



ANGSTROM GRAPHICS

Creative & Graphic Solutions

ISO 9001 Certified

Electronic Prepress Guide

This manual has been created to provide our valued customers with guidelines necessary for the preparation of electronic prepress documents. The information contained in this guide will help facilitate a standard for processes used at Angstrom Graphics and provide a base for generally accepted practices in prepress production throughout the printing industry. Naturally, each project comes with its own set of challenges and our courteous staff will be happy to help you with any questions you may have that are not covered in this document.

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Required Submissions

1. A hard copy (laser) of each page of your project can be submitted to Angstrom Graphics in order for us to expedite your job efficiently and accurately. The lasers should be made from the most recently corrected file and at the same size as the finished job size. Lasers should be color broken, indicating any spot colors, etc. Lasers are required whether you are sending us native files or final composite files.
2. On any job where you are sending us final composite files, we will require a color proof of each page. Angstrom Graphics can provide you with a **Benchmark Kit** when you begin work on your project in order to accurately reproduce on our presses the color on your proofs. The kit can be used to calibrate your Kodak Approval Printer to our press conditions.
3. Your job should be submitted (as quoted) in PDF format or in its entirety with all associated fonts, images, graphics, and linked files. Please do not submit anything more than what is needed to complete the job. Please upload the files using the AG OnLine™ workflow system or if sending a CD please, label each disk clearly as to its contents.

A Note about Fonts

Fonts can cause confusion and problems, but if you stick with some basic practices, you'll have few if any issues with your job. Because they are inherently troublesome, **Multiple Master** fonts should be avoided as much as possible. **True Type** fonts are less erratic, but still can cause re-flow issues. It is always preferable to use **Postscript** fonts for the best results. The illustrations below will help you identify the icons for different font types.

-  Postscript Screen Font Suitcase (Contains 'Family' of screen fonts)
-  Postscript Screen Font (Individual)
-  Postscript Printer Font
-  Postscript Type 1 Printer Font
-  True Type Font

When sending postscript fonts, be sure to send both the Screen Fonts and the Printer Fonts. Also, remember to send any fonts associated with any graphic files in your documents. When working with fonts in your page layout program, try to refrain from applying bold, italic or other effects with the attributes toolbar. This can sometimes result in a font that looks fine on the screen, but when printed gives an undesired result. If you want bold or italic type, select that specific font face from the menu.

Naming your PDF files:

At Angstrom Graphics, we use Automatic Page Assignment for almost all jobs. Angstrom Graphics recommends that naming convention be kept consistent and for that reason, the following naming convention is suggested for your pages.

Covers:

C1_nameofmagazine.pdf = Front Cover
C2_nameofmagazine.pdf = Inside Front Cover
C3_nameofmagazine.pdf = Inside Back Cover
C4_nameofmagazine.pdf = Back Cover
C5_nameofmagazine.pdf = Spine

Inside Pages: Note: The page name must match the folios on the actual file.

001_nameofmagazin.pdf
002_nameofmagazine.pdf
003_nameofmagazine.pdf
010_nameofmagazine.pdf
020_nameofmagazine.pdf
and so on.

Page Size

For the inside pages, create your page layout document at the “**final single page trim size**” of your project. Set it up as reader spreads, in non-facing pages. Remember that the odd-numbered pages should be on the right.

