PDF Production with Adobe Acrobat Distiller 4.05

Adobe's **Portable Document File (PDF)** format allows GB Printing to output your files with great accuracy, <u>if</u> they are built correctly. Our experience has shown that the most successful (read 'printable') PDF file is produced by first printing a PostScript (PS) Print File and then 'Distilling' it with Acrobat Distiller v 4.05 using the settings outlined in the remainder of this document. Although seemingly easier, producing PDFs using Adobe's PDF Writer or various Programs' "Save As…" or "Export…" functions has seen limited success in the print world. Following these guidelines will help you produce a printer-friendly document that you may also preview before submission to verify that all is as expected prior to job submission.

Note: 'Free' Acrobat Reader–

Adobe makes the Acrobat Reader program available without charge for all mainstream Operating Systems. Most people have one or more versions already on their system. However you should make certain that the version you use to view your PDFs is current or you may find that the PDFs may display and/or print incorrectly or will not open. When you purchase the Complete Acrobat software, you will receive an 'improved', more capable version of the Reader software, plus **Distiller**, which is the application necessary to produce the PDFs from the PostScript print files.

Note: Application Versions–

Acrobat 4.0 has some bugs that are addressed in the 4.05 update. Please update your software to v4.05 if it hasn't been already. The update is at no cost. If you are using prior versions of Acrobat, numerous technical changes have been incorporated in the latest version… most for the better. The **upgrade to 4.05** is definitely recommended. Everything is available from Adobe's Web Site. (www.adobe.com)

Note: Illustrations–

Apple Macintosh application window graphics are used for illustration in this document. Acrobat v4.05's application layout is virtually identical in the Windows versions of the program.

Setting Up Distiller 4.05

The **main application window** for Acrobat Distiller v4.05 is shown at right. You will ultimately select the method of distillation from the Job Options pull down menu. This document will outline the Distiller settings used to produce the proper PDF for GB Printing to use in printing. When these settings are finalized, they will be saved as a 'Job Option' and become available in the pull down menu as shown in this window.

Note that Acrobat version **Compatibility** of the selected job option is prominently displayed. The reason for this is that the version of PDF dictates which selected set of PostScript options is in use within the resultant PDF.

Note: PDFs and PostScript–

PDFs are actually PostScript print files that have additional features added to them (so that they may be viewed, edited, queried, etc…) PostScript is the page description language that the RIPs use to produce the image of the document that is then placed onto the paper as your final print. Like any other software, PostScript has evolved over time and differing versions are in use at any given moment. Every RIP uses a PostScript Interpreter program to produce the pages. The version of this software dictates its PostScript (PS) compatibility. To simplify, a PS Level 2 RIP will not understand certain PS Level 3 syntax and therefore cannot print jobs or PDFs that use PS Level 3 language. Acrobat 4.x outputs PS Level 3 compatible v1.3 PDFs, where Acrobat 3.x v1.2 PDFs are PS Level 2 compatible. This is why we distill the files as Acrobat 3.x v1.2 PDFs… they will be compatible with more RIPs as well as older versions of Acrobat Reader. Realize that PS Level 3 is more powerful in numerous technical ways, and at certain times PS 3 language might have to be used to describe certain printing commands to a PS 3 RIP. Luckily, this is generally not necessary for the vast majority of print jobs that you will produce. Understanding Distiller's settings will help you produce proper v1.3 PDFs for PS 3 if and when such a need does arise.

Note: EPS Files–

You can also distill Encapsulated PostScript (EPS) files as well, although you may get varying degrees of success based on the EPS file's Parent Program's adherence to 'legal' PostScript syntax.

Below the Job Options pull down menu you will see information concerning the file that you are distilling, the distillation process status and any messages associated with this process. Pay attention to whatever arises here if the distillation fails. Clues as to why the PS file failed may be found here.

