

SECTION **1**:

The Ground Rules for Desktop Publishing

Introduction

I wish there was a way to make desktop publishing easy, but...there isn't one.

Technical requirements are strict and exact, dictated not by me, GPO, or a government body but instead by the printing industry itself. And that makes sense, actually.

Afterall, it's your print shop that must take your files, process them, and give you back printed copies, regardless of whether your job is printed by conventional offset printing presses or new digital presses.

This section takes the mystery out of desktop publishing (**DTP**) requirements.

It outlines the guidelines for creating press-quality desktop publishing files and Acrobat PDFs.



What to Send to the Printer...

From the beginning of the desktop publishing “revolution,” we have sent our **native files, fonts, and graphics** to print shops where they would process them, output them to film and plates for conventional printing, or output them directly to a digital press.

In the late 1990s, the **Acrobat PDF** file format had developed enough to allow us to send a press-quality PDF that contained all the layout information, fonts, and graphics in one, nice, convenient file.

Today, the majority of print shops accept press-quality PDFs, and for many types of jobs, printers prefer PDFs rather than native files.

But I still recommend you provide both types of files:

- A **package of the native files** that includes the desktop publishing files from InDesign, Quark, Pagemaker, or other professional layout program; the **fonts** used in the files; and the EPS, AI, PDF, TIF, and PSD **graphic files** used in the layout.
- A **press-quality PDF** with all these items embedded into it.

Why send both?

Because it gives the printer the best of both worlds...and covers emergencies.

When a press-quality PDF is made correctly, and when I don't request any last-minute changes to text or graphics in the job, the PDF can then sail through the prepress process without a hitch and get my job on press a bit quicker and, maybe, with fewer costs.

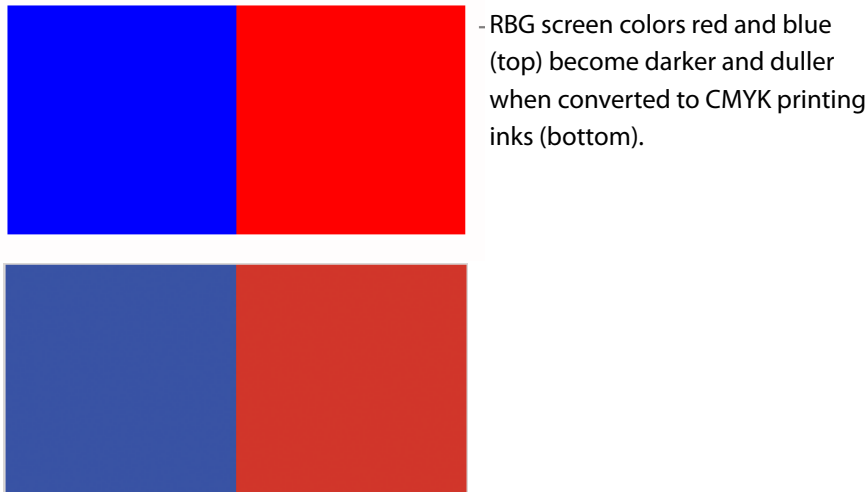
But, what if I have substantial editorial changes once my job has entered prepress? Or what if my printer thinks that a photo in my layout needs some technical adjustments for color or something else? Or what if I didn't create my files correctly and my printer needs to fix them?

In any of these situations, most printers would prefer to use the native desktop publishing and graphic files to make these changes and adjustments because it can be nearly impossible—or difficult and time consuming—to make changes to the PDF.

So send both: if the PDF works, that's great! And if it doesn't, your natives have you — and your printer — covered.

Common Problems with DTP Files

- 1 **Fonts:** We forget to send the fonts to the print shop. Without our fonts, the job will output differently and we could get text reflow, substituted fonts that don't look like the ones we used, substituted characters, or missing characters. Or, a job that stalls and can't be processed at all by your print shop.
- 2 **Graphics:** The graphics look terrible. They look fuzzy and bitmapped when the job is printed, their colors shifted and are not what we expected, or they are missing entirely.
- 3 **Colors:** The graphics and layout use RGB screen colors meant for websites and monitors rather than printing ink colors. Most likely the job won't be able to be printed at all, or there will be a noticeable color shift from the colors on the computer monitor to what is printed in the final product.



