How to prepare files for digital print

BEYOND INK

Introduction

With new creative software tools and BR Printers' state-of-the-art digital color presses, what you envision can often be done in print. But you cannot escape a few fundamental concepts—from resolution to color—where color printing reality applies. Please review these areas (below) and save a print-ready PDF file you know will work.

Make sure the resolution is right.

Images used in your layouts must be of sufficient resolution to not appear degraded. Scaling and compression can degrade the look of the printed images. If you enlarge a 300 dpi photo to 200% in your layout, the effective resolution becomes 150 dpi, which is below a 250 lines per inch screening minimum. A good ballpark number for resolution is 300 dpi. The more you scale up, the more resolution you will need in the base image file. If you have line art or text in your image file, the minimum resolution should be 600 dpi. JPEG is a popular image file format because the images look good but have a small file size. That size is achieved via compression where original image data is lost. Choose a "lossless" image file format like TIFF. The TIFF format's LZW or JPEG compression (set at maximum quality) will work. Vector art (Adobe Illustrator) is resolution-independent.

Make sure the colors are consistent.

When editing a continuous tone image on your computer screen, you're likely working in the RGB color space. Adobe Photoshop can perform a color transformation to CMYK via the Image menu, Mode

menu item. When you select CMYK, you will probably get a prompt that Photoshop is using the "US Web Coated (SWOP) v2" ICC profile. That is acceptable. Your page layout elements should be specified as CMYK or spot (Pantone). Ensure that the color black is not a "rich black" with a small percentage of cyan added. The best black color density comes from using just the black pigment (100% K, 0% CMYK) on our digital presses.

Follow trim and bleed guidelines.

Bleed is the designer's extension of color page elements beyond the edge of the page. Bleed provides a manufacturing allowance so that when the page is trimmed to final size, the print will go to the edge. At BR Printers, please use a bleed allowance of 0.125 inches on all sides. Set this up in your page layout application under Document Setup. Set your page margins to 0.25 inches or more on all sides to provide a buffer zone between your content and the trimming blade. The exceptions are elements that bleed (ignore margins and go beyond the edge).

Save in a standard PDF format.

Once you've finalized your graphic design files, it's easy to package them in a format that includes everything needed for print—fonts, images, color rendering intent. The format is

HELPFUL TIPS

- CMYK
- Avoid image compression
- Resolution minimum 300dpi
- 1/8" bleed with crop marks
- Standard PDF – no security
- Embed all fonts

PDF, and the most basic exchange specification is called PDF/X-1a. In your page layout application, select the Adobe PDF Preset "PDF/X-1a" to automatically make a PDF file that meets most printers' needs—fonts embedded, images included with sufficient resolution, all color is CMYK or spot color. This is the easiest way to make a print-ready file that just works. If you do not have PDF/X output settings but do have Adobe Acrobat version 8 and later, use its file inspection function to analyze and fix your PDF file so that it is ready for print production. With the document open in Adobe Acrobat, select the View menu and the Print Production sub menu. Next, select Preflight under Print Production.

There, you may browse under PDF/X compliance and verify the file or ask Acrobat to fix it and make it work.

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