

Printing

Final Results

- File Formats Supported
- Print Settings
- Finishing Options

Printing

When creating PostScript or PDF files for print, consult your print provider for the recommended settings to use. When the print provider is unknown or unavailable, the guidelines that follow can be used. Keep in mind that there may be special settings such as imposition or bleeds that may be unique to the printer's preferences—always discuss printing specifics with them first.

File formats supported by Xerox Digital Presses

- PostScript Language Level 1, 2 and 3
- Portable Document Format (PDF) version 1.3 and above
- TIFF (Tag Image File Format)
- JPEG *
- Xerox FreeFlow® Variable Information Suite 6.0
- PPML 2.1 *
- TIFF/I
- PDF/X-1a through PDF/X-3
- Brisque *
- Prinergy *
- DCS 2.0
- CT/IW *
- Microsoft Native file formats (e.g., .doc, .xls)
- * Several file formats supported are unique to a specific configuration or are available only as options. Check with your print provider or Service Bureau for their preferred formats.

Color Spaces Supported

Any color space (RGB, CMYK, CIELab Indexed, and PANTONE)

Selecting Your Print Settings

If you send PostScript or PDF files to your printer, use the following general print settings in your applications. InDesign and QuarkXPress printing information follows next.

- Use either the printer's (e.g., iGen3® or DocuColor® 8000) PPD or Acrobat Distiller PPD for the Printer Description setting.
- Print a composite file (not separations).
- Be sure the paper size in the Page Setup is the same as in the Print dialog box.
- Set bleeds to 0.125 in. (3 mm) or desired size, if applicable.
- Do not apply color conversions when printing unless the print provider instructs you to do so.
- Send all data (graphics and images) in binary format, when possible.
- Images should be full resolution. Do not use sampling.
- Always download all fonts.
- Always use PostScript Language Level 3.
- Set the Transparency flattening level to the highest quality setting.

InDesign CS3 Print Settings

Use the following print settings for InDesign when sending files to the Xerox Production Press or when preparing PostScript files for PDF.

General

• Use either the printer's (e.g., iGen3® or DocuColor® 8000) PPD (supplied by your print provider) or the Acrobat Distiller PPD for your Printer Description (PPD).

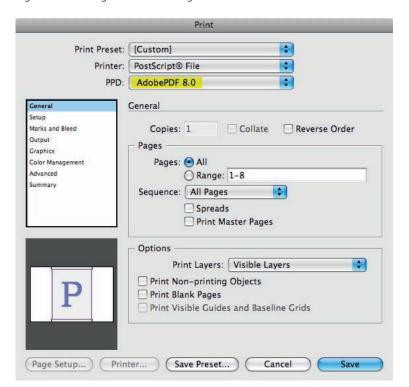
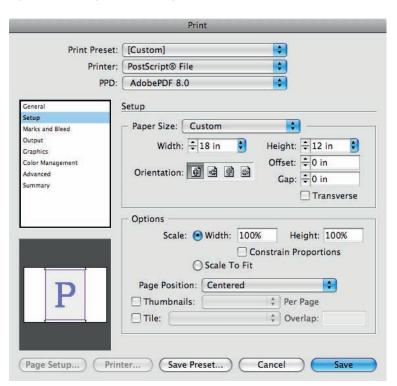


Figure 5-1 InDesign General Settings

Setup

• Be sure the paper size under both the [Paper Size] in the Print Dialog box and the [Paper] in the Page Setup dialog box match. This will ensure that your document prints correctly. Also, check that the orientation is correct.

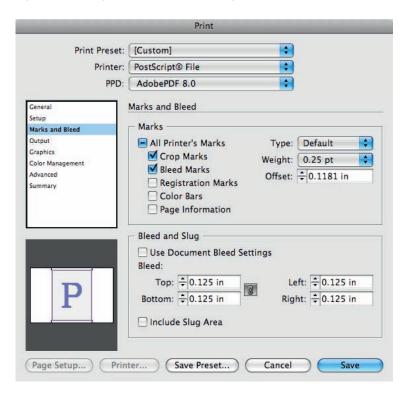
Figure 5-2 InDesign Setup Settings



Marks and Bleeds

• If bleeds are used, 0.125 in. (3 mm) is generally recommended for printing on Xerox Digital Presses, like most other printing systems.

