Optimizing Your Microsoft Publisher 2000 Job for Commercial Printing

If you're looking for higher quantities, or for better quality for your Microsoft Publisher print job than you'd get with an inkjet or laser printer, you may want to take your publication to a commercial printer. A print professional will use *process color* (CMYK) or *spot color* (black plus up to two special inks) to reproduce your work on a printing press. In addition to longer press runs and higher quality, a printer can offer a wide range of binding and trimming options.

Another excellent option is to take your Publisher job to a quick printer (also known as an "instant" or "on-demand" printer). Quick printers can provide offset printing, as well as medium-resolution black and white or process color output on devices such as the Xerox© DocuColor™ and other digital output devices. Cost, quality and turnaround are usually quite reasonable.

Publisher 2000 has many features, which, if used correctly, will make it much easier for commercial printers, quick printers and service bureaus to prepare your job for the printing process. The following tips will help you prepare your Publisher jobs for high-quality commercial or quick print output. If you have questions about preparing your job, it's always a good idea to talk to your printer before you start your project. If you need to find a printer who accepts files created in Microsoft Publisher, go to the Publisher Service Provider Program referral database at www.microsoft.com/publisher/printers.

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Created in Microsoft Publisher 2000.

TIP 1: ALWAYS USE MICROSOFT PUBLISHER 2000

Many of the tips listed here apply only to Publisher 2000, because Publisher 2000 includes features designed for use by professional printers. Your printer or service bureau may have less confidence in publications converted from older versions, such as Publisher 98, than publications designed in Publisher 2000. One of the reasons for this is that Publisher 2000 is *device independent,* which means that your currently selected desktop printer does not necessarily control the appearance of your job. Because Publisher 98 and earlier versions of Publisher were *device dependent*, the text in your older document may re-flow, and otherwise look different than you expected, when opened by a printer or service bureau using Publisher 2000.

To upgrade to Publisher 2000 go to your local retailer or upgrade online at //shop.microsoft.com.

TIP 2: USE A PUBLISHER WIZARD

One of the advantages of using Microsoft Publisher is that you can easily create nice-looking publications by choosing from the Publication wizards for newsletters, catalogs, brochures, business cards and more than 20 additional publication types. You can start with a wizard, such as the Newsletter Wizard, and then choose a Design and a Color Scheme. You can use the wizard at any time to add additional objects to your publication, such as more pages, change the Color Scheme, or even apply an entirely new design.

TIP 3: BEFORE WORKING ON YOUR DESIGN, CONVERT TO SPOT COLOR OR CMYK

Should I Use Spot Color or Process (CMYK) Color Printing?
When you print your publication commercially, one of your first decisions will be whether to use process color or spot color. If your publication includes color photographs or artwork, consider using process-color printing. If your publication includes a logo with one or two colors, or if you want to use color to emphasize line art or text, then consider using spot-color printing. Once you make the decision, you can design your publication for the type of color printing you've chosen. For more information about deciding which type of printing to use, see "Decide which commercial printing process you will use" in Publisher Online Help.

Publisher supports process- and spot-color printing and provides all the tools your commercial printing service needs to prepare your color publication for printing. Before you design your publication and work with your commercial printing service, it's helpful to know the basics of process- and spot-color printing.

How do Spot Color and Process Color Printing Differ?
Process- and spot-color printing differ in two important ways: The range or number of colors each can reproduce, and the cost of printing. In process-color printing, a full range of colors is reproduced by combining four semitransparent inks. In spot-color printing, one or

What is…

Spot and Process Color?

Spot color uses custom inks or pigments to display your publication's colors. "Spot Blue" ink, for example, is an actual pigment, not a mix of other colors. It is inexpensive, because fewer inks are used.

Process color (CMYK) uses four standard inks to simulate most of the hues in your design. "Blue," in the process color world, is really a combination of Cyan and Magenta. It is more expensive, but it gives you more color choices.

two colors (or tints of colors) are produced using semitransparent inks. Process-color printing is typically more expensive than spot-color printing. Cost depends not only on the number of colors used, but also on the capacity of the printing press and the complexity of the publication's design.

Why Should I Convert My Publication to Spot Color or Process Color — Can't My Printer Convert it?