Next, we'll look at the basic ground rules for making PDFs that can help you avoid these problems.

Five Ground Rules for DTP Files:

1 Start with a well-made layout document.

Remember: garbage in = garbage out.

Use the correct graphic file formats, ink colors, and resolution to match the print shop's requirements. There's a huge difference between graphics for the web (72-100 dpi) and graphics for printing presses (300-400 dpi). (These and more requirements are detailed in the table at the end of this chapter.)

2 Always **include your fonts** in the package of native files, and also **embed your fonts into the press-quality PDF**.

3 Always **supply your native graphics files** in case your print shop needs to make technical adjustments to them.

4 **Preflight your job**. You should a) print out the job and look at the pages, b) use your software's preflight utility, and c) print color "splits" that simulate the color separations your print shop will make.

4 **Check under the hood** before you make a PDF. Don't blindly click a "magic make-a-PDF" button without first **setting your PDF job options** (or PDF conversion settings).

Many software programs have buttons or commands to make a PDF. Don't use the default settings: instead, make sure the settings match your print shop's requirements.

Fonts in the PDF File.

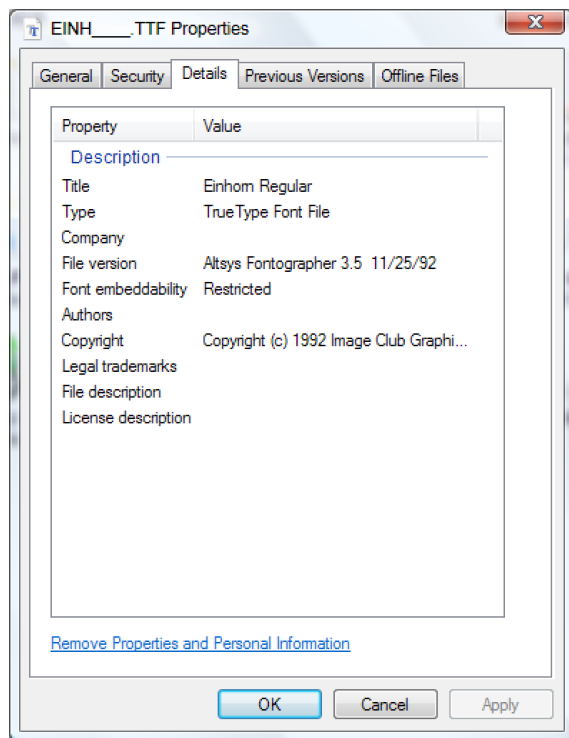
Careful: **some fonts cannot be embedded into an Acrobat PDF file.**

Font embeddability is controlled by the restrictions and rights built into the font file by the font's manufacturer. Embeddability is not controlled by your software or operating system. Before you use a font in your DTP layout, check its font permissions and restrictions to make sure it can be embedded into your press-quality PDF when the time comes.

Remember, a font is a piece of software. Just because it's installed on your computer does not automatically mean you can embed it into a PDF that will be distributed and, therefore, use the font on someone else's computer.