Figure 5-3 InDesign Marks and Bleed Settings



Output

- Always print with Output Color set to [Composite Leave Unchanged] to prevent any color conversions. This allows the RIP to convert both RGB and CMYK objects to the printer's color instead of InDesign. Only use [Composite CMYK or RGB] if the preference is to have the entire job in one single color space.
- Do not use [Text as Black]. This will convert all color text to black. This feature should only be used for quick proofing.
- Do not use [Simulate Overprint]. This should be used for low-end proofing only as it may convert spot colors to process.

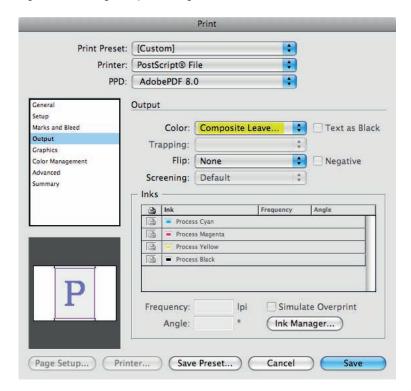
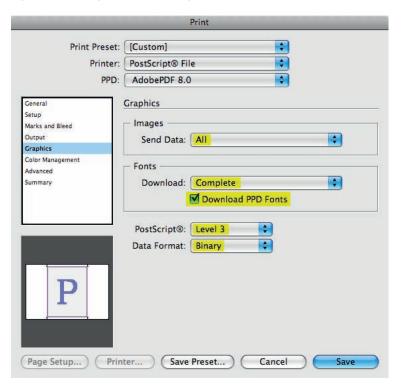


Figure 5-4 InDesign Output Settings

Graphics

- Use Send Data [All] for Graphics, Images.
- Always Download [Complete] fonts.
- Check [Download PPD Fonts] to preserve all fonts.
- Always use PostScript [Level 3].

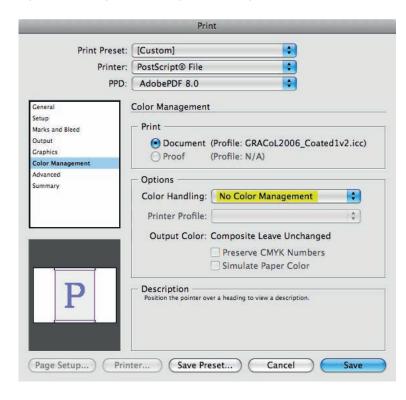
Figure 5-5 InDesign Graphics Settings



Color Management

• Color Handling should be set to [No Color Management] to prevent colors from converting.

Figure 5-6 InDesign Color Management Settings



Advanced

- Only enable OPI if your print provider requests it.
- Set the Transparency Flattener Preset to [High Resolution].
- Use [Ignore Spread Overrides] if styles are thought to be set incorrectly. When checked, a single transparency flattener style will be applied to the document and will override all other flattening settings.

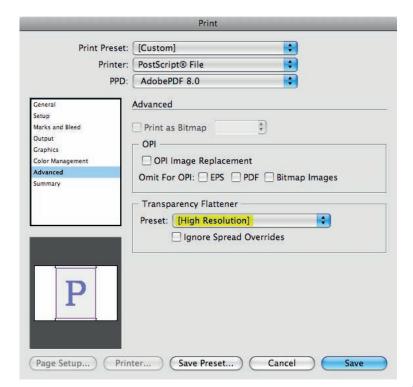


Figure 5-7 InDesign Advanced Settings

QuarkXPress 7.0 Print Settings

Use the following print settings for QuarkXPress when sending files to the printer or when preparing PostScript files for PDF.

