

1. Quick reference

Every production method has unique characteristics, and designers often make minor design adjustments to take advantage of unique capabilities of a particular process to produce an even more pleasing, desirable, and saleable document.

This section is intended as a quick reference tool for the graphic designer and prepress operator as they begin the process of designing and preparing documents for print to the Xerox iGen3.

While the following provides recommendations and overall best design practices that could be applied to most digital production printing systems, some information applies only to the iGen3. **Text that pertains specifically to the iGen3 is highlighted in blue.**



NOTE: *This section provides general guidelines. Your print house or service bureau may have additional requirements.*



NOTE: *More detailed information about the design selections for iGen3 and settings to use in various page layout applications is found throughout this guide.*

Setup... before you begin

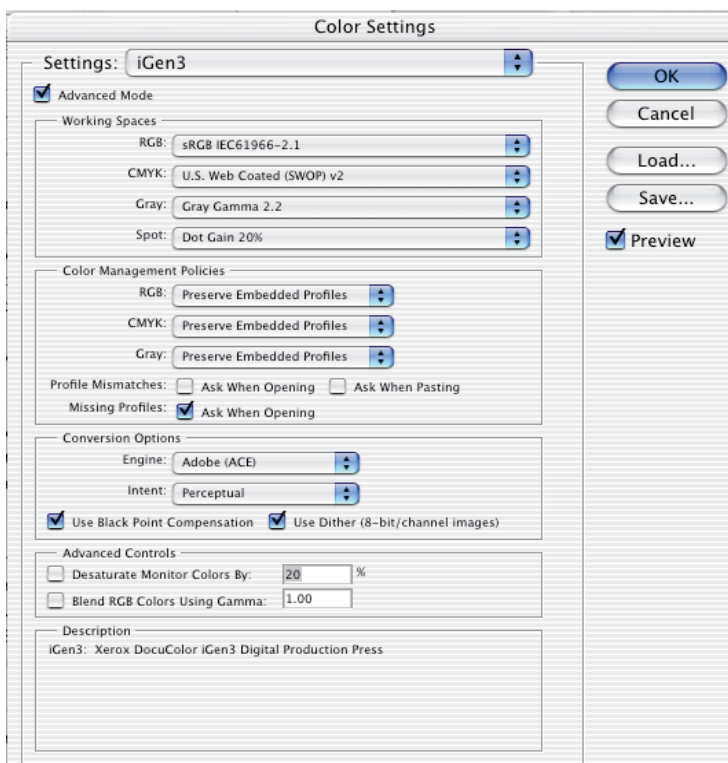
Before you start your design, follow the recommendations below regarding prepress topics such as calibrating your monitor and determining the paper stock to use. These tips will help you design a document with the print results you want.

Color consistency

To achieve greater predictability and consistency in the appearance of the printed output:

- Use the color preference settings recommended and used by the print provider.
- If the print provider is unavailable, apply the Adobe color settings shown in [Figure 1-1](#). to all of your Adobe applications.
- Since color management is always enabled, select the most common source space for both RGB and CMYK.

Figure 1-1. Recommended color settings



Soft proofing

- If a standard CMYK space such as SWOP is the intended destination color space, you can display an on-screen preview of how your document's colors will look when printed from your desktop application.
- Be sure to calibrate and characterize your monitor monthly for best results.

Paper size	<ul style="list-style-type: none">• A list of supported media can be obtained from the printer or the Xerox iGen3 Paper Guide.• Printable sheets range in size from 7.0 in. x 7.0 in. (177.8 mm by 177.8 mm) to 14.33 in. x 20.5 in. (364 mm x 520.7 mm) and the acceptable weight range is 16 lb. bond to 130 lb. cover (60 gsm bond to 350 gsm).• If the press is configured with the Extra Large Paper Option, the maximum paper size is 14.33 in. x 22.5 in. (364 mm x 572 mm).
Paper guidelines	<ul style="list-style-type: none">• Use brighter papers to produce images with higher contrast.• True white papers print with the most natural looking skin tones.• Smooth or coated papers produce sharp images and increase the appearance of glossiness.• The best image quality is achieved with premium non-recycled papers.• Design folds so that they run in the same direction as the paper grain.• Use minimal ink coverage at the fold as cracking may occur with heavy ink coverage.
Image size and bleeds	<ul style="list-style-type: none">• Do not design jobs to be printed to the edge of the sheet. Maintain a minimum 0.125 in. (3 mm) blank border around the edge of the paper.• For bleeds use the traditional 0.125 in. (3 mm) and trim to the desired finish size.
Color gamut advantages	<p>The Xerox iGen3 can produce many colors that are outside the gamut of traditional SWOP offset systems such as vivid blues, deep and bright purples and brilliant magenta.</p>
Gray balance	<p>Gray balance is dependant upon selections made at the printer. If you are creating gray colors with RGB or CMYK combinations, consult your print shop for the appropriate values needed to achieve good neutrals.</p>

Create... begin your design

Use the following tips to make the best design selections for both text and graphics when printing to the iGen3.

Text

- Include all fonts in the file.
- **Supported font types include PostScript Type 0, 1, 3, Open Type, True Type 42, Multiple Master, Kanji and more.**
- Select fonts from the Font menu and not from the Style menu (bold, italic, etc.).
- Preserve text as a font; do not rasterize text in the application.
- **Create solid black with 100% K only for the most dense black.**
- **For solid text, the type size should be a minimum of 2 point. For reverse type, the type size should be 3 point or higher.**
- **For tinted text, the type size should be a minimum of 4 point. For reverse type, the type size should be 6 point or higher.**
- When using Kanji fonts in both positive and reverse/negative text, select a font size of 8 point or larger for best results.
- With smaller text, sans serif fonts are recommended.
- Text containing at least one ink of 100% C or M or K presents the best appearance with solid, rich colors.
- RGB solid text, such as 100% red, may reproduce as a tint. Define solid color text in CMYK if possible.