From the **Settings Menu**, select **Job Options**.
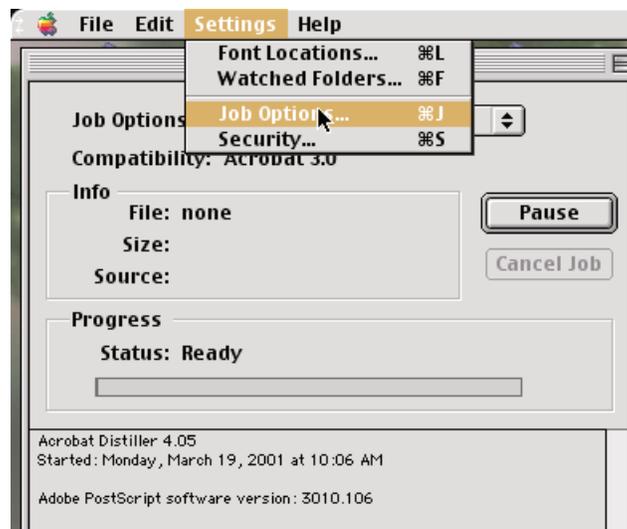
This opens a window containing all of the Distiller Job Option settings as 5 tabs across its top.

General Settings
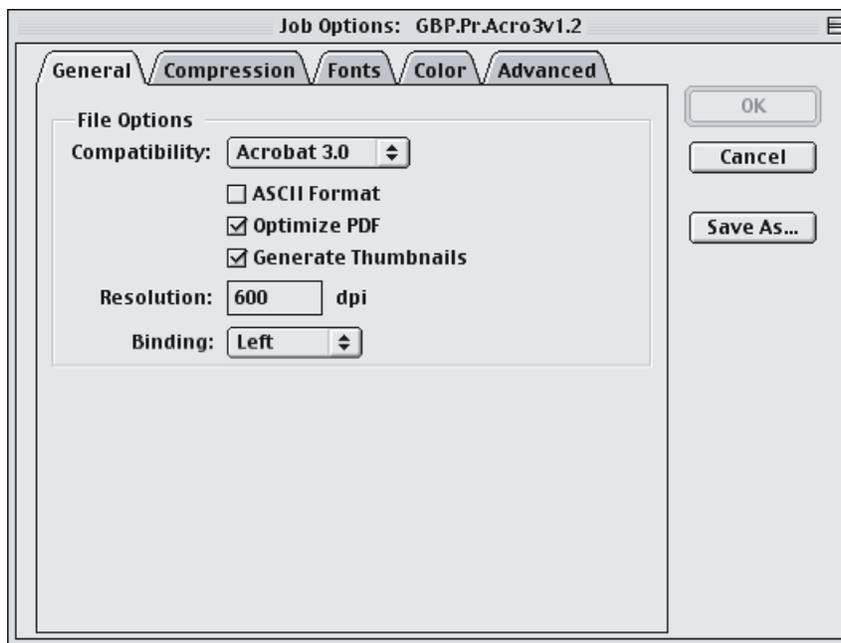
The first of these tabs is for **General settings**. Here is where you set the Acrobat File Level from the Compatibility pull down menu. Set this to **Acrobat 3.0**.

This is followed by three check boxes:

<u>Do Not Check</u> the first box: **ASCII Format**. Doing so instructs Distiller to produce a PDF file in ASCII format. This is a standardized 128 character limited text file type which will produce larger files than more compact Binary coding. Very few RIPs are old enough to necessitate ASCII format files, so this box should be checked only when required.

Do Check the **Optimize** box. This looks for redundant information and applies certain compression algorithms to the file for certain data structure. It simply makes for a more compact file.

The **Generate Thumbnails** box attaches little previews of the PDF's pages to the file. This might be useful for browsing the PDF's contents in some programs, but will make for a larger file. Checking this is optional.

Resolution should be set to the maximum resolution of the Press to be used, 600 dpi is adequate for most applications.