Check with your printer to see if you should do this conversion or if your printer or service bureau prefers to do this themselves. Typically, if you know you're going to have your publication professional printed, it's a good idea to convert your publication to either process (CMYK) or spot color early on to make sure that the right colors are getting used. The Publisher default setting (RGB) may look great on your screen, but it will *always* look different when printed. RGB (short for Red-Green-Blue) is ideal for on-screen viewing, such as on the Web, or for printing to your desktop printer, but it will create unpredictable or unsatisfactory results when the file is separated to commercial process colors. A vivid blue object, for example, would look fine on your screen, which can handle blues fairly well. However, in commercial printing, a combination of cyan and magenta ink would be used, and the resulting color would differ from the one on your screen, or your desktop printer.

Which Two Additional Colors from my Publisher Color Scheme will be used for Spot Color Printing?

If you've used a wizard to start your publication, choose your desired color scheme. If you're creating a spot color job (black plus up to 2 colors), you should only pay attention to the first three colors in the Color Scheme (left to right). The first color in the Publisher color scheme is always black; the next two colors would become either spot color 1 or spot color 2 within your publication. Typically, the color that is used most frequently throughout your publication will become spot color 1; the other color will become spot color 2.

What if I Need Four Colors?

If you would like your publication printed out in more than 2 spot colors (plus black), you'll need to print this as a Process (CMYK) job. In process printing, the four inks CMYK (cyan, magenta, yellow, black) combine together to create a much larger selection of colors; however, you may find it more difficult to match a specific color in the CMYK color space.

After you select your colors, you can convert your publication to either spot or CMYK. To do this click the **Tools** menu, point to **Commercial Printing Tools**, and then click **Color Printing**. Click either **Process colors (CMYK)** or **Spot colors**. For step-by-step procedures and information about spot and process color, see Publisher Online Help.
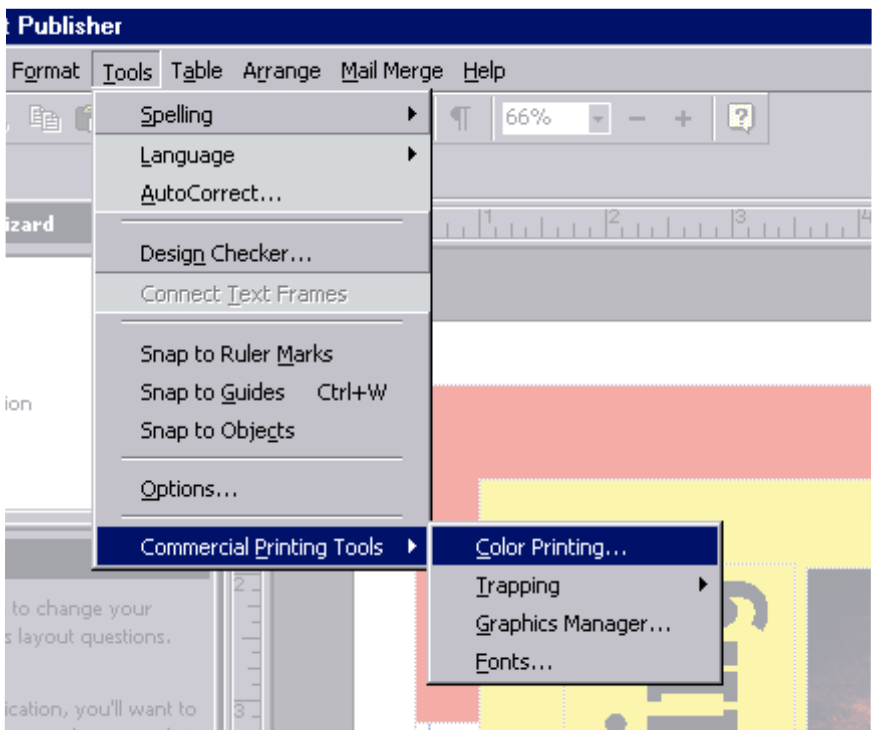

Figure 1 - The Color Printing menu

To convert your publication to Spot Color , use the following general steps:

