Working with Transparencies

General Transparency Information

With improvement of software has come an increase in the use of transparencies, especially among those who create ads. Industry-wide, printing companies are striving to find balance with the designers' creativity and the mechanics of what will work in the pressroom. Publishers' goal is to have what is seen on-screen in the designer's office match what prints.

Transparency - an effect applied to an object which allows items beneath it to show through. Some examples of transparencies are: drop shadows, feathering, opacity of less than 100%, blending modes, inner/outer glow effect, and opacity masks. Figures 1-3 are examples of transparency.

Live Transparency - transparent attributes that have not been flattened. The transparent objects are fully editable in their native programs. The following file formats/programs may contain live transparencies:
- Adobe Illustrator 9, 10 and CS (.AI)
- Adobe InDesign 2 and CS (PDFs exported as 1.4 or higher.)

- Adobe Photoshop 6, 7 and CS (.PSD)
- Adobe Photoshop 6 or later (.TIFF)
- Adobe PDF 1.4 and later (PDFs from postscript files will be flattened.)

Flatten - convert all overlapping areas of transparent objects into a collection of opaque objects which retain the appearance of the original transparent object. The transparency is no longer live. The following formats do not support live transparencies:
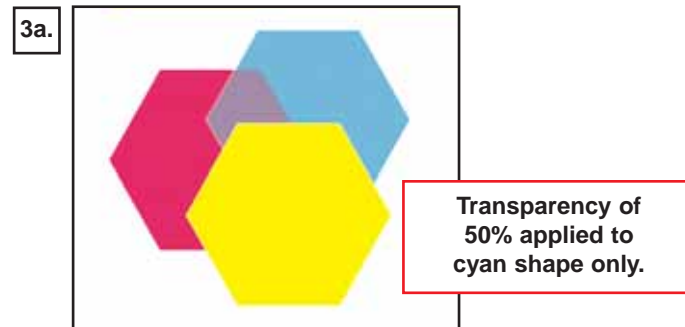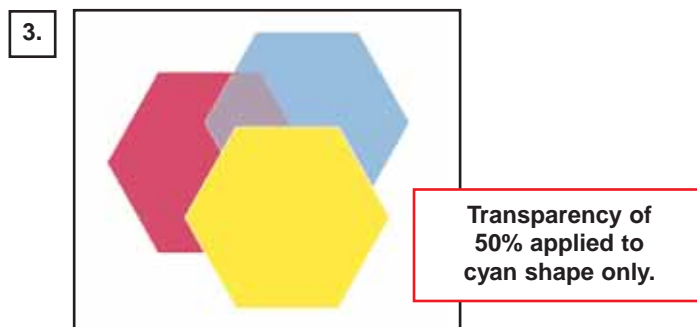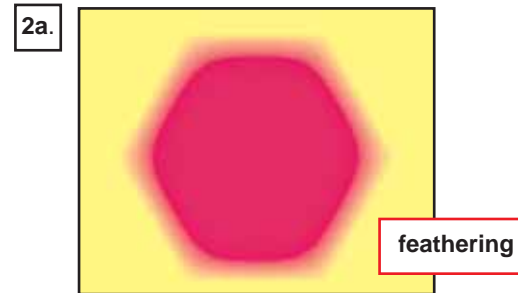- Postscript, .EPS, .DCS, .PDF 1.3, .GIF, .JPEG, .BMP, and .TIFF from Photoshop prior to version 6.
- Any PDF created in Acrobat Distiller from a postscript file.

Due to the inability of these formats to handle transparencies, they will be flattened in the creation of the file. Figures 1a-3a have been flattened.

Raster - to change vector graphics, fonts, gradients and gradient meshes into bitmap images. The image is no longer editable or searchable if used on the web.

Transparencies and InDesign Users on next page

Figures 1-3 are screen shots of live transparencies in InDesign CS.
Figures 1a-3a have been flattened by postscripting and distilling.

1. *Drop shadow*

1a. *Drop shadow*

2. feathering

2a. feathering

3. Transparency of 50% applied to cyan shape only.

3a. Transparency of 50% applied to cyan shape only.

Working with Transparencies, *Cont.*

InDesign Users

For best results when printing a document, all transparent objects in the file, as well as any linked files containing live transparencies, must be flattened.

There are two ways to tell if a transparency is being used in an InDesign document.

