

*This article is based on a presentation given by Patrick White of White & Associates at the NAPL/RIT Desktop Challenges seminar (November 1994). Mr. White runs a Boston-based graphic arts marketing, training, and consulting firm. He may be reached at 617-494-9080.*

Preflighting is the process of assuring proper output of a desktop publishing file provided to you from an outside source. Sometimes preflighting takes place in two stages: preflighting and prestaging. In this sense, preflighting assures that all required files have been supplied and that the file can be opened. Prestaging goes to a deeper level, investigating the specifying of colors, as well as other job- and application-specific factors. The prestager may also estimate the number of hours appropriate to complete the job, and whether it can be produced by the due date.

No matter how you define it, preflighting plays a key role in workflow productivity. In fact, a good program of internal preflighting can increase your capacity and efficiency without requiring additional equipment purchases.

#### **Involving the client**

Preflighting can provide the impetus for building a good working relationship with your clients. If the preflighting is done correctly, not only will you be helping improve the quality of your client's supplied files, but you will also be giving them useful feedback about the quality of those files.

Preflighting is like proofreading. Your clients would be unlikely to release a document that hadn't been proofread, but they may not be paying enough attention to some very basic rules that determine whether a job will print correctly at high resolution. To use another analogy, preflighting is like what print sales representatives do when they are given a set of mechanicals: They check color breaks, crop marks, supplied photos, etc.

If you provide your client with a system to help them preflight files, and, if you give them feedback, you help them manage a part of their operation in a way that they couldn't before. Your client's management may not understand all of the issues involved in creating pages for high resolution output. By creating a feedback loop that includes them, you can help them understand how the process is working.

One way to provide this feedback is to write corrections on a hard copy proof (or even include them as notes on an Adobe Acrobat™ version of the file). This may be returned to the operator or the manager so that the problem will be resolved next time. If you correct problems without informing the client, you are devaluing your contribution, and, you are guaranteeing that you will get the same kinds of problems back from that client. The feedback doesn't have to be negative. Consider writing a letter complimenting the operator who supplies files that are correct.

One hurdle to providing this kind of feedback is a basic hesitancy among many service providers to ask a client for anything that might appear unusual to a client ("My other service bureau never asked me for that!"), or, to tell a client that they may have done something wrong. While providing this type of

feedback requires good communication skills on the part of the preflighters, it is nonetheless central to the success of a good preflighting program.

Preflighting feedback provides client management with useful information every time that you supply them a diskette. This is a value-added service that is difficult for them to get this from a less cooperative service provider. And, it can be a powerful incentive for them to give you more work.

### When do you preflight?

Not every file requires a preflight check. There is actually an upside and a downside to preflighting. While preflighting helps you streamline the production cycle, and optimize imagesetter and workstation utilization, it also means that more people have to look at the file. This added attention has to be justified as part of the production workflow. As a rule of thumb, if a job can be preflighted and processed in less than five minutes then you should skip the preflighting procedure and send the job right into production.

You should consider skipping the preflight procedure if:

- The job comes in with a laser proof
- The job has no placed graphics or scans
- The job is only one or two color
- The job is less than four pages in length

If the job doesn't fit into all of these categories, it should be preflighted.

While many believe that the file should be preflighted in two to four hours from the time it is received, the preflighting procedure may have actually started prior to the receipt of the file (as long as you are working closely with your clients). To do this you may need to supply your client with the tools and support to get him going (i.e., training, checklists, etc.)

### Who preflights?

Some companies set up a separate preflighting group, or, they may add it to the job responsibilities of their customer service representatives (CSRs) or even their sales representatives. Different preflighting functions can be performed by employees with a wide range of experience levels. In fact, preflighting is a good first position for either new employees, or experienced employees (like strippers) who need to develop some computer expertise. However, anyone who deals with a client should have a basic sense of what can go wrong.

Employees with very little experience can certainly be trained to follow simple procedures to check for explicit items in a file. At a somewhat more sophisticated level, operators with some graphic arts knowledge can follow procedures to uncover more complex problems. Finally, an in-depth knowledge of desktop hardware and software is required at the operator level where problem solving skills for difficult files are essential.