- Click the **Tools** menu, point to **Commercial Printing Tools**, and then click **Color Printing** (Figure 2).
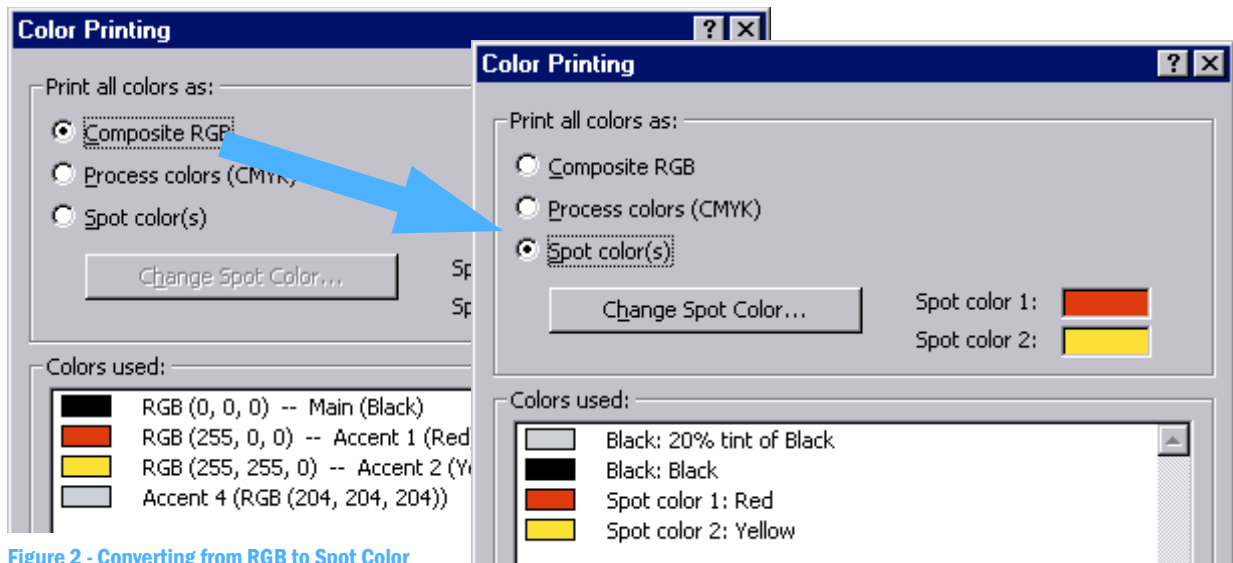
Figure 2 - Converting from RGB to Spot Color

- In the **Color Printing** dialog (figure 2, above), click the **Spot color(s)** button.

- Only one spot color will be activated by default—usually based on your "Accent 1" color. To get a second color (as shown above) you *must* immediately follow the next step.

- Select the **Change Spot Color** button, and choose the desired spot colors. Note that your accent colors will be among the choices. If you delay in selecting a second spot color, elements in other accent colors may be converted to black, and will have to be re-colored manually.

Important: If you choose Spot Color mode, you can no longer choose a Publisher color scheme in the Design Wizard. Graphics will usually be converted to black. You may re-color any of these inserted graphics, changing them to one of your spot colors, using the **Recolor Picture** command on the **Format** menu. The graphic changes to the spot color. As an option, black elements may be left unchanged. Although photographs may be colorized, using the Recolor Picture command, duotones are not supported in Publisher 2000. If Photoshop duotones are inserted, they will not print correctly.

To convert your publication to CMYK:

- In the **Color Printing** dialog, click **Process Colors (CMYK)** (Figure 3).

Notice that you can still select from Publisher's color schemes, but now the accent colors (as well as inserted graphics) are expressed as combinations of the four process colors: Cyan, Magenta, Yellow and Black.