　1. A page icon on the **Pages** window has a checker board appearance if the page contains a transparency. (Figure 4)

　2. When Preflighting with InDesign, **File > Preflight**, the summary page will list any pages that contain transparencies. (Figure 5)
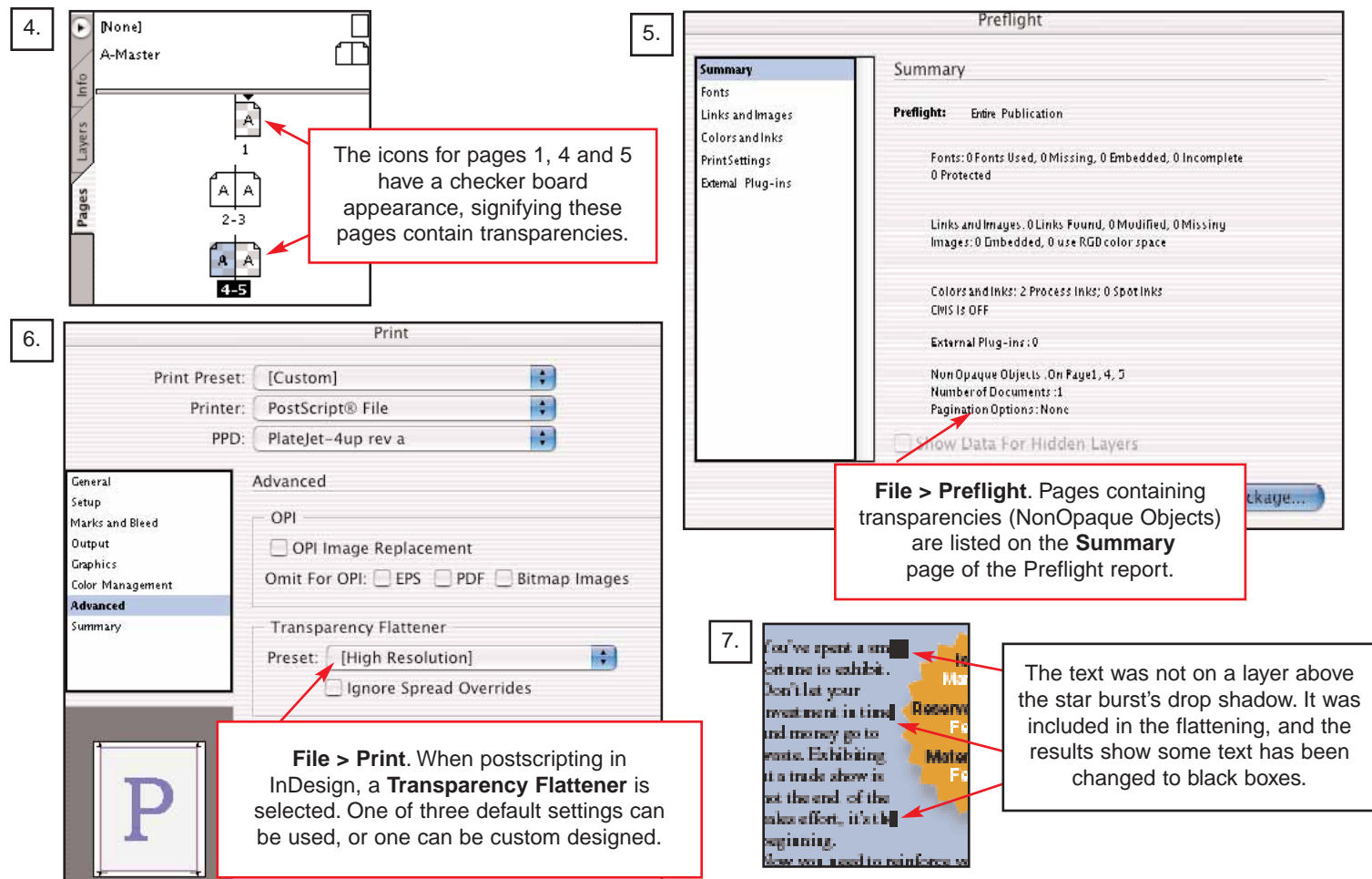
When postscripting in InDesign, transparencies are flattened. A **Transparency Flattener** setting is selected on the **Advanced** tab. (Figure 6) The recommendation is to select the default **High Resolution** setting.

Text and line art should be placed above all nearby sources of transparency for the best flattening. Ideally, place text and line art on a layer above the transparency. This will keep text and line art from being involved in the flattening. See Figure 7 for an example after flattening where text was on the same layer as the transparency.

Many ads sent to be placed in your publication may have been directly exported from an Adobe product. When placed into your InDesign document, they may contain a transparency. For best results, these will need to be flattened before being sent to Publishers for output. Flattening information begins on page UT-40.4.

　• When an advertiser exports an ad as a 1.3 PDF from InDesign, it will be flattened.

　• When an advertiser exports as a 1.4 or higher PDF from InDesign, all transparencies will be live and may not print as expected.

　• When an advertiser postscripts and distills, all transparencies will be flattened.

4. The icons for pages 1, 4 and 5 have a checker board appearance, signifying these pages contain transparencies.

5. **File > Preflight**. Pages containing transparencies (NonOpaque Objects) are listed on the **Summary** page of the Preflight report.

6. **File > Print**. When postscripting in InDesign, a **Transparency Flattener** is selected. One of three default settings can be used, or one can be custom designed.

7. The text was not on a layer above the star burst's drop shadow. It was included in the flattening, and the results show some text has been changed to black boxes.

Working with Transparencies, *Cont.*

QuarkXPress Users

If transparent artwork is to be placed in Quark, it must be flattened first. Quark, including version 6.5, does not handle transparencies. Transparencies placed in Quark become opaque. The resulting artwork may not match the original.

If an image containing a live transparency is placed into Quark, the transparency is not handled correctly. Figures 8-10 below contain live transparencies that have been placed into Quark. Compare them with Figures 1-3 on page UT-40.1. They will not print as the designer intended.

Many times an image with a live transparency placed into Quark is obviously wrong when the page is viewed on screen or the laser is printed. However, if the transparency is small, it may not be as noticeable when the image is placed and lasers are printed.

One way to become aware of ads/images containing live transparencies is to preflight. If a transparency is found, the best course of action is to have the ad sent back to be corrected. If that is not possible, the image will need to be flattened. How to flatten an image begins on page UT-40.4.

Preflighting for Transparencies

There are two programs Publishers recommends for pre-flighting PDFs.

1. PitStop, from Enfocus, is a plug-in for Acrobat that is useful for preflighting PDFs. (See UT-37, PitStop 6x.) The preflighting profile used can be edited to include an error report if the PDF contains any transparencies. (Figure 11)

8.

