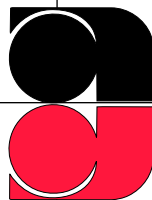


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# Electronic Pre-Press Guide

book, directory  
& journal  
manufacturing

internet, ebook,  
cd-rom &  
ecommerce  
development

color commercial  
printing

database,  
composition  
& creative design

digital printing:  
variable data &  
print on demand

storage, mailing  
& fulfillment

digital asset  
management



**W**hen sending electronic files to a service provider, there are a number of important issues to consider to ensure timely, high-quality production. This booklet is designed to outline Automated Graphic Systems' preferred means for receiving client files, while providing additional information on what to look for when preflighting. We have highlighted what we believe are significant topics in electronic pre-press and have offered thorough instructions for assisting customers with generating clean files.

This publication has been divided into two main sections: Fonts and Graphics, followed by a summary and overview of AGS's guidelines.

The focus of this booklet is to provide useful tips and instructions for preparing your electronic files. As organizations continue to bring desktop publishing in-house and as electronic pre-press rapidly evolves, challenges are abundant. There is an endless learning curve for both printers and customers alike. Training and education are more valuable now than ever before. We understand that businesses cannot afford large cost overruns and surprise charges. We hope this guide will help to eliminate those concerns, while answering all of your preflighting questions.

Please feel free to contact us at 301-843-1800. We have a support staff that is ready to assist you at any time. You can also visit our website at [www.ags.com](http://www.ags.com) for a PDF file of this document and the latest updates to our specifications.

## Fonts

**F**onts can be one of the most challenging areas of desktop publishing. While they have become easier to work with over the years, fonts are still puzzling for many. We want to begin by providing some general information on font types.



## PC and Mac Platforms:

Fonts tend to be more difficult to organize on PC's than on Mac systems. This is due to the way PCs' name PostScript fonts. They make it harder to recognize which printer font goes with the appropriate screen font. For example, Times New Roman on a PC names the screen font file TIR\_\_\_\_\_.pfm and printer font TIR\_\_\_\_\_.pfb. The Macintosh, on the other hand, creates a screen icon and printer icon and names them both Times New Roman.

True Type fonts (TT fonts) on the PC are called timesnewrom.ttf. While these tend to be easier for the designer to work with (one file, one name), there is some output risk involved. PS fonts, as we mentioned before, are more likely to output with minimal difficulties.

## Font Stylization

**A**s printers, we commonly face challenges when clients stylize type using various software programs and then do not supply the fonts that go along with the stylization.

Let us demonstrate with an example using PageMaker. When you type a headline in Helvetica, and then bold it using the bold button on the control palette, be sure you supply the Helvetica bold font along with the job. The same thing would apply if you italicize a font.

Anything you do in "stylizing" needs to have a font to support it. This is why stylization can be so tricky. Software manufacturers, unfortunately, have not helped this situation. Their packages give us the ability to make these selections and then render the fonts to the screen, so we think everything is going to work well. As the example outlines above, this is not always the case.

TrueType fonts will also appear normally on the screen when there are problems, but will print to a 300-dpi printer with font irregularities. Also, if the correct printer font is not present when the file goes to a high-resolution imagesetter, the job will print out incorrectly.

***The most important thing to remember is to include every font used for every job, every time you send us files.***



### Graphics

To begin reviewing desktop graphics, let's look at the two different forms of graphics: Vector and Raster. We will then compare the file types and the challenges inherent in each.

- **Vector and Raster:**

Vector files are file types that are created in drawing programs such as Illustrator, Freehand, or any other programs that are based on line and points.

Programs such as Photoshop create raster files. They are photo realistic representations of objects, which use different shades of color per pixel.

- **Resolution**

A general rule of thumb in printing is to use twice the Dots Per Inch (DPI) for scanning your images of the line-screen you are using for print. For example, if you are going to print a job at 150 line-screen, you should use a minimum of 300 DPI for any of the images you scan. If you're printing at 175 line, then choose 350 DPI. In theory, line screens below 150 should mean DPI less than 300, however, this is not recommended. When using below 300 DPI, scanners start missing details. This is the boundary where scanners can still pick up good resolution, so we do not recommend scanning below 300 DPI.

It is important to watch resolution because resizing your images may affect your initial scans. For example, if you scan an image at 300 DPI, bring it into Quark (or any other page layout program) and then resize it to 150%, you have just lowered the output resolution of that image to 200 DPI. Always remember to scale your images to their final size before you scan them, so that you maintain their integrity and work with them in your page layout program at 100%.

There are some tolerances with this formula. Having more resolution is not as critical as taking 300 DPI and enlarging it. If you need a little latitude, we do not encourage enlargements more than 10%.



## • File Types and Clipping Paths

Raster files come in different file types, which retain unlike information. The two types of raster files we recommend are **eps** and **tiff** files. While other formats are available and can be used, we do not recommend them.

