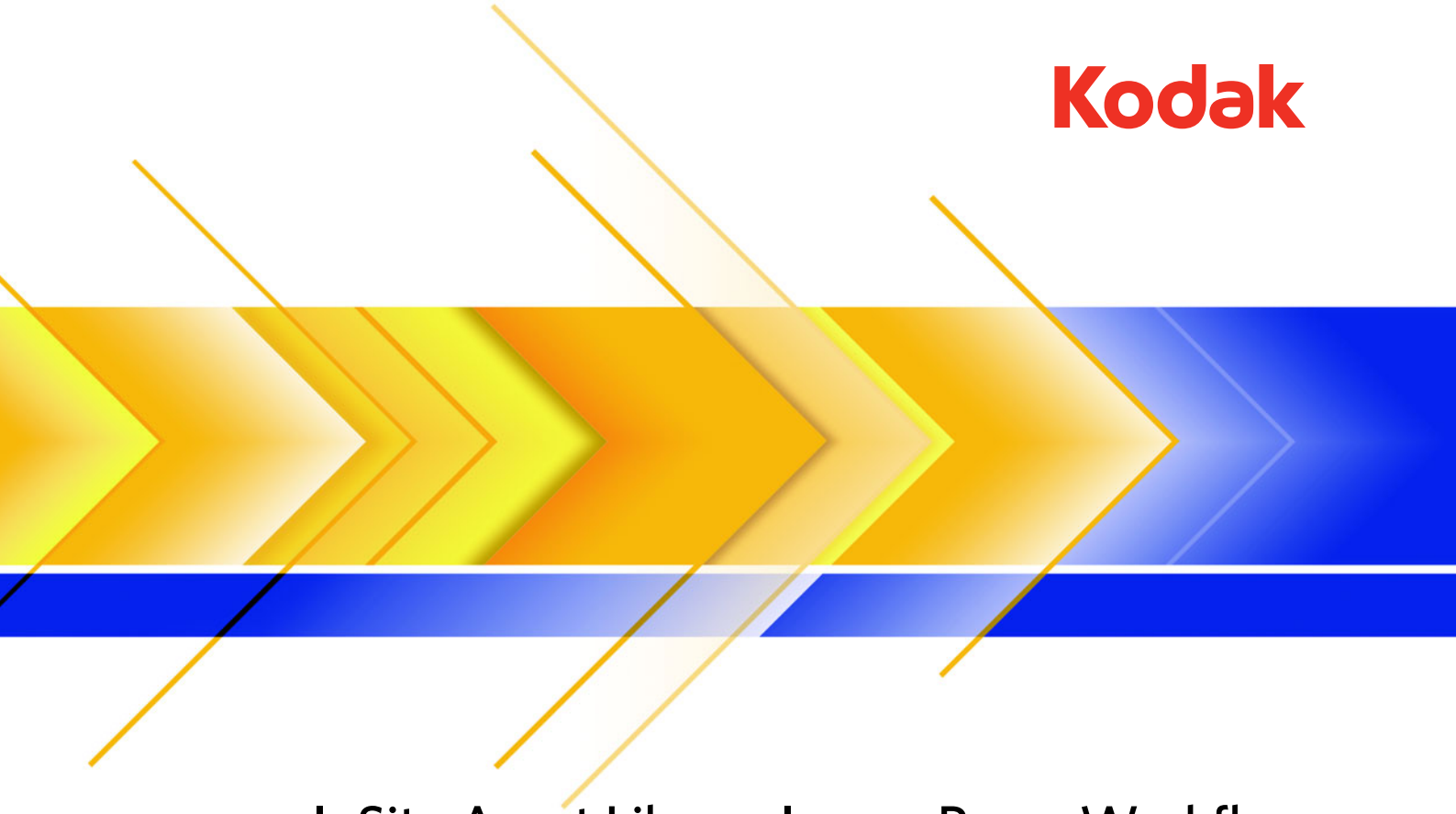


InSite Asset Library Image Proxy Workflow

For Designers

User Guide

English

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Overview

This guide provides the following information:

- What the Kodak® InSite™ Asset Library image proxy workflow is, and how it differs from a traditional OPI workflow
- How to create Adobe® PostScript® and PDF files from QuarkXPress® and Adobe InDesign® layouts that contain proxy images
- Limitations of the image proxy workflow
- How proxy images work with transparency in an image proxy workflow

This guide is for designers who create files that contain Asset Library proxy images and want to know how to retain OPI comments when submitting their files to a printer. Information for printers who receive these files is provided in the *InSite Asset Library Image Proxy Workflow For Printers User Guide*.

Although this guide provides a brief explanation of image proxy workflows, it assumes that you have some prior knowledge of OPI workflows.

OPI Background

Asset Library uses the term "image proxy workflow" rather than "OPI workflow" because the Asset Library workflow provides significant advantages compared with classic OPI and has a different usage. However, the image proxy workflow is based on OPI, so we must begin our discussion with OPI.

OPI (Open Prepress Interface) is an extension to the PostScript language that enables automatic replacement of low-resolution placeholder (or proxy) images with their high-resolution originals before printing. OPI was created to make page files easier to handle and transmit. The printer would generate small, down-sampled proxy images (called FPOs, which means For Placement Only) from large scanned images and then send these FPOs to the designer to place into the layout instead of the large images. This meant layout files were smaller and easier to manipulate. When printing to a high-resolution device, the printer's software would recognize the FPOs in the page layout and automatically swap them for the high-resolution images.

In a classic OPI workflow, the designer places the FPO in the layout and then, when printing as PostScript (or PDF), selects the option **Omit Images**. The layout software then places OPI comments into the PostScript file but does not place the FPO itself into the PostScript file. The resulting file is called "thin" PostScript. At the printer, OPI merging software scans the PostScript file for the OPI comments and then searches the printer's image database to find the high-resolution image that matches the FPO file name. The high-resolution image is then merged into the PostScript file (or "swapped" for the comment), creating "fat" PostScript.

One problem with thin PostScript files is that the placed FPOs cannot be viewed prior to the prepress OPI merge, since the images are not in the file. To get around this, the designer may choose to print PostScript from the layout software but with **Omit Images** off, so that the FPO image is actually visible. This is called "chunky" PostScript because it is the low-resolution (FPO) version of the image that is included rather than the high-resolution version. The layout software still places OPI comments into the generated PostScript, so the OPI merge engine is able to find the high-resolution image and swap out the FPO.

The FPO is an EPS file that can contain three parts, depending on the FPO generating software (also called a Sampler) that is used to create the FPO:

- OPI comments
- A screen preview image—enables you to see the image on screen
- A print preview image—enables you to see the image when printed

Generally, the Sampler creates the FPO image at 72 dpi and places it into the screen preview portion of the file. If the Sampler also provides an option to include a print preview image in the file, the print preview image can be created at a high or low resolution. In the case of a high-resolution print preview image, more data is included. So it is possible for the size of the FPO file to be larger than the file size of the original image, although this is unusual for images generally used in professional quality publications.

Image Proxy Workflow Overview

The Asset Library image proxy workflow is similar to a classic OPI workflow, but differs in a number of key ways.

To generate an FPO in Asset Library, you select an image in a supported format (EPS, DCS, TIFF, JPEG, or PDF) and then download it as an FPO and place it in your layout. (By default, the screen preview and print preview portions of the FPO are each at 72 dpi, although an administrator can change the default resolutions and can specify whether FPOs will contain print previews.)

The OPI comments included in Asset Library FPOs contain both the name of the image and a unique database ID. This ID is "globally unique", meaning that it can be used to identify the image uniquely amongst all other available images.

When printing PostScript from the layout software, it is critical that you do *not* select **Omit Images**. The resulting chunky PostScript file contains the FPO image, including its embedded OPI comments.