### Common mistakes

Many of the problems with supplied desktop files are predictable. Here are some of the most common ones:

- **The client forgets to send all the elements you need** – You may wish to have a checklist for the possible elements that a client might supply to you, including: layout files, placed scans and illustrations, hard copy proof included with electronic data on a suitable media, screen fonts<sup>1</sup> if necessary, and a font list.
- **The client makes trim and bleed-related errors of page size** – Often a client will have a page size that is different from the final trim size. Or, a two page spread may be created as a single page (this makes it difficult to impose a page electronically). Or, they will leave items outside of the page

<sup>1</sup> A client should not supply printer fonts to a service bureau. The service bureau must own those fonts.

area (cut and pasted pieces) that should be removed to reduce file size and computation time. Bleeds should be consistently created from page to page. Many printers prefer a bleed to be exactly 1/8 of an inch (9 points).

- **The client specifies type and rules using tools not meant for high resolution output** – In general, type tools like underline, outline, or shadow may not provide acceptable results at high resolution. In addition, defining a rule as a “hairline”, may produce virtually invisible rules on high resolution output devices. (A one pixel wide line on a 300 dpi laser printer will be visible to the naked eye, at 3386 dpi on an imagesetter it won’t be.) In addition, rather than creating an italic or bold type through a style menu, it is best to choose the actual italic or bold font.
- **The client makes basic mistakes regarding how colors are defined** – Color names should be spelled in exactly the same way between graphics software and page layout programs. It should be clear if spot colors are intended to be printed as a separate plate, or, if they are to be separated along with the other process colors. (There is incredible freedom to create spot colors with most desktop publishing programs, yet few of those users will actually wish to print more than the four process colors.) Spot colors should be clearly defined with the Pantone number. Look closely for overprint and knockout issues. (Black is usually set to overprint.) Some clients prefer a rich black, ie., a black that has some percentage of another color beneath it (perhaps 40% cyan or 20% magenta). If this is the case, it must be clearly specified, and is certainly not to be used for type in smaller type sizes (because of the risk of misregistration).
- **The client lacks understanding of the production issues related to illustrations and scans** – These clients may supply illustration or bitmapped formats that are not intended for high end output. As a rule, the client should export illustration files as EPS, but also supply the original file. It is preferable for illustrations to be scaled in the native application. Reducing the file in QuarkXPress® or Aldus PageMaker® may add to the output time. Other problems may appear if the reduction is drastic (down to 10 or 20%). Experience or common sense will dictate whether a very detailed illustration will reproduce well at a significant reduction.  
  
Scans should be supplied as CMYK TIFF. If the service bureau is required to do the conversion, the client is generally charged for this. The scan resolution should be appropriate for the output resolution and screen ruling. (This topic is discussed in greater detail in many other tech articles from this series, including *Scanned File Size*, 1992 notebook and *Scan Resolution and Sharpening*, 1994 notebook.) The client should realize that the scan resolution should be no more than twice the screen ruling, and no less than the screen ruling. They should understand that enlarging or reducing the scan in a page layout program changes the effective resolution. (Enlarging will compromise quality, while reducing may mean that more data than necessary is being supplied.)

## Films

Problems with supplied desktop publishing files lead to problems with supplied films. Some of these are avoidable with good preflighting and quality control. Typical problems with supplied films from service bureaus are:

- Fonts print jaggy, or, show up as Courier
- Outline type, underlines, or hairline rules are too fine to print correctly
- Spot colors output as CMYK or vice-versa
- Bleeds or traps are missing
- Illustrations or graphics are missing or print jaggy
- Blends shadestep (see *Blends and Shadestepping*, 1992 notebook and *Blend Update*, 1993 notebook)

- Film is out of register (see *Analyzing Film Output*, 1992 notebook)
- The requested dot percentage of a tint doesn't match the measured amount (see *Calibration* section of 1992 notebook)
- Screen ruling is incorrect, film is positive when it should be negative (or vice versa), film is wrong reading (emulsion down) when it should be right reading (emulsion down), etc.
- Scanned images have poor color quality (possibly a color capture, color manipulation or color calibration issue)

Ideally these problems are discovered before they reach film, but when they do show up on film, the only way to weed them out is to have someone look at the films on a light table.

### Application-specific tools

Application-specific tools can be very useful in preflighting. QuarkXPress has both picture and font usage features, as well as a 'Collect for Output' feature. Aldus PageMaker has an addition called 'Display Pub Info', and they also offer a product called Checklist 2.5. In the Linotype-Hell product line, Signastation™ can also provide valuable help in preflighting.

### Conclusion

For those who are trying to improve productivity without making equipment purchases, preflighting provides good option. For a preflighting checklist, or for more ideas on preflighting, please contact NAPL at 800-642-6275 or Patrick White & Associates at 617-494-9080. In addition, the article *Outputting PostScript Files* (1992 notebook) provides an example of an output check list that may be useful for preflighting.

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