Eps files retain silhouette, or clipping path, information; Tiff files do not. To use clipping paths correctly, open a file in Photoshop. Click on the path tool (which looks like a fountain pen). Begin drawing around the perimeter of the area that you want silhouetted. This is just like the path tool in any vector program. If you click a point, hold it, and then drag it; you can get a nice smooth curve. Go into the paths information box and click on the right arrow at the top of the box that says “save path.” Next save your file as an eps format. An option box will appear. Where it says, “clipping path,” put in the path that you have created. Where it says, “flatness,” insert the number 4. You’re done. Our outline is a very basic description of creating a clipping path tool. If you need additional assistance, please give us a call.

## • Scanning Guidelines

When scanning black & white halftones, there are a few basic steps to consider. First, it is helpful to know the press on which your job is printing. If it is printing on a web press, then we recommend the tone range of your images be a 2% highlight dot (the lightest area) and an 80% shadow dot (the darkest area), adjusting the midtones slightly to allow for web gain. We recommend increasing the shadow dot to 87% for sheetfed presses.

When scanning four color images, the Total Maximum Density (dmax) should be no greater than 280. The dmax can be determined by opening your image in PhotoShop and putting your cursor over the darkest black area. Then, total up all of the values in the CMYK file, which appear in the information window.



### Gradients and Banding

**B**anding gradients continue to pose concerns for many using desktop publishers. The challenge is the way some programs create blends. To be sure that a blend will reproduce (print) correctly, we suggest that you create it in Photoshop. The software does an excellent job with blends.

If this is not an option, try using the following guidelines. If you start a blend with a CMYK (cyan, magenta, yellow & black) color, finish it with a CMYK color. Do not finish it with white or a spot color. If you want to go from 100% of a PMS color to white, then make it 100% PMS to 1% of the PMS. The results from this process are, usually, just what you're looking for.

### RGB and Color Naming

**A**ll files that are RGB (red, green, blue) must be converted to CMYK before you send them to us. This is important because by converting the files yourself, you will see any color shifts that may have happened. You can then make any necessary changes before sending out your files.

If you have Vector files, which have used Pantone (PMS) colors, be sure that the PMS names match the names in your layout document.

If you want to have a PMS color added in your document, create one color (e.g. Pantone 123 CV). If you want a percentage of that color, then do not make a new color (e.g. 20% Pantone 123 CV). This will end up generating an extra piece of film when the job is output, which will be an additional cost. We suggest outputting separations of your files for your own review purposes to be sure you have not accidentally left in an extra color selection.



## General Guidelines

The following guidelines apply for all desktop publishing programs (Quark, PageMaker etc.)

- When creating a new document, be sure the document is the correct size. If you want a 6" x 9" book, size your pages to 6" x 9". Many times, a document comes to us as either a 12" X 9" (spread), or it is oversized. Optimally, AGS would prefer the document at the correct trim size.
- If you have a 300 page book, please do not create 300 document files. It will end up costing you the time it will take someone to process your files. This could get expensive. If you want to break the pages up, we suggest creating three files of 100 pages each.
- When creating a rule, do not use a hairline. In most programs, "hairline" equals 1 DPI on whatever imaging device you are using. At 2540 DPI, a hairline is almost non-existent. The lowest you should go is .5 point. If you plan on sending your job through AGS's Rachwal workflow, then the lowest point must be .5 (if you have questions about Rachwal specifications, please ask your Sales Representative.)
- Please do not attempt to trap your jobs for AGS. Our software programs will override any trapping that you establish.
- Please name and supply your fonts correctly. See the section on Stylizing in the Fonts section, pages 1-2 of this guide, if you have any questions.
- Try not to rotate or inverse photos or graphics in a layout program. The best place to make these changes is in the original program where the photos or graphics are created. In other words, if your photo is scanned into Photoshop, rotate the photo using that program, before you place it in your page layout program.



### Rachwal Film Recording System

**T**he Rachwal Film Recording System is a robotic stripping production system that simulates the direct-to-place process. It delivers production efficiencies and economies by using a 70-millimeter Laser Film Recorder (LFR) and camera-ready artwork station. The system's film costs are one-tenth those of full-size imagesetting, and the system offers complete flexibility for web and/or large sheetfed press projects. Film can be easily archived and is a reliable and cost-efficient system backup for reprinting needs. Outlined below are the layout parameters for the Rachwal System.