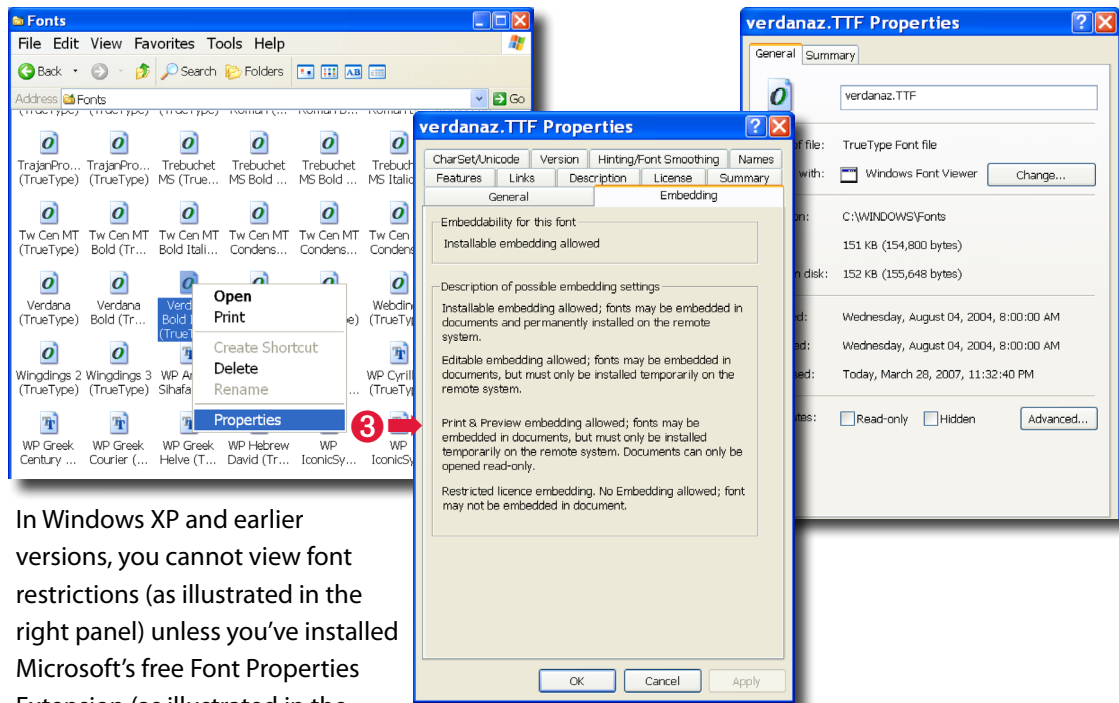
You can view font restrictions in several ways:

- 1 Some font manager programs show this information.
- 2 Font Viewer in Windows Vista shows this information on the Details thumb tab (right-click on any font, select Properties, select Details, or use the Fonts utility in the Control Panel).



- 2 Font restrictions are detailed in Font Viewer, a utility built into Windows Vista. A restricted font usually cannot be embedded into a PDF.

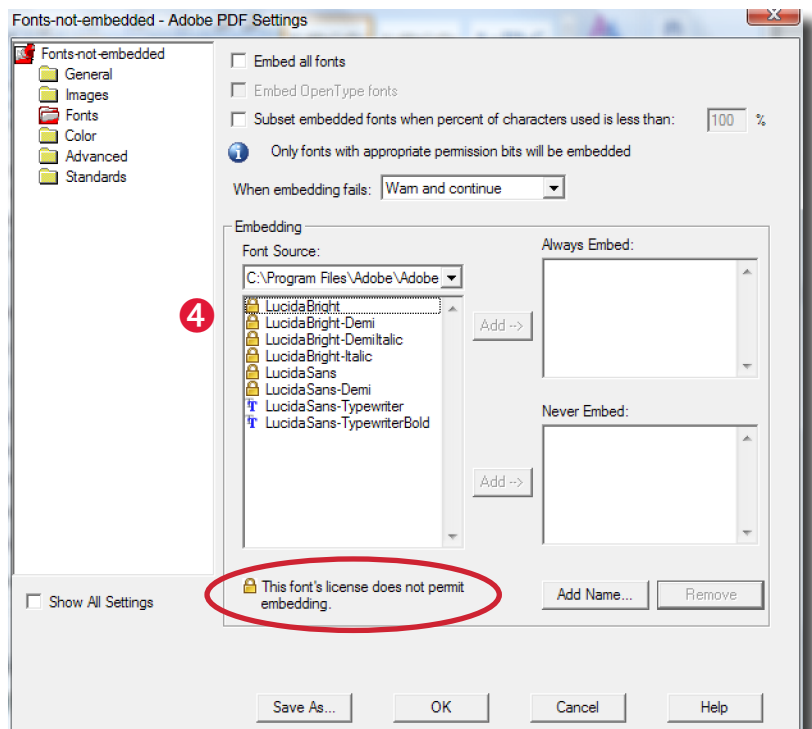
- 3 Windows XP and 98 users, Microsoft provides a free Font Properties Extension that allows you to view font restrictions and other information when you right-click on any font and select Properties. The Font Properties Extension adds several thumbtabs to the Font Viewer utility, including one for embedding. (Download the free extension from www.Microsoft.com.)



