



# ***Transparency in Adobe Applications -New Highlights***

## **Improvements in the Flattener**

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Newer technology has minimized the problems relating to printing and the handling of transparency, such as undesired color conversions, rasterization of elements, artifacts, slow print and processing times.

## **Adobe PDF Print Engine**

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Enabling technology from 3rd party vendors, is based on the PDF/X4 standard, which supports transparent artwork and effects, as well as layers (not based in postscript). When creating PDF files for print production-especially if the RIP or workflow system is based on the Adobe Print Engine you should choose PDF/X4 as your file format for best results.

## **Postscript Level 3 RIPs**

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With built in support for PDF 1.4 specification can print transparency without requiring additional changes. Postscript level 2 and older RIPs which don't support transparency require adjusting transparent objects in order to print.



# *Creating Transparency*

## Photoshop Native Files



**Opacity**

**Blend Modes**

## Illustrator Native Files



**Opacity**

**Blend Modes**

**Drop Shadow**

**Feather**

**Brushes/Live Effects/Styles**

## InDesign Files



**Native Transparency**

**Created in InDesign**

**Page Elements-Drop**

**Shadow, Blend, Opacity,  
Effects**

**Placed Files with**

**transparency, InDesign,  
Photoshop, Illustrator and  
PDF**

**PDF's with Transparency  
from original  
applications**





# Transparency in InDesign

## Feathering-Basic, Directional, Gradient

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## Blend Modes

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Multiply



Screen

## Drop Shadow/Effects

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## Native Transparency from other Adobe applications

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## Opacity

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100%



80%



60%













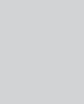


40%



Placed PSD file reading transparency, no clipping path



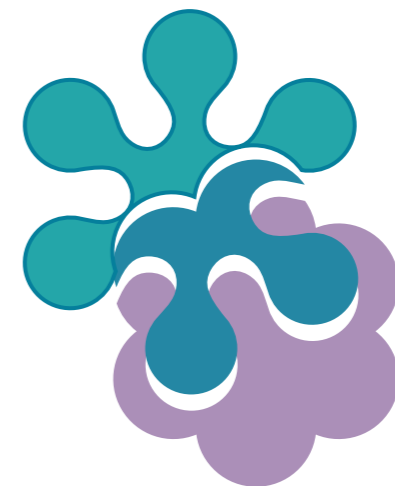
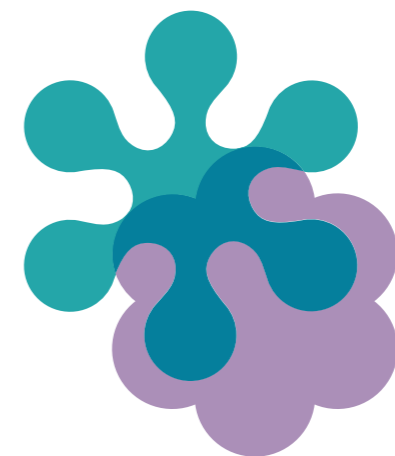
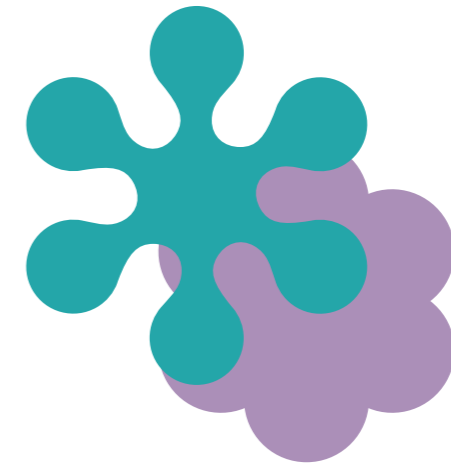
# Live vs. Flattened Transparency