When your printer processes the file through their Kodak Prinergy® workflow, Prinergy detects the embedded Asset Library OPI comments and uses the unique database ID to get the path to the high-resolution image from Asset Library. The high-resolution image is then swapped for the FPO, as in classic OPI.

Compared to classic OPI, the Asset Library image proxy workflow has the advantage of not linking the name of the FPO with the high-resolution image; there is no chance that the wrong high-resolution image will be swapped in, and there is a much lower chance that an image won't be found. In fact, after an FPO has been generated from Asset Library, you can rename it or change its location to another folder or even another library, and the high-resolution image will still be found. Note, however, that

you cannot *copy* the image and then delete it from its original location, because the new copy has its own unique database ID. Also, of course, if the image is deleted from Asset Library, the high-resolution will not be found.

Creating PostScript and PDF Files That Contain FPOs

This section describes how to create a PostScript, EPS, or PDF file from a layout created in QuarkXPress 6.5 or Adobe InDesign CS2 software, while retaining Asset Library OPI comments for the FPOs placed in the layout.

Creating a PostScript File From a QuarkXPress 6.5 Layout

Note: If you plan to distill the PostScript file to PDF later, in Adobe Acrobat® Distiller® software, ensure that **Preserve OPI comments** is selected (**Settings > Edit Adobe PDF Settings > Advanced**).

1. Disable the QuarkXPress OPI extension by taking either of the following steps:
   - In QuarkXPress, select **Utilities > XTension Manager** and disable the OPI extension.
   - Remove the OPI extension from the QuarkXPress **XTension** folder.
2. Restart QuarkXPress.
3. In QuarkXPress, select **File > Print**.
4. In the Print Layout dialog box, on the **Setup** tab, select a suitable **Printer Description** (for example, Creo Refiner).
5. On the **Options** tab, in the **OPI** list, select **Include Images**.
6. Set the other options as desired.
7. Click **Printer**.
8. In the Print dialog box, in the **Printer** list, select a suitable printer that supports the options you want to be printed.
9. In Mac OS® X 10.3.x, select **Copies and Pages** and scroll to **Output Options**. Select **Save as File**. In the **Format** list, select **PostScript**.

   In Mac OS® X 10.4.x, click **PDF** in the lower-left corner and select **Save PDF as PostScript**. Select a destination for the **PostScript** file. Click **Save**. Click **Print** to return to the Print Layout dialog box.
10. Click **Print**. The PostScript file is generated and saved.

Creating an EPS File From a QuarkXPress 6.5 Layout

1. In QuarkXPress, select **File > Save Page as EPS**.
2. In the following lists, select the specified options:
   - **Format** > **Color**
   - **Space** > **CMYK**
   - **Preview** > **None** (or **TIFF** or **PICT**, if desired; **None** is the smallest file size)
   - **Data** > **Binary**
   - **OPI** > **Include Images**
3. Set other options as desired.

Creating a PDF File From a QuarkXPress 6.5 Layout

1. In QuarkXPress, select **File > Export > Layout as PDF**.
2. Click **Options**.
3. On the **Output** tab, set the following options:
   a. In the **Type** list, select **Composite**.
   b. In the **Print colors** list, select **CMYK**.
   c. Select the **Use OPI** check box.
   d. In the **Images** list, select **Include Images**.
4. Set other options as desired.

Creating a PostScript File From an InDesign CS2 Layout

Note: If you plan to distill the PostScript file to PDF later, in Distiller, ensure that **Preserve OPI comments** is selected (**Settings > Edit Adobe PDF Settings > Advanced**).

There are two ways in which you can create a PostScript file from an InDesign CS2 layout. Both methods result in a PostScript file with OPI comments preserved; it does not matter which method you select, but you may prefer one method over the other if you are already familiar with it.

Method 1

1. In InDesign, select **File > Print**.
2. In the Print dialog box, on the **General** tab, in the **Printer** list, select **PostScript File**.
3. In the **PPD** list, select **Device Independent**.
4. On the **Advanced** tab, select **OPI Image Replacement**. Next to **Omit For**, do not select any file types.
5. Set other options as desired.
6. Click **Save**.