Graphics

- Save graphics in EPS format for placement into page layout applications.
- Embed all fonts into graphic EPS vector art files.
- Colors for fine rules or small graphics, such as bullets and icons, print best when at least one color separation (except yellow) is set to a solid or near solid color (e.g., 90-100%).

Spot colors (PANTONE®)

- Select PANTONE® colors by choosing them from the PANTONE spot color library. They should be designated as spot colors and not as CMYK recipes.
- Do not change the name of PANTONE® colors (for example, Pantone 106C to Sunshine Yellow or to Pantone 106C copy).
- **When PANTONE® colors are desired, refer to a printed press sample provided by the print shop.**
- **The print shop can supply CMYK values for PANTONE® colors if you need to match colors in images.**

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- Best black**
- **The Xerox iGen3 produces the most dense black with 100% K (black) only. Additional amounts of C or M or Y or CMY at 100% K will generally lighten blacks.**
 - When printing black on uncoated substrates, add a small amount of C, M or Y to improve uniformity and minimize paper texture. **It will, however, produce a black slightly less dense than just 100% K only.**
 - Gray text, graphics, and gradients will be best produced if they are created with K only in a CMYK working space.
- Transparencies**
- Files containing transparencies are flattened when printed to PostScript.
- In the page layout or design application, set the transparency raster/vector control to the highest setting to prevent objects from being rasterized.
 - Use an overprint preview or flattener preview to determine how the objects will look when flattened.
- Tint uniformity**
- Digital printing systems may show slight variations in color within large areas of mid-density tints. Color variation may also be emphasized with coated paper due to the smoothness of the paper.
 - Add a texture or noise to large area mid-density tints to improve color uniformity and appearance, if needed.
 - Design with smaller areas when using tints and/or design with colors that are less than 40% or greater than 70% in value.
- Gradients**
- Use PostScript Level 3 format.
 - Use a color change of 100% of at least one color separation for gradients 7.5 inches (19.5 cm) in length and a change of 50% for gradients 3.25 inches in length.
 - Sometimes adding noise or a gaussian blur can improve a gradient in PhotoShop.
 - Saturated colors generally produce the smoothest blends, however, avoid creating gradients that blend from a very dark color to white.
 - For gradients blending to white, set the same color to 0% . Do not use white.

- Images**
 - All images should be at their final resolution size of 300 dpi and placed in the page layout at 100%.
 - Images can be in RGB, CMYK or grayscale color spaces.
 - Embed the correct ICC source color space profile with each image saved.
 - Save images in EPS or TIFF format. Use an EPS format to preserve colors that may otherwise be converted by an application such as Microsoft PowerPoint or Quark.
 - Do not use JPEG or LZW compression.
 - If sampling is required (although discouraged), bicubic should be used.
- Total ink and dot gain**
 - **The Xerox iGen3 is designed to expect a total ink limit of 325% and the traditional commercial print amount of dot gain.**
 - **No special considerations are necessary.**
- Variable data**
 - Designs specifically created for variable printing require special considerations. Consult with your print provider before you begin your design.

Print... preparing your output

<p>Trapping</p> <p>Preflight checklist...are you ready?</p>	<p>Use the following tips when preparing for output to the iGen3.</p> <ul style="list-style-type: none"> • For best results, apply trapping at the printer and not in the application. • Avoid instances where trapping to gradients is required (the change in color may not reproduce well). • Ensure that all graphics and images are in their final size, 100% at 300 dpi. • Rotate, scale and edit images and graphics prior to placing them in page layout applications. • Deliver all source files to the printer: fonts, graphics, images and layout documents (even for PostScript or PDF files when possible). • Image file formats should be EPS or TIFF (not JPEG or TIFF with LZW compression). • All spot colors should be designated as spot colors and not as CMYK recipes. • Spell check your document. • Remove all locally stylized fonts and mixed font types. • Remove any trapping (allow the printer to do this). • All bleeds should be set to 0.125 inches. • Prepare a mock-up to give the printer as a finished example.
<p>Collect for output packaging</p>	<p>Use the Collect for Output or Package feature in the page layout application to gather all fonts, graphics and images used in the job. This will ensure all elements are delivered to the print provider.</p>
<p>File formats for printing</p>	<p>The Xerox iGen3 accepts a variety of file formats for printing including PostScript 1, 2, 3, PDF/Acrobat, Xerox VIPP and more.</p>
<p>Print settings</p>	<p>If you send PostScript or PDF files to your printer (as opposed to supplying the original source files), use the following print settings in your page layout application:</p> <ul style="list-style-type: none"> • Use either the iGen3 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 inches, if applicable. • Do not apply color management when printing. • 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 Level 3.
 - Set the Transparency setting to the highest setting.
- PDF files**
- Create all PDF files using Acrobat Distiller.
 - Do not use Export/Save As features in the applications, PDF Writer/Maker, or the Mac OS X Save As PDF feature.
 - Create PostScript from the source application using either the **Xerox iGen3 PPD** (supplied by your print provider) or the Distiller PPD. Be sure to include all fonts.
 - Consult with your print provider for preferred Distiller settings or use the custom “iGen3” Distiller settings recommended in Chapter 4, Application setups.
 - Avoid compression where possible and use the Smooth Shading feature in Acrobat Distiller.
- Imposition**
- **Basic imposition can be performed by the RIP of the iGen3. Your print provider can work with you on setting up for multi-up jobs.**
 - If you plan to use binding, leave ample room for the gutter.
- Finishing**
- 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.
 - A variety of coatings and varnishes are available. Consult with your print provider about specific options offered at their shop.