InDesign MAGAZINE 29
Excerpt from April | May 2009

10 tips for creating an InDesign file that prints perfectly.

# Will It Print?

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by Steve Werner

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## 10 tips for creating an InDesign file that prints perfectly.

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In the days before digital publishing, the layout of publications or the creation of artwork for printing was almost always done by artisans—craftspeople who either worked with ink-stained hands in a printing shop, or who had been carefully schooled in the craft of printing.

Today, you're often on your own when you create an InDesign document for commercial printing. Here are some tips for preparing your job for printing that may save you and your printer a few gray hairs.

### 1. Talk To Your Printer Early

Talk to your printer early in the process of constructing your print document. A customer service or prepress person at the printing company will tell you of production requirements for their particular presses. These guidelines include items such as the minimum distance that artwork should sit from edges and folds, the sizes of panels for folded pieces, and how much overlap must be created for a bleed. Following production requirements is particularly important if your printer is using special printing processes like die cuts or embossing.

Also, ask your print provider the following questions and store the information. I'll explain later how the answers will affect your files:

- How do they prefer to receive files: InDesign application files, PDF files, or both?
- What kind of RIP do they use: PostScript or Adobe PDF Print Engine?
- Do they have a preferred method for preparing PDF files?
- Do they have a custom PDF preset you can use?
- Does the printer use a custom output profile? If so, you can install this and select it when converting images from RGB to CMYK.

### 2. Construct Your File Carefully

Sometimes you may not know who the printer will be. If you're new to the printing process, try to find a mentor—a more experienced designer who has successfully created the kind of document you're working on, and who can give you some general guidelines.

When constructing your document, place one piece per page, rather than all on one page, each with its individual crop marks. So, for example, a company's letterhead would go on page 1, the envelope on page 2, and the business card on page 3. You can create multiple page sizes in a single InDesign document with the Page Control plug-in from DTP Tools.

Create your document to the correct trim size. This is the final size of the printed piece. If you have an odd-size page, create a custom-sized page in the New Document dialog. Don't place the artwork on a larger page and placing crop marks around it yourself.

Maintain the live area in your document: This is the area recommended by your printer where you can place objects on the page. Staying in the live area is important because when you place text or graphics too close to a trim or a fold, the objects may be trimmed off or be creased in the fold.

For multipanel brochures, make the panels that fold inside shorter than the outer panels. The


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amount actually depends on how thick the paper is, so getting advice about this from your printer before you begin the document is a good idea. For more on this concept, see "Begin with Finishing" in *InDesign Magazine* #20, October/November 2007.

### 3. Create A Document Bleed

If any element on your document layout makes contact with the document edge, you have to use bleed. The trick is to place the element so that it goes over the edge where the document will be trimmed after printing.

Let's say you're working on a brochure with a background color that extends off the page. Your document size (what's set up in **File > Document Setup**) should be the size of the final trimmed page, but you'll add a colored frame that extends past the edge of the page.

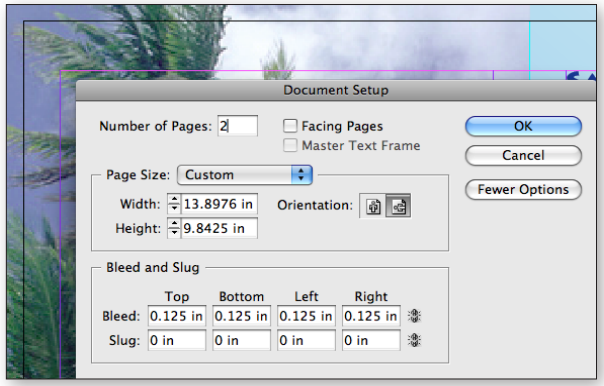



**Figure 1:** Bleed settings in Document Setup with artwork showing the bleed behind the dialog

To ensure the object bleeds off far enough, add bleed guides on the pasteboard around your spreads. In the New Document dialog, click More Options to reveal the option for setting bleed (Figure 1). In North America, a standard bleed amount is usually 1/8" (.125in, or about 1p or 5mm), but check with your printer.

You can also add the bleed after the document is created by choosing **File > Document Setup**; click More Options if necessary. In Normal view, the red line that surrounds the document boundaries indicates the bleed.