Live Transparency- can be edited	Flattened Transparency
	 EPS
<p>Photoshop (.psd), layered TIFF, Photoshop PDF</p>	 DCS
	 JPEG
<p>Native Illustrator 9-10, CS, CS2, CS3 (.ai); PDF 1.4 above</p>	 GIF
	 BMP
<p>Native InDesign files-2, CS, CS2, CS3 (.indd)</p>	 Photoshop 6 TIFF
	 Postscript
<p>PDF 1.4, 1.5, 1.6, 1.7 (Acrobat 5-8) (.pdf)</p>	 All PDFs from Distiller
	 PDF 1.3 (Acrobat 4)



# ***Transparency and Flattening***

**The process of flattening converts all of the overlapping and intersecting elements in a group of transparent objects into a collection of opaque elements that appear the same as the original. Flattening cuts apart transparent areas to represent overlapping areas as discrete pieces that are either vector objects or rasterized areas.**





# ***Determining if an Object will be Flattened***

- **Any object that is a source of transparency or interacts with transparency will require flattening**
- **Sources of Transparency**
  - Opacity of less than 100%
  - Opacity Mask-Illustrator
  - Inner/Outer Glow Effects-Illustrator
  - Blend mode other than normal
  - Drop shadow or feather
  - Effects-InDesign
  - Fill or stroke has a style, brush, pattern or filter effect that have any of the previous properties
  - Placed PSD file (native, PDF or Tiff) with transparent background
  - Placed AI file (native or PDF) that contain one or more of the objects above
- **Objects Interact with Transparency if:**
  - Source of Transparency
  - Overlapped by a source of transparency
  - Is very close (usually within 1 point) of a source of transparency and beneath it in stacking order (including objects on other layers)



# ***Controlling the Flattener***

- Needed when printing or exporting from Illustrator, InDesign or Acrobat\*.
- Controls whether objects are rasterized or remain in vector form.
- If objects are rasterized, their resolution.
- How type and strokes are processed and whether they are converted to outlines.
- Whether complex regions are clipped using clipping paths around parts of the transparent design.
- How overprinting and spot colors are handled (Illustrator)
- Invoked During Export to PostScript-based Format  
EPS (Encapsulated PostScript)  
File > Print  
Acrobat 4.0 (PDF 1.3: this includes PDF/X-1a) and distilled PDF
- Ignored in Export to Acrobat 5.0 (PDF 1.4) or Above  
Acrobat 5.0 and above supports live, unflattened transparency as well as PDFX/4



# ***Flattener Settings and Styles***

## **• Flattener Styles-used in InDesign 2-CS3, Illustrator CS-CS3 and Acrobat 8 Professional**

- **Low Resolution Setting, on-screen proofing**
- **Medium Resolution Setting, desktop printing, up to 300 dpi; Default settings in all applications, not sufficient for commercial printing or high resolution devices.**
- **High Resolution Setting, printing press or 1200 dpi setting.**
- **Recommended custom flattener settings-**
  - Raster/Vector Balance Slider-determines how hard the flattener works to keep objects in their vector form in the flattened output. All the way to 100 recommended.**
  - Line art resolution-Rasterized Text and Vector Art. Should be the same as device resolution: e.g., 2400 ppi but can cut processing time by using 1/2 of final resolution**
  - Gradient mesh resolution-Generated Shadows and Feathering. Should be the same as general image resolution: e.g., 300 ppi, not larger than 300 ppi**
  - Leave clip complex paths selected to minimize stitching.**
  - Convert Text to Outlines/Strokes to Outlines**
- **Transparency Blend Space: Document Color Space (usually CMYK)**



# ***Flattener Previews***

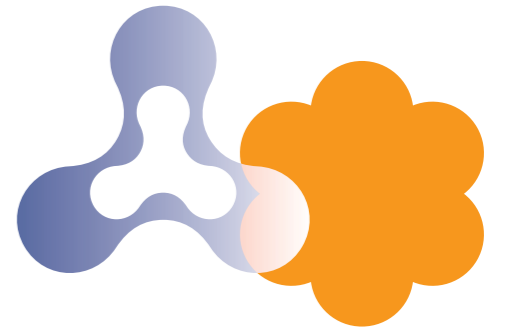
- **Useful to check for rasterized text and vectors**
- **Useful as a guide for fixing files**
- **Available in:**
  - Illustrator CS1/CS2/CS3**
  - InDesign CS1/CS2/CS3**
  - Acrobat 6, 7, 8 Professional**