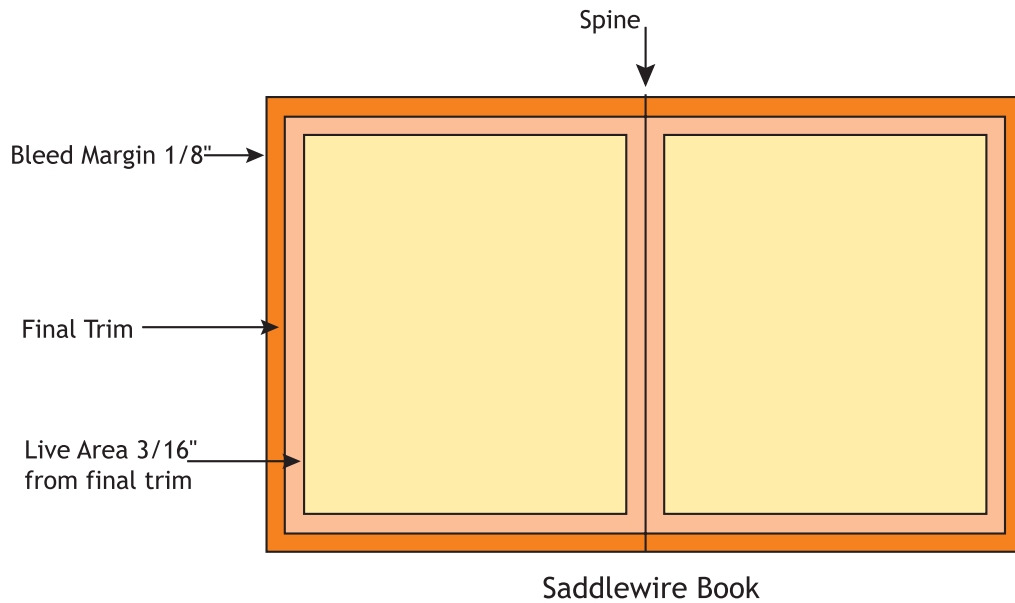
We also recommend using **Master Pages** whenever you have elements that are common throughout the pages of your job, such as headers and footers or folio positions.

For the covers, since they have to print on their own form on press and often require a spine (on perfect-bound books) which increases the spread size, we recommend that you build a 2nd document to the “**final spread size plus the spine**”. If your job does not require a spine (saddle stitch) or you are not sure what size the spine is going to be, it is still preferable that you prepare your covers in this manner. Set it up as spreads for **outside** and **inside** covers.

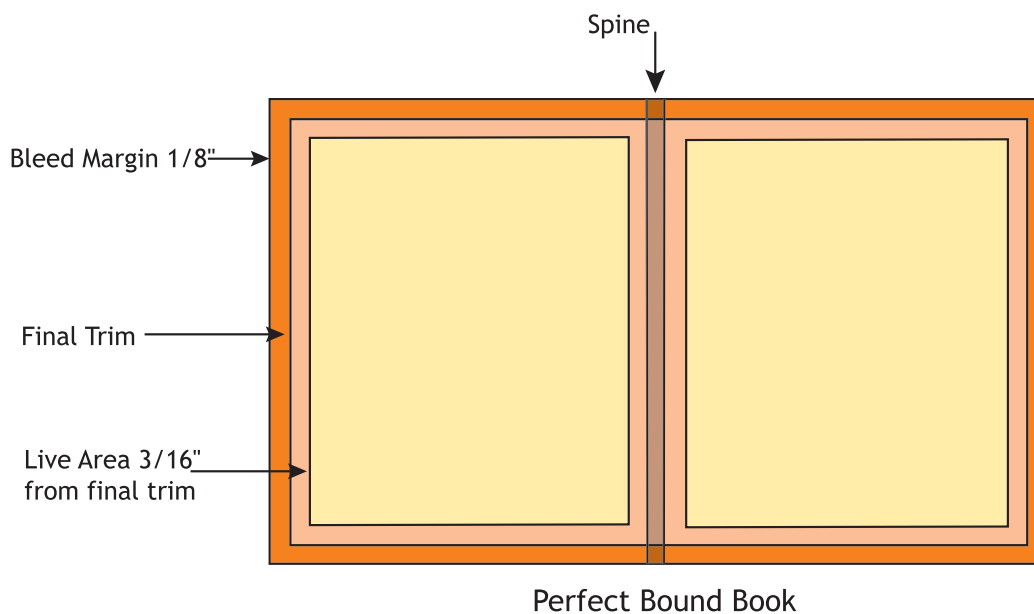


The following page contains illustrations to show these typical page setups and additional information on bleed, live area, etc.