The on-screen appearance of your job will be different from what it was in RGB. In some cases, colors may appear duller. However, you *must* select CMYK in order for your full-color job to separate and print accurately at a commercial or quick printer.
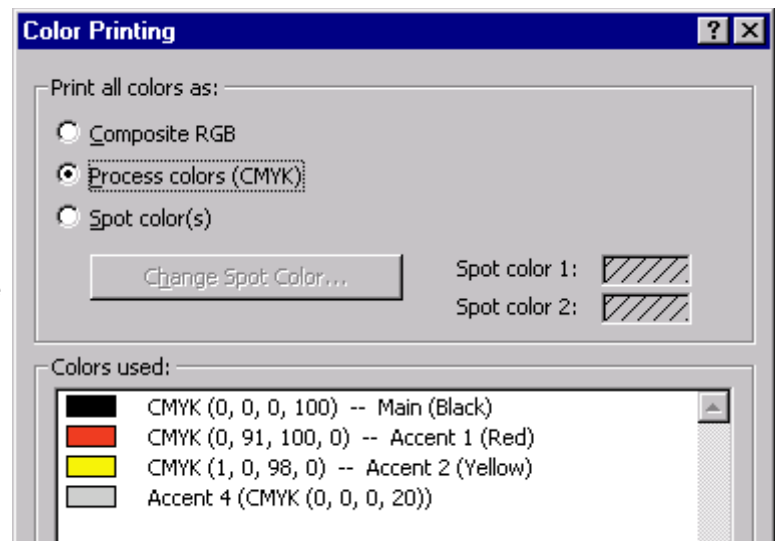
Figure 3 - Switching to Process color mode

TIP 4: DISCUSS COLOR MATCHING

Color-matching systems, or guides, are large collections of colors that are designed to reproduce well in commercially printed publications. Colors are usually identified by name or number, and solid (spot) colors are often referenced by coated and uncoated color numbers. When you use a color-matching system, you can pick a color and apply it to text, clip art, and other objects in your publication. If you choose a color from a color-matching system for your company logo, for example, different printing companies that support that color-matching system can print it and get consistent color reproduction.

Publisher supports the PANTONE MATCHING SYSTEM®. PANTONE is one of the most widely used color-matching systems in commercial printing. Before you specify PANTONE Colors in your publication, ask your printing service if they support the PANTONE MATCHING SYSTEM. If PANTONE is supported, use the following tips to decide which color library to use:

- If you're designing a publication that uses black plus one or two other colors, choose PANTONE Solid Colors (Spot colors).

- If you're designing a publication that uses color photos or art, choose PANTONE Process Colors.

- If you're designing a process-color publication and want to match an object that uses a spot color, you can convert a PANTONE Solid Color to the nearest matching process color.
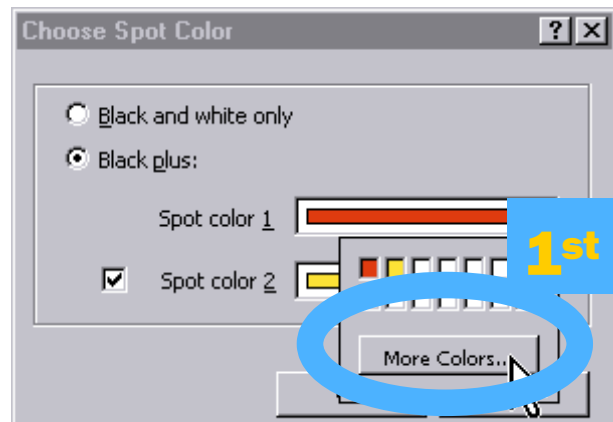
For detailed procedures, see "Choose a PANTONE spot color for a commercially printed publication" or "Specific a process (CMYK) or PANTONE process color" in Publisher Online Help.