# ***Overprint Preview***

- **Available in Illustrator, InDesign and Acrobat.**
- **In addition to applying blending modes to overlapping objects, you can overprint objects that are in front of other objects. In InDesign you can select from attributes palette or when setting up colors to have them overprint. Overprint black default setting in InDesign.**
- **In order to correctly view many blend modes you need to preview in Overprint Preview. Always check your files in Overprint preview if you have used transparency effects in Illustrator, InDesign and Acrobat.**
- **Reader 7 and 8 have preferences to turn on Overprint Preview**





# ***Illustrator Shadows***

- **Filter>Stylize>Drop Shadow** creates and embeds an image
- **Effect>Stylize>Drop Shadow** is a live effect: it can be changed
- **Resolution of shadows:**  
**Effect>Document Raster Effects Settings**
- **Illustrator Effect shadows** behave correctly in InDesign
- **Can apply spot color to drop shadows in Illustrator, see separation preview**





# ***Illustrator Settings***

- **Additional Document Raster Effects Setting-setting** determines the resolution to all Illustrator raster effects, including drop shadows and feathered edges. **Effect>Document Raster Effects Settings.**
- **Can flatten individual objects in Illustrator-Object>Flatten Transparency**
- **Preserve Overprints and Spot Colors-unique to Illustrator**
- **New document presets in Illustrator CS3-Creating new print document automatically sets the raster resolution of 300 ppi and CMYK print mode**



# *Exporting Files*

- **Illustrator**

Be sure that if you are exporting Illustrator files as PDF (below Acrobat 5 or PDF 1.3) or saving as EPS to be placed into other page layout software or printed from those formats that you set the transparency flattener to a setting compatible for expected output. High resolution for print or ask your service provider for their settings.

- **InDesign**

Be sure that if you are exporting from InDesign to PDF (below Acrobat 5 or PDF 1.3), eps or printing to postscript formats that you set the transparency flattener to a setting compatible for expected output. High resolution for print or ask your service provider for their settings.

- **PDF**

Be sure that if you are providing an exported PDF (below Acrobat 5 or PDF 1.3) for commercial printing that you set the transparency flattener to a setting compatible for expected output. High resolution for print or ask your service provider for their settings. Note: Adobe PDF 1.4, PDF 1.5, PDF 1.6 and 1.7 files created using Distiller do not contain live transparency because Distiller operates on PostScript, which can only contain flattened transparency.



# ***Proofing Files***

- **Print proofs before final output**
- **Proof with Overprint Preview turned on, during screen proofing**
- **Ensure you have looked at your file with the transparency flattener preview.**



# ***Additional Notes***

## **Shadow Over Spot Color**

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**If you see a white box, representing the entire frame of where the shadow should be then ensure that postscript printing is turned on in the RIP and/or contact your vendor for a patch.**

**Also double check the file with overprint preview turned on or ensure you have exported to Acrobat 5 or above.**



# ***Designer's Best Practices***

## **Stacking Order**

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Move objects to the top/front of the stacking order if they do not have transparency effects applied or place on the top layer. Keep text on the top most layer or stacking order for faster print times and to minimize rasterization.



## **Avoid Mixing Color Spaces**

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Make sure you have the correct Transparency Blend Space selected, CMYK for Print and RGB for Web.

Try not to mix RGB and CMYK files inside the applications when using transparency.

## **Opacity vs. Tint Percentages**

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Use tint percentages 50% tint versus opacity slider to lighten.



