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How To Prepare Files For Print
Please read the following information carefully *before* you start file preparation. If you have any questions about this information, please contact your customer service representative and they will be happy to pass your query on to one of our experienced support staff.

Accepted Platforms or Operating Systems
Macintosh -Industry standard for graphic design – 90% of the files we receive are generated on Macs.
PC (or IBM Compatible)- Can be used for graphic design, but not the preferred operating system.

Accepted File Formats
Working Files – InDesign, Quark Express, PageMaker, Illustrator and Photoshop (Illustrator and Photoshop are not for multi-page layout); Postscript Files - *.prn (PC), *.ps (Mac); PDF Files – Portable Document Format is a universal file format which we accept from any platform or operating system as long as the file conforms to our specifications.

We recommend "PDF995" software for conversion from Word to PDF. PDF995 is available as a free download from www.PDF995.com/download.html. The "2-Step Download" available at the top of the web page is what is needed to convert Word files. Once installed PDF995 is accessed through the print command, much like choosing a printer.

When Submitting Files…
Be sure to send only the latest version of your electronic files. Sending earlier versions can result in the wrong file being output. Send all necessary fonts and images with your files.

Your electronic files should be accompanied by an up-to-date laser proof. If there are any changes made after the laser has been printed, please supply a new laser proof and electronic file. The job must be put on hold until we receive confirmation as to which is correct. The laser proof should be printed single-sided and at 100%. Please include crop marks. If you are unable to print your files at 100% with crop marks, please print the document tiled at 100% with crop marks, and paste the tiles together or as a last resort, print the document with crop marks at a reduced size but let us know the percentage of reduction.

Please submit outside and inside covers on a separate disk from the text. (Be sure all fonts, files and images associated with the covers are on the cover disk/CD.)

If you are using legacy files created in earlier versions of these applications, you will need to re-open the files and re-save them in a more recent version of the application prior to submitting them. This includes older image and graphic files that are placed within another document. Modern RIPs may not successfully interpret older files. Please see the document entitled Photoshop Actions and Batch Processing for details on how to update large banks of legacy images.

Page Layout
If your project contains more than one page, you should create it in a page layout program such as InDesign, Quark, or PageMaker. Single page projects such as covers or jackets can be created either in the page layout applications listed above, or in a drawing or photo treatment application such as Adobe Illustrator or Photoshop. Avoid using type in Photoshop except for larger titles and headlines. **Your document size**

should be the exact size of the final trimmed product. Please check with your customer service representative for correct trim sizes.

Bleed and Type Safety Margins
Due to the normal variation in printing and binding, elements that bleed (such as images or tabs) must extend a minimum of 1/8" beyond the edge of the page in order to avoid a visible white margin along the trimmed edges of the book. Please note, some products such as saddle stitch books, book jackets or case covers will require more (up to 5/8"). If in doubt, please consult your customer service representative.

Text
In addition, images and text that do not bleed (including text within tabs) must be placed no closer than ¼" from the trimmed edge of the page. This is the "type safety" margin. Elements placed within this margin cause any variation in printing and binding to appear exaggerated. In addition, elements too close to the edge of the page, risk being cut off in the binding process. Text within tabs must also be set back from the trim edge by 1/4". If the book will
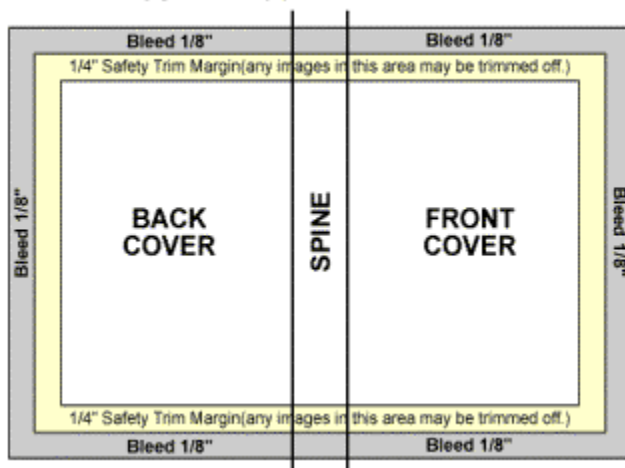
If the book is to have plastic spiral, wire-o, wire spiral or comb binding, the gutter margin must be at least 5/8" to allow for spine trim and punching.

Cover
Images and text on the cover must be at least 1/4" from the final trimmed size.

 Please see sample layout below.