- In the **Color Printing** dialog, click **Change Spot Color** and then click **More Colors** (1st).
- Be sure you are viewing **All Colors** (2nd).
- Change color model to Pantone (3rd).
- Select Pantone color (Page 6, 4th).
- Publisher will automatically select Pantone colors that are close to the accent colors from your color scheme. However, you can also choose a new color.
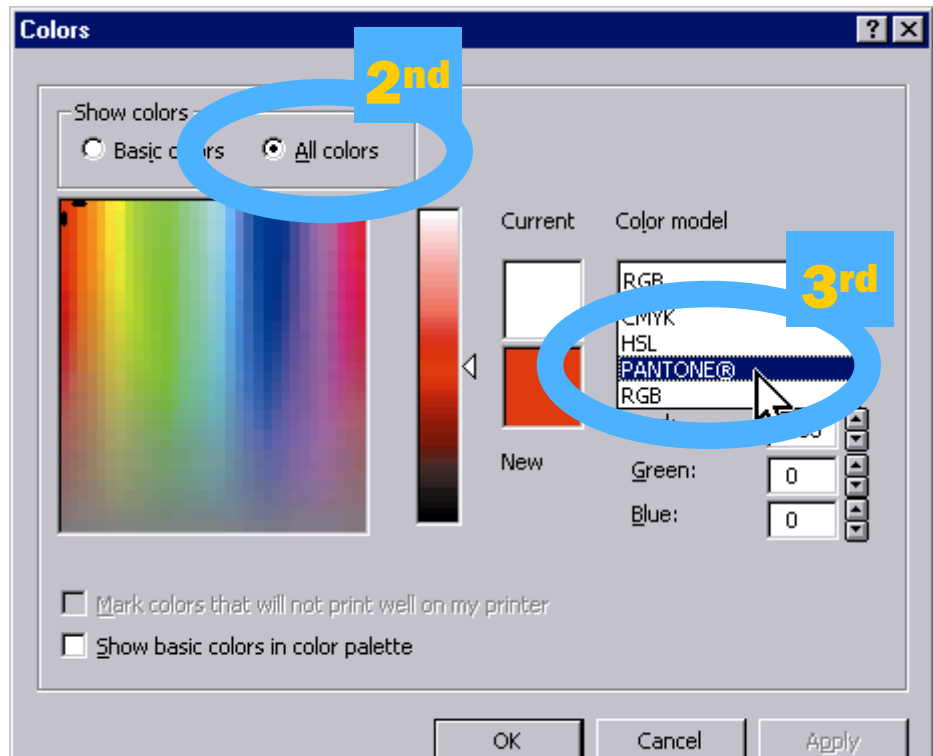
Your print service provider should have a reference book or chart that will show you what each Pantone color looks like when it is printed. It's always a good idea to discuss the use of Pantone with your printer before starting.

TIP 5: REPLACE PLACEHOLDER IMAGES IN WIZARDS

The publication wizards in Publisher (for example, the newsletter wizard) and photos in the Clip Gallery include low-resolution images that are suitable for desktop printing, but will not reproduce well in a high-quality printing environment. In print, these images may appear rough or "jaggy" -- especially if they are enlarged within Publisher.

If you plan to use photographs in your publications, scan them in (see Tip 5) or talk to your printer. You may also use print-ready images from a CD. If you are using EPS graphic files within your publication, you must link these images. For detailed procedures on using EPS files, see "Insert Linked Images in a Commercially Printed Publication" in Publisher Online Help.
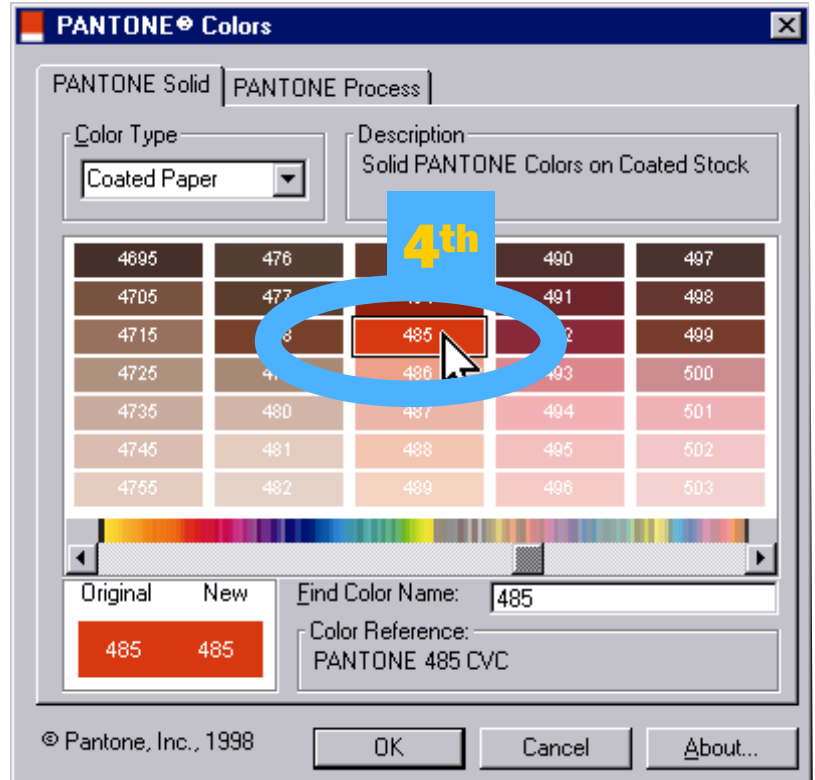
TIP 6: USE HIGH-RESOLUTION SCANS

Commercial and quick printers reproduce your photos as a series of halftone dots (see the illustration at right). To do this well, they must use scans with enough resolution (pixels per inch) to make a high-quality printed halftone. If the resolution is not high enough, the image will be jaggy. Use this formula when scanning your own photos:

- Ask your printer at what **halftone line screen** (in lines per inch) the photos will be printed.