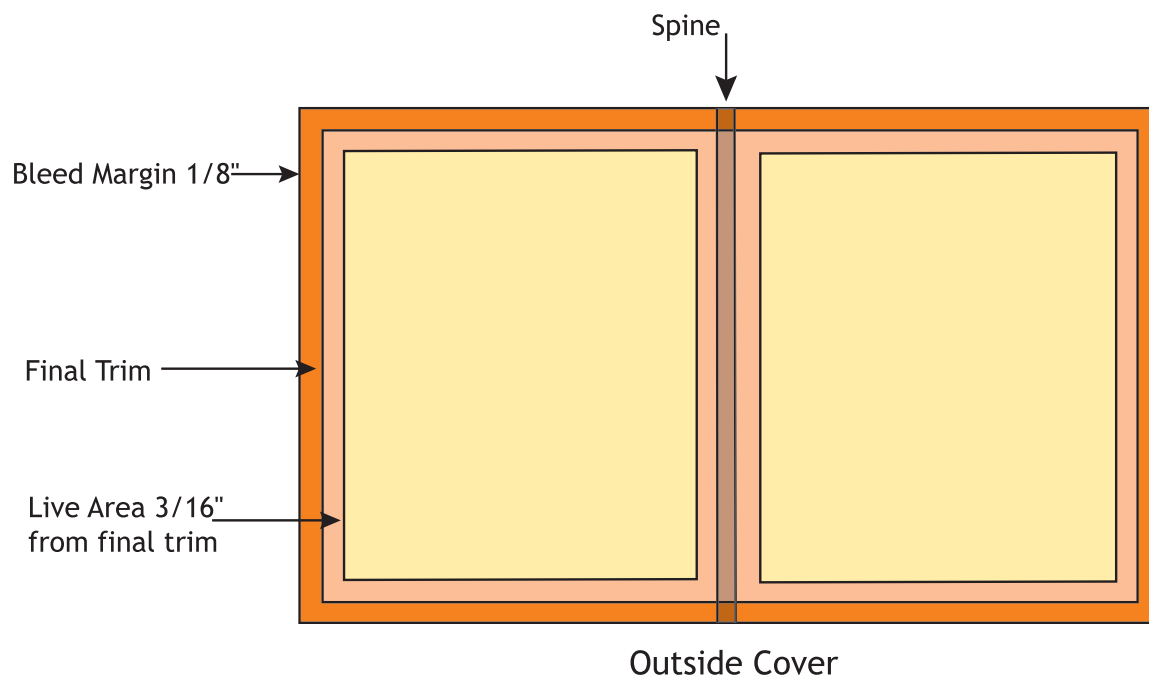
Bleed and Live Area



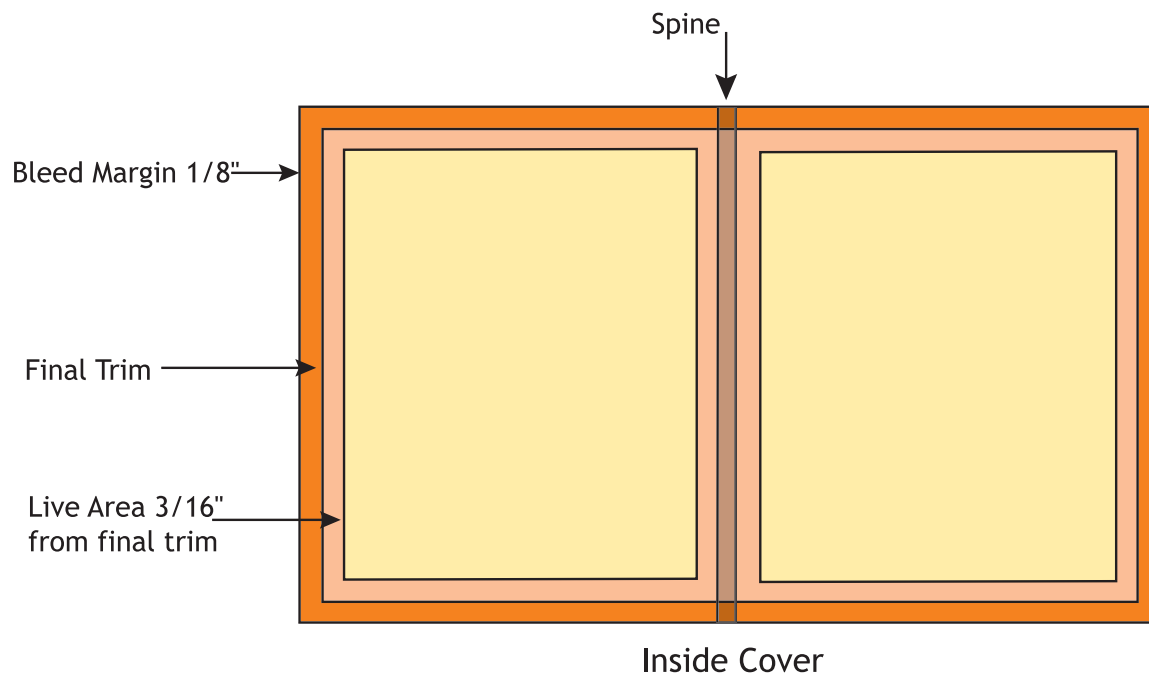
On **saddle stitch** books, we recommend a 3/16 inch safety area of no live text from the trim. Doing this helps prevent important text from possibly getting trimmed off during the final cutting and binding process. This area can still be used for images that are to bleed off the page.