Binding is generally over-ridden by the press operator, so it is really inconsequential unless specific to an application. Leave it to default to 'Left'.

Compression
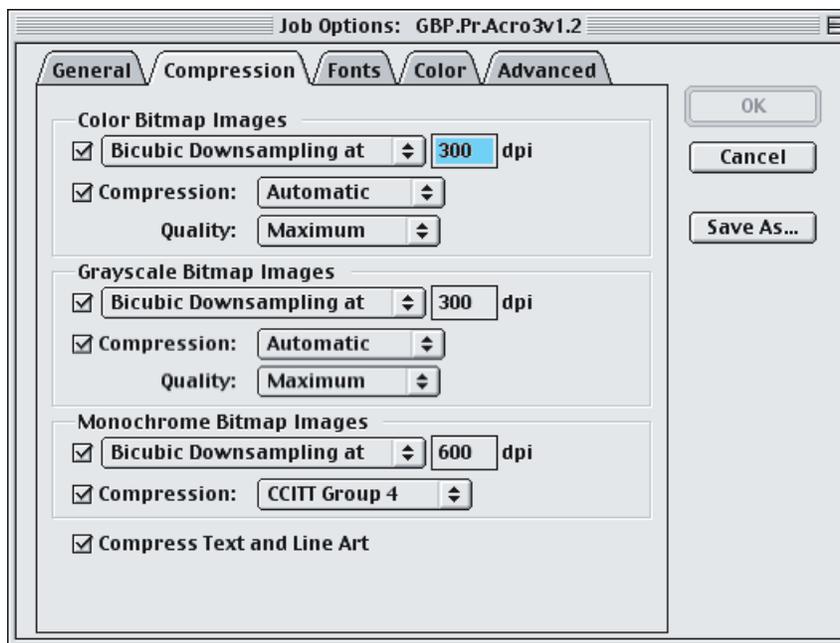
The Next tab is the Compression Tab. Here you set the maximum resolution for BitMap graphics files and types and qualities of any compression applied to them.

**Color and Grayscale BitMap** settings will be set identically. Be sure to **check the boxes** to make them active!

Resolution should be set to one half of the printer's resolution: 600 dpi / 2 = **300 dpi**.

Compression method may be left at **automatic**. LZW/ZIP compresses less than JPEG, but is lossless and will not alter the image the way JPEG will. As long as **Quality** is set to **maximum**, either method will produce fine results.

Monochrome (Black & White) Bitmap **resolution** should be set to printer resolution: **600 dpi**
Compression should be set to FAX-type Compression **CCIT Group 4.**

Do compress the text and line art. These are text based files and compress well with LZW/ZIP type compression. If you have checked **Optimize** in the **General Settings** window, these will be compressed anyway.