- Multiply that number by **2**.

- If the photo will be enlarged in your document, multiply by the enlargement percentage. Use the resulting number as your **scan resolution** (in pixels per inch).

Example

Printer's halftone screen (*ask*) =	150 line
Times 2	x 2
	300
Times the magnification (twice the original size)	x 2
SCAN RESOLUTION =	600 ppi

Typical halftone resolutions are 85 (for newspapers), 100, 133, 150 and 200. A higher line screen will result in a large file, especially if you are going to enlarge the photo in Publisher. However, this is necessary if you want your photos to look good. Talk to your printer or service bureau for more help with scanned photographs.

TIP 7: DISCUSS GRAPHIC FILE FORMATS

Many of the color graphics found in the Microsoft Clip Gallery are in the Windows Metafile format (WMF). The picture shown below is an example. These images can be customized: for example, a different color can be assigned to the image using the **Recolor Picture** command on the **Format** menu. WMF images can also be enlarged without loss of quality.

Publisher 2000 usually can create good color separations from these files; however, some older imagesetters do not support WMF graphics. Be sure to ask your printer or service provider if these will output correctly. If your service bureau or printer do not support WMF images, you will need to resave these images in the Encapsulated PostScript (.eps) format, or the Tagged Image File format (.tif). To change WMF files, open them in the Windows versions of Adobe Illustrator or Macromedia FreeHand, make changes, if necessary, and export in EPS or TIFF format. Your print service provider may be able to do this for you. EPS images can be enlarged and still look good, but you cannot recolor EPS images within Publisher. TIFF images will appear rough or "jaggy" if they are enlarged within Publisher, but TIFF images can be re-colored to a single accent or spot color.

If you are using EPS graphic files within your publication, remember to link these images. If you do not link these images, they will be converted to WMF format during the Pack and Go unpacking process. For detailed procedures, see "Insert Linked Pictures in a Commercially Printed Publication" in Publisher Online Help.

TIP 8: ALWAYS USE "PACK AND GO"

Publisher 2000 includes the easy-to-use **Pack and Go** Wizard that will help you collect all the graphics, fonts and files your printer or service provider needs. After you've saved your document, click the **File** menu, point to **Pack and Go**, and then click **Take to a Commercial Printing Service**. The steps below outline the general procedure. For more detail, see "Pack Your Publication" in Publisher Online Help.
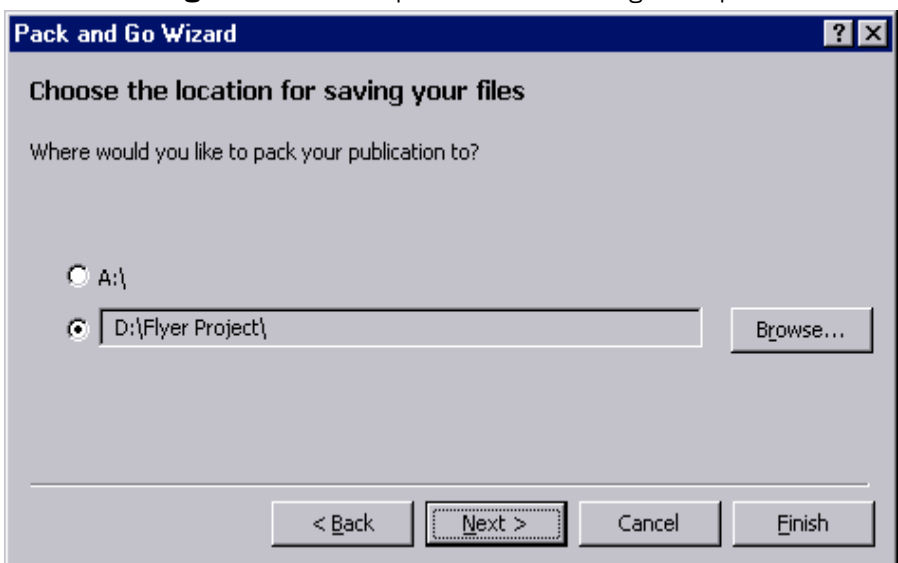
1. Choose a drive

Removable disks (Zip) and floppies can easily be delivered to your printer or service bureau. If you want to email your job, you can save the Pack and Go files to a directory on your hard drive.