PERFECT BOUND LAYOUT

File Name
The name of your file, or files, should clearly indicate to which job the files belong (e.g. author's name, title, subject or keyword) and in which order they are meant to be placed. E.g. Science_001-050.pdf, Science_051-100.pdf or Science_01.qxd, Science_02.qxd, Science_03.qxd.etc.

Use Leading Zeros (as in the examples above) when numbering your files so that the red can be automatically recognized by the computer.

Do Not Use Any Spaces, accented characters, forward or backward slashes, pipe, column, punctuation marks or non-alphanumeric characters such as "#", "&", and "8" in your file name with the exception of a dash"-". Replace any spaces in the name with an underscore (i.e. shift + hyphen).

Use only one period in the file name, just before the file extension. **ALWAYS USE PROPER FILE EXTENSIONS.** File names should be no longer than 18 characters.

Fonts

Please send us all the fonts used in your document and **ONLY** the fonts used in your document.

When collecting your fonts, please collect them from the same computer used to create your document. Often fonts from other sources with the same name have slight variations that can cause re-flow of your document.

As prepress is a PostScript workflow, PostScript (or Adobe Type 1) fonts are the ideal fonts to use for predictable, high-quality output. OpenType, TrueType and Composite (double-byte) fonts are also accepted but are not necessarily as reliable as PostScript fonts. Other font types should be avoided.

If using PostScript fonts, please send both the screen and printer fonts (OpenType and TrueType have only one file containing both screen and printer information), and always send the entire family of fonts (e.g. bold, italic, bold italic, etc).

If you modify your font using the style palette (e.g. bold, italics, etc.), be absolutely certain you have the actual bold or italic font loaded on your system. Otherwise the application will attempt to modify your font artificially with unexpected results.

Don't forget to send fonts used within eps files and logos. Better yet, embed the fonts in your eps. You may also convert your fonts to outlines in Illustrator. If you do, be sure that your resolution is set to 1400 dpi for best quality prior to converting fonts (File>Document Setup>Printing and Export>Output Resolution). This turns your font into a graphic so you no longer have to worry about collecting the font, but the text will not longer be editable.

Scanning and Photo Treatment

Our experienced operators would be happy to scan your images for you (there is a fee for our prepress department to scan images). If however, you choose to do your scanning yourself, please keep the following points in mind…

If you are scanning from a previously printed piece such as a book, newspaper or magazine, you will need to apply a *descreen* at the time of scanning or else a pattern (moiré) will appear in the final product. This should be one of the options in your scanner software.

While low-end desktop scanners have made incredible advances in the last few years, there are still certain instances where professional scans on a drum scanner or high-end desktop scanner are required: If you want to enlarge the image by more than 200%, if your work is color-critical, or if you are scanning slides and transparencies.

Pure black and white graphics or drawings should be scanned as bitmap or line-art. Images or graphics with gray shading should be scanned as grayscale. Color images should be scanned as RGB, and converted to CMYK. Please consult your customer service representative for color conversion settings.

Resolution

Different paper stocks, different types of presses and different products all require different amounts of resolution. In general, however, we recommend you scan your color and grayscale images at 300 dpi and your line-art (or black and white) images at 800 dpi. This will keep your file size manageable, but allow enough resolution for a wide variety of different print applications should you ever decide to re-purpose your images.

Please bear in mind that resizing images in a page layout application affects the image's resolution proportionately. In addition, the "re-resizing" capabilities of an application such as Photoshop are extremely limited and should not be relied upon to produce good quality images. Therefore, it is important to know the final image size required in the layout *prior to scanning*.

If you do not know the final size, scan the image to the maximum possible size, and when the size is known, use Photoshop (rather than a page layout application such as Quark Express) to resize your image whenever possible. Avoid rotating large images in your page layout application.

Line-art (or bitmap files) should be scanned at 800 dpi for maximum quality. In most workflows, bitmap files can be output at extremely high resolutions, while grayscale and color images containing excess resolution are down-sampled to 300 dpi. This can happen in Acrobat Distiller, when creating PDF's or it can happen automatically at the printer's RIP.

300 dpi is an acceptable resolution for most grayscale and color files. If, however, your images contain a strong or solid black component, you will need more resolution in order to ensure the smoothness of the lines. If you have color or grayscale images requiring a higher resolution, please be sure to include a cover letter to Creasey, asking them to override any automatic RIP settings.

Color and grayscale images with a strong line-art component can be scanned up to 800 dpi (as with normal line-art), but should be saved as either grayscale or CMYK images. Bear in mind that the additional gray shading and or color information will make your files extremely heavy. In a book with many images of this type (such as a comic) it is acceptable to go as low as 400 dpi in order to make files more manageable.