On **perfect bound** books, we recommend a 3/16 inch safety area of no live text from the trim *and* 1/2 inch from the spine. Doing this helps prevent important text from possibly getting trimmed off or disappearing into the spine during the final cutting and binding process. This area can still be used for images that are to bleed off or crossover the page.

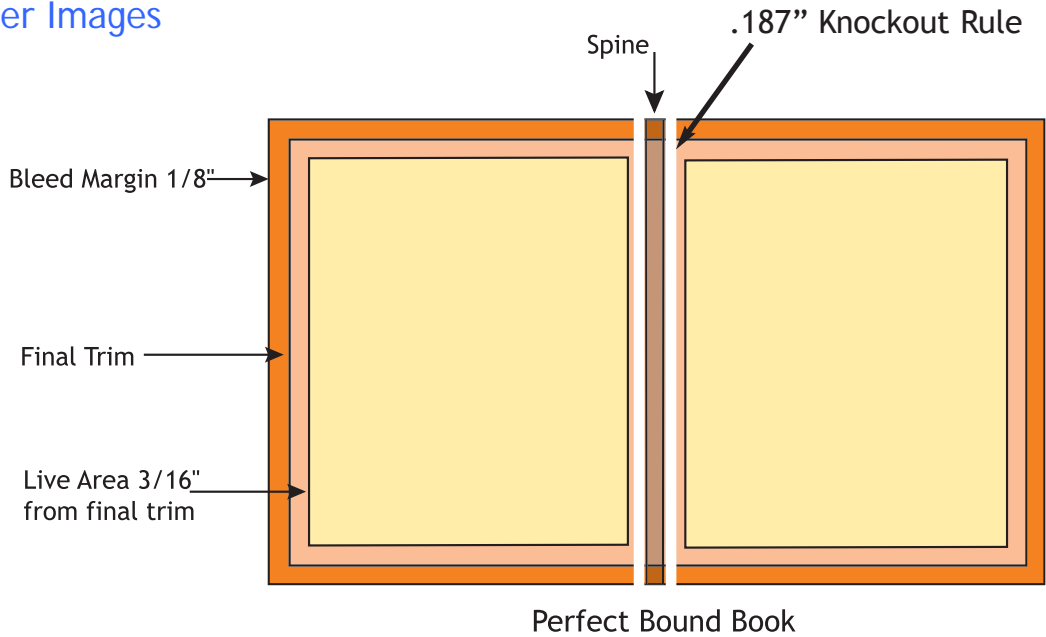


On the **outside covers** of **perfect bound** books, build your document to the **total spread size plus the spine size**. A safety area of 3/16 inch from the trim for live text is recommended. Your images can be placed anywhere or you can even place one image across the entire spread. As always, any images that go to the trim must have 1/8 inch bleed of image past the trim.