2. Include fonts and graphics

Unless your printer tells you otherwise, *always* embed fonts and include linked graphics (Figure 4).

Embedding TrueType fonts will save you and your service provider hours of time.

When graphics are inserted in your publication, they can be *linked* to the file. If you forget to do this, don't worry (The only exception is EPS graphics. To insert EPS files correctly, you must select **Link to File** , instead of **Insert**, in the **Insert Picture** dialog box). **Pack and Go** lets you create external links for all embedded graphics.

Figure 4: Typically, the above three items should be left checked.

2. Pack the publication

After you have completed the previous steps, click **Finish** to copy and compress the files for your printer or service bureau. The **Pack and Go** wizard will create the following files:

- **unpack.exe** — This is a small software program your printer or service bureau will use to open and "decompress" your files. All he or she has to do is **double-click** the program icon, and all the required files will be copied to a specified location on their computer.

- **readme.txt** — This is a text file, explaining how to unpack your files.

- **packed01.puz** (and possibly **packed02.puz, packed03.puz**, etc.) — There will always be at least one puz file. These contain compressed versions of your Publisher job, inserted graphics and TrueType fonts.

When your printer or service bureau unpacks your job, he or she will have an exact copy of your Publisher 2000 file (with the letters "PNG" added to the file name), as well as all the inserted graphics and TrueType fonts required to reproduce the publication. This will greatly reduce the amount of time needed to produce your publication.

4. Print laser proofs

After your publication is successfully packed, you have the option to print a composite version and a color-separated version to your own inkjet or laser printer. This is always a good idea! These printouts represent the same version of the document that you just packed. Be sure to send the print-outs to the printer, along with your floppy or Zip disks. By following these simple guidelines, you will enable your printer or service provider to efficiently output your files.
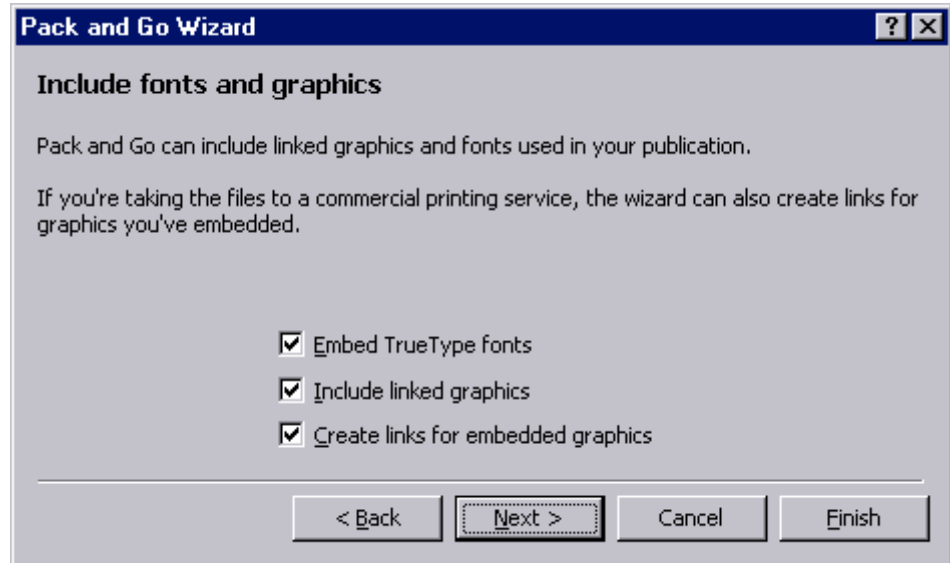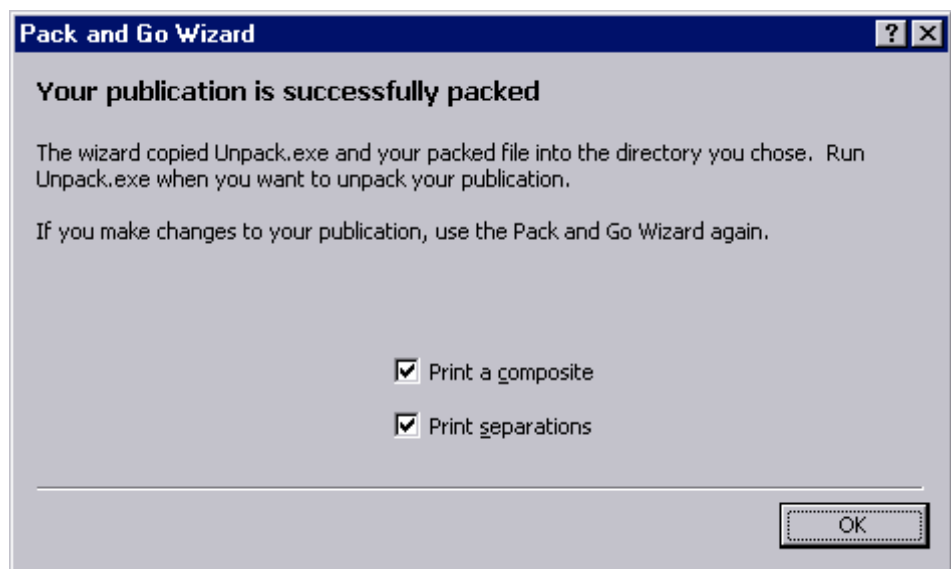

