

How-to

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From the Ground Up. Building a publication to withstand the test of the imagesetter

CRAFTING A PRINT PUBLICATION IS LIKE CONSTRUCTING a house. Sure, choosing paint colors and furniture styles is more fun than considering plumbing, heating, and structural integrity. But if you don't think about those things, your pretty house may come tumbling down, and you'll still have to pay the contractor's bills. Similarly, if you concentrate solely on line styles, typefaces, and color palettes for your publication, and not on printing specs, graphics formats, links, and so on, it may show its weak foundation at print time. You won't see these "structural" elements while you create or even proof the publication—nor will anyone praise you for them—but paying attention to them up front will pay off. And having your files output smoothly should—and can—be easier than building a house.

In fact, handing files off to a service provider (anyone who images, or outputs, files on high-resolution PostScript imagesetters) is a lot easier than it used to be. The software creating the files is more sophisticated, and the output devices more powerful. There are fewer technical problems these days, but things can still go awry because of missing fonts or graphics, for instance, or a

wrong setting if the job specs weren't communicated clearly to your service provider.

Forethought can prevent most of these mishaps. While there is almost always a way to fix a problem (in a house or in a publication), that fix usually involves time and money—either or both of which may have already been used up. To get good results and stay on budget, you should do four main things: communicate with your service provider before the project starts; identify the most appropriate formats for using and storing (or including) graphics and fonts; use good production techniques, printer setups, and specs; and ensure a thorough, complete handoff. This article covers each of these areas in detail; the information, while often focusing primarily on PageMaker (6.0 and later), applies to almost any high-end application you might use to produce printed pages.

Laying the groundwork

Don't leave your plans to chance. Talk with your service provider ahead of time to determine appropriate and manageable deadlines, file setup, and other logistical details. One of the first items of business should be to determine whether you need a separate service provider and printer, or whether all functions can be performed under one roof.

Plan the schedule. Think all the way through the final stages of your project. This will help you meet your deadlines, and also will let the service provider know what to anticipate from your job. Make sure you're both clear and confident about turnaround times and backup plans in the event of last-minute schedule changes.

Discuss logistics and budget. Talk through the output process. Ask what format or type of document your service provider wants to receive—for example, a PageMaker versus a PostScript file. If the service provider and the printer are part of the same shop, you may have less work to do (they're likely to assume more responsibility for making everything go smoothly). If not, be extra diligent—many of the decisions to be made at imaging time should be based on how the job will ultimately be printed. If the service provider doesn't know your printer's plans, their best guess could turn into a night-



How-to

mare on press. This is even more critical when you're working with color.

Determine line screen and other technical details. Whether you're working in black-and-white or color, it's most important that you know what line screen your job should be printed at. The proper screen ruling is based on the type of printing press and the quality of the paper you'll use. Make sure both you and the printer are clear on other technical requirements for the press: printers' marks, bleeds, paper versus film output (and, if film, whether it should be positive or negative, emulsion up or down), imposition, proper resolution for printing and for scanned images, spot versus process color, and how many plates are needed. If you think simple proofs from your desktop printer might not be sufficient, discuss your service provider's options for color proofing.

Color management and trapping (color jobs only). Do you need a color management system (CMS)? If you're using one and providing a PageMaker file (not a PostScript file), let your service provider know—they'll need to use the same CMS profiles as you did. You'll also need to discuss how the file should be trapped. In PageMaker files in which only PageMaker-created objects require trapping, the answer is easy: use PageMaker's built-in trapping, which the service provider simply turns on prior to outputting the file. Otherwise, you'll need to be very clear about whose responsibility trapping is, and what tools will be used.

Handoff. Last but not least, discuss delivering the

files to the service provider. Iomega's Zip and Jaz drives have joined SyQuest as standards for moving large files. (See page 496 of the PageMaker 6.5 *User Guide* for more information on saving files to removable media.) Many businesses offer high-speed modem lines so you can submit files electronically; some shops even support World-Wide Web-based file submission. For electronic or Web-based submissions, consider a test run.

Getting your materials together

The best materials in the world won't help you if they aren't in the right place at the right time. Make sure that you've chosen the right building blocks (graphics and fonts) for your publication, and that you know how to transport them to your service provider.

Graphics. Two common situations can cause graphics to print poorly on imagesetters. First, some graphics formats are simply not suited for high-resolution output. And second, if linked graphics aren't included with your publication, they won't be available at print time. Here's more detailed information on both situations.

Before you get deep into production, make sure you're using graphics file formats that will work well for high-resolution output (and will separate well, if relevant). Graphics file formats are a virtual alphabet soup: GIF, TIF, PICT, WMF, EMF, EPS, JPEG . . . the list goes on. How to choose? It's an oversimplification, but if you stick with EPS (encapsulated PostScript) and TIFF (tag image file format) files, you're much less likely to run into printing problems. EPS and TIFF are well-established, cross-platform standards and the workhorses of desktop color production. Desktop Color Separation (DCS) files—pre-separated images saved in a variant of the EPS file format—also work well. Finally, PageMaker 6.5 supports direct import of Adobe Illustrator files without having to save them as EPS files. For more details about what file formats to use in print as well as on screen or the Web, see "The Right Match" by Olav Martin Kvern, page 57.