9.

feathering
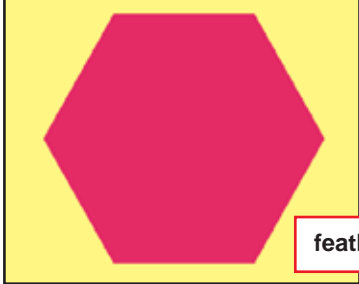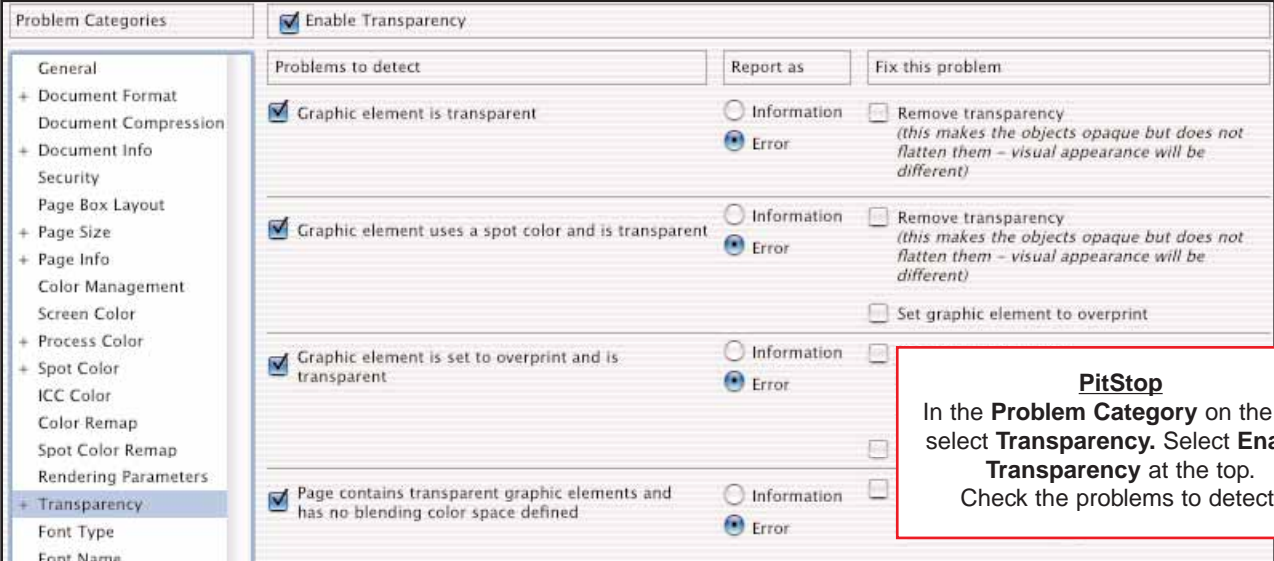
10.

Transparency of 50% applied to cyan shape only.

11.

PitStop
In the **Problem Category** on the left, select **Transparency.** Select **Enable Transparency** at the top.
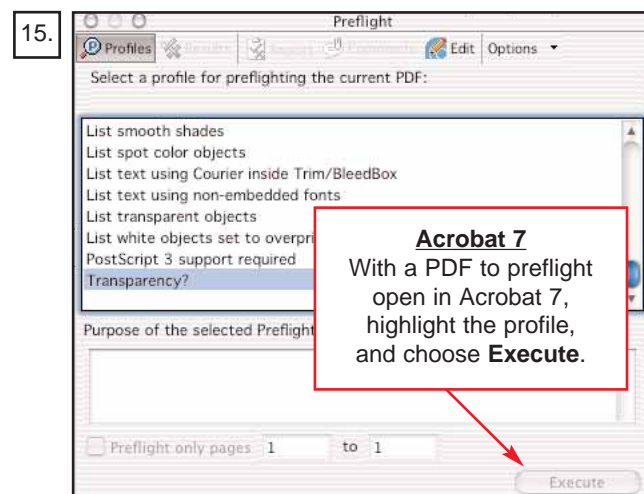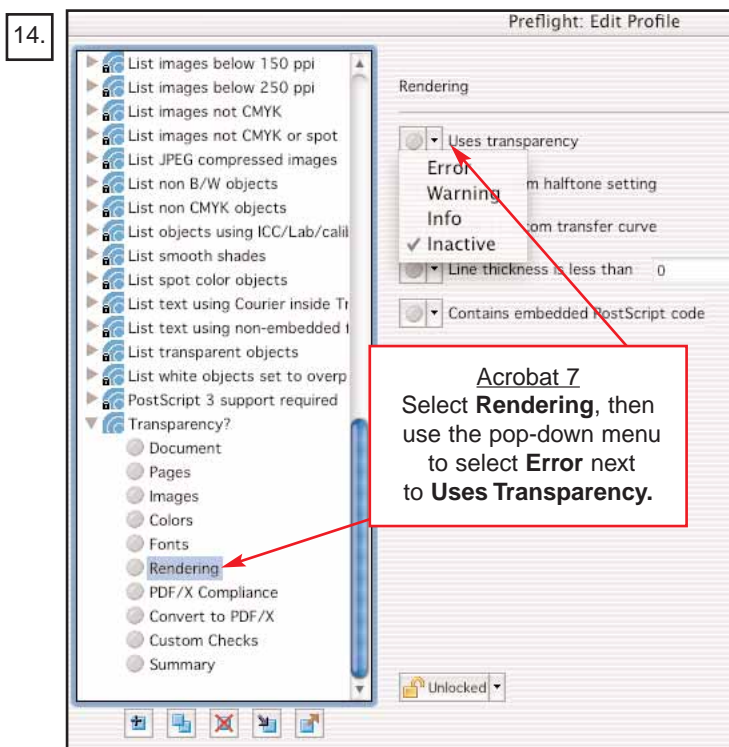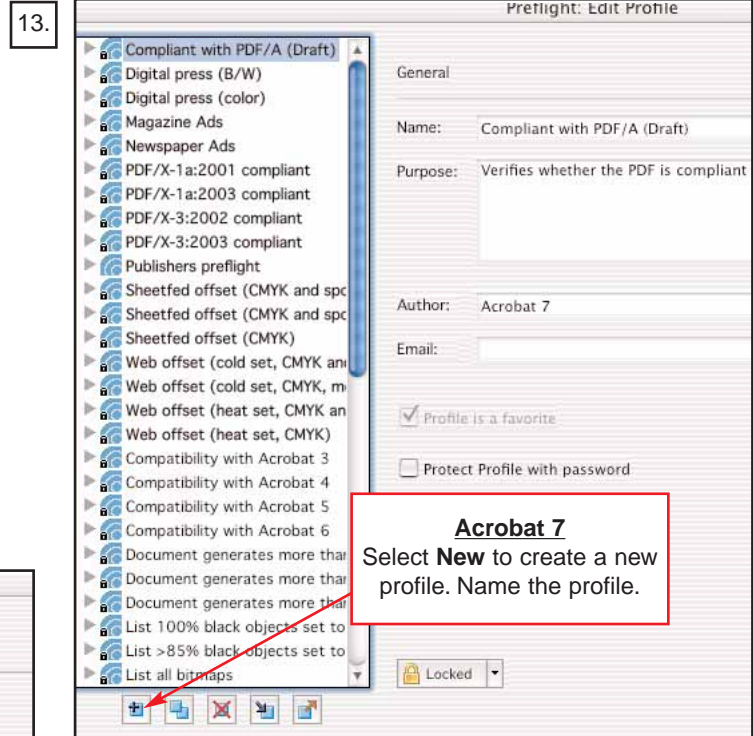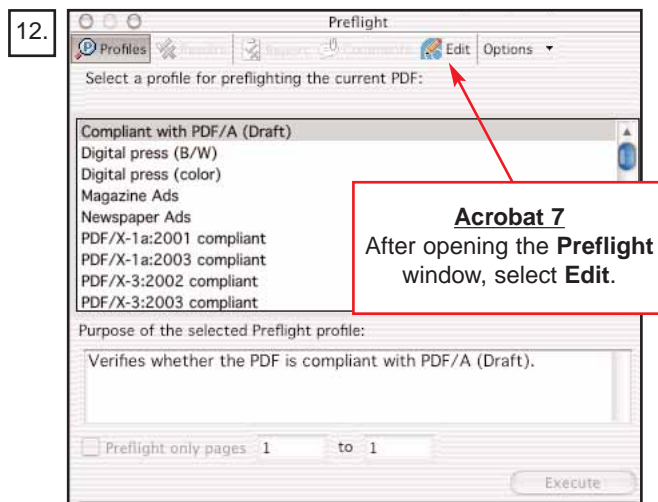Check the problems to detect.