Fonts
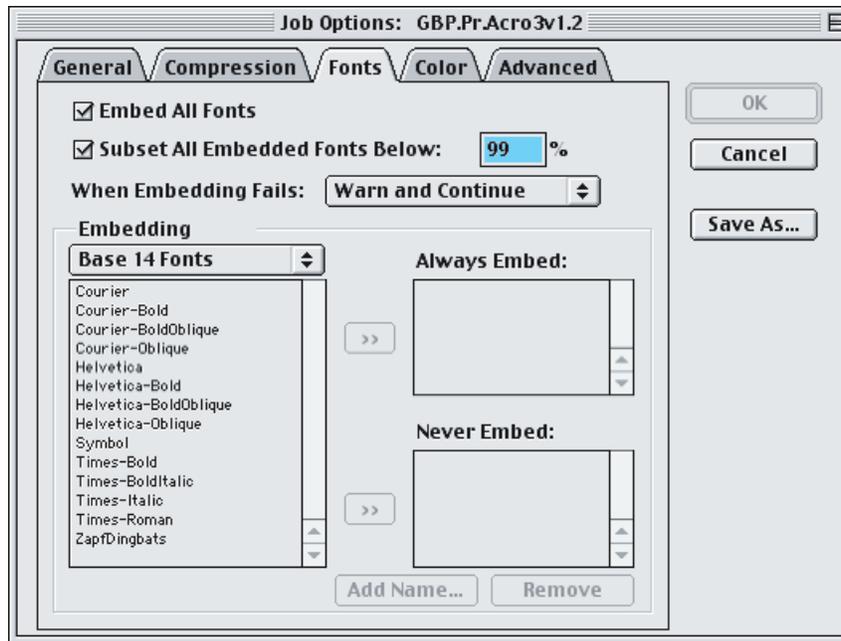
The most misunderstood setting in Distiller is for Fonts. It is also responsible for most PDF Job failures. **Check** the **Embed All Fonts** box. This instructs Distiller to include all fonts used in the PostScript file within the PDF. Also **check** the **Subset All Embedded Fonts Below** box, and set the **value to 99%**. This is odd… Why not 100%?… When 100% is entered as the value, the complete font is included in the PDF, but the PDF contains code that instructs the RIP to substitute the RIP's resident fonts for any that are also included in the PDF, purportedly to save RIPping time. Fonts, like any other software, may be updated over time. Also, their naming conventions aren't as straight forward as you would expect and differ across platforms as well as within type. (ie: TrueType, PostScript Type 1, Type 3; PFAs, PFBs, PFMs; NFNT Resource, FOND Resource; ad nausium). So, if you want **your** font to be used, then instruct for 99% subsetting. This includes almost every character within a font (which might only be a problem if editing the PDF) but definitely all characters used within the file. It also flags the font as 'modified' and incapable of being substituted for at the RIP.

The **When Embedding Fails** pull down menu allows you to tell distiller how you want Font embedding problems to be handled. I recommend the **Warn and Continue** setting. It gives you a text update in the main application window and allows you to see all problems within the distillation process. The other choices fail the job and will not allow you to see why, or only the initial failure, not all for the file.

