

Frequently Asked Prepress Questions

What file formats do you accept?

PDF only. That is the only format our workflow will accept.

What is a PDF?

PDF (or Portable Document Format) is a cross platform file format that anyone can read and print from any computer. PDFs are an excellent format for sending file to commercial printers.

What are the most common problems with PDFs?

A well made PDF is an amazing document. All the elements necessary for printing are contained in the PDF. It is compressed, making it easy to send electronically and it keeps its integrity so that what you see on your monitor is what will print on the page. However, not all PDFs are well made. The most common problems in creating PDFs for printing are:

- Fonts are not embedded. This can cause output software to convert one font to another.
- RGB color is used. This will cause output software to convert colors.
- Low resolution photos are used. This affects reproduction quality.

How do I create a PDF?

It depends on the program you are using. We can supply print and export settings for commonly used programs.

How do I get my files to you?

Once your PDF is ready, you can use our FTP server to upload it to us. Each of our customers have their own dedicated, password protected, partitions on our server. If you are a new customer, you will receive instructions on how to upload files.

How do I set up my publication for mailing?

Postal regulations are very specific and often very confusing. Prior to designing a publication, please contact our Mailing Department for instructions on how to create and position addressing and indicia information.

What is CMYK and RGB?

Color can be reproduced in one of two color spaces. Additive, or RGB, is the color space of light. Televisions, computer monitors and theatrical lighting create a spectrum of colors by mixing various levels of red, green and blue light. Subtractive, or CMYK, is the color space of pigment. All printed material that is full color (magazines, posters, packaging) is created using only four inks: cyan, magenta, yellow and black. The inks are not literally mixed like paint however. Instead, color pictures are separated into the four colors and broken up into tiny dots. Because the printed dots are so tiny, our eyes average out the four different colored dots and we see a range of colors.

Why won't RGB files work for printing?

There are two reasons. One, the RGB color space is capable of creating millions of more shades of color than CMYK can accurately reproduce (this is called color gamut). If pictures are not converted to CMYK before printing, the printers output software converts them automatically. This can produce unexpected shifts or changes in color that may not be desirable. Two, the RGB color space contains no black. Because RGB is light, the only way to get black is to turn off all the lights (R=0, G=0, B=0). When RGB is converted to CMYK, black is reproduced as percentages of all four colors, not just 100% black. If you have "black" elements in an RGB file, they will print in all four colors after the file is converted to CMYK. Unless the press that is printing the file is in perfect registration, color halos and shadows can appear around the black.

Why is RGB so common?

People commonly get digital pictures from three sources: downloading images from the web, digital cameras and scanners. Because all these sources use light, they are in the RGB color space. Remember, any files that are going to be printed must be converted to CMYK.

How does the printing process work?

When we receive a customer's files, the job goes through the following steps:

1) Preflight. Preflight software initially identifies common problems that may affect file output. Problems such as non embedded fonts, low resolution images, or RGB color can be caught and corrected at this point. Files are also visually inspected to ensure that the page dimensions and image area size conform to our printing specifications.

2) Proofing. Pages are put into press sheet positions (imposition), usually four or eight pages per press sheet. A PDF is made of the press sheet and then sent to a RIP (raster image processor). This rasterizes all the elements in the file and creates a set of color separated files. Once the file has been RIPped and trapped, the separated files are sent to a large format printer which recombines the separated files to make a composite proof. The proofs are measured and visually inspected to ensure that everything is correct. The proof is trimmed and assembled and sent to the customer. Corrections may need to be made or the job may be ok to print.

3) Plating. Once a job is ready to print, the color separated files are sent to the CTP (computer to plate) processor. In earlier years separations would be exposed on film and the film would be used to expose a plate. Today, CTPs eliminate the need for film by exposing the plate directly with a laser.

4) Printing. The plates are sent to the press and the job is run. Press sheets are inspected for printing quality and also to ensure that nothing was missed during the proofing stage.

5) Bindery. The product is finished by folding, stitching, and trimming. The final product is now ready for delivery or mailing.