Note:

• When using Mac OS 10.4.x to create PostScript files you will need to enable [Create PostScript File for Later Distilling]. This setting can be found in the pull down menu [QuarkXPress: Preferences: PDF]. When this radio button is selected, Quark will generate a PostScript file instead of a PDF file whenever [Export: Layout as PDF] is selected from the File menu. Mac OS 10.3.x users are able to create PostScript files as usual—without making any changes to the QuarkXPress preferences. In the print window, simply select [Output Options] in the pull-down menu and select [Save as File, Format: PostScript].

Layout

- Do NOT print with Separations.
- For duplex printing, select [Print Blank Pages]. This will ensure that chapters start on the right-hand page.
- If bleeds are used, 0.125 inch (3 mm) is generally recommended for printing on Xerox Digital Presses as with most other printing systems.

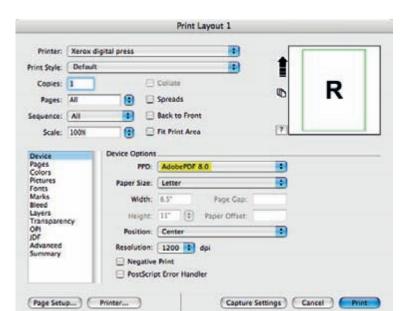


Figure 5-8 QuarkXPress Device Settings

Device

- Use either the printer's (e.g., iGen3®) PPD (supplied by your print provider) or the Acrobat Distiller PPD for your Printer Description.
- Be sure the paper size under both the [Paper Size] in the print window and the [Paper] in the Page Setup window match. This will ensure that your document prints correctly. Also, check that the orientation is correct.

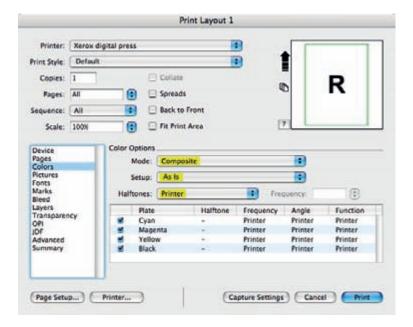
Output

- Always Print Colors [As Is] to maintain original source color. Using a setting such as [Composite CMYK] will convert any non-CMYK colors (e.g., RGB images and graphic elements) to the Composite CMYK profile selected under Profiles tab. Instead, allow the printer (e.g., iGen3® or DocuColor® 8000) to convert all colors (RGB and CMYK) from its source spaces to the printer's destination space to render the best output.
- Halftoning will be determined at the RIP.

Note:

• When Blends are made with PANTONE® colors in Quark 7, they will print as RGB when the Print Colors selection is set to [As Is]. To preserve PANTONE Blends, set Print Colors to [Device N]. Using [Device N] will, however, convert any RGB text, objects and images to CMYK.

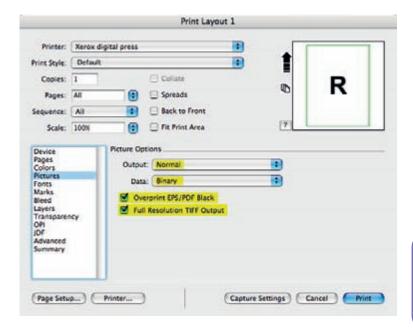
Figure 5-10 QuarkXPress Colors



Options

- Pictures Output should be set to [Normal] for high resolution printing.
- Always use [Binary] Data.
- Consult with your print provider if [Overprint EPS Black] should be used.
- Select [Full Resolution TIFF Output].

Figure 5-11 QuarkXPress Pictures Settings



OPI

Do not enable OPI unless instructed to do so by the print providers. Follow their recommendations.

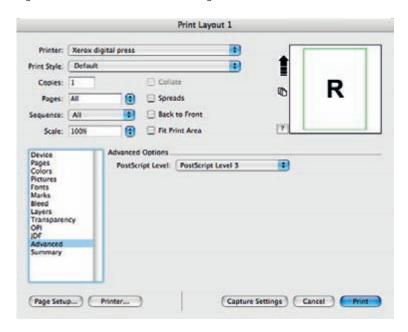
Figure 5-12 QuarkXPress OPI Settings



Profiles

- The Separation and Composite profiles should be set to [None].
- Do NOT use [Composite Simulates Separation] unless instructed to do so by the print provider. This feature is used for proofing to printers other than the final output device. One of the many benefits of Xerox Digital Presses is that proofs can be made on the same output device.