Ignore the **Embedding** portion of which specific fonts you need to embed and not embed within the PDF. This is appropriate for captured printers (like your offices) where you need to know *much more* than you probably do about them, and want to save the last millisecond by not sending certain printer-resident faces.
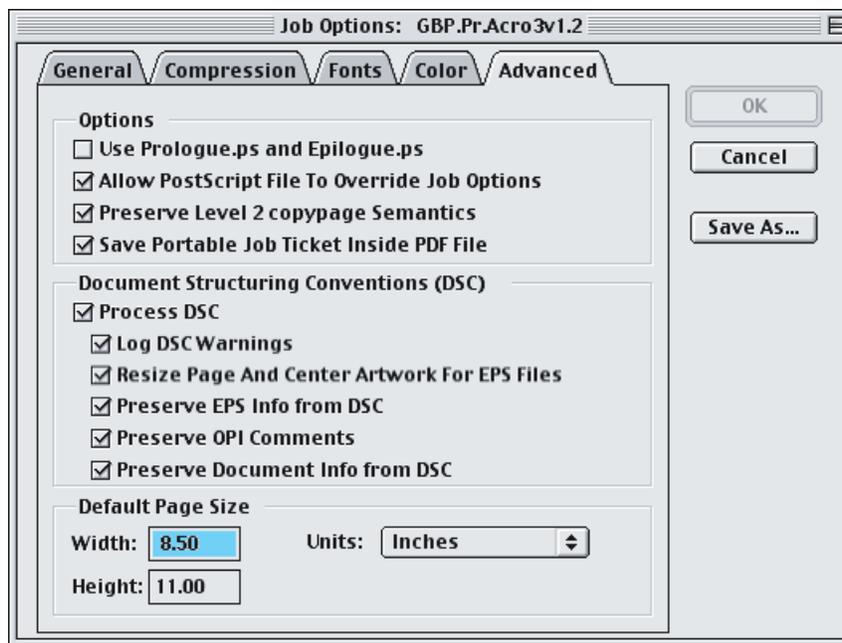
Color
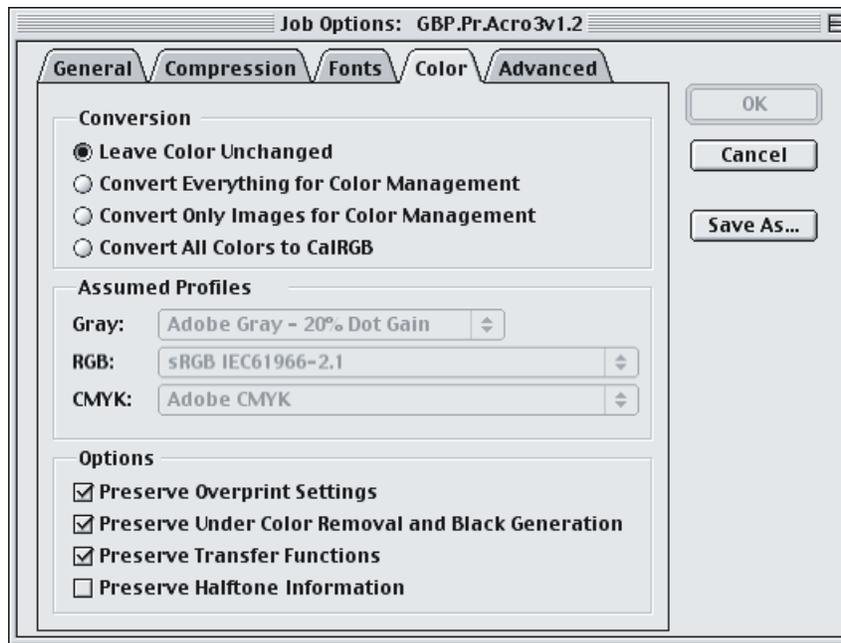
The **Color** tab is very simple. **Check** the **Leave Color Unchanged** box. There are numerous competing color management systems within the various Operating Systems to contend with. Further, the majority of users either don't know the systems are in use or are using defaults that are inappropriate for 4-Color Process printers. (eg; ColorSync with an Epson InkJet Printer and who-knows-what non-calibrated monitor) So, converting to stay within a color management system is impractical. The fourth box, converting all images to Calibrated RGB color space, is appropriate for certain printers who utilize a specific color management system within their production process which may be based in this color space. There was a push at one point to use CalRGB as a sort of default color space, but many consider it to be sort of 'dumbing-down' to a best-effort, limited color model and then reconverting to the needs of the specific output device. More damage could be done to the files than warranted, especially if the files were built properly in the first place. (eg: CMYK Colors, No RGB Colors, No Indexed Colors, No Multi-Plate MultiTones, No Spot Color conversions, etc…) Also, GB Printing uses numerous different RIPs, Presses, Paper Stocks and Laminates, all which effect the final product and alter the benefits of any attempt at color management, and would require foreknowledge of our press assignment and finishing prior to the client's job construction. Not very practical and not really very useful.

No Color Management means no Color Management Profiling. **Assumed Profiles** are unavailable for assignment.

The last area, **Options**, is relevant to certain programs' PostScript files (generally, PostScript Output from Adobe PhotoShop and certain other BitMap editing programs) and most parameters are reassigned by the RIP/Press Operator. Leave the defaults unchanged.

Advanced

This tab is, as advertised, for more advanced cutomizers.

The **Use Prologue/Epilogue** box allows you to push a color document to grayscale. You must first take the Prologue.ps and Epilogue.ps files and move them to a specific Acrobat directory and then check this box. Printing a color document on a Black & White Printer accomplishes the same thing. Most RIPs also allow the same thing, addressable by the Press Operator. I don't expect you will miss the utility of this option. **Leave it unchecked**.