Figure 5: Print a composite proof to your desktop printer and provide to your printer.

TIP 9: PREPARING FONTS AND GRAPHICS FOR COMMERCIAL PRINTING

As discussed in TIP 7, the Publisher 2000 Pack and Go Wizard makes it easy for you to include the correct fonts and graphics in any publication you plan to send or take to a commercial printer — the wizard will embed TrueType fonts and link graphics so that the printer can reproduce them accurately. You'll need to keep in mind the following, however, when you're designing the publication:

■ Use TrueType Fonts

Although you can use either TrueType or PostScript fonts in your publication, it's may be best to use only TrueType fonts for two reasons:

- Publisher embeds TrueType fonts that are used in a publication when the fonts are not already installed with Windows, and have licenses that allow embedding. When you use the Pack and Go wizard to prepare your file for an outside printer, TrueType fonts are automatically embedded in the publication (all 200 TrueType fonts that came with Publisher 2000 have full license for embedding). Publisher cannot embed PostScript or other non-TrueType fonts in your publication. Check with your printer if you are using fonts other than TrueType.

- When you use TrueType fonts, your printing service can use all of Publisher's advanced features, such as trapping, to prepare your final file for printing.

■ Don't Apply Special Formatting to plain text; use a different font

For example, if you are using Arial font for the body text of your publication, but you need some larger, bold-face headings, use a font such as Arial Black or Helvetica Bold, for the headings. Doing so will ensure that your headings look crisp and accurate. When you apply special formatting such as bold and italic to a the Arial font, you've created a "synthetic font". Synthetic fonts may not print correctly.

■ Avoid copying and pasting text from other programs or from the Web

All the TrueType fonts that are included with Publisher provide full rights for embedding the font within your publication. If you copy and paste text into your Publisher publication, from another application or from the Web, you may be pasting a font that's not licensed for embedding. To avoid problems, be sure to change the font that you just copied into Publisher to a font that you are using in your publication. For example, your publication text is Arial. You copy a paragraph of Antique Olive text from a word processor file. Within Publisher, select the text and change the font to Arial.

■ Use original graphics that you import or insert; don't copy and paste

It's always tempting to simply copy a graphic that you like, for example, from the Web. It's very important, however, that you use original graphics in any publication that you plan to take to a commercial printing service; otherwise, the Pack and Go Wizard may not be able to link the graphic properly, which means that the printer won't be able to reproduce the graphic accurately. In addition, graphics copied from the Web are typically low-resolution images which will not reproduce well in commercial printing.

■ Refer to Publisher Online Help or the *Publisher Companion Guide*

For more information on preparing files for printing or the commercial printing process, refer to Chapter 3 and Chapter 6 in the *Microsoft Publisher 2000 Companion* guide, see Publisher Online Help.