Figure 5-13 QuarkXPress Profiles Settings



Finishing Options

How the final design is finished is up to you. Virtually any finishing option that would be available for a commercial print job is a possibility.

Coating and Laminating

As with traditional lithographic printed pieces, coating and laminating are excellent ways to improve the durability of digital output for end uses such as direct mail, transport or heavy usage. Choosing between coating and laminating is a trade-off between cost and the requirements of the piece. In general, laminating is 10 times the cost of coating, but provides much stronger protection.

Optimal coating considerations:

- The paper type does affect coating performance. Coated, glossy stocks at weights above 148 gsm typically provide the best results.
- Uncoated stocks tend to absorb the coating material, which may curl lighter weight papers. UV coatings are not recommended for uncoated substrates.

Optimal laminate considerations:

 Uncoated stocks yield a better laminate film-to-paper bond than coated stocks and are more cost effective.

Booklet Making

The production of saddle-stitched, folded and possibly trimmed booklets is an important job type for the Xerox digital press and the feature set makes it easy to do. Job programming at the front end enables the automatic imposition of pages into signatures with just a few keystrokes using pre-built templates. When in-line finishing equipment is installed, the system can deliver fully-collated sets ready to be finished into booklets to the stacker. This finishing option is best suited to low page count publications.

Optimized booklet making considerations:

• Dry ink can cause cracking on the paper fold. This can be avoided by designing the piece so that dry ink is not placed on the fold. If this is not possible, cracking can be minimized by scoring the sheet and/or laminating or UV coating it.

Perfect Binding

Perfect binding is most often used for larger page counts and is common in textbooks, software documentation and paperback novels. The image may crack at the cover folds with repeated use of the book. The best way to avoid this is to design the cover image to eliminate image in the cover fold areas, if possible. Alternatively, reverse creasing may yield acceptable results.

Optimal binding strength considerations:

- For body sheet design, a 2-3 mm image free gutter at the binding edge, if possible, will optimize bind force.
- For cover design, the inside surface should be free-of-image, where the cover interfaces to the spine of the book block plus 2-3 mm at front and back edges to allow for good adhesive to substrate engagement. Toner in this area will yield a low-bind force, as the adhesive doesn't bond well to it. Minimize image bleed into the spine as much as possible.
- Uncoated stock (or C1S for cover) will yield better adhesion characteristics
- If coated stock is required, matte/silk versions have higher bond strength than gloss versions.

Lightfastness

In accelerated lightfastness testing, the iGen3® prints are exposed to intense radiation that simulates about four years of typical office environment exposure or around two weeks in a south-facing window. Cyan, yellow and black dry inks are extremely stable and exhibit barely any perceptible shifts in color. The magenta dry ink changes somewhat more, with a moderate loss of saturation. This compares favorably with lithographic inks, where magenta, cyan and black are relatively stable while yellow fades almost completely away in similar tests.

Durability

For the most part, images will be durable and resistant to erasure. However, scratch resistance can vary by stock used. Depending on the end use, coatings may be needed to improve durability.

Mailing Operations Guidelines

Typical post office equipment includes friction feed mechanisms that may stress digital output. Uncoated stocks will perform better than coated stocks. Knowledgeable design and /or coating/ laminating of the piece can improve results.

- Certain postal processing steps may be avoided by following United States Postal Service pre-sort guidelines (http://www.usps.com/ businessmail 101). If bar coding is to be used, it is recommended that you print it with the address as part of the variable data print job.
- In Europe, local postal services should be contacted for mail regulations.
- To ensure a successful mailing, especially for a large run, the process should be tested. In the United States, there is no charge for this testing by the USPS.