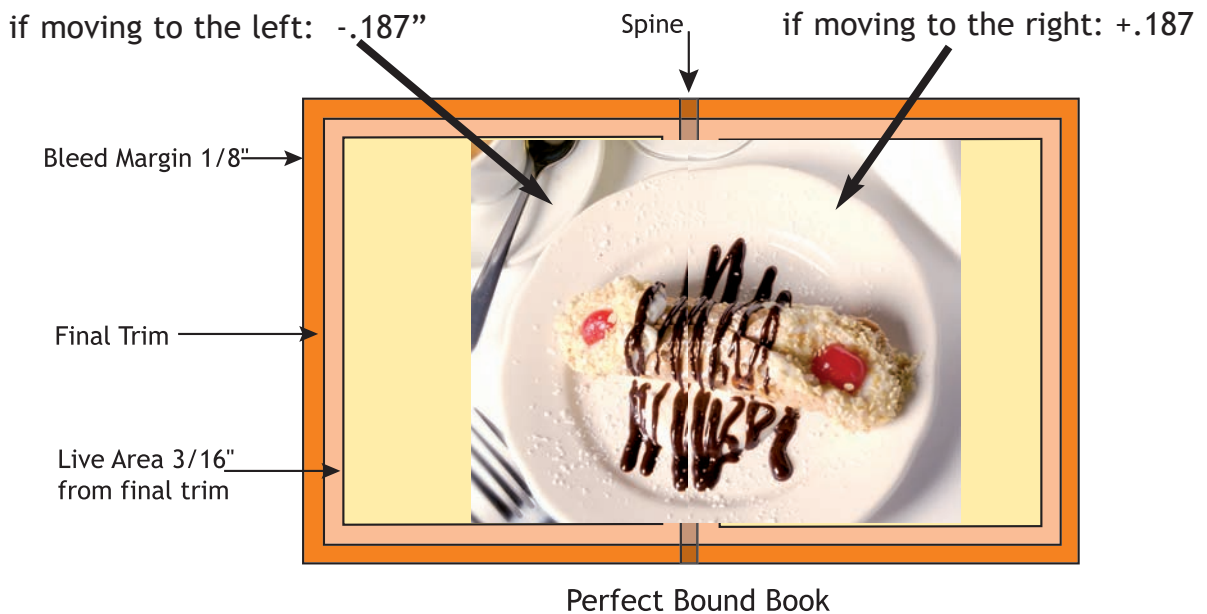


On the **inside covers** of **perfect bound** books, build your document to the **total spread size plus the spine size**. A safety area of 3/16 inch from the trim and spine for live text is recommended. Image placement can be important here if you intend to crossover from IFC to IBC, IFC to pg 1, or Last pg to IBC. On pieces requiring a **hinge score**, in order to have your crossover image line up accurately, the pages have to be moved away from the spine. A hinge score is simply a manufactured crease which is applied to the front and back covers to assist in opening them without cracking any inks or varnishes that are there. It also forms the well for inserting and gluing the inside pages into the book. Hinge scores are usually 1/4 inch away from the edge of the spine.

Crossover Images



On **Hinged Scored** books, please follow the above Diagram:
 Make sure to move the contents of the IFC to the left creating a knock out area of about $3/16$ " or $.187$ ".
 Repeat the process on the Facing Page.
 The same process applies to the IBC and the Facing Page, only it is the opposite.



X: 5.015"	W: 1.42"	∠ 0°	→	X%: 100%	↔ X+: -4.392"	∠ 0°
Y: 6.201"	H: 1.989"	⌂ 0"	↑	Y%: 100%	↕ Y+: -0.666"	∇ 0

When working with Crossover Images (Applies to Perfect and Saddle Stitch Books on all pages):
 Please follow the above Diagram in order to ensure that your images have a continuous look;
 please make sure to:

1. Step and Repeat your image.
2. Close the image on Top to the left towards the middle. Do the same on the Bottom image.
3. The images should be offset by $.187$ " on both sides. This is in addition to the current X coordinate number. This will create an effect called double Imaging.

Imposition

Impositioning is the term used for the positioning of pages in certain order on the press sheet. At Angstrom Graphics we use an imposition software that is specific to our presses, so it is NOT necessary for you to send us your pages imposed. Single Pages is Preferred

Blends and Vignettes

The fading off of one color to another, or **blend**, should not be done between two spot colors. Blends can be made between CMYK and spot colors, or CMYK to CMYK. In vignettes, which fade off from one color to no color, you can use any spot or CMYK color.