What is the difference between sheetfed and web printing?

Sheetfed presses are units that run one sheet of paper at a time (although very quickly). Web presses are units that run from one continuous roll of paper. Both have advantages and disadvantages. Sheetfed presses are generally better for jobs requiring fine detail, perfect registration, special inks, special paper stocks and other factors. Web presses excel at long run, high volume jobs (with less cost). Registration is still good, but it is more difficult to maintain due to the fact that the paper travels much farther through a web press than it does a sheetfed press.

Why can't I have any amount of pages I want?

Think about it this way. Publications are folded. So, when a sheet of paper is folded in half, that creates four pages. Any number of pages that is not divisible by four won't work. And for magazine style publications you should ideally make your page count divisible by eight because that is the most efficient press sheet layout.

What is the difference between process and spot colors?

Process colors are cyan, magenta, yellow and black. These four colors are used to make all other colors. A spot color (or Pantone color) is ink that is premixed according to Pantone color formulas. The reason this matters to customers is cost. Let's say a customer wants to print a book with black text and navy blue headers. The blue can be created by printing various percentages of the four color inks or by choosing a premixed Pantone navy blue color. If the job prints as a four color job, four printing plates per press sheet side are needed and four ink fountains on the press need to be filled. If the job is printed as a spot color job, only two plates per side are required and the press can be set up much faster. This savings of materials and labor is money saved by the customer.

What is dot gain?

All photos and some graphics need to be broken into dots to be printable. If you look closely at a newspaper

or magazine, you will see that what looks like solid areas of color are actually composed of tiny dots. Dot gain happens when ink hits paper. Unless the paper is a coated stock, it will naturally absorb some of the ink which causes the dots to spread slightly. Imagine pressing a felt tip marker onto a paper napkin. The paper absorbs the ink and creates a dot many times larger than the tip of the pen. The reason this matters is because photos need to be lightened to compensate for the dot gain on the press. A common complaint is, "that it looks fine on my monitor, but it prints dark." Newsprint paper is fairly absorbent and can create a dot gain of up to thirty percent. Let's say you have a black and white photograph. The highlight may have dots that are 2 or 3 percent. The midtone range will be about 50 percent. The shadow areas will be around 95 to 100 percent. The midtones of a photo are the most affected by dot gain. A 3 percent dot becomes a 4 percent dot. A 95 percent dot becomes 100 percent. These really are not noticeable differences. But the 50 percent dot becomes 65 percent! As a general rule of thumb, if it looks good on your screen, go a little lighter.

What is rich black?

Rich black refers to black that is made up of more inks than just black. Depending on the paper stock used, black can sometimes print appearing as a very dark grey. Some designers will intentionally add some cyan or magenta to the black to make it appear "richer." This is not without problems however. If type is reversed out of rich black and the press registration is not perfect, color will fill into the white letters. Black text and small elements should never be rich black because it is too difficult to register. The most common reasons four color black text happens are because the file was created or modified in Photoshop (Photoshop's default black is four color unless you change it), the file was converted from RGB to CMYK, or someone chose the "Registration" or "Auto" color (which look black but aren't) in their page layout program.

What are trim, image area and bleed?

A typical magazine size for us measures 8 1/4" x 10 1/2". This finished size is the trim. The image area (or safe area) is the area centered on the page where you put text and graphics. In our case, the image area is 7 1/2" x 10". Anytime you have elements that you want to go all the way to the edge of a page, you must actually make them larger than the finished size of your book (in other words, they "bleed" off the edge of the page). The reason bleed is important is because if bleed elements don't extend beyond the edge of the trim, when the book is cut in bindery, white paper could show on the page edges. The standard in printing is to make the bleed 1/8" larger than the trim size. We like our customers to use a 1/4" bleed. In this example, your document setup should be 8 3/4" x 11". Your margins should be set to 1/2" on the top and bottom and 5/8" on the left and right. Keep all your text and graphics inside the margins and extend all your bleed elements to the edge of the page.