

# Speed Printing & Graphics

## THE **ABC's** OF PRINT PRODUCTION

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### **SUBMITTING FILES**

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**Artwork files can be uploaded to  
our website  
www.sp-g.com**

Place all your files (layouts, linked/related graphics, photos and fonts) in one folder and **label the folder with Your Name or Company / Organization.** We receive many files and labeling your upload something generic like "poster" or "business card" can make it difficult for us to locate and retrieve your files quickly. If you have several pieces you may place separate folders labeled accordingly into one main folder.

Though it is not required. It is preferable that files be compressed into a .ZIP, .SIT or .SITX file before uploading. This process will protect your information from damage as it passes over the internet.

We receive notification shortly after you have uploaded files. However if your project requires immediate attention and RUSH service please phone us at (203) 324-4000 after uploading your files.

#### **PROGRAMS ACCEPTED:**

(Macintosh Preferred)

Adobe Illustrator CS5 or earlier  
Adobe Photoshop CS5 or earlier  
Adobe InDesign CS5 or earlier  
Adobe Acrobat PDF (Portable Document Format)  
QuarkXpress 6.5

#### **VIA E-MAIL**

- Include "JOB FILE" in the subject line of your email.
- Files submitted via email should be compressed into a .ZIP, .SIT or .SITX file, as noted above.
- Providing printed hard copy of your layout helps us spot errors or problems.
- Please be sure to include your phone number and complete contact information so we may reach you.

#### **ON REMOVABLE MEDIA**

- We can accept files on CD or USB Flash Drives.
- Be sure your removable media is labeled clearly with your name/phone etc.
- If your media contains ANY files other than the ones you intend for us please identify them clearly. You will be charged for excessive time spent trying to find and identify needed files.

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## **BITMAP VS. VECTOR**

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**Vector graphics** are made up of mathematically defined curves and line segments called vectors. You can edit the graphic by moving and resizing the entire graphic or the lines and segments that compose the graphic. **Vector graphics are resolution-independent and can be resized with no loss in image quality, producing clean, sharp graphics.** Vector graphics are created in drawing programs such as Adobe Illustrator. This is usually the best format to choose when creating art such as logos.

**Bitmap Images** are formed by a rectangle grid of small squares, known as pixels. Each pixel contains data that describes whether it is black, white or a level of color. Scanners produce bitmap images when you scan a photo or artwork. Illustrations and artwork created directly in image-editing programs such as Adobe Photoshop are also bitmap images. The amount of information in a bitmap image determines its size. Bitmap images are resolution-dependent.

**Bitmap images will appear jagged or fuzzy if they are created at a low resolution and then enlarged. Therefore it is extremely important that that a bitmap image is created at the proper resolution and size for which it will be used.**

VECTOR



LO-RES  
BITMAP

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## **RESOLUTION & PREPARING SCANS**

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**LINE ART** (Black & White drawings that do not contain photos or shades of grey) **should have a resolution of 600-800 dpi at 100%**

**PHOTOGRAPHS** (also called continuous tone images) **should have a resolution of 300 dpi at 100%.**

**You must choose the appropriate resolution at the time of scanning. You cannot take a 72 dpi image and simply increase it to 300 dpi via the resolution option. Increasing resolution afterwards will result in loss of detail and fuzziness and usually results in an unacceptable image quality.**

All scanners acquire images in RGB mode and they should be converted to the appropriate mode Grayscale or CMYK before final output.

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## **RGB VS. CMYK**

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Color that you can see on a computer (or TV) monitor and in printed photos consist of millions of dots of different hues. Pictures on monitors consist of red, blue, and green dots — RGB. Photos and images on paper consist of cyan, magenta, yellow and black dots for printing — CMYK. The CMYK process cannot match colors produced by the RGB process. **In other words you can't depend on a printing press, digital copier or printer to reproduce color that matches what you see on your screen and much like when you see a wall of televisions in a store, every monitor also displays color differently.**

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## **PROCESS (CMYK) VS. SPOT COLOR**

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**Spot colors are commonly used when the design requires three (3) or fewer colors** and you will not be reproducing color photographs. Spot colors also allow for the most precise color match in elements such as corporate logos. **Process Color (CMYK) is used when you are reproducing color photographs** and when the design requires more than 3 colors it is often the most cost effective printing method.

The most widely used color matching system is the Pantone Matching System (PMS). A Pantone swatch book (similar to the paint chip books found in paint stores) is used to identify colors by their specific numbers. So for example instead of saying "I want bright Red" you would tell a printer you want Pantone (or PMS) 199. Because this matching system is standardized throughout the printing industry you can be assured that everyone involved in the process can easily identify the correct color.