Method 2

1. In InDesign, select **File > Print**.
2. In the Print dialog box, on the **General** tab, in the **Printer** list, select a suitable printer, and then select an associated **PPD** (for example, Creo Refiner).
3. On the **Output** tab, in the **Color** list, select **Composite CMYK**.
4. On the **Graphics** tab, in the **Send Data** list, select **All**.
5. On the **Advanced** tab, select **OPI Image Replacement**. Next to **Omit For**, do not select any file types.
6. Set other options as desired.
7. Click **Printer**.
8. In the Print dialog box, in the **Printer** list, select a suitable printer that supports the options you want to be printed.
9. In Mac OS X 10.3.x, select **Copies and Pages** and scroll to **Output Options**. Select **Save as File**. In the **Format** list, select **PostScript**.

   In Mac OS X 10.4.x, click **PDF** in the lower-left corner and select **Save PDF as PostScript**. Select a destination for the PostScript file. Click **Save**. Click **Print** to return to the Print Layout dialog box.
10. Click **Print**. The PostScript file is generated and saved.

Creating an EPS File From an InDesign CS2 Layout

1. In InDesign, from the **File** menu, select **Export**.
2. In the Export dialog box, in the **Format** (or **Save as type**) list, select **EPS**. Click **Save**.
3. In the Export EPS dialog box, on the **General** tab, in the **Color** list, select **CMYK**.
4. Set other options as desired.
5. On the **Advanced** tab, in the **Send Data** list, select **All**.
6. Select **OPI Image Replacement**. Next to **Omit For**, do not select any file types.
7. Set other options as desired.
8. Click **Export**.

Creating a PDF File From an InDesign CS2 Layout

Important: To generate a PDF file from InDesign software with OPI comments preserved, in InSite Creative Administration, your printer *must* enable the option to embed print previews in generated FPOs. For more details, see *Print Previews* on page 8.

1. In InDesign, from the **File** menu, select **Export**.
2. In the Export dialog box, in the **Format** (or **Save as type**) list, select **Adobe PDF**.
3. In the Export Adobe PDF dialog box, on the **Advanced** tab, in the **OPI** area, ensure that no file types are selected.
4. Set other options as desired.

5. Click **Export**.

Verifying That Asset Library OPI Comments Are Included

You can verify that Asset Library OPI comments are included in the PostScript or PDF file printed from the layout software by opening the file in a text editor and searching for **%ALD** in a PostScript file, or **OPI** in a PDF file. If these comments are included, image swapping should occur, as long as the matching high-resolution image still exists in Asset Library. For example:

```
%ALDImageFileName: TwAm:/24 April OPI files/tiff images/IP Image 1.tif
%ALDImageID:
CSW:TW;SiteId:E6F21CD656674CA484935D6151C59D3A;DocumentId:
7090E5282F3A02A32F3A02A335730D0D;VersionId:
9903A2252F3A02A32F3A02A335730DB6;RenditionClass:default
%ALDImageDimensions: 289 361
%ALDImageCropRect: 0 0 289 361
%ALDImageCropFixed: 0.000000 0.000000 288.000000 360.000000
%ALDImagePosition: 0.000000 0.000000 0.000000 360.000000 288.000000 360.000000 288.00
%ALDImageResolution: 150 150
```

Figure 1: Asset Library OPI comments in a PostScript file

```
16 0 obj<</OPI<</1.3<</Version
1.3/ID(CSW:TW;SiteId:E6F21CD656674CA484935D6151C59D3A;DocumentId:
7090E5282F3A02A32F3A02A335730CB7;VersionId:
9903A2252F3A02A32F3A02A335730D60;RenditionClass:default)/F(TwAm:/24
April OPI files/pdf images/IP Image 34.pdf)/CropFixed[0.0 0.0 474.0 474.0]/CropRect[0
0 474 474]/Size[474 474]/Type/OPI/Position[0.0 0.0 0.0 474.0 474.0 474.0 474.0
0.0]>>>>/Subtype/Form/Length 93/Filter/ FlateDecode/Matrix[1.0 0.0 0.0 1.0 0.0 0.0]/
Resources<</XObject<</Im0
14 0 R>>/ProcSet[/PDF/ImageC]/ExtGState<</GS0 10 0 R>>>>/BBox [-32767.0 32767.0
```