EPS Files

When placing EPS files, avoid using EPS files that have *other* EPS files embedded or “**nested**” in them. For example, a page you saved out of Quark as an EPS that *had* an EPS inside of *it*. Sometimes these files can cause problems during the RIP, giving poor results or occasionally not RIP’ing at all.

Internet Images

When placing internet images, be aware that these images are most often at a lower resolution (72 dpi) than is acceptable for quality printing. They are usually JPEG format files and you will have to re-save them as TIFF files if you want to use them in your page. Depending upon the image, it is sometimes helpful to scale it down in your page layout program to try and minimize any saw-toothed look it may have.

Trapping

For prepress purposes, trapping or “spreading and choking” are used to overlap in small increments any areas where colors of differing tonal values meet. The resulting overlap assists in the registration during printing, preventing the appearance of any white paper at the point where the two colors butt to each other. At Angstrom Graphics we use specific trapping software, so it is not necessary for you to consider trapping when sending us your make-up files. If however you are sending us final composed pages that are ready for plating, they should have the traps applied. Depending upon the size of the areas being trapped, we generally use trap amounts varying from .02 mm to .06mm.

Rich Black

If your project has any large areas of black ink coverage, it is preferable to assign a **rich black** value to those areas. The rich black is simply a black with specific values of CMY mixed in to increase the density of the area, making it a deep, dark black and eliminating any “picking” (holes) during printing. Angstrom Graphics’ rich black values are: 40% cyan, 30% magenta, 30% yellow, and 100% black.



Illegal File and Folder Naming Rules

Please do not use / ? < > \ : * ; | ”, % # \$! + { } & [] •(bullet) .(period)
Filenames may not begin with a period or hyphen or end in period or hyphen.

When setting up a Folder on AG OnLine please DO NOT use any illegal characters as mention above:

The screenshot shows the AG OnLine Cleveland web interface. At the top is a green header with the text "AG OnLine™ Cleveland". Below this is a navigation bar with links for "Home", "Customers", "Manage", and "Configure". A blue banner below the navigation bar contains the text "Angstrom Graphics OnLine" and icons for "Overview", "Jobs", and "Administration". Below the banner is a "Create Job" button with a gear icon. The main content area is a form titled "Job Info" with the following fields:

Job Name:	<input type="text" value="Angstrom Graphics_1527000"/>
Description:	<input type="text"/>
Job Code:	<input type="text" value="Brochure"/>
Project Code:	<input type="text"/>
Job Template:	(none)

Angstrom Graphics Specifications

Please Note: Any work submitted that falls outside these guidelines may be subject to additional charges being applied.

Supported Applications

- ✚ QuarkXpress
- ✚ Adobe InDesign
- ✚ Adobe PageMaker
- ✚ Adobe Photoshop
- ✚ Adobe Illustrator

Fonts

- ✚ For best results, please use Postscript Type 1 fonts only. Avoid using Multiple-Master fonts, as well as any TrueType fonts.
- ✚ You must include both the screen and printer fonts used in your files, including fonts used in linked .eps files.
- ✚ Don't stylize fonts in any of your applications - choose the specific font. Making a font bold or italic by applying bold or italic attributes in the application menu could cause type substitution.
- ✚ Don't send in any fonts as an alias.

Page Layout

- ✚ Set the document size equal to the final trim size of the printed piece. If all document sizes are not uniform, an extra charge could be incurred due to the extra time required to determine proper offsets.
- ✚ Extend the bleeds 1/8" (.125) beyond the trim size on all sides.
- ✚ Always keep live matter at least 1/4" (.25) from trim. Live matter is defined as any element (type, logo, photo, etc.) that is not intended to possibly "trim off" from any side (edge) of the page.
- ✚ Check that all files (including ads) supplied are designed to the proper trim size of the publication it is intended for.
- ✚ Extraneous non-printing elements placed on the pasteboard should be deleted.
- ✚ Remove unused colors from your color palette. Convert all spot colors to CMYK, unless you are running a 5th color.
- ✚ Do not nest .eps files inside of other .eps files.
- ✚ Small type sizes and fine serifs are not practical to reverse out of 1, 2, or 4-color process and should be avoided. Type sizes should not be smaller than 7 pt, and when using type less than 10 pt in a reverse, the type should be **bold**, not plain. Also, reverse keylines should never be less than 1 pt.
- ✚ Delete any linking files that are no longer needed in your file. Do not rename a linked file after saving the main document file.