Working with Transparencies, *Cont.*

2. Acrobat 7 is another preflight tool available to check for transparencies. **Advanced** > **Preflight** will open the **Preflight** window. A profile can be edited to error if there are transparencies in the PDF being preflighted. Below in Figures 12-15 are the steps to set a profile to error for transparencies. UT-41 contains instructions for creating a preflight profile in Acrobat 7. If interested, your Desktop Service Representative (DSR) can supply you a copy.

Flattening Transparencies
Graphic programs can be used to flatten transparencies. The program you choose is up to you. Keep in mind that live transparencies placed in Quark will not print correctly - they need to be flattened first. Live transparencies placed in InDesign will be flattened when postscripted. The recommendation is for ALL transparencies to be flattened.

12.

Acrobat 7
After opening the **Preflight** window, select **Edit**.

13.

Acrobat 7
Select **New** to create a new profile. Name the profile.

14.

Acrobat 7
Select **Rendering**, then use the pop-down menu to select **Error** next to **Uses Transparency.**

15.

Acrobat 7
With a PDF to preflight open in Acrobat 7, highlight the profile, and choose **Execute**.

Working with Transparencies, *Cont.*

Flattening with Adobe Acrobat 7

The PDF Optimizer can be used to flatten an image in Acrobat 7. This same tool can be used to reduce the version of a PDF that is higher than a 1.4 so it can be placed into Quark. To access the **PDF Optimizer**, choose **Advanced > PDF Optimizer**. (Figure 16) Open the PDF to be flattened. Make the selections in Acrobat 7 as they are shown in Figures 17 - 23. Once the selections have been made, they can be saved as a **Preset Setting** to be used without having to choose the settings again.

First, make two general selections: (Figure 17)
- For **Preset**, select **Custom**.
- For **Make compatible with:**, select **Acrobat 5.0 and later.**

Next, choosing one item at a time from the list on the left, make the appropriate selections.

