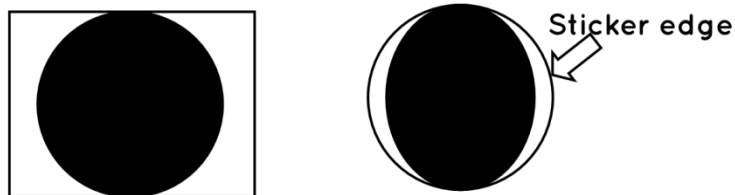
A margin is the space between the print and the edge of the page, sometimes called the Safe Zone. The margin should be a minimum of 1/16 or .0625", preferably 0.125". You just want to make sure your critical artwork or text has a bit of room so it isn't in danger of being chopped off in the cutting process. Margins become complicated when you print a bound piece like a catalogue or booklet. The size of the margin changes on each page because of the wrap of the sheets of paper around the spine. Check with our printer to make sure you get the correct specs for this before laying it out.

Canvass settings

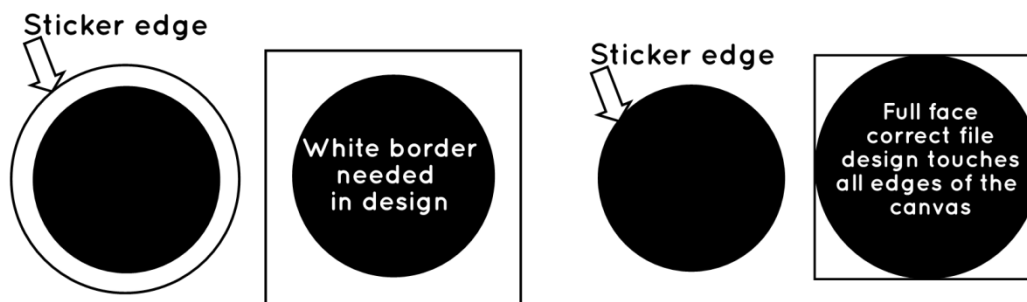
When designing your print ensure any full bleed designs fill the canvas with a bleed and safe zone. Only leave a white space around your project if you need a white border around your design. Remember a printer doesn't know how you want your print to go, so you must create the design so that it can be inserted into the template or print job with no modifications needed. Any modifications your printer needs to make will cause loss of quality to your file, leading to poor/low quality printouts. Ensure your canvass is square if you are designing a round or square design and rectangle at the correct sizes, a

rectangle that is designed on a 46x25mm canvass will not print correctly on 63x34mm as it needs to stretch more horizontal way than it needs to stretch vertically. So not only are you resampling the file which losses quality you are changing the design as you are changing the files ratio. Avoid designs with thin outside lines as these can be cut off if not within the safe zone and as the print is never dead centre can tell it's off centre.

A round design sent on a rectangle canvass need to be upsampled as the excess space left on the design causes spaces when inserted into a round template for printing
While this is not a problem for me to do, it causes loss of quality to your file.



You send a design with space around it, do you need it full face? or do you need it to be printed with a white border? If you need it full face ensure you send the file so it touches the edge of the canvass, ensure there is a bleed and safe zone so no important parts of your design gets cut off.



Choosing Paper & Ink

You'll need to work with your printer to choose the best substrate (paper) for your project. Paper comes in a variety of weights, finishes and coatings. The paper type and weight can sometimes affect how you prepare your press ready files, especially related to folding and binding, so confirm your paper choice with your printer to make sure any considerations are accommodated. Paper options can be daunting: here's what you need to know to get started.

Choose Paper with the Right Weight

A paper's weight is, more or less, a measure of its thickness. While a higher weight should be sturdier, thicker and firmer, smoother laser papers. Higher weight papers are great for business cards, bottle-neckers, cards, tags and catalogue covers. Lighter weight papers are ideal for brochures, envelopes, stationary and interior pages of catalogues. Higher weight paper is usually more expensive.

There are also premium papers that are made with a high quality texture. They feel great to the touch and are used for some stationery, formal invitations, artwork and important legal documents.

Choose the Paper Type

Papers also come coated or uncoated. Coated papers have a gloss or matte finish that resists smudges and stains and displays the ink brighter and crisper. This also makes writing on the paper difficult. It's best used for brochures, some business cards and marketing pieces that need to look higher end and aren't being used for writing.

Uncoated papers lack this solid surface and are more porous. They are easy to write on, but can get smudged and stained more easily and the ink looks duller.