Allow PostScript File to OverRide Job Option is a useful option, if it works for the file you want to distill. After distilling your PS file to a PDF, you might find that your page size/lay out isn't what you expected it to be. Checking this box should let settings within the PostScript File (if correct) override their counterparts within Distiller. Alternately, unchecking this box and specifying a **Default Page Size** at the bottom of this tab should force the PDF to be so laid-out. As discussed, the proper use of the PostScript Language syntax within PS and EPS files by their authoring programs would make these features always work, but I have noted a relatively low real-world success rate. **Try as needed**.

Check Preserve Level 2 copypage Semantics. 'copypage' is a PostScript Language operator and its meaning has been revised as PostScript has 'Grown Up'. Essentially, as some RIPs get upset with the PS 3 definition of this operator, most will adhere to the PS 2version and work just fine.

DSC stands for Adobe's Document Structuring Convention, and outlines the proper building of a PostScript files from its many parts. You should always try to **set up your print drivers to use DSC** and certainly want to utilize it if the documents are structured accordingly. So, **check this box and all of those beneath it.**

Saving Your Job Option Setting
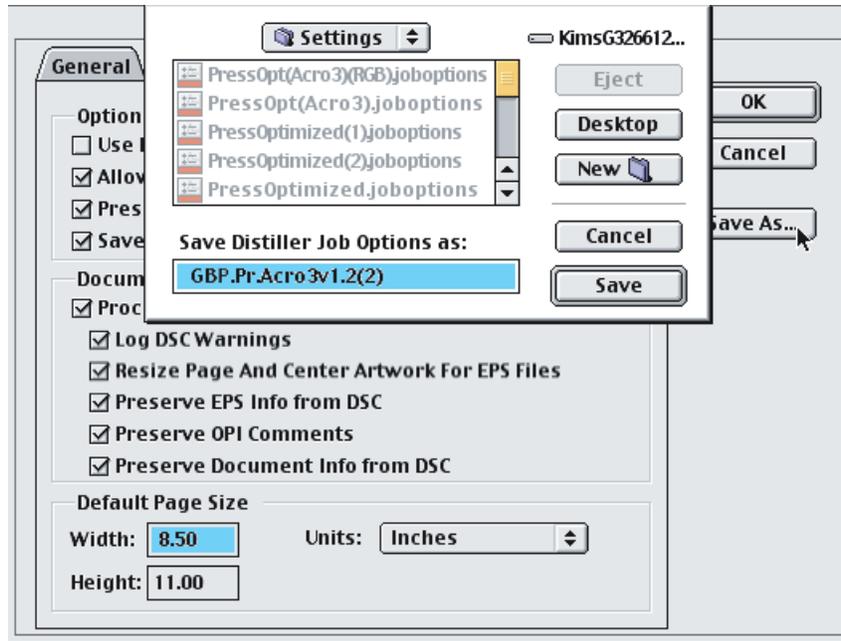
Now that all is set to distill proper Print-Ready PDFs, you need to save the settings where Distiller can find them. Click the Save As button on the right side of the Job Options window. This will bring up a Save As… dialogue box where you type in an appropriate and <u>descriptive</u> name for your Distiller Settings file, and instruct the program on where to save it… typically it will default to the directory where Distiller keeps the rest of them. Do note that Distiller wants a **'.job options'** extension on the name of the file, and will happily put one there, whether you want it or not. Make sure your proposed file name is legal when that extension is added to it or Distiller will tell you otherwise. When you are finished, return to Distiller's Main application window. When you select the Job Options pull down menu, you will see that your setting is available as a choice. Select it and hopefully all of your PDFs will be Font-full and Acrobat 3.x v1.2 compliant.

Now you know more about PDF's and PostScript than you probably ever wanted to, but think of all the time (and sanity) you will save by not rehashing all of your application files and worrying about your job's missing document fonts, graphics, etc… I hope this helps you out and demystifies some parts of printing in our PostScript world.