Color
Color images should be supplied as CMYK color space. RGB is the color mode used for display devices such as monitors and televisions, and is not printable. Please convert your RGB images to CMYK before submitting your files, or making PostScript and PDF. Please consult you customer service representative for color conversion settings.

Do not use spot colors in your file unless they have been specified in your quote. Convert your spot colors to CMYK before submitting your files or making PostScript and PDF.

Grayscale files should contain no color. Please be sure to convert all graphics, types and images to grayscale before submitting your files or making PostScript and PDF.

Any graphic or image imported into your page layout application from a program such as Illustrator or Photoshop should be in the correct color space prior to being imported.

Color Correction and Color Management
What you see on your monitor is not necessarily a reliable representation of the tone or density of the final printed product. While your monitor uses pure red, green and blue light to display your images, the printed piece will be made from Cyan, Magenta, Yellow and Black (CMYK) inks which are inherently impure. While your monitor reflects light, ink absorbs it. Monitors tend to have a bluish cast to them, while paper tends to have a yellow or gray cast. Paper will soak up ink, causing your image to darken and the grain of the paper can cause some unevenness, mottling or flecking in the image that will not be present on the monitor.

In addition, every monitor is different – different make, different model, different age – as is every user. Your monitor may appear different in the morning than it does in the afternoon light. The color of the walls surrounding the monitor and the quality of lighting source will alter your perception of the colors on the monitor.

Your monitor preview can be improved by following some simple calibration and color management steps but your monitor should **NEVER** be relied upon as **100% accurate**. Likewise, your internal color proof cannot be considered accurate (for many of the same reasons listed above) unless it is regularly calibrated and color managed correctly. For all these reasons, we recommend that any color correction or color-critical scanning be left up to someone with fully color-managed workflow.

NOTE: While we do offer color correction (charged at an hourly rate), we will not color correct a file to match a client-supplied proof unless directed to do so. Unless otherwise noted, we will assume that any client-supplied proofs are for content and pleasing color only.

If your proof is intended as a color contract proof, it must conform to SWOP standards, contain a color bar, and indicate on what type of device it was created.

Dot Gain In Grayscale

Halftone images are created by halftone dots of various sizes: large halftone dots make up the dark areas of an image, while small halftone dots make up the lighter areas. Dots of various sizes are used to create the various shades of gray needed to create the effect of a continuous tone image.

On press, these dots of ink have a tendency to be absorbed by the paper, becoming bigger and even spreading into each other, causing the image to darken. This effect is known as dot gain. Dot gain is affected by the type of paper and the type of press used to print your job. Porous, uncoated paper stocks on web presses tend to have the most dot gain, whereas coated stocks run on sheet fed presses tend to have less dot gain.

All grayscale images should be adjusted for dot gain prior to using them in your layout. As with color images, grayscale images are difficult to preview accurately on your monitor. Using tools such as Photoshop's Info Dialogue Box, and Curves, you can adjust your images "by the number" rather than relying on your screen preview. Please ensure your image has a minimum highlight dot of 3%. Anything less than that may not print.

For highlight, midtone and shadow settings for your particular print conditions, please contact your customer service representative.

Saving Images

Don't forget to upgrade old legacy graphics or images (Photoshop 5.0 and earlier, Illustrator 7 and earlier) before using them in your page layout. Use batch processing to update large banks of older archived images.

Make sure all your images in their most current version are sent along with your page layout when supplying working files. When making PostScript or PDF, make sure that all your images and their links are up-to-date prior to printing to file.

When working in PageMaker, do not store or embed copies of your images within the document. This makes your document large and slow to work with. In addition, the stored images cannot be edited from within the PageMaker document. Save your images as EPS or TIF files.

DCS files cannot be used in a composite PDF workflow without first being recombined. If sent as-is, the low-resolution proxy will be output instead of the high-resolution date. DCS files should be resaved as EPS files. Please contact your customer service representative before submitting your files if you are working with DCS.

JPEG is a lousy compression format and should be avoided. Resave JPEGs as TIFF or EPS. While this will not remove jpeg artifacts from the image, or improve quality, but will prevent further degradation of the image.

Placing Images

It is not always easy to tell if your image is butted up against the key line or frame. In order to avoid white space between the image and the key line, make sure to crop off all white space in your photo treatment application. Then, in your page layout application, use the zoom tool to verify that your image does in fact meet the key line.

In Quark:
Never use a background of "none" in your picture boxes in Quark Express. This tends to create pixilated (jaggy) edges wherever your image drops out to 0%.