1. Images (Figure 17) -
> **Color Images** and **Grayscale Images**:
>> Downsample - Off
>> Compression - JPEG
>> Quality - Maximum
> **Monochrome Images** -
>> Downsample - Off
>> Compression - CCITT Group 4
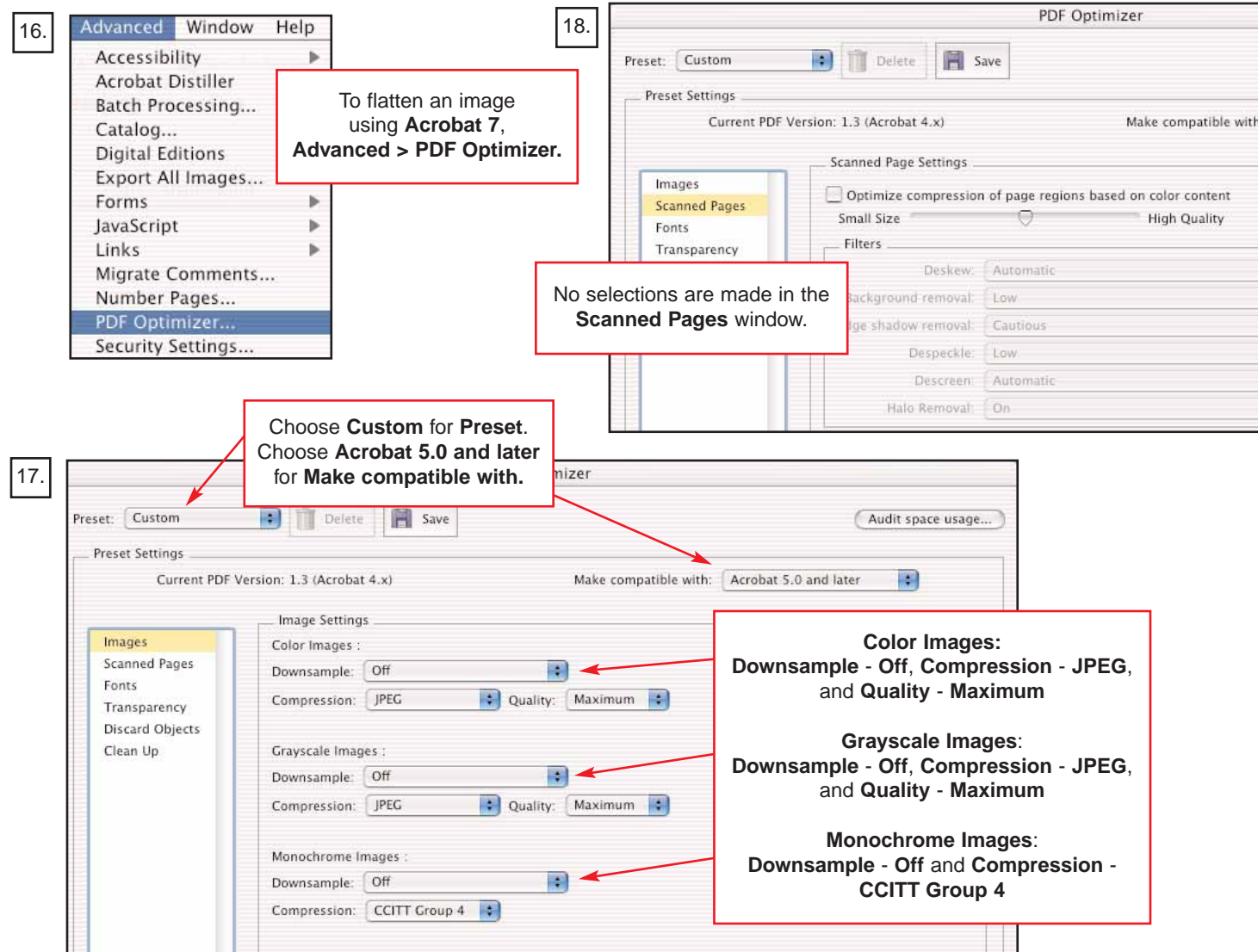
2. Scanned Pages (Figure 18) -
> No selections are made in this window.

16.

To flatten an image using **Acrobat 7**, **Advanced > PDF Optimizer.**

18.

No selections are made in the **Scanned Pages** window.

Choose **Custom** for **Preset**. Choose **Acrobat 5.0 and later** for **Make compatible with.**

17.

Color Images:
Downsample - Off, Compression - JPEG, and **Quality - Maximum**

Grayscale Images:
Downsample - Off, Compression - JPEG, and **Quality - Maximum**

Monochrome Images:
Downsample - Off and **Compression - CCITT Group 4**

Working with Transparencies, *Cont.*

Flattening with Adobe Acrobat 7, *cont.*

3. Fonts (Figure 19) -

There should not be any fonts listed to unembed. ALL fonts must be embedded in the PDFs.

4. Transparency (Figure 20) -
  Flatten transparency - Select this option.
  Raster/Vector Balance - Type in **100**.

Line Art and Text resolution - Type in **1200**.
Gradient and Mesh resolution - Type in **300**.
Convert All Text to Outlines - Deselect this option.
Convert All Strokes to Outlines - Deselect this option.
Clip Complex Regions - This option should be grayed out.
  Preserve Overprint - Select this option.

Flattening Transparencies continued on next page

This window needs to be empty. Do not list any fonts to be unembedded.

Select the box next to Flatten transparency.

For Raster/Vector Balance, type in 100.

For Line Art and Text resolution enter 1200.

For Gradient and Mesh resolution, enter 300.

Deselect Convert All Text to Outlines and Convert All Strokes to Outlines.

Clip Complex Regions will be grayed out.