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## **COLOR SEPARATIONS**

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Electronic artwork must be created in a manner that will produce the proper "color separations". Preparing color separation is a task that can be completed by the designer but is often left to the professional production department of the printer producing your work. However, the use of color should be considered by the designer at the onset as it can effect your final costs dramatically. **If you are unsure of how your artwork should be created we strongly suggest that you consult us before you begin creating your files. It can be costly and sometimes impossible to correct errors in this area after your design is completed.**

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## TRAPPING

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When two or more colors are used in a design and the colors are touching or in close proximity the job will likely require "trapping". Not all jobs require trapping and a thorough knowledge of the printing process to be used is needed for determining when trapping is necessary. This is often a pre-press task handled by the print shop but the designer should be aware that designs that involve intricate trapping may require additional preparation time and add to the final production costs.

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## LINKED IMAGES & ARTWORK FILES

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Layouts are typically created in a layout program such as Adobe InDesign or QuarkXpress. A layout will usually consist of several elements such as type, photos, and graphics. Typically the page(s) are organized and type is set within your layout program. Logos, photos and other artwork are often created using other programs and then imported into your layout. The layout program then creates a "link" to the element. **When you supply files to us for output you must be sure to include the original artwork/photos files that are "linked" to your document to prevent fuzzy, low-resolution results in printing.** The "Package" option in InDesign and the "collect for Output" option in QuarkXpress provides an easy method for collecting linked files.

Some programs allow you to choose to "embed" images or artwork. We suggest you provide the independent files so that they may be edited should last minute adjustments be necessary.

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## FONTS

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There are several font standards in use today: Postscript Type 1, True Type, and OpenSource. Postscript Type 1 fonts are the preferred format for use with commercial printing equipment/methods and **limiting your font usage to Postscript Type 1 fonts will eliminate many fonts issues in your files. Type 1 fonts consist**

**of two files: the screen font and a printer font. Supplying just one part of a two part "font file" will cause improper output of the file.**

Screen fonts contain the information that appears on your monitor and Printer fonts contain the scalable, vector-based information that is sent to the hi-resolution Postscript output device. In the case of Postscript Fonts the screen font "suitcase" file will always be accompanied by at least one printer font.

Fonts from different manufacturer's are not always the same even if they share the same font name. Substituting fonts will often yield undesirable results such as text re-flow. To prevent difficulties with fonts we request that you supply fonts with your electronic files. Your fonts will only be used to output your files, copyright/usage laws will be followed.

**NOTE:** Drawing programs such as Adobe Illustrator will allow you to "convert fonts to outlines" which turns the letters into graphic elements. Although this makes the type uneditable, it can be a useful feature when creating cross-platform files or when using a True-Type font in your layout.

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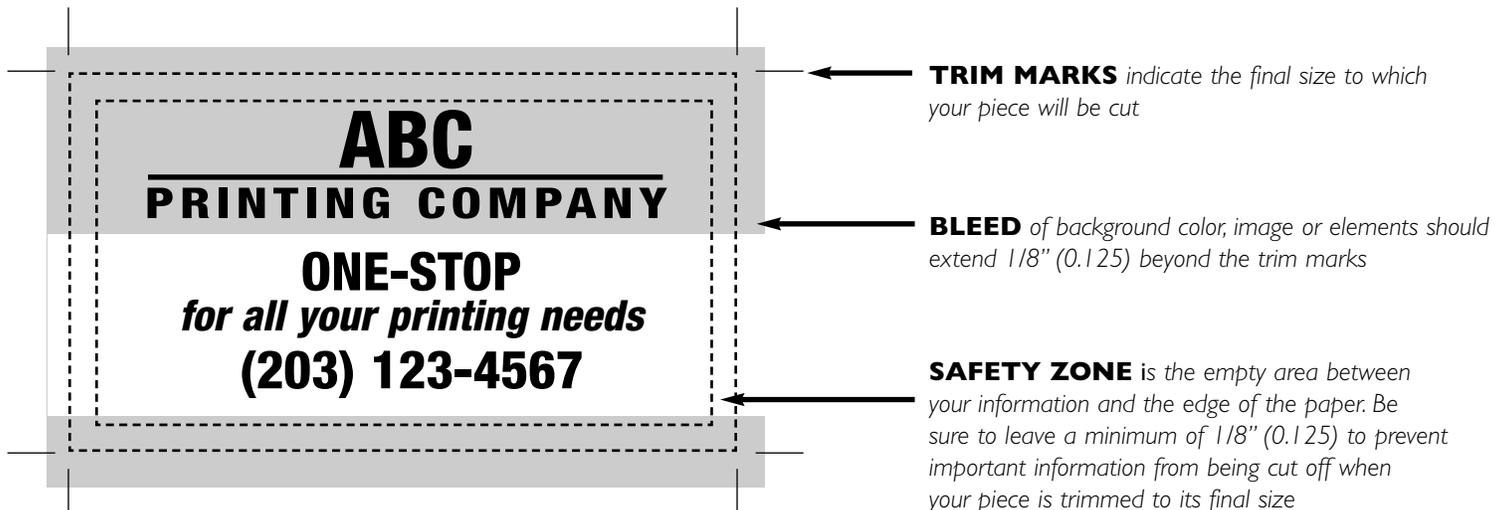
## BLEEDS, TRIM MARKS & SAFETY ZONE