Figure 2: Asset Library OPI comments in a PDF file

Note: Readable text may not be visible in some types of compressed PDF files. If the PDF file is compressed, it is possible that you will see only a series of indecipherable characters when you open the file. Compression is supported in PDF 1.5 and later.

Image Proxy Workflow Limitations

This section describes some common problems that occur with the Asset Library image proxy workflow. For information specifically about problems with transparency, see *Transparency and Asset Library Image Proxy Workflow* on page 9.

Image Edits

The Asset Library image proxy workflow has the same advantage as classic OPI in that the high-resolution image can be edited even if the FPO is used in the page layout. But this also means that it is possible to get the wrong version of the image. You should exercise caution while uploading to a library that overwriting of an image will not cause already generated FPOs to result in the wrong image on a page.

For example, an image of a dog is uploaded to Asset Library and then downloaded as an FPO and placed in a layout. The high-resolution image is then downloaded and modified so that a hat is placed on the dog's head. The revised image is uploaded to the same Asset Library library, overwriting the original image. The FPO image in the layout does not appear to have changed, and the layout is printed to PostScript. However, when the PostScript file is processed through the printer's Prinergy workflow and OPI swapping occurs, the high-resolution image of the dog wearing a hat is swapped for the FPO image in the layout (in which the dog has no hat). This may cause confusion, since the designer who placed the original FPO image in the layout is not aware that the image was revised.

In general, you should only overwrite when the new file is an improvement to the image that will be desired in all usages. If the changes alter the fundamental nature of the image, you should rename the file so that the overwrite will not occur (for example, rename **dog.tif** to **dog_with_hat.tif**), and then download and place a new FPO of the revised file.

Image Effects

A feature of the newer versions of InDesign and QuarkXPress software is image editing (for example, feathering the edge of an image). Often these image effects result in the removal of all OPI comments—including the database ID—when PostScript is generated.

Not all image effects will cause this. For example, drop shadows are okay when processed using InDesign CS2 (although not when processed using InDesign CS1). Some image effects are also preserved when generating PDF files. Most transparency effects to Asset Library FPO files will be preserved and transferred to the swapped high-resolution image.

Caution is recommended and you will need to experiment with various effects to see if they can be used safely with Asset Library FPOs. However, anything that alters the image itself will not work properly with an OPI or image proxy workflow with PostScript generation. The safest approach is to not use FPOs if you want to use image effects.

Print Previews

InSite Creative Administration includes a setting that enables embedding of print previews in generated FPO previews. Your printer will likely turn this option off, to make FPO file sizes smaller. However, this means that when you print a QuarkXPress or InDesign file that contains an FPO, the FPO will not print in the document; the area where the FPO is placed will print blank, although OPI swapping is maintained.

In QuarkXPress, the solution is to select **Low Resolution** in the Print dialog box, under **Options > Pictures > Output**. This will force **QuarkXPress** to print the screen preview of the FPO. In InDesign, the solution is to select **Print > Graphics > Images > Send Data** and select **Proxy**.

Also note the following implications if your printer has turned off the option to embed print previews in FPOs:

- When printing a PDF file from an InDesign document that contains an FPO, if a print preview is not included in the FPO, the OPI comments will be removed and no image swap will occur in your printer's production workflow.
- Adobe Illustrator® software (and many other software applications) has no ability to select the screen preview to print. Therefore, FPOs with no print preview will always print blank in Illustrator layouts.

Mixing Classic OPI, FPOs, and High-Resolution Images

It is generally not possible to generate PostScript with a combination of thin and chunky behavior; you must either **Omit Images** or not. The best solution is to print thin and chunky pages into separate files. However, this doesn't allow for a single page that contains an FPO and an omitted image.