Select Preserve Overprint.
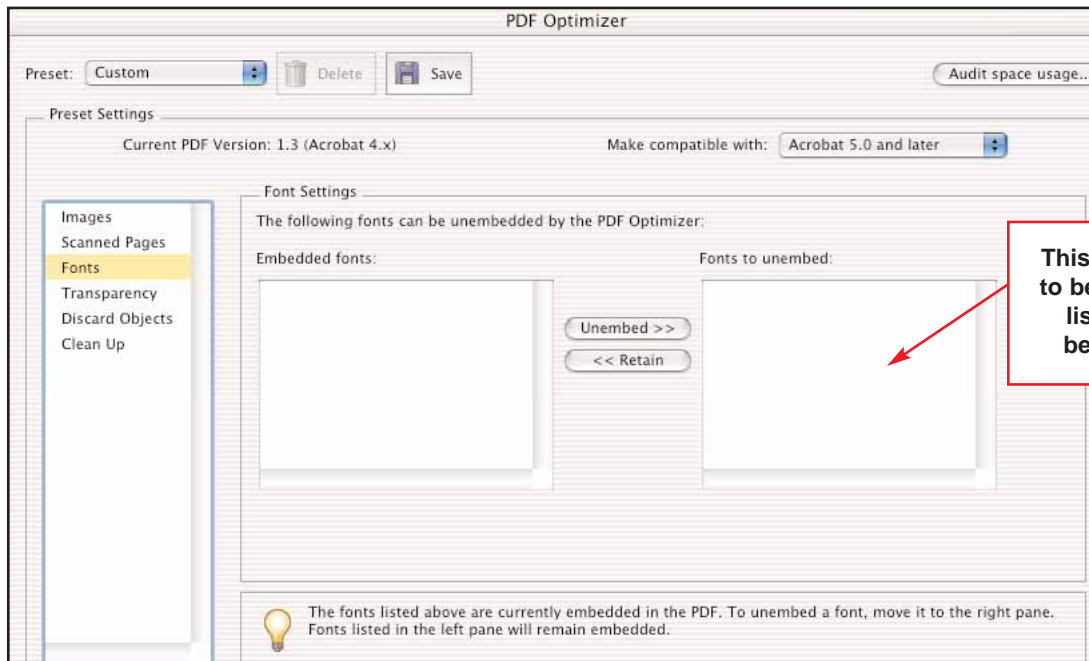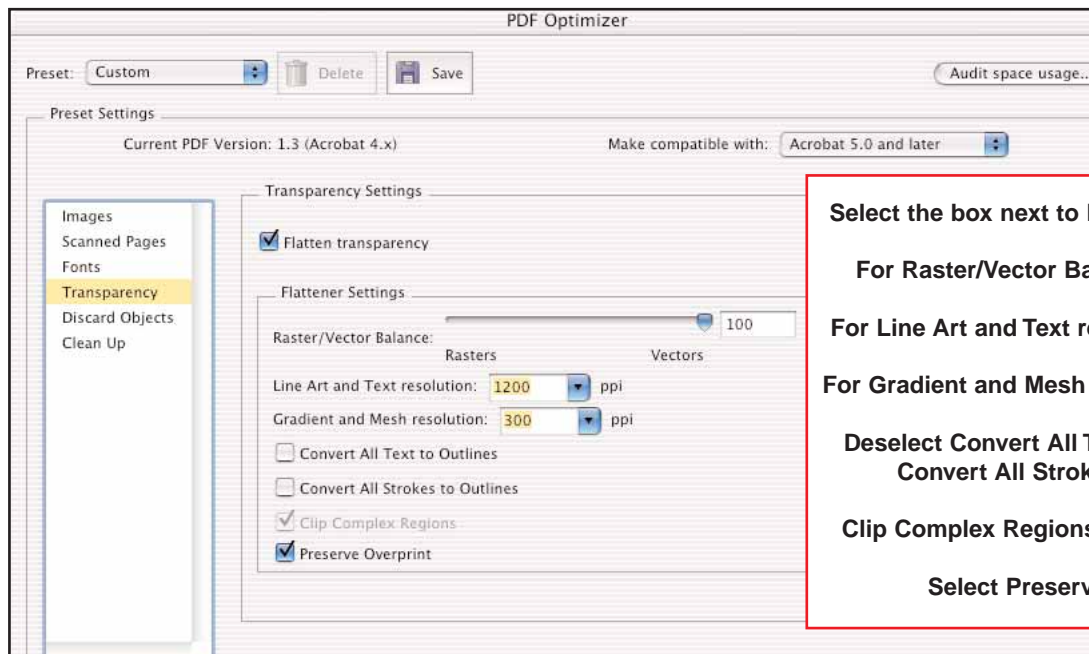
Working with Transparencies, *Cont.*

5. Discard Objects (Figure 21) -
    Discard all alternate images. Select this option.
    Discard hidden layer content and flatten visible layers. Select this option.