Do Not Use Hairline Rules
A hairline rule is defined by your software as the thinnest line a given output device can create. If you are printing to a 300 dpi printer, your line will be 1/300th of an inch, and will be visible. When printed to a plate setter at 2400 dpi, the line will be 1/2400th of an inch and will become invisible. Therefore, never use hairline rules. Solid key lines (or rules) must be a minimum thickness of 0.24 pts. Dotted, screened or color rules must have a minimum thickness of 0.6 pts. This also applied to lines used within artwork and graphics.

Minimum Type Size
Due to the limits of the print process, extremely small type can plug up, or lose fine detail. Type should be no smaller than 6pt, including footnotes, fractions and copyright page information and symbols. Color or reverse type should be no small than 9pts.

Common Type Problems
White type on a solid background (also called reversed type): When white type is placed on a solid background, the type is knocked out from the background, leaving a space within the background containing no ink. When ink is absorbed by paper, it has a tendency to spread. As a result, the fine details on the knocked out type can become plugged up, changing the look of the type.

Solid or white type on a screened background: When solid or white types are placed on a screened background (i.e. background whether black or in color, that is not set to 100% fill), the halftone dots that make up the screen can cause the edges of the type to appear jaggy and difficult to read.

Screened Type: Screened type with fine serif details or at small point sizes can be difficult to read. In order to avoid these problems, when reversing type, screening type, or placing type on a screened background, we recommend that the text is at least 9pts, and a sans serif typeface. In addition, when printing solid type on a screened background, be sure the background is no longer darker than 30% to add contrast between the text and the background, which will increase legibility.

Registration of Fine Detail In Color Work
When working with color type of key lines, remember that unless you are using a Pantone color, or one of the 4 process inks (Cyan, Magenta, Yellow, Black) your type will be composed of a combination of two or more of the process inks. Any slight shifts in registration on the press will be especially apparent in this fine detail, and will make type difficult to read.

Color type which prints on more than one plate should be at least 9pts, and if possible, sans serif. Key lines – including lines within imported graphics – must be at least 0.6pt. Better still, if at all possible, do not use process color key lines. Do not use colors composed of more than two process inks. The same rules apply for type and key lines knocked out of a process color background.

Our Proofs
Content Proofs: These proofs replace the traditional bluelines. They are also known as digital bluelines. Typically content proofs are printed at anywhere from 300-600 dpi and are not color accurate. They will show the position of elements on the page, page trim and bleed, page order and color breaks. As their name implies, they are meant for proofing content only, not for image quality or color.

Color Contract Proofs: All color work will also be accompanied by contract color proofs. These proofs are high resolution and simulate press and paper conditions. They are color accurate within a reasonable limit. These are the proofs our presses will be printing to.

Soft Proofs: Soft proofs are another form of content proofs. Soft proofs are made by capturing the information that would normally be printed to your digital blueline, and printing it instead, to a file. This file is then distilled

into a PDF, which can be viewed by anyone with the free Acrobat Reader or through other remote proofing software.

Like digital bluelines, soft proofs are generally printed at anywhere from 300-600 dpi and are not color accurate. They will show the position of elements on the page, page trim and bled, page order, and color breaks. They are meant for proofing content only, not for image quality or color.

Soft proofs can be fairly large files. Those with dial-up connections should only soft proof individual pages, not entire files.

The quality of your monitor will influence the quality of your soft proof. Large, high resolution monitors are better suited to soft proofing as you will be able to preview whole pages at once, and type will be much smoother. Technically, however, soft proofs can be viewed on any type of monitor.

Corrections
In general, corrections should be made by the designer and re-supplied either as final working pages, or as PDF files. If, however, you have supplied working files, Creasey can make the corrections for you charged at an hourly rate.

If you have supplied PDF files, we can only make simple corrections (single line corrections, small text changes, some color and image modification) to the files. Whenever possible it is better to make all corrections to the working files and to remake the PDF's.

Regardless of who makes the corrections to the files, there is a charge for each page that must be replaced in the layout. For this reason, it is important to proof your job carefully prior to submitting your files. Printer's proofs should be only last minute verification.

If you supply your corrections in PDF format, they should be supplied as individual pages unless otherwise specified.

Corrections can delay the production workflow. To avoid extra charges and delays, please make every effort to ensure your files are ready to print prior to submitting them.

The specifications and standards cited are common industry standards and correspond to those outlines by GRACOL – the Graphic Requirements Applications in Commercial Offset Lithography. In addition to reading these standards, we recommend you visit the GRACOL website (www.gracol.com) *for valuable information on file preparation*.