You also have to decide if you'll include your graphics within your final document or keep them separate. PageMaker lets you decide whether to store imported graphics within the publication, or to store low-resolution placeholders and link to the graphics' location on disk. If you choose not to store graphics internally, you'll need to include the actual linked files when you send your PageMaker file for output. See "Putting on the final touches" on page 52 for ways to automate that process.

Fonts. Whatever fonts you use, make sure they will be available when your file is printed. Sounds simple enough, right? But this can be hard to do legally, since there's a discrepancy between font-licensing agreements (most of which allow the fonts you've purchased to be used only on computers belonging to you) and the standard industry practice of including the fonts on disk when you send your file off for output. Most service providers will ask you to include the fonts you used in your publication when you hand it off. This ensures that they have all the necessary fonts at output time (they

Finding a service provider

The range of businesses offering prepress services has expanded greatly in the past few years. Gone are the days of service bureaus that offered output services and little else—now you're as likely to find complete prepress services at a printer as you are to find service bureaus that have extended their business to include services traditionally offered by prepress color houses. And prepress color houses have expanded *their* businesses to include color work done on the desktop.

So how do you choose? First, evaluate the scope of the services you're likely to need. Do you need to output simple black-and-white files at high resolution? What about color files? Will you be scanning images yourself, or is that a service you plan to buy? How do you plan to print your work, and what are your standards of quality? Do you use a Windows-based PC, a Macintosh, UNIX systems, or a combination?

Once you've figured out what services you need, finding a service provider is relatively straightforward. Ask other designers who they work with. Printers are another good source of information, and your local yellow pages may also yield some good leads. Adobe maintains a list of Adobe Authorized Service Providers, professionals dedicated to outputting files from all of Adobe's products. A searchable list of these providers is available on the World-Wide Web at www.adobe.com/supportservice.

Once you've identified the businesses that seem to offer what you need, follow up with a phone call or visit. Ask to see samples of their work, and discuss the nature of the jobs you're likely to be doing. Find out about their rates, the media types they accept and recommend for file handoffs, and whether they're comfortable accepting files from the applications and platforms you use. Finally, ask to see any job-intake forms they have developed—they're designed to make the handoff process as smooth as possible, and they're a great source of information. With all this research under your belt, making a decision about who you'd like to work with should be easy.



delete your fonts after your job has been run successfully). The problem is, using the fonts in this way can be a violation of your licensing agreement. The Adobe font-licensing agreement allows you to include the fonts if the service provider has already purchased a license to use them; the agreements for fonts from other vendors vary, so it's worth checking them carefully to ensure that you're not breaking the law. In any event, it's a good idea to discuss this with your service provider.

One way to get the job output from PageMaker without including the fonts on disk is to generate and hand off a PostScript file with embedded fonts. While this approach does circumvent the font-licensing issue, it shifts responsibility from the service provider back to you. It also makes it impossible for the service provider to correct any mistakes in the file, which most consider a drawback. Another option is to hand off a PDF (portable document format) file; talk with your service provider to determine whether Acrobat Distiller 3.0's "Advanced" features will accommodate all printer information necessary for your job. (See "Supra and PDF" by Steve Hannaford on page 24 for further information on using PDF as a handoff format.)

Let's assume that it's perfectly legal for you to include your fonts when you hand off your file, and that you're using Type 1 rather than TrueType fonts (most service providers prefer Type 1 to TrueType fonts, as they behave more consistently when printed to PostScript output devices). If you're handing off an actual application file, you'll have to include the fonts as well. PageMaker has tools to help you automatically identify (and, in 6.5, include) fonts you've used—these tools are described on the next page in "Putting on the final touches."

Building your publication

Your publication is starting to take shape on a good, well-planned foundation. You can now concentrate on building it. Much of the advice in this section should sound familiar, but don't overlook the obvious. Being thorough now means less trouble later.

Simplify, simplify, simplify. Even when your design appears complicated or fancy, there are ways of keeping it simple behind the scenes to help keep print times down. See the sidebar "Keep your publications clean" on the next page for our favorite tips on this subject.

Printer setup. If you're using PageMaker for Windows, use the "Compose to Printer" option in the "Document Setup" dialog box to select your project's final output device, making sure to enter the correct setting in "Target Printer Resolution" as well. These selections are not necessarily related to the choice you make in the "Print Document" dialog box; they tell PageMaker how to compose your pages. On a Macintosh, in the "Print Document" dialog box, make sure you specify the PPD for your publication's final output device.

Don't forget to proof. After following the guidelines listed above, print the file and review the output carefully. Here are some tips.