In Windows XP and earlier versions, you cannot view font restrictions (as illustrated in the right panel) unless you've installed Microsoft's free Font Properties Extension (as illustrated in the center panel).

- 4 Font restrictions are indicated in the Acrobat PDF settings dialog box in some programs.
- 5 Mac users must use a font management program to view font restrictions.

Font restrictions can sometimes be visible in the fonts section of PDF conversion settings or job options dialog box. In this example (left), the Lucida fonts with the "lock" icon cannot be embedded into the PDF.



Know Your Fonts

Fonts come in three varieties:

- **PostScript®**
- **TrueType**, and
- **OpenType**.

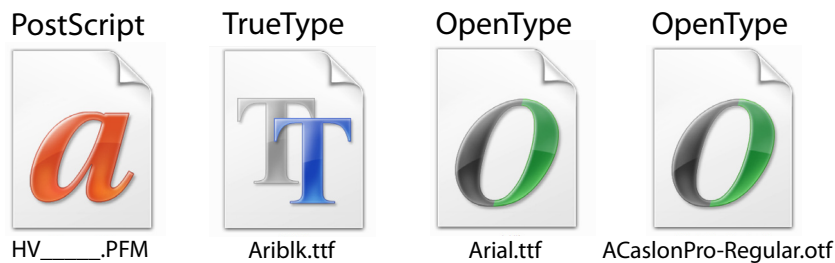


Figure 3: PostScript, TrueType, and OpenType fonts shown by their icons.

Many older fonts, especially TrueType and PostScript fonts from “art house” foundries, are restricted and **cannot be embedded inside PDFs**.

But most “system fonts” that come with Windows XP, Windows Vista, and Macintosh OS X use the newer OpenType technology and rarely have restrictions on embedding. Plus, OpenType fonts render better across all media, from screen to print and press.

Best Practice

Use OpenType Fonts

Check font restrictions and permissions *before* creating your DTP layout files. Remember that not all fonts can be embedded into PDFs.

Use OpenType fonts whenever possible—OpenType fonts rarely have restrictions on embedding, and render well across all media.

And they can be used on either Macs or Windows computers.