# *Importing Files Into InDesign*

- **Import Native File formats into InDesign when possible.**  
Greater control at print time, flattening at last stage
- **Use the best tool for each job**
  - **Photoshop** – bitmap image editing
  - **Illustrator** – vector-based artwork
  - **InDesign** – page assembly
- **Reduce your file load and save disk space**
- **Change your mind whenever you want**

Use native file formats to keep transparencies live and editable.

Photoshop



.PSD & .PDF

Illustrator



.AI & .PDF

InDesign



.INDD



# ***Best Practices for Designers***

## **Drop Shadows**

Don't set the Blur value to 0. If you do, the shadow will be hard-edged instead of soft, and the edge of the shadow will be bitmapped/jagged.

## **Blend Modes**

Be sure to view blend modes under overprint preview to ensure they produce desired results.

- **Make sure your printer and you are using the latest versions of Adobe software (CS3).**
- **Good communication with your printer is key.**
- **Ask your printer for their flattener styles or pdf styles.**
- **Send your printer some test files if using complex transparency.**



# ***Best Practices for Designers***

## **Text, Typography, and Transparency**

Avoid using type that's too small or too fine when applying transparency effects.

## **Spot Colors and Transparency**

Avoid using the Difference, Exclusion, Saturation, Luminosity, Color, and Hue Blend Modes with Spot Colors.

Be sure to preview transparency used with spot colors and blend modes in overprint preview mode to verify desired results.

To minimize problems relating to spot colors, delete all unused spot colors before you export or print.

## **OPI Workflow**

Must have high resolution images to work properly with transparency-fatten before you flatten.



# ***Best Practices for Printers***

- **Must have Postscript 3015+ in the RIP**
- **Turn ON “PostScript Overprint” on the RIP. Transparency Flattening exploits this PostScript operator. You should never use a RIP’s “discard overprint” option when dealing with transparency.**
- **Get Current Vendor Patches for Your RIP**
- **Create a Flattener Preset Suitable for Your RIP**
- **Preflighting for Transparency**
  - Check for Stacking Order—Put Text on Top**
  - Check for and fix RGB content**
  - Check for spot converted to process**
  - View file with Overprint Preview Turned on**
  - View with Flattener Preview to See if need custom flattener style to resolve rasterization**
- **Adobe PDF Print Engine**



# ***Best Practices for Printers***

- **Don't Put Unflattened PDF's (Acrobat 5.0+) into QuarkXPress**  
Incorrect processing may result in incorrect output
- **Carefully use EPS final output or placing into other software.**  
Some prepress software may inadvertently misinterpret flattened EPS files, which results in converting spot colors to process. In this case, do not use EPS; use native InDesign CS3, native Illustrator CS3, or Adobe PDF files that include live transparency.
- **Transparency and OPI**  
Open Prepress Interface (OPI) is not compatible with transparency. Low-resolution images must be replaced with high-resolution images before flattening (that is, fatten before you flatten). If low-resolution images are flattened, the results will be low resolution.



# ***Best Practices for Printers***

- **Preseperated content (Photoshop DCS files)-InDesign CS3 can extract high resolution data from placed Photoshop DCS files, which can be flattened and output. This capability requires the DCS files not contain any vector data other than a clipping path. DCS files from other application should not be involved in transparency interactions.**
- **Duotone, tritone, or quadtone images place-linked into legacy Illustrator files-While Illustrator CS2 and later handles these files properly, earlier versions of Illustrator do not.**



# *Resources*

- **Service Provider Search:**

<http://partners.adobe.com/asn/partnerfinder>

- **Service Provider Resources:**

<http://www.adobe.com/studio/print/index.html>

- **A Designer's Guide to Transparency for Print Output Using Adobe® Creative Suite 3 Software**

This document provides detailed information about creating transparency effects and exporting and printing files that contain transparency.

- **Transparency in Adobe Applications: A Print Production Guide**

This reference and troubleshooting guide for prepress providers contains detailed information about printing files with transparency.