Later, just before you print, you can test whether the objects off the page will print properly by turning on Use Document Bleed Settings in the Marks and Bleed pane of the Print dialog box (or the Export Adobe PDF dialog box).

In most cases, you don't have to worry about bleeding into the gutter (the spine of a facing pages document)—just extend the object to the edge of the page. However, in some cases, a printer might ask for a true bleed into the gutter. That's easy if your document is set up for single-sided pages. But if your document is set up with facing pages, you can still force a bleed area in the gutter by following these steps:

1. In the Pages panel flyout menu, turn off the Allow Document Pages to Shuffle option.
2. With this option turned off, in the Pages section of the Pages panel, you can now carefully drag the right page of each spread to the right. Drag until you see a dark vertical bar, then release (Figure 2). Or choose Move Pages from the panel menu and tell it to "move page 3 to after page 3," then "move page 5 to after page 5," and so on.

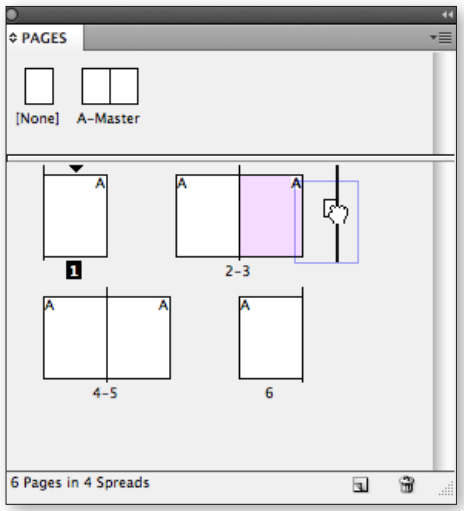



**Figure 2:** Pages Panel dialog showing the dark vertical bar when dragging.

3. You'll now see that each page has become a single page with a bleed all around, yet it still retains its relationship to the gutter.

**Take It for a Test Drive**

Large documents can benefit from a test-of a few pages at the printer. James Wamser of Sells Printing says, "We encourage customers to send a couple test pages before they complete their entire catalog or whatever, just to make sure they don't miss one of the essential production requirements—bleed, crossovers, live area, and so on."

### 4. Choose High-Resolution Images

We live in a world filled with pixels. Whether they come from a scanner or a digital camera, or we create them in Photoshop, pixels are the building blocks of bitmapped graphics.

High-quality commercial printing requires higher resolution images than those viewed only on-screen. How much resolution is necessary? This has been debated since the beginning of the digital graphics age, but the traditional standard is 300 pixels/inch (ppi). Most industry experts agree that 225 ppi is sufficient for most printing jobs, and for softer images, you could probably go even a little lower.

The important thing is the effective resolution—resolution that takes into consideration the scaling you do when you place the picture in InDesign. If you take a 72x72-pixel image and scale it down 50% in InDesign, you're taking the same number of pixels and shrinking them to cover a smaller area. The image's effective resolution becomes higher: 144 ppi. If you scale the picture up, you make the pixels larger and reduce the effective resolution. (For more on this slippery concept, read "The Truth About Resolution" on CreativePro.com.)

InDesign has a wonderful tool called the Info panel that tells you both the image resolution (which it calls Actual ppi) and the effective resolution (Effective ppi). Figure 3 is the display of the Info panel and the Control panel, which shows image scaling when you select an image with the Direct Selection tool. You can also use the Preflight dialog box or panel to detect image resolution.