Guidelines for Creating Source Documents

InDesign Native Files & PDFs for Press, Print, or Web

What to place or use in the source document	InDesign/Press-quality PDFs <i>Printed on conventional printing presses and digital ink-based presses</i>	Print-quality PDFs <i>Printed on office printers, such as laser & inkjet printers, photocopiers, Xerox DocuTech and Nuvera, Océ Vario, Canon imageRunner, and POD "print on demand" devices</i>	Web-quality PDFs <i>Viewed on computer monitors and hand-held devices; possibly printed on desktop printers</i>
Fonts	<ul style="list-style-type: none"> ■ OpenType preferred (emerging standard for the printing industry) ■ PostScript (older standard for the printing industry) ■ TrueType ■ Check font restrictions, make sure fonts are embeddable, not protected. 	<ul style="list-style-type: none"> ■ OpenType, or TrueType. ■ Some digital printers cannot use PostScript fonts, but check before using them in the source document. ■ Check font restrictions, make sure they are embeddable, not protected. 	<ul style="list-style-type: none"> ■ OpenType preferred because they tend to render better on computer monitors and contain more characters for multiple languages. ■ Check font restrictions, make sure they are embeddable if you want the document to retain your design when viewed on a user's computer.
File Formats — Bitmap images <i>photos</i>	<ul style="list-style-type: none"> ■ .TIF (printing industry standard) ■ .PSD (native Adobe Photoshop: emerging printing industry standard) ■ .JPG, but only if it is a high-quality/low-compression JPEG 	<ul style="list-style-type: none"> ■ .TIF ■ .JPG ■ .GIF ■ .PNG ■ PowerPoint, Excel, and WordArt office graphics ■ Pretty much any graphic file format: if it prints on your desktop printer, it usually will print on the final output printer. 	<ul style="list-style-type: none"> ■ .JPG for photos. ■ .GIF for other graphics ■ .PNG (not readable by older Web browsers)
File Formats — Vector Graphics <i>logos, illustrations, graphical charts</i>	<ul style="list-style-type: none"> ■ .EPS (printing industry standard). ■ .AI (native Adobe Illustrator: emerging printing industry standard) ■ .PDF (emerging printing industry standard) 	<ul style="list-style-type: none"> ■ .EPS ■ .PNG ■ .PDF ■ PowerPoint, Excel, and WordArt office graphics ■ Pretty much any graphic file format: if it prints on your desktop printer, it usually will print on the final output printer. 	The source document can use any graphic format because all graphics are converted to GIF or JPG by Acrobat when it creates the PDF.
			<i>Continued</i> →

Guidelines for Creating Source Documents InDesign Native Files & PDFs for Press, Print, or Web

What to place or use in the source document	InDesign/Press-quality PDFs <i>Printed on conventional printing presses and digital ink-based presses</i>	Print-quality PDFs <i>Printed on office printers, such as laser & inkjet printers, photocopiers, Xerox DocuTech and Nuvera, Océ Vario, Canon imageRunner, and POD "print on demand" devices</i>	Web-quality PDFs <i>Viewed on computer monitors and hand-held devices; possibly printed on desktop printers</i>
Resolution <i>only for bitmap images, photos</i>	<ul style="list-style-type: none"> ■ 300 dpi (printing industry standard) ■ 400-600 dpi for water presses, digital presses, and high-quality jobs 	<ul style="list-style-type: none"> ■ 300 dpi (standard) ■ 266 dpi is acceptable for lower-quality job, such as newsletters and flyers ■ 400 dpi may be required for high-quality printers. 	<ul style="list-style-type: none"> ■ 72 dpi/ppi (old standard for CRT monitors) ■ 96-100 dpi/ppi (new standard for flat-panel monitors)
Colors	<p>Only printing ink colors:</p> <ul style="list-style-type: none"> ■ CMYK ■ PANTONE PMS spot inks ■ CMYK + PMS spot inks ■ Grayscale (GS) ■ Black/white ■ Hexachrome (not to be confused with hexadecimal colors for Websites) 	<ul style="list-style-type: none"> ■ CMYK ■ PANTONE PMS spot inks ■ RGB screen colors ■ Grayscale (GS) ■ Black/white <p>■ The source document can use any type of color because all colors are converted by the printing device. However, a color shift could occur.</p>	<ul style="list-style-type: none"> ■ RGB <p>■ The source document can use any type of color because Acrobat will convert all colors to RGB when the PDF is created. However, a color shift could occur.</p>
Features for 508-Accessibility	None required. Printed documents are not 508-accessible.	None required. Printed documents are not 508-accessible.	<p>Required:</p> <ul style="list-style-type: none"> ■ Alt-tags on graphics ■ Heading tags on titles, subheads, and table heads ■ Caption tags on graphics ■ Bookmarks ■ Hyperlinks ■ Text-threading/flow
Metadata/Document Properties	None required.	None required, but helpful if the document will be archived for future printing.	<p>Required:</p> <ul style="list-style-type: none"> ■ Author ■ Title ■ Subject ■ Description or Summary ■ Keywords