6. Clean Up (Figure 22) -
    Object compression options: Choose **Compress document structure**.
    Clean Up Settings: Select the following:
        Remove invalid bookmarks
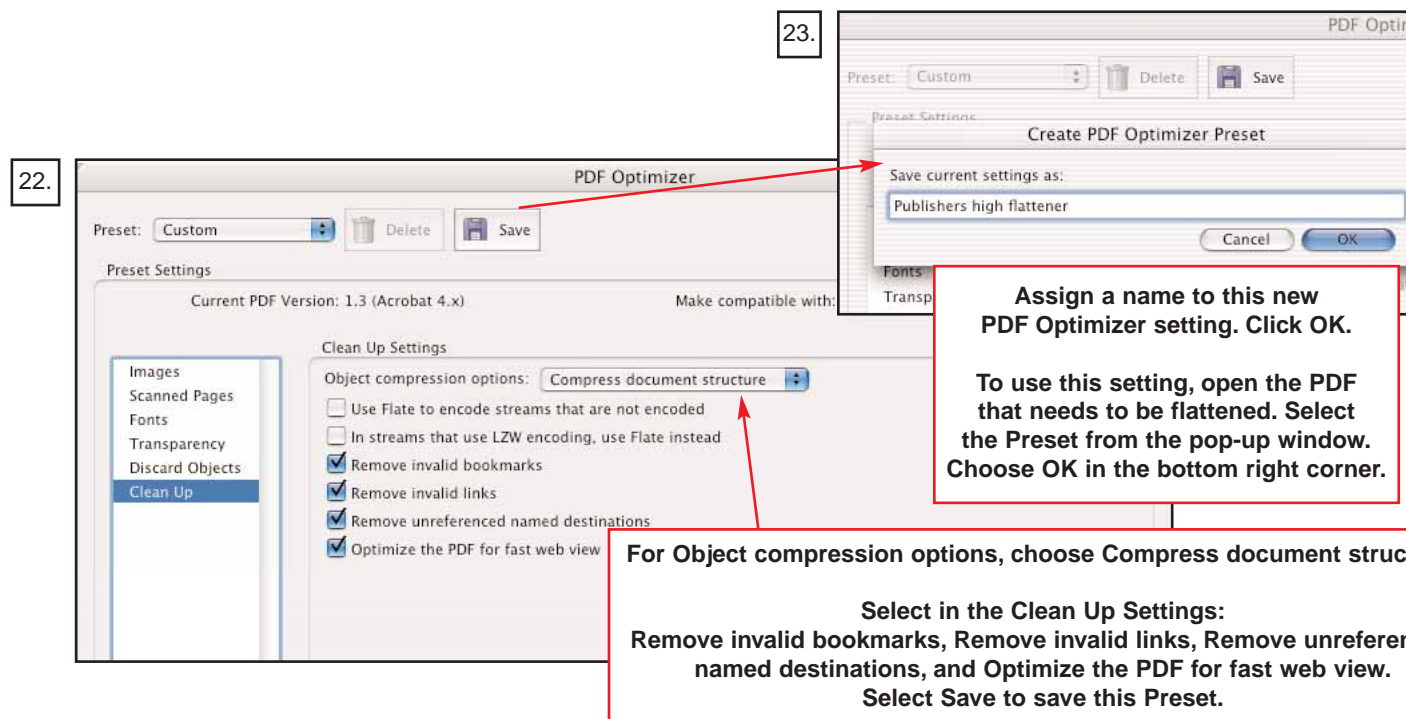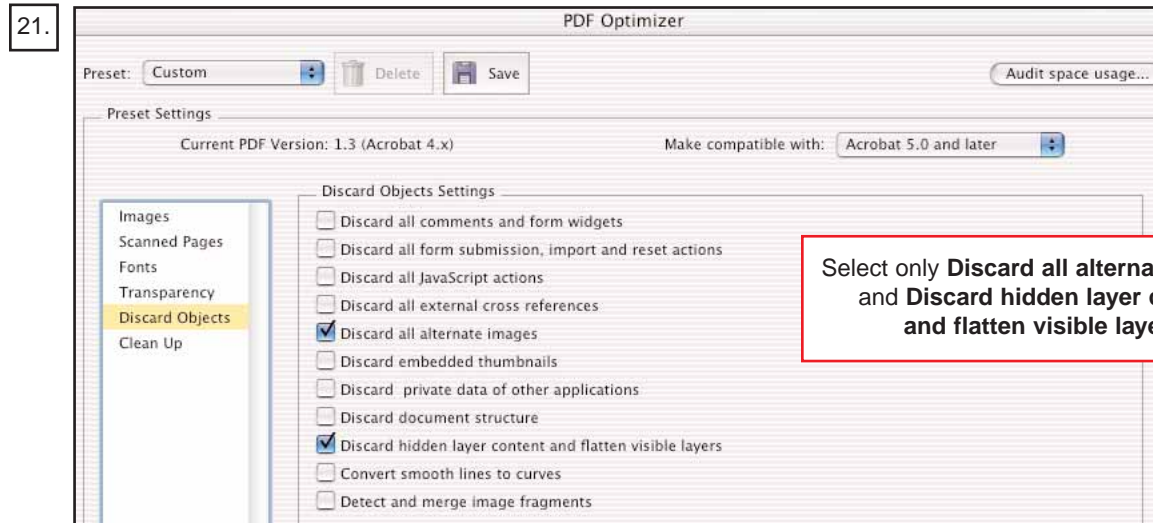   **Remove invalid links**

        Remove unreferenced named destinations
        Optimize the PDF for fast web view.

To save this setting, choose **Save**. Give the setting a name, and click **OK**. (Figure 23)

To use the setting, with the PDF open that is to be flattened or have the version reduced, choose the setting from the pop-up window, and click **OK** in the bottom right corner. Compare the flattened image with the original before placing it in the page program.

Flattening Transparencies continued on next page

21. PDF Optimizer

Select only **Discard all alternate images,** and **Discard hidden layer content and flatten visible layers.**

23.

Create PDF Optimizer Preset

Save current settings as:

Publishers high flattener

Assign a name to this new PDF Optimizer setting. Click OK.

To use this setting, open the PDF that needs to be flattened. Select the Preset from the pop-up window. Choose OK in the bottom right corner.

22. PDF Optimizer

For Object compression options, choose Compress document structure.

Select in the Clean Up Settings:
Remove invalid bookmarks, Remove invalid links, Remove unreferenced named destinations, and Optimize the PDF for fast web view.
Select Save to save this Preset.

USER TIPS

Working with Transparencies, *Cont.*

Flattening with Illustrator CS

PDFs and .AI files with live transparencies can be flattened using Illustrator CS. Select the image(s) to be flattened or have **All selected**. To open the window needed to flatten the image, **Object** > **Flatten Transparency**. (Figure 24) Then make the following selections as shown in Figure 25:
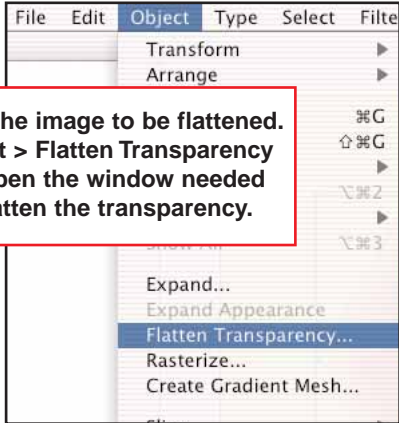
Raster/Vector Balance - enter 100.
Line Art and Text Resolution - enter 1200.
Gradient and Mesh Resolution - enter 300.
Convert All Text to Outlines - deselect this option.