- Make sure all page elements are properly aligned and printing as expected.
- Check that all fonts are correct (not substituted).
- Proofread the copy. Nothing feels worse than a typo after you've put all this work into the project.
- For color jobs, print low-resolution color separations to help identify potential separation problems before they become expensive mistakes.
- Include the proofs with your files. In addition to dem-

How-to

onstrating how you want the file to appear, the proofs verify that the file imaged correctly at low resolutions. If you've used a separate layer for production notes (in PageMaker 6.5), make sure you've printed that layer separately and included it with your job.

- Finally, consider creating a job checklist that can be routed with each publication to ensure that each of these tasks has been completed—this can help ensure that critical tasks get done, and can simplify your signoff process.

Putting on the final touches

At long last, you've reached the final stages of the project—gathering everything to deliver to the service bureau. How do you make sure this goes smoothly? Use the features PageMaker provides to streamline the process, of course.

“Files for Remote Printing.” In PageMaker 6.x, define a new directory or folder with the name of the job. Choose “Save As...” from the File menu. Select the new directory or folder as the destination and, under “Copy,” select “Files Required for Remote Printing” (Windows) or “Files for Remote Printing” (Mac). This saves a copy of the PageMaker publication, copies of all externally linked graphics, and a copy of the tracking-values file to the destination folder. (The service provider needs the tracking values file only if you've edited any tracks.)

“Display Pub Info” plug-in. To identify fonts used in the publication, run the “Display Pub Info” plug-in. It lists all of the fonts in your system, and indicates which ones were used in your publication. Once you know what fonts were used, locate them on your hard drive and copy them to the same folder as the publication and the linked graphics. Be sure you locate both the .PFM

and .PFB font files (Windows) or the screen and printer font (Mac). PageMaker 6.5 makes this process much easier—the option to include fonts is part of the “Save for Service Provider” plug-in, described below. Either way, use the font-copying option—it'll ensure that you don't have the heart-sinking experience of seeing Courier on your final film.

“Save for Service Provider” plug-in. This tool, new to PageMaker 6.5, goes a long way toward automating the handoff process. In addition to letting you preflight your PageMaker publication (or a PageMaker-generated PostScript file), this plug-in provides a wealth of information about your publication: the status of linked graphics; a list of all the fonts used in a publication and information about whether they are installed on the current system; a rundown of the currently selected print settings; detailed specifications about the inks required to print the file on press; and the file's current trapping parameters. Best of all, this plug-in can bundle everything needed to print the file into a neat and tidy package, eliminating much of the need for an article such as this.

To use it, choose “Save for Service Provider” from the Plug-ins submenu on the Utilities menu. To preflight your publication, click the “Preflight” button in the summary panel. If everything is OK, you can proceed directly to the “Package...” option; if you want more details about specific areas, visit the “Fonts,” “Links,” “Printing,” or “Colors” panels. To gather everything together, click the “Package...” button at the bottom of the window. In the “Package” dialog box that appears, specify the destination folder for the package. Click on the “Copy fonts” option, and make sure “All” is selected. If you're not sure your linked graphics are up-to-date, select “Update links in source pub before packaging.” If you want to leave notes for your service provider, click on the “Notes” button and enter contact and other relevant information.

When you click the “Save” button, PageMaker saves the document and copies of all fonts and linked graphics needed to image the file, and generates a report detailing all of the information that appears in the “Fonts,” “Links,” “Printing,” and “Colors” panels. It really couldn't be much easier. Your service provider doesn't necessarily have to have the plug-in installed; you can create the report as a PageMaker 6.5 file or as text.

Double-check everything (it never hurts), copy the folder onto the transfer medium you've agreed upon with your service provider, grab your printed proofs and any other necessary papers, and head out the door. Then kick back, relax, and look forward to seeing yet another project roll off the presses. Ensuring that your files print correctly on your service provider's imagesetter isn't hard—it just takes a little forethought and the willingness to use the tools PageMaker provides. ♦

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Keep your publications clean

Creating well-structured files in PageMaker is easy, especially if you use common sense and take advantage of some of PageMaker's newer features. The underlying purpose of most of these features is to help keep your pages as lean and simple as possible. Here are our favorite document-streamlining hints.

- Work with threaded text blocks wherever possible, and use nonprinting guides to help align objects.
- Don't use paper-colored boxes to hide objects; instead, set the objects to be nonprinting (choose “Non-Printing” from the Element menu). Or, if you're trying to hide a master-page element, try duplicating that master page and eliminating from the copy any elements you don't want.
- To minimize repetition of objects and organize your pages, use the Layers (new in PageMaker 6.5) and Multiple Master Pages features.
- Avoid rotating large TIFF images in PageMaker—rotated images take longer to print. (If possible, rotate them in Photoshop before importing, or scan them at the desired orientation.)
- Limit the number of fonts you use wherever possible. Not only will your designs look more professional, but you may also be able to decrease print times.
- Link, don't embed, large graphic files.
- For long documents, create several PageMaker files and use the Book feature to join them.

In short, use good production techniques to build sound pages, and your files should print without a hitch.