QuarkXPress 5.0 and later does include an OPI extension that allows individual images to either have or not have QuarkXPress-generated OPI comments. This is found under **Utilities > Usage > OPI** in the QuarkXPress software. Normally, QuarkXPress automatically generates OPI comments for placed images, but with this tool, it is possible to select which individual placed images will have QuarkXPress OPI comments attached. However, the use of this tool either erases or rewrites embedded OPI comments in Asset Library FPOs, and when rewritten, the new **QuarkXPress** OPI comments do not contain the unique database ID. This means that the link to the high-resolution file in the Asset Library database is lost and the Prinergy software will not swap the FPO (at least not through the Asset Library database; Prinergy will still do folder path OPI if enabled). Therefore, when using QuarkXPress software with Asset Library FPOs, you must disable the OPI extension.

It is possible to place a mix of high-resolution and FPO images and then print with **Omit Images** off. However, this will cause problems when Prinergy refines the PostScript, since the layout software inserts OPI comments even when **Omit Images** is off. For information about the best way to process these types of files, consult your printer.

Transparency

With the CS1 version of its software, Adobe introduced "live" transparency to graphic arts. While this provided powerful new options to designers, it introduced significant complexity to prepress, and in particular, in an image proxy workflow. This section provides some background about transparency and discusses the problems and possible solutions when using an Asset Library image proxy workflow with transparency.

Background

Transparency has been around for a while. It has been available inside Adobe Photoshop® software as an option when layering objects on top of one another, but when exporting to a nonnative format like EPS or TIFF, Photoshop layers and transparency had to be rasterized, or flattened. Today, some software supports, as well as exports, file formats that maintain transparency.

Transparency is an effect where an overlaying object allows objects stacked directly underneath to be visible. Flattening transparency, or flattening, is defined as the process where the visual effect of transparency is replicated by using a flat layer of opaque objects, often achieved by rasterizing layers of vector objects, portions of vector objects, and images. Sometimes it is easy to overlook that a transparent effect has been used on a page because transparency can occur when an object or image that was already transparent is imported into a layout, or when an object uses a pattern or brush that itself uses transparency.

Currently, no versions of QuarkXPress software support transparency, either natively or via an imported, placed file that contains transparency. There is no workflow through QuarkXPress that can contain transparency.

Transparency and Asset Library Image Proxy Workflow

InDesign and Illustrator software (CS1 and CS2 versions) do support transparency in many modes and forms, so consideration must be given to Asset Library FPOs and transparency interactions.

Images With Transparency

The only image format that Asset Library supports for FPO generation that can contain transparency is PDF. As described above, the PDF image is flattened before it is swapped for the FPO during the Prinergy refine process. Generally, this will result in correct behavior as long as it is okay that this image flattening occurs only for the image and not with any other overlapping objects on the page, as discussed further in the next section.

Pages With Transparency

The simplest option is to not mix transparency and Asset Library FPOs (or any OPIed image). Although we describe one option that does allow for pages with transparency and FPOs, the workflow is still complex and problematic. If designers will be using transparency, they should simply place high-resolution images.