#### Electronic Criteria

- Submit files in a native page layout program (i.e. PageMaker, QuarkXPress, InDesign, etc.), in pure PostScript format or PDF.
- Submit files with graphics in TIFF or EPS formats; include all fonts used in the file.
- Submit files showing actual page size and proper bleeds (1/8 inch) where appropriate.
- Submit files with lines or rules greater than 1/2 point thick
- Submit files with pages in the proper order, with blanks inserted where necessary.
- Maximum image size should be less than or equal to 9 x 12 inches or 8 1/2 x 11 inches with bleeds.
- Line screen ruling between 85 and 120 lines per inch (lpi). 100 lpi is recommended.
- Screen tints between 15 to 85 percent (you can expect approximately 10 percent dot gain/loss).
- Solids or reverses less than or equal to 2 square inches throughout the file
- No type smaller than 8 points
- Avoid using extra bold fonts



## Camera Ready Criteria

- Paste-up boards (ready-for-camera art) less than or equal to .008 inches.
- Copy cannot have both gray type and heavy cut lines.
- Maximum image size less than or equal to 9 x 12 inches or 8 1/2 x 11 inches with bleeds.
- Reproduction size of original copy must be between 50 and 200 percent, with less than or equal to 3 different percent changes within the publication.
- Copy submitted in page order sequence with white paper inserted where blanks are needed.
- Proofreader marks, paper perforation holes, corners of crop marks, and distance from the edge of the paper to the type must be greater than or equal to 3/8 inch from the image size of the largest page of the publication.
- Screen rulings must be less than or equal to 100 lines per inch throughout the publication, or screen tints greater than 75 percent or less than 20 percent (you can expect approximately 10 percent dot gain/loss).
- Solids or reverses must be less than or equal to 2 square inches throughout the publication.
- Bold face or large type must be less than or equal to 2 square inches throughout the publication.



## Electronic File Transmission

**F**TP (file transfer protocol) is a way to get access to files that anyone can download from a server on the internet. When AGS clients need information fast, we recommend using our FTP server to transfer files from the client to AGS, or vice versa.

### FTP Instructions

The FTP upload process is quite simple. However, a customer needs a program that supports FTP (file transfer protocol). One of the easiest programs available that supports FTP is Netscape Navigator. Download version 4.76 for a MAC and PC from [www.ags.com](http://www.ags.com). The instructions below will be focused around using Netscape to FTP.

- **Step 1: Launching Netscape**

Netscape installs a program group in "Programs" under the Windows 95 START button called **Netscape Communicator**. In the group there are a number of applications, one of which is **Netscape Navigator**, sometimes called Netscape Communicator. Simply click on the icon to launch the program.

- **STEP 2: Connecting to AGS**

Once Netscape is running, the user needs to type in the address of AGS' FTP site. The address is [FTP.AGS.COM](ftp://ags.com). It is not case sensitive. The user would type the address into the box labeled "Location" and press ENTER.

- **STEP 3: Uploading Files**

The file upload process is very easy, requiring just a few mouse clicks. Once connected to the FTP site, click the "Uploads" folder icon to be transferred into the Uploads section of the FTP site. From here, and only from here, will you be able to upload files. After clicking into the Uploads folder, you will see a listing of files and folders currently residing in the folder. On Netscape's menu, click "File." Scroll down to "Upload File" and click the mouse.



Netscape will display a dialog box entitled "File Upload". From this box, the user tells Netscape which file to send (only 1 file can be sent at a time.)

The user **must** know in which folder or directory their file is stored, in either locally or on a network drive, in order to transfer it. For locating documents on disk, refer to your Windows 95 users manual. Once the file is located, simply click the file and click the Open button. A status indicator may pop-up and display the progress of the transfer depending on the speed of your connection. For smaller files, it may merely flash across the screen.

***NOTE: Existing files may not be overwritten! If there is a file that has the same name as the one being sent the user MUST rename the file first and then transfer it!***

Upon successful transfer, the user can scroll through the file listing to verify their file was sent successfully.

- **STEP 4: Logging Off**

To logoff, simply close Netscape or go to another website or FTP location. If you should need further assistance, please call AGS at 800-678-8760



### Software Supported

Below is a listing of the applications we support.

- QuarkXPress
- Adobe FrameMaker
- Adobe Photoshop
- Corel Draw
- PageMaker
- Adobe Illustrator
- Macromedia FreeHand
- Adobe InDesign

AGS supports both Mac and PC platforms.

Below is a listing of the applications we do not accept as final file formats.

- Word\*<sup>1</sup>
- PowerPoint\*
- Ventura\*
- WordPerfect\*<sup>1</sup>
- Excel\*
- Publisher\*

If you use something not listed, please contact us for further discussion.

*All product or trade references are the trademarks or registered trademarks of their respective companies.*

*\* Recommend supplying PS file or a PDF with these formats. It is in your best interest, due to font and graphic irregularities.*

*1 If the file is for our composition department, these file types are acceptable.*

### Summary

**S**ending electronic files to a service provider can sometimes cause problems, which can ultimately delay the production of your job. We hope that the information provided will be of value to you and your staff when preparing your files. Here are a few very important points that we hope you remember each time you submit your files to AGS.

- Jobs (files) must be accompanied with approved final hard-copy, color broken if applicable.
- All fonts must be supplied.
- All graphics must be present with the correct resolution.
- All images must be of an acceptable format in Grayscale or CMYK – NO RGB!
- All artwork must be supplied.