Images

- ✦ Please convert all RGB, LAB, or INDEX color images to CMYK or B/W format only, unless running a 5th color. Color images should be scanned as CMYK.
- ✦ File format should be TIFF or EPS only. No JPEG, GIF, PICT, PNG, etc.
- ✦ Save images as flattened TIFF files with no Alpha Channels, and turn LZW compression off.
- ✦ If an image requires a clipping path for silhouetting, save the files as EPS, select binary, and turn DCS off.
- ✦ Minimum resolution for TIFF and EPS files is 300 dpi.
- ✦ Line art scans and images with text art and/or logos (bitmap) should have a resolution of 1200 dpi (minimum of 800 dpi). (Note: Images taken from the Internet are 72 dpi and are not suitable for print).
- ✦ As a general rule, 4 color scan resolution should be 2 times the screen ruling the job will print at.
- ✦ Do not stylize (color or silo) any images within Quark (No Quark generated Duotones). Do this in either Photoshop or Illustrator, and then place in Quark.
- ✦ Do not apply JPEG compression in EPS images. Also, do not use any halftone screen or transfer function in EPS files.
- ✦ Hairline rules (.25 pt) are inappropriate for reproduction on a web press. Please restrict their use to jobs printing on Sheetfed presses.
- ✦ Avoid covering graphics, images, or type with white boxes.
- ✦ In Illustrator, delete any unused swatches and delete any linking files that are no longer required.
- ✦ Total ink densities for scanned 4 color images should be less than 280 for Web, and less than 300 for Sheetfed work.
- ✦ Minimum of 3% dot in the highlights and a maximum of 95% dot in the shadows.

Ads (See File Naming included in CTP Info.)

- ✦ Ads for future pick-up either supplied should be named in advance. We find the following example to be best suitable for us as well as the customer. (ex. Customer Initials_001, 002, 003, and so on)
- ✦ Check with your CSR to discuss ad pickup naming conventions.
- ✦ Make sure ALL elements (as well as a content proof) are supplied to process a page if sending native files.

Trapping

- ✦ Black must always overprint, except when running a 5th color.
- ✦ Colors must always knockout or trap each other.
- ✦ Text (using any color other than black), that is on a white background, must either be set to knockout or overprint in QuarkXpress trap specifications. Otherwise you will get FAT (bold) type.
- ✦ When running a 5th color all text, including black, must knockout, as it is the last color to go down on press.

File Submission

- + The following file formats are acceptable for submission:
 - The following are our preferred pre-ripped and trapped file formats (at 2400
 - Prinergy PDF (note: Synapse Prepare are good) of using our Settings
 - DCS 2.0
 - TIFF/IT
 - PDFx/1a)
 - Postscript (.ps and .eps)
 - Native files should be submitted as “Collect for Output”.
- + All disks should be properly labeled with the company name, contact name, telephone number, and job name.
- + Please make sure all media submitted has a printed directory attached to it.
- + All digital proofs should be Kodak Approvals, with the following color sequence and densities:
 - Black 1.60 to 1.75
 - Cyan 1.28 to 1.35
 - Magenta 1.35 to 1.45
 - Yellow .90 to 1.00
- + Be sure to include all documents and supporting files necessary (fonts, images, specs, etc.). Supporting files should be grouped with the document and placed in a separate folder on the disk.
- + Do not send in duplicate image names or document names.
- + Full page Illustrator and Freehand images must be saved out as an .eps and placed in Quark. Please don't send them in as just an Illustrator or Freehand document as we don't print from those applications.
- + **A hard copy proof containing 100% of the file information must be provided.** A color proof is preferred, and should indicate trims, bleeds, folds, color breaks, etc.
- + If native files NOT PDFs are electronically submitted, they must be compressed before uploading. If they are not compressed they will lose their file type and creator, and be of no use. (ex: .SIT, .SEA, .HQX, etc.)

Media Type Accepted

- + Firewire Hard Drives
- + CD or DVD (DVD-RAM or DVD-R only)
- + Electronic submission via AG OnLine™. (call for account setup)

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