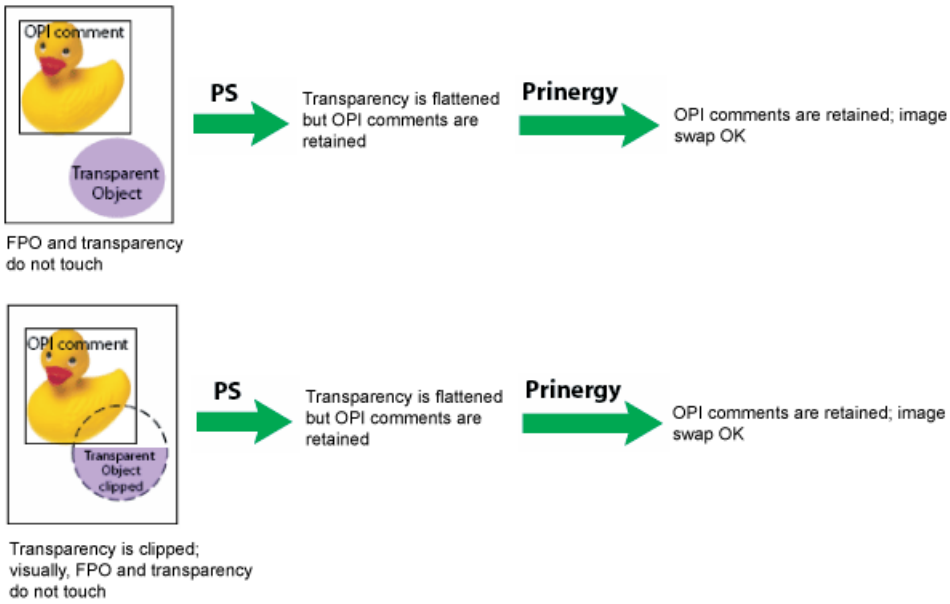
Tip: It can be easy to miss a transparency effect on a page. InDesign has two ways of detecting transparency effects. First, on the **Pages** palette, pages with transparency appear with a checkered pattern, while pages with no transparency appear as solid white. Second, you can select **Window > Output > Flattener Preview** to highlight transparency at the object level using several selectable modes. Illustrator CS and CS2 also have a transparency flattener preview tool.

PDF from Distiller

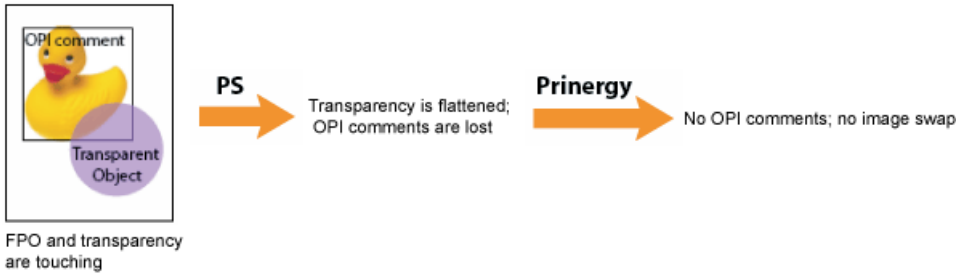
If PostScript is generated from InDesign or Illustrator software and then distilled, it is possible to mix transparency and placed FPOs, but you must ensure that these FPOs and transparent objects do not overlap. It is not possible to place a transparent object over or under an FPO. The problem is that when the PostScript is generated, the transparency will be flattened. If the transparency overlaps an FPO, it is the FPO that is altered, removing the OPI comments.

The following diagram illustrates this workflow. The duck element in the layout is the FPO.

If the transparency and the FPO do not overlap, or the transparency is clipped so that visually the transparency and the FPO do not touch, and the layout is exported as a PostScript or EPS file, the transparency is flattened but the FPO's embedded OPI comments are retained.