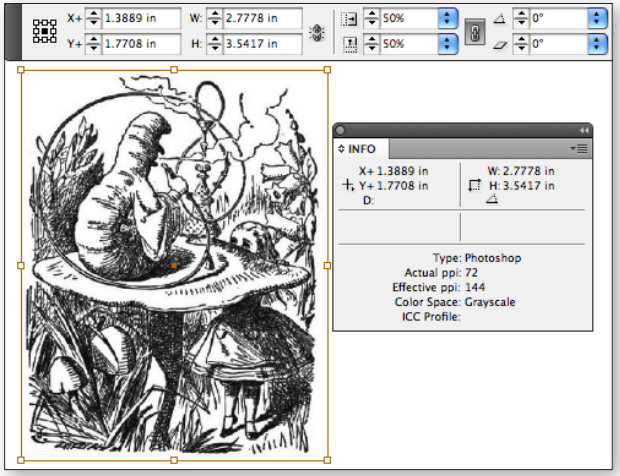
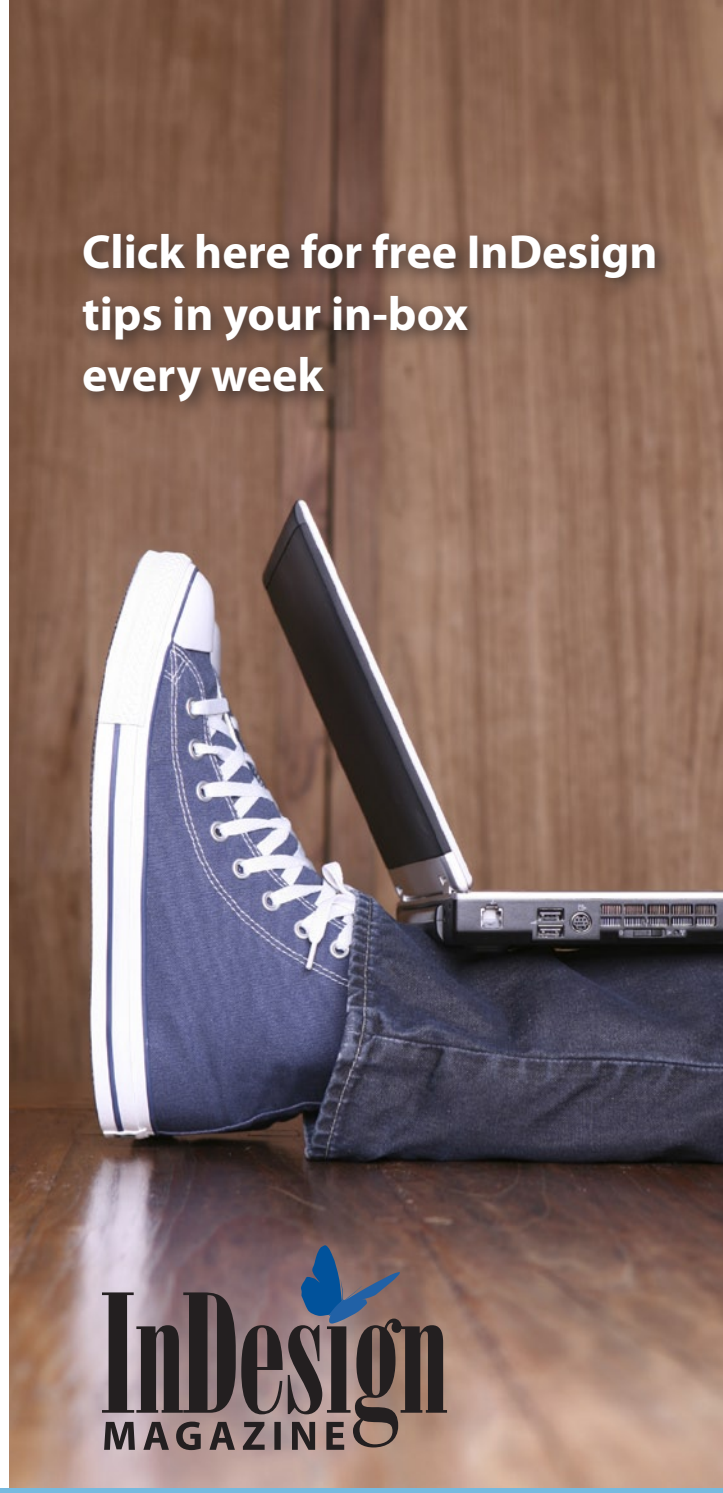



**Figure 3:** Info Panel showing an image scaled up, Control panel showing scaling.

You should also choose the proper file format to save your image files for commercial printing. Photoshop PSD and TIFF work best for almost every kind of image created in Photoshop, including those that have transparency, layers, and spot colors. However, if your image includes type or vector layers, consider the Photoshop PDF file format, so that the vectors aren't rasterized (turned to pixels).

If you have many images and need to reduce their file size, using the JPEG format may be acceptable at Maximum Quality (minimum compression). For print, stay away from the GIF, BMP, and PNG file formats.

