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# PRINTtips

## Preflighting: Examining Your Documents



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### Inside

Q&A  
Tricks and Tips  
Idea Corner

**W**hen you submit a document file to us, our first step is to examine it in a process we call *preflight*, a term borrowed from aeronautics. Before beginning a flight, aircraft pilots run through a standard checklist to be sure the plane is airworthy and ready for flight. Similarly, we inspect your file against specific criteria to qualify it as ready to enter the production workflow.

Before prepress became digital, “preflight” consisted of reviewing *mechanicals* – the artboards used to make film or photomechanical press plates – for quality and completeness. Preflighting a digital file amounts to the same thing: checking the file to be sure all required elements are present and that no mistakes have been made in file assembly. The checking can be done manually or with software tools.

### **Raster image processing**

The ultimate goal of preflight is to ensure that the file can successfully complete *raster image processing*.

This process turns a vector file into a high-resolution raster image. In other words, raster image processing translates the digital information about the appearance of the document page (the vector file) into pixels and a bit map (the raster image) that can be understood by the output device.



Raster image processing can fail in two ways. First, the file may not complete processing. This could be due to missing elements such as fonts or graphics; corrupt fonts, graphics, or data; errors in the PostScript code; large file size; or other reasons. Secondly, the file may complete processing but the resulting output may not be correct. A font substitution may have occurred; line or page endings may have shifted; or too many press plates may be produced.

### **Overview of preflight**

Whether preflighting is done manually or with software, it involves four basic steps: selecting the appropriate preflight criteria for the job; checking the file against the criteria; if necessary, fixing problems found in the file; and releasing the file into production.

## Preflighting: Examining Your Documents (continued)

*“This suggests that files should undergo preflight at least twice ...”*

*“Some programs use pre-programmed or user-defined parameters...”*



Although the printing specifications of the job determine the exact set of preflight criteria we use, there are some things we check in all files. These include:

- a hard copy for comparison
- the presence of all required elements (fonts, graphics, vector, and raster images)
- appropriate color space and number of ink colors
- resolution of raster images (images captured from scanners, digital cameras or files created by paint programs) and presence and quality of clipping paths
- color space and fonts used in vector images
- size of document

If your file cannot pass this first level of preflight, we will return it to you with information identifying the problems and ask you to fix them before resubmitting the file.

### When to preflight

According to the Graphic Arts Technical Foundation (GATF), the top ten problems in digital files are:

1. missing fonts
2. incorrect traps
3. incorrectly specified colors
4. scans made in the wrong mode
5. improper page settings
6. unlinked graphics
7. inadequate bleeds
8. lack of a laser proof
9. missing graphics
10. image resolution too low or too high

Most of these problems are incorporated into the file by its creator; the rest result from preparing the file to give to us. This suggests that files should undergo preflight at least twice before

they are submitted to us – during file build to check the document creator's progress, and just prior to submitting the file for print. Preflighting while the file is being built will eliminate incorrect trapping, incorrectly specified colors, scans in the wrong mode, improper page settings, inadequate bleeds and incorrect image resolution. Preflighting just prior to file submission will eliminate missing fonts, unlinked or missing graphics, and lack of a laser proof.

While it is possible to preflight manually, software tools for preflight are readily available and fairly simple to use. Some page layout programs have preflighting tools built in. For example, Adobe InDesign™ preflights documents and identifies problems with linked graphics, fonts, color profiles, and other key document information. The *Collect for Output* feature of Quark XPress gathers images, though it does not gather fonts or provide any information about the files. Adobe PageMaker™ includes a plug-in called *Save for Service Provider* that copies the document, all linked image files, fonts, and other files required to print your document. It also prompts you to locate folders containing linked files, thereby helping you overcome the problem of missing links.

As important as preflight is just prior to file submission, it will not help with problems created during file build. For preflighting during this stage of document creation, dedicated preflight software is useful. Some programs use pre-programmed or user-defined parameters to check a file; others will automatically correct common file problems and identify errors that cannot be corrected automatically. Preflight software may be either a plug-in or a stand-alone program operating independently or in background mode.

Call us at **(513) 248-2121** if you would like more information about preflighting software programs that are available.

**Q.** *I submitted a file that passed the first level of preflight. Why are you now telling me it needs to be fixed?*

**A.** During the first level of preflight we check for errors in the file that we consider “fatal flaws” – problems that we either aren’t equipped to fix (such as missing fonts) or are too risky to fix (such as altering a color space). A file that doesn’t pass the first level of preflight does not meet our file submission standards and consequently is returned to you for repair and resubmission.

If the file passes the first level of preflight, it still might not be ready to enter production, but the problem can be fixed by us. An example of such a problem is a color that is not trapped correctly, or a page layout that hasn’t allowed for bindery (folding, drilling, or coil binding, for example).

Before we undertake any file repair, we will notify you of any extra charges and time delays and get your authorization to proceed.



*“...we check for errors in the file that we consider ‘fatal flaws’...”*

## File Creation Tips

**H**ere are some things to remember during file creation that will promote the successful printing of your file.

### *Document mechanical specifications*

- Document size equals the finished (trim) size exactly.
- Color space is set at either process (CMYK) or spot.
- Spot colors have been specified by PMS number, not selected from a chart.
- Unused colors and style sheets have been deleted.
- Unused elements have been removed from the pasteboard.
- Bleeds have been extended by 1/8th inch beyond trim line.
- Hairline rules are at least 0.2 point

### *Fonts:*

- Fonts of different weights and styles have been selected instead of assigned attributes

from the style menu.

- The document contains all PostScript or all TrueType fonts.
- If custom kerning or tracking was applied, the tables are available.

### *Raster images:*

- Color space is CMYK, grayscale, or duotone.
- Effective resolution is 300-400 dpi for photographs.
- Effective resolution is minimum 1200 dpi for line art.
- Images are positioned correctly in their picture boxes.
- File formats do not include PICT, GIF, JPEG, or other low-resolution or compressed images.

### *Proofing:*

- Files have been output to laser and proofed for typographical errors, correct color separation, line endings, and page breaks.



*“...things to remember during file creation...”*



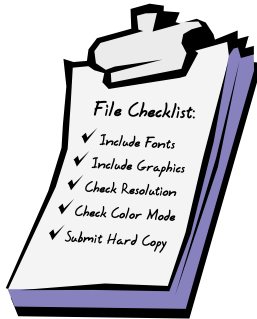
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## Preflighting: Examining Your Documents



Please Route to the Printing Buyer



*“...suggestions for creating  
problem-free document  
files.”*

## Creating Problem-Free Files

**W**hen you are creating document files, it is important that they be error free – in structure as well as content. The following is a list of suggestions for creating problem-free document files.

Before you begin:

- Select the color palette and fonts for the job.
- Collect the images you will be using.
- Select the color space (either CMYK or spot color).
- Select the page layout software to use.

As you are building the file:

- Set the page dimensions.
- Save the job to a folder designated for it.

- Preflight the file several times during file creation.
- Correct errors as you find them.

To prepare for file submission:

- Preflight the document again.
- Print a hard copy from the file.  
If the job prints in more than one color, print a composite and color separations.
- Make a backup copy of the file for yourself.
- If using media (CD or diskette) to submit the file, remove everything on the media that does not pertain to the job. Label the media with your name, the file name, and the date.