Convert All Strokes to Outlines - deselect this option.
Preserve Alpha Transparency - deselect this option.
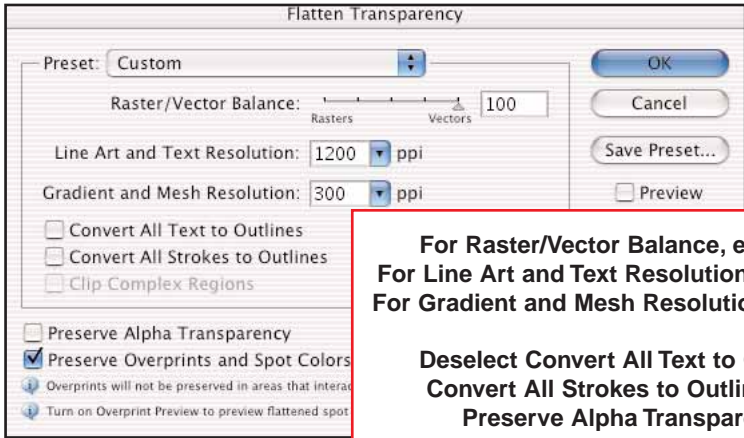**Preserve Overprints and Spot Colors** - select.

To save this flattening preset, select **Save Preset**. (Figure 26) Assign a name to the preset, and click **OK**.

To use the preset, with a file open and the transparency selected, choose the preset from the pop-up window, and click **OK**. (Figure 27) Compare the flattened image with the original before placing it in the page program.

Figure area.

Flattening Transparencies continued on next page
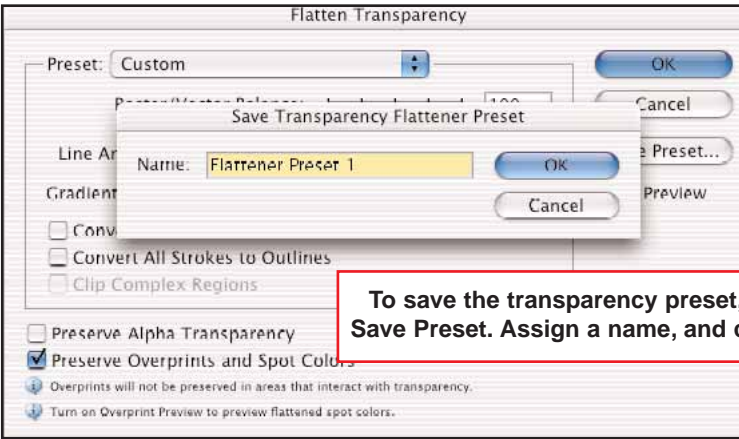
24. Select the image to be flattened. Object > Flatten Transparency will open the window needed to flatten the transparency.
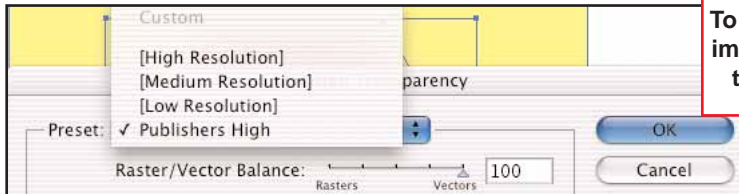
25. For Raster/Vector Balance, enter 100. For Line Art and Text Resolution, enter 1200. For Gradient and Mesh Resolution, enter 300.

Deselect Convert All Text to Outlines, Convert All Strokes to Outlines, and Preserve Alpha Transparency.

Select Preserve Overprints and Spot Colors.

26. To save the transparency preset, select Save Preset. Assign a name, and click OK.

27. To use the preset to flatten a transparency, with the image open and the transparency selected, choose the preset from the pop-up menu, and click OK.

Working with Transparencies, *Cont.*

Flattening with Photoshop version 5.5 - CS

Images can be flattened using Photoshop. When the image is opened in Photoshop, it will be rastered. The file will become a bitmapped image; it will no longer be editable. This file size is usually larger than the original file size.

When the file is opened, if prompted, make the appropriate selections (Figure 28):

> **Resolution** - **300**
> **Mode** - **CMYK Color**
> **Anti-aliased** - select
> **Constrain Proportions** - select

To flatten the file, no matter what version of Photoshop you are using, **Layer** > **Flatten Image**. Shown in Figure 29 is Photoshop CS. There are no selections to be made. All transparencies in the file will be flattened when **Flatten Image** is chosen. Select either **Save** or **Save As**. Compare the flattened image with the original before placing it in the page program.

28.

Rasterize Generic PDF Format

Image Size: 32.1M

Width: 8.5 inches
Height: 11 inches
Resolution: 300 pixels/inch
Mode: CMYK Color

☑ Anti-aliased ☑ Constrain Proportions

OK
Cancel

**For Resolution, enter 300.
For Mode, choose
CMYK Color.**

**Select Anti-aliased and
Constrain Proportions.**

29.

it Image Layer Select Filter View W

To Fit   Igno
1.psd @ 16.

New ▶
Duplicate Layer...
Delete ▶

Layer Properties...
Layer Style ▶

New Fill Layer ▶
New Adjustment Layer ▶
Change Layer Content ▶
Layer Content Options...
Type ▶
Rasterize ▶

New Layer Based Slice

Add Layer Mask ▶
Enable Layer Mask

Add Vector Mask
Enable Vector Mask

Create Clipping Ma
Release Clipping Ma

Arrange
Align Linked
Distribute Linked ▶

Lock All Layers In Set...

Merge Layers ⌘E
Merge Visible ⇧⌘E
Flatten Image

**To flatten the image,
Layer > Flatten Image.**

**As soon as Flatten Image
is selected, the image is
flattened - there are no
selections to make.**