## 5. Have the Fonts Your Job Will Need

InDesign supports the PostScript Type 1, OpenType, and TrueType font formats. Contrary to urban myth, all of these formats can work well for printing on modern RIPs (raster image processors, used in high-end printers).

To view the fonts in your document, or to find or replace them, go to **Type > Find Font** (Figure 4). Click the More Info button to reveal information like where the font is located on your system and where the font is used.

Of the three formats, the newer OpenType fonts are the best choice. They work cross-platform (both Mac and Windows) and consist of a single file. (PostScript fonts, although widely used, require two files to send with application files and have different versions for Mac and Windows platforms.) Many OpenType fonts also have a larger set of characters, and access to typographic niceties with true small caps, and the ability to create real fractions.

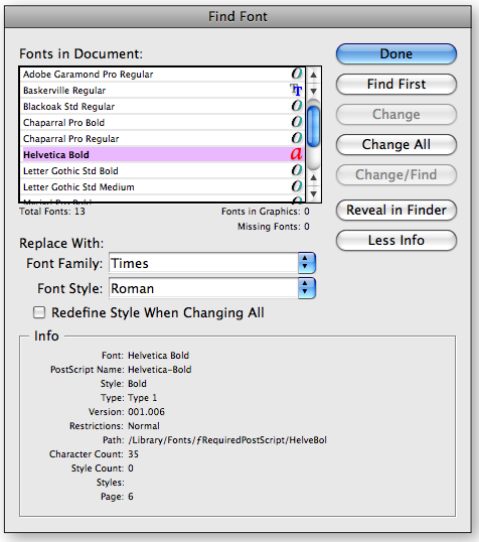



**Figure 4:** Find Font dialog showing all three font formats. Font selected, and More Info section open.

Here are a few font issues that might trip you up when preparing files for print:

- On a Mac, stay away from System fonts. These include the Helvetica, Helvetica Neue, Courier, Symbol, or Zapf Dingbats fonts found in **[Your computer] > System > Library > Fonts**. They won't print badly, but the names are the same as PostScript fonts you may also be have. Sometimes the wrong version can be substituted by mistake, causing incorrect spacing or missing characters.
- Avoid the Multiple Master fonts created by Adobe in the 1990s, which can cause problems with some RIPs.
- Some PostScript fonts don't work with the Microsoft Windows Vista operating system. Windows Vista supports only Windows PostScript fonts that include PFM files (these store the width values of characters in a font). However, not all Windows PostScript fonts include PFM files. If you're working with Vista, buy OpenType or Windows TrueType fonts.
- If you're sending an application file, you must package the fonts. If you're creating a PDF file to send, all the fonts you're using must be embeddable. While all Adobe fonts are capable of being embedded in a PDF, some fonts from other vendors have licensing restrictions that may prevent embedding. You can use the Preflight feature to check font embedding in a file (more on that in a bit).

### The Right Way to Place

Sometimes people inadvertently create a low-resolution image when they bring bitmapped images into InDesign. To prevent this, use the Place command (File > Place), which creates a link to the high-resolution file sitting on your hard drive. You can view the linked images in InDesign's Links panel. (InDesign CS4's Links panel gives you a lot more control over viewing linked images, letting you easily view the effective resolution or the color spaces of all the linked files.)

It's possible to drag and drop images from the Desktop or Adobe Bridge. Either of these methods creates a linked image. However, it's also possible to drag and drop an image from Photoshop. Don't do it! It essentially converts a CMYK image into RGB, loses the link to the original file, and makes it impossible for InDesign to report accurate resolution information.

## 6. Choose the Right Colors

Anyone who's new to publishing must learn the difference between process colors and spot colors. Process colors are cyan, magenta, yellow, and black (CMYK). When printing a multicolor job on a printing press, combinations of those four colors can create a wide range of colors. However, CMYK can't reproduce many bright colors (bright reds, blues, and greens, for example). You can see them on an RGB color monitor, but they'll be muted when printed in CMYK.

If you need a certain color that's impossible with CMYK, or if you have to match a color exactly (Coca Cola red, for example), you'll need a spot color. You can add spot colors to CMYK jobs, or you can print jobs that use only spot colors. The most popular spot color systems in North America are developed by Pantone.