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Often designs are created that appear to be printed to the very edge of the paper leaving no paper border. Graphic elements that go off the edge of the paper might include backgrounds, photos or graphics. When this is the case the item is actually printed on an oversized piece of paper and then trimmed down afterward to create and achieve what is called a "bleed".

Trim Marks indicate where cuts are to be made so that your final finished piece is the correct size.

A Safety Zone is an area near the edge of the page on all sides that should not contain any text or important information. During the printing process some shift of the paper is likely to occur and information placed too close to the edge of the page could be cut off or into during trimming.



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## PROGRAM OVERVIEW

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**While we will always do our best to accommodate your needs files prepared in inappropriate programs or incorrectly can add significantly to the final cost of your project. We strongly urge that you take the final method of output into consideration at the very start of the design process. We are happy to answer your print production questions and can be reach at 203-324-4000**

### **Adobe InDesign and QuarkXpress**

#### *(Layout Programs)*

A layout program is used for combining words and graphics into printable pages. They are among the most widely used programs in the professional design industry and an excellent choice for creating layouts. They are designed for use with commercial output equipment. Page layout programs are ideal for use in projects such as newsletters and catalogs as they are best equipped to create multi-page documents.

### **Adobe Illustrator (Drawing Program)**

A vector-based program, that is an excellent choice for producing designs that require a combination of type and artwork. Often used for creating illustrations, drawings charts and diagrams. Illustrator files allow for relatively easily manipulation of size and color. Artwork created in Illustrator is often placed into a layout program.

### **Adobe Photoshop (Image Editing)**

A pixel-based editing program. Generally used for manipulating, editing and refining scanned images which are then placed into a layout program. In some circumstances used for producing final art but not ideal for layouts requiring type and or use of spot colors.

### **Adobe PDF (Portable Document Format) and Adobe Acrobat**

PDF is a file format that was developed by Adobe systems for their Acrobat product line. A PDF file can be viewed and printed with a viewer program called Acrobat Reader which Adobe provide free of charge (visit [www.adobe.com](http://www.adobe.com)). While PDF files are not easily editable (if at all) this file format can be read by a wide number of users on different computer platforms. The PDF creation process embeds the information (graphics, text etc.) on your page creating a sort of "permanent snapshot". With proper preparation no additional files are needed to properly view and/or print the file and thus font and linked graphics issues are eliminated. The PDF format is an excellent choice for files that will be produced digitally and will not require any further manipulation.

Many programs allow for creation of a PDF format from directly within them. Adobe also has a more advanced program for creating PDF files called "Acrobat". This program can convert any Postscript file into a PDF.

### **Microsoft Word (Word Processing)**

Mostly used for creating text files, reports or page layouts to be output on office desktops printers such as inkjets. Word files can usually be output digitally but it is not a good program choice for multi-color documents intended for offset printing as it does not allow for preparing the proper color separations required.

### **Microsoft PowerPoint (Presentation)**

Designed for creating simple to complex presentations to be made via slides, a video screen or on a monitor. Powerpoint creates standard 8.5 x 11 page size files. Powerpoint files can usually be output digitally and are fine if intended to be kept at the standard 8.5 x 11 size. It is not a good choice for other types of printed pieces such as business cards or brochures as it allows for very limited control in the final printing.

### **Microsoft Publisher (Layout)**

This is a basic layout program for PCs. It is good for documents intended for printing on office printers but is seldom used for file preparation in the printing industry, as it has very limited capabilities compared to professional graphic layout programs. Publisher files intended for professional printing and imaging must adhere to a very strict set of parameters and often incur errors and problems in final output. If you MUST prepare your files using Microsoft Publisher the following information will be helpful:

- To create a bleed use the custom PAGE SIZE in the FILE>SETUP menu
- Color space must be selected BEFORE you begin your design. The default color space for Publisher is RGB and is not appropriate for print production. Before you begin choose TOOLS>COMMERCIAL PRINTING TOOLS>COLOR PRINTING and then the correct color space (CMYK or SPOT color)
- By default the art you use in your design will be saved as RGB within the layout file. Create your files in an appropriate format and then "link" your graphic files by choosing TOOLS> COMMERCIAL PRINTING TOOLS> GRAPHICS MANAGER to change your embedded artwork to links. Be sure to send all original artwork files along with the layout file.