

# PDF Creation For IGen Output

## How to use this Guide:

*This is a set of general guidelines on the correct way to generate a PDF for output using our workflows. If you prefer to send us your original layout files, that is fine as well.*

*This guide uses Acrobat Bookmarks and internal links for easier navigation throughout. Any text in a black box- like this- is an internal link and will take you to the page with that information.*



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Please remember these are general guidelines for submitting PDF files to us. The PDF format has experienced several changes in the last several years, and will undoubtedly undergo more. Depending on the complexity of your layout, it may become necessary to modify one of the settings listed in this manual, if so, our Desktop Department will contact you about any changes in PDF generation.

## Why PDF?

The PDF format has certain advantages over sending layout files to outside parties. The PDF format includes all of the fonts in a job and contains all of the imagery. If a PDF is properly built it can help overcome many of the file transfer issues that arise when sending even the most simple layout files.

## Advantages/Disadvantages

The primary advantage to the PDF format is also its primary disadvantage. The PDF format is designed to be essentially un-editable. This will help keep text from reflowing, and keep images from shifting outside their boxes. Since, however, a PDF file has such limited editability, an incorrectly generated PDF file can cause more problems that it will overcome. This guide is to help you properly generate a PDF file to insure that your job prints at our best quality and with a minimum of problems. If you have any questions about generating a PDF that this guide doesn't answer, please feel free to contact one of our Customer Service Representatives and our Desktop Department.

## General Guidelines:

You should always double-check your files before sending them us. Please open them in Acrobat and check to make sure our text did not reflow, and please check to see if your fonts embedded correctly into the document. This can be checked under *File > Document Properties* in both the full version of Acrobat as well as the free Acrobat Reader.

If you are using the Professional version of Acrobat 5 or 6 you can also check your color separations. This is located under the *Advanced Menu- Separation Preview*. This is a useful tool if you are using SPOT colors in your files. The SPOT colors will show in the separation preview, and it is extremely important that they are in the PDF file, because we cannot add that in later.

There are several programs available for checking and pre-flighting PDF files. At Chernay we use Enfocus Pitstop. This program gives us a limited amount of editability to PDF files. In general though, we prefer to make as few changes as possible to your PDF files.

## General Notes on PDF

There are a few key things to remember when creating PDF files for print.

All images must be converted to CMYK. An RGB image file convert to CMYK in the IGen RIP, and there are often unforeseen color shifts when this happens.

The CMYK images should have no ICC profile embedded. ICC profiles can cause conflicts when creating PDFs.

If your images are black and white, convert them to grayscale with no embedded profile.

Image resolution should be 1.5 to 2 times the line screen at which it will be printed. In general 300dpi as a final size will work fine. The images also need to be sized correctly. If you want your image to print at 3"x6", the image needs to be 3"X6" at 300dpi.

Placed PDF files will often not re-PDF properly. If you can avoid placing PDFs as art in your layout, please do so.

If your job needs to bleed off a page, your PDF file needs to as well. We cannot add bleeds to a PDF file.

## Files on Chernay.com

We have made available the Distiller and InDesign settings that we use here in the shop. In the Downloads section of chernay.com, you can find settings for Adobe Acrobat Distiller 5 and 6, as well as the settings for InDesign 2.0 and CS. There is also a PDF with instructions on how to install our settings on your system.

We have set these up so that if you load our settings into Distiller 6 for example, the name of the Job Options setting you would use would be "Chernay Offset" or "Chernay IGen".

## General Notes on Designing for the IGen

Designing for output on the Xerox IGen press is a little different than designing for traditional offset printing. While the IGen mimics many of the characteristics of an offset press, there are some important differences between the two. This guide has the major points of difference that designers need to be aware when putting together work to be output on the IGen press.

For work that will be printed both offset and digitally, we recommend following standard design practices for offset printing, and any modification needed to assure quality on the IGen, we will take care of.

## General Guidelines

If using PANTONE colors, they must be defined as a PANTONE color in the application, otherwise they will be converted to the application (Quark, InDesign) CMYK recipes for that color. The IGen does a better job of PANTONE matching than most applications.

All PDF files submitted for the IGen should use PostScript Level 3

All graphics should be defined in CMYK values. If RGB values are used, they will be converted to CMYK at the IGen, and there is often a color shift in the conversion.

All trapping takes place at the IGen RIP, please make sure trapping is turned off in all of your applications.

## Images

Images should be based around medium GCR. For low-key images, additional GCR is often needed. Use Photoshop to set the dot gain to 20%, Black Ink Limit to 100% and Total Ink Limit to 325% and Black Generation to either Heavy or Maximum.

The recommended input resolution is 300ppi.

To assure the highest image quality, images should be in either TIFF (no LZW compression) or EPS file formats. Formats using lossy compression, such as JPG should be avoided.

### Graphics

Save graphics as EPS vector art files.

Embed or include all fonts in EPS files.

Define Black as 100%K only.

Gray rules and elements look best when defined in K only.

### Gradients

Create gradients that change at least 50% between two process colors.

Use short gradients- under 7.5" if possible.

Create larger blends in Photoshop if possible.

Adding noise or Gaussian blur can improve Photoshop gradients.

For SPOT gradients, when the transition is between a spot color and white, use a 0% tint of the spot color instead of white.

### Text

Text should always be defined as a font. Avoid vectoring or rasterizing text if possible. If you need to vectorize text in Illustrator for example, change the transparency flattener settings, or output settings should be set to a minimum of 600dpi.

Solid Black text should be 100%K only.

For solid text, the minimum recommended size is 4 point. For Knockout (reverse) type, the minimum recommended type size is 6 point.

For tinted text smaller than 24pt, use saturated colors to avoid jagged edges due to screening.

### Vector EPS Settings (Illustrator, CorelDraw, FreeHand)

Use the TIFF (8-bit color) setting and set background to Transparent

All transparencies should be flattened before exporting. Make sure your transparency flattener, or output settings are set to [High Resolution].

Always embed Fonts.

Always use PostScript Level 3.

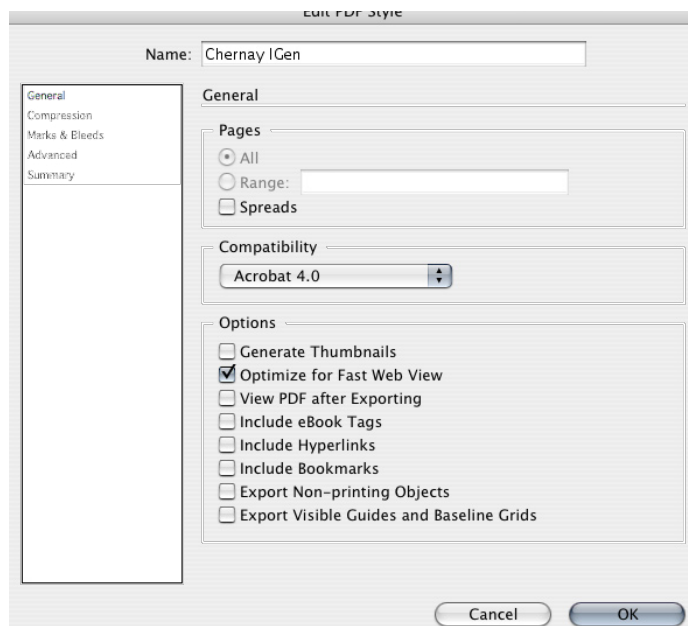
*InDesign 2.0 and CS versions both use Transparency Effects, and as such, the Transparency Flattener needs to be adjusted to the same settings as Illustrator.*

## PDF's from InDesign2.0 (Mac/PC)