You should choose process colors from a swatch book that was printed with process colors. For

example, both TruMatch and Pantone offer Process Color Guides. Don't pick from a spot color guide and assume that InDesign will accurately convert the spot to process colors. However, if you are speccing spot colors, choose Ink Manager from InDesign's Swatches panel menu and turn on the Use Standard Lab Values for Spots checkbox. That ensures highest-quality printing of spot colors when they do need to be converted to CMYK.

In InDesign, you can pick colors either from the Color panel or the Swatches panel. The Color panel lets you create unnamed colors, and it doesn't support spot colors. These ad hoc colors are not automatically added to the Swatches panel. However, you can (and should) always choose Add Unused Colors from the Swatches panel menu to create swatches for all unnamed colors.

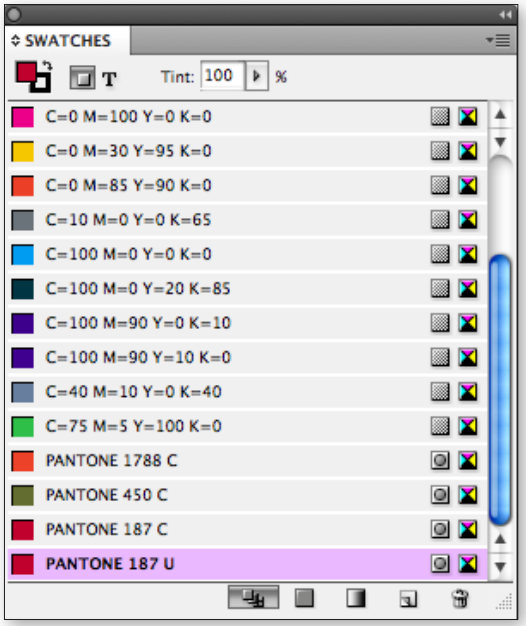



**Figure 5:** Swatches panel, pointing out icons for process and spot colors.

It's better to create named colors with the Swatches panel. It lets you apply colors globally throughout a document, and then easily change that color later. You can view whether your colors are spot or process by looking at the icons beside the color names on the Swatches panel (Figure 5).

While there are significant benefits to placing RGB images directly into your InDesign documents, some printers expect that all placed images will be converted to CMYK. If you're supplying a packaged InDesign file to a printer, follow the printer's recommendation.

However, if you're supplying your printer with PDF files, and if you choose the right PDF preset (I'll talk about that below), InDesign can convert RGB to CMYK during the process of creating the PDF file. InDesign will use exactly the same settings as Photoshop if you've synchronized your colors in Adobe Bridge. The advantage of this is that you can quickly repurpose your InDesign file later for the Web, interactive PDFs, and so on.

It's a good practice to check your files to see what color plates they will produce when printed. You can do this with the Separations Preview panel (**Window > Output > Separations Preview**). Choose View Separations (Figure 6).

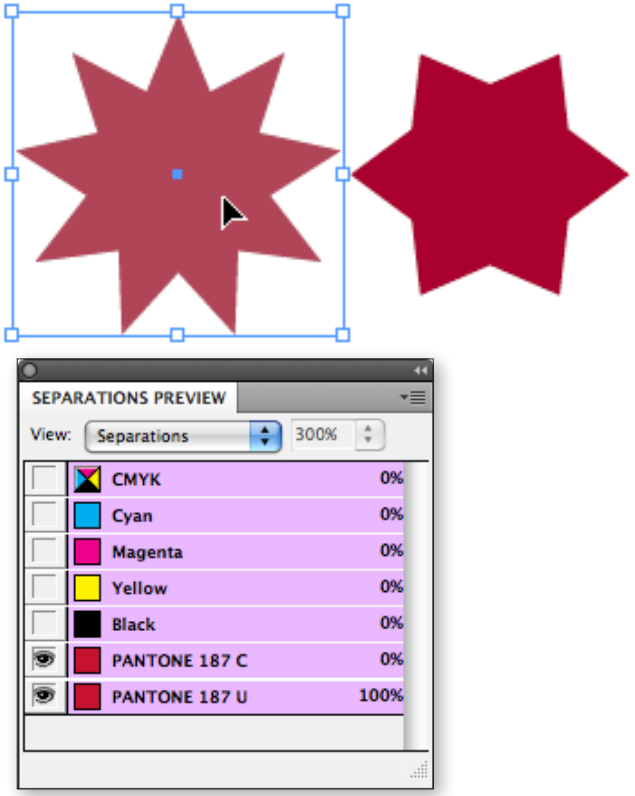



**Figure 6:** Separations Preview panel.

**No PDF? Then Package**
When you send your files to the printer, all your links need to be up-to-date. If you're sending application files (not PDF), you'll need to use the Package function (File > Package) to gather the linked graphics.