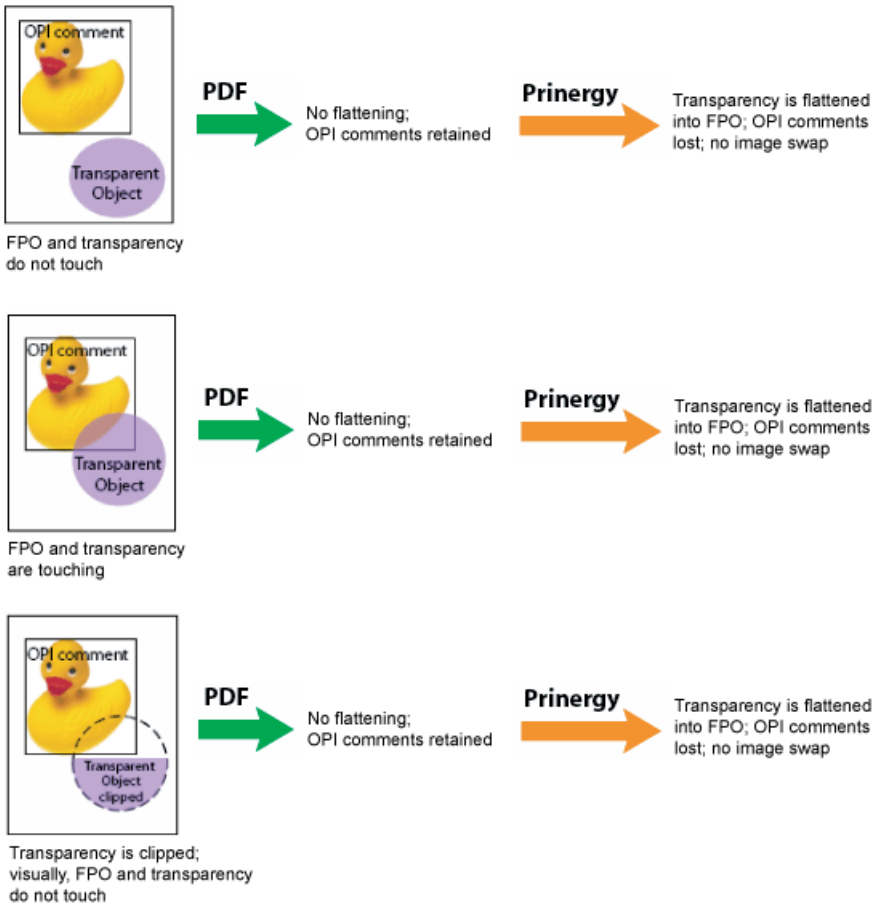
However, if the transparency visually overlaps the FPO, and the layout is exported as a PostScript or EPS file, the transparency will be flattened into the FPO and the FPO's embedded OPI comments will be lost.



PDF Export

If transparent effects are used, PDF export out of InDesign software will not allow for the use of placed Asset Library FPOs. The generation of PostScript during the Prinergy refine process removes all OPI comments if any transparency is used anywhere in the refined file. (Prinergy 4.0 removes this limitation by providing the ability to do PDF OPI directly without conversion to PostScript. This functionality was introduced as a beta feature in Prinergy 3.1 for customers running both Prinergy and Asset Library software, and is fully released in Prinergy 4.0.) In addition, InDesign and Illustrator CS1 remove all OPI comments when doing PDF export. So even when the Prinergy problem is resolved, only InDesign and Illustrator CS2 will support the desired workflow.

Just for informational purposes, we include the following diagram, which illustrates how a page in InDesign or Illustrator CS2 is flattened when it is exported as a PDF file.



Clipping Paths in an Image Proxy Workflow

Asset Library FPOs support clipping paths for some high-resolution file types. This means you can upload to Asset Library an element of a supported file type that includes a clipping path, then download the element as an FPO and place it in a layout, and the clipping path information is retained in the FPO. Prinergy then honors the clipping path when it swaps the FPO for the high-resolution original version. Text that is wrapped around a clipping path is also retained.

The file formats for which clipping paths are honored are TIFF, JPG, and Photoshop EPS files. Note that only EPS files from Photoshop are honored; EPS files from other software applications are not supported.

A high-resolution image that contains a clipping path may or may not show the effects of the clipping path in the element thumbnail after upload to Asset Library. Photoshop EPS files show only the clipped area in the thumbnail, while TIFF and JPG files show an unclipped thumbnail. However, clipping paths are honored in all three cases, regardless of whether the clipping path is visible in the element thumbnail.

For clipping paths to be retained when an element is downloaded as an FPO and placed into an InDesign layout, when you place the FPO in the layout, ensure that **Show Import Options** is selected. In the subsequent Import Options dialog box, ensure that **Apply Photoshop Clipping Path** is selected and that **Rasterize the PostScript** is *not* selected.