Another powerful feature is InDesign's Ink Manager. It lets you control which color plates are produced when you print color separations. Here's how to use the Ink Manager when you have too many plates in your file:

- Open the Ink Manager from the Swatches or Separations Preview panel menu, or from the Output pane of either the Export Adobe PDF or Print dialogs (Figure 7).
- If you see a spot color you'd like to convert to process, click the spot color icon to the left of its name to convert it to a process color icon.
- If there are multiple versions of a spot color in the file (for example, PANTONE 129U and PANTONE 129C), they would print as separate plates. You can select one of them and choose the name of the other in the Ink Alias menu, which places objects from one plate onto the other.

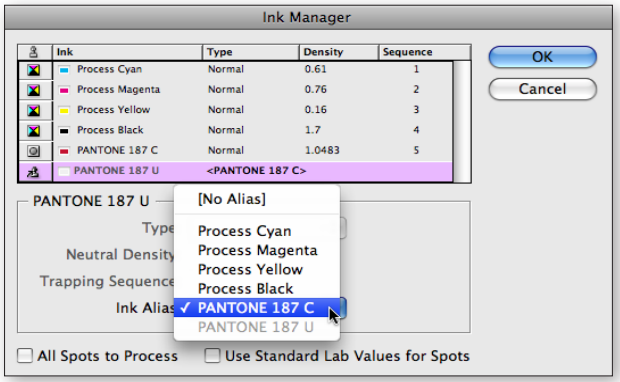



**Figure 7:** Ink Manager showing dialog, and mapping one spot color to another.

## 7. Follow Best Practices for Handling Transparency

InDesign gives you many ways to enhance documents with transparency. While it had a deservedly bad rep when it first appeared, there's nothing wrong InDesign's transparency as long as you follow certain best practices. We'll cover the basics of preparing transparency for print here, but for more details, see "Transparency: No Longer the Forbidden Fruit" in InDesign Magazine issue 22 and online.

Find out whether your job will be printed from a traditional PostScript RIP or one of the newer Adobe PDF Print Engine (APPE) RIPs. PostScript printers require that transparency be flattened (objects are broken into to discrete pieces to simulate the appearance of transparency) because these RIPs don't understand transparency. APPE RIPs can receive native PDF files and can keep transparency live until the time of printing—no flattening required.

If you're not sure which RIP your printer is using, follow these guidelines:

- Put text and thin lines on a layer above any nearby transparency. If you don't, these elements will be rasterized or converted to vector clipping path outlines during the flattening process. You can spot potential problems by previewing your transparency effects in the Flattener Preview panel (**Window > Output > Flattener Preview**). In the Highlight menu, choose All Affected Objects (Figure 8). If type or fine lines appear in pink, they're affected by the transparency.

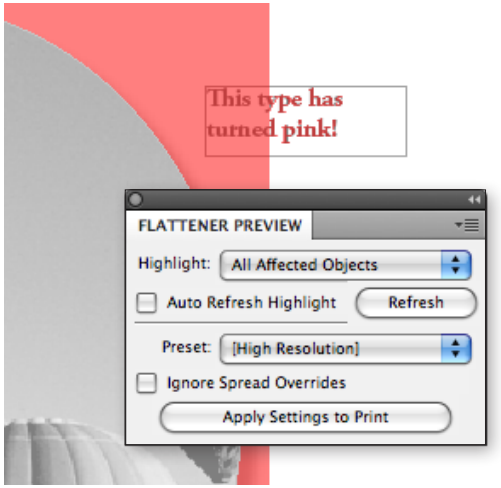



**Figure 8:** Figure shows Flattener Preview panel set to Affected Objects. Type has turned pink.

- When InDesign must flatten transparency, it creates new objects. To create the most faithful color, it looks to the Transparency Blend Space setting. Choose **Edit > Transparency Blend Space**, and select Document CMYK for documents headed for a printing press.

## 8. Preflight Your File

It's essential to preflight your file before sending it to the printer. Preflighting involves checking the file to make sure it matches the printer's production requirements (bleed or live area, for example), and doesn't include elements that may not be appropriate for printing (incorrect colors, for instance).

In InDesign CS2 and CS3, the Preflight function (**File > Preflight**) is quite limited. A Summary panel gives an overview of the findings. If you click on the Links and Images pane, you can look for missing and modified images. You can view effective resolution, but only manually, image by image.

To investigate whether a font is embeddable in a PDF, click on the Fonts pane. Look in the Protected column. All the fonts will be listed as "No" (not protected) if you can embed them in a PDF.

InDesign CS4 adds a Live Preflight feature that totally redefines the preflighting process. It's been moved from a dialog box to the new Preflight panel. By default, the feature runs continuously in the background, and it alerts you to problems in real time. Plus, it's totally customizable. Russell Viers described this new feature in "InDesign CS4: A Whole New Preflight," *InDesign Magazine* #26.

To open the new Preflight panel choose **Window > Output > Preflight**. Or double-click on a green or red circle at the bottom of your document, and the message "No errors" (or the number of errors you do have).

By default, InDesign CS4 uses a Basic preflight profile that finds missing and modified graphics, missing fonts, and overset text. Just because a green circle (No errors) appears doesn't guarantee that you're problem-free.

For preflighting to work, you need to check the InDesign document against a preflight profile that's appropriate for the kind of output you're planning on using. And what's appropriate for one kind of job (printing a CMYK job with a commercial printer) may not be the same for another (creating a file that will be output on an inkjet printer).

The solution is to create your own preflight profile, or even better, to get one from your printer (Figure 9). If you do that, you can use choose Load Profile from the tiny menu to the right of the + and – icons in the Preflight Profiles dialog.

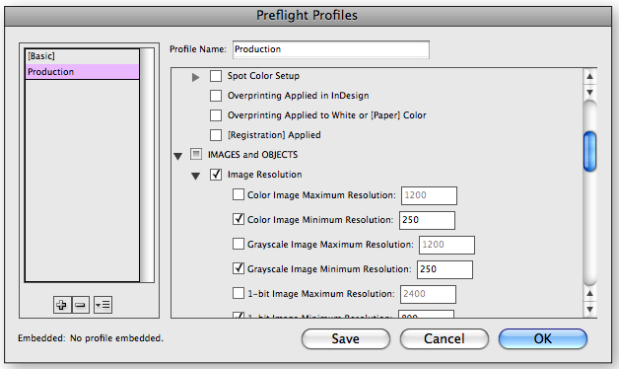
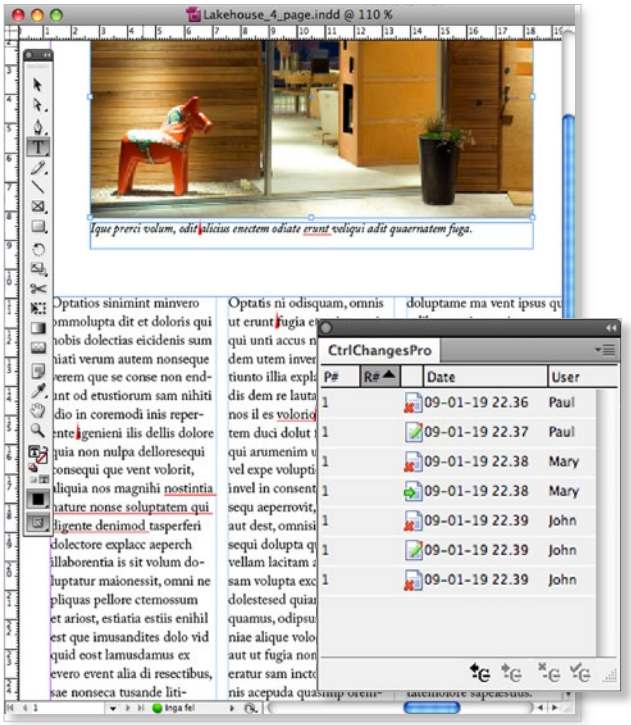



**Figure 9:** InDesign CS4's Live Preflight let you customize items to be checked before printing.


CtrlChanges

Manage text changes in InDesign and InCopy

CtrlChanges is a plug-in for InDesign and InCopy users that require a clear and accurate solution to a common problem, to visually be able to see and manage changes in the document.




*CtrlChanges tracks and displays all text changes performed in the document – right there, in the Layout View! The screenshot also shows the management panel in CtrlChanges Pro, with full step functionality, filtering and sorting etc.*

For more information. please visit **www.ctrl-ps.com**

## 9. Choose the Right PDF Preset

Most printers understand the value of having their customers send PDF files for printing. Correctly created, a PDF is a digital master that contains all the graphics, type, and fonts that make up a document for printing.

InDesign gives you two ways to create a PDF file. Some very traditional printers still advocate that you create a PostScript file from your InDesign file, and then process it through Acrobat Distiller (included with Adobe Acrobat Pro) to create a PDF.

I feel that, almost always, it's better to use InDesign's Export Adobe PDF dialog box (Figure 10). It provides PDF presets created for many print workflows, and you get the most control over the kind of PDF file the printer needs. It's also the only way you can preserve colors and transparency for APPE RIPs.

The most important question is which of the PDF presets to choose. The best choice is typically the one that your print provider gives you. However, if they don't specify their own, use one of the three PDF/X options: PDF/X-1a, PDF/X-3, or PDF/X-4. A PDF/X file must include certain elements essential for printing, and it may prohibit certain things.

If your printer is using a PostScript RIP, the best choice is usually PDF/X-1a. When you choose this preset, all colors (e.g., RGB images) are converted to CMYK using the output intent defined on the Output pane (the default is US Web Coated SWOP). This choice also flattens all transparency.

If your printer is using a color-managed workflow and wants colors to be converted in their PostScript RIP, choose PDF/X-3. This choice is more popular with European printers than in North America. This preset preserves colors (doesn't convert images with RGB color profiles to CMYK, for example), but it still flattens transparency like the PDF/X-1a preset.

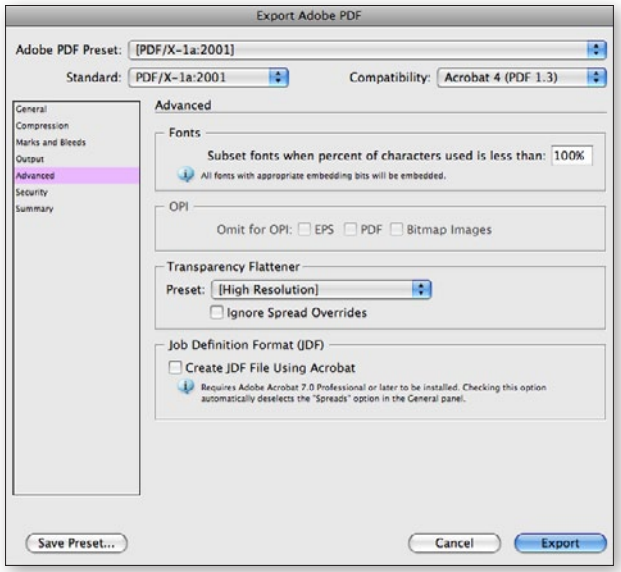



**Figure 10:** Export Adobe PDF dialog box set to PDF/X-1a preset, showing the Advanced pane.

If you've used transparency in your file, and you choose either PDF/X-1a or PDF/X-3, follow the best practices for transparency outlined in section 7 and choose the High Resolution transparency flattener preset in the Advanced pane (Figure 10). This will keep your artwork at the high quality required for commercial printing.

If your printer is using an Adobe PDF Print Engine RIP, use the PDF/X-4 preset, which leaves any colors in your document in their original color space and doesn't flatten transparency. All of this will be taken care of when the PDF file is ripped by the printer.

Sometimes you just don't know how your file will be printed. In that case, choose PDF/X-1a.

## 10. Maintain Communication

The process of creating an InDesign file intended for the printing press is a collaborative enterprise between you and your printer. The closer you keep in communication with them, the more likely you'll be pleased with the final printed result.

**Steve Werner** is a trainer, consultant, and co-author (with David Blatner and Christopher Smith) of *Moving to InDesign* and co-author with Sandee Cohen of *Real World Adobe Creative Suite 2*. He has worked in the graphic arts industry for more than 20 years and was the training manager for ten years at Rapid Lasergraphics. He has taught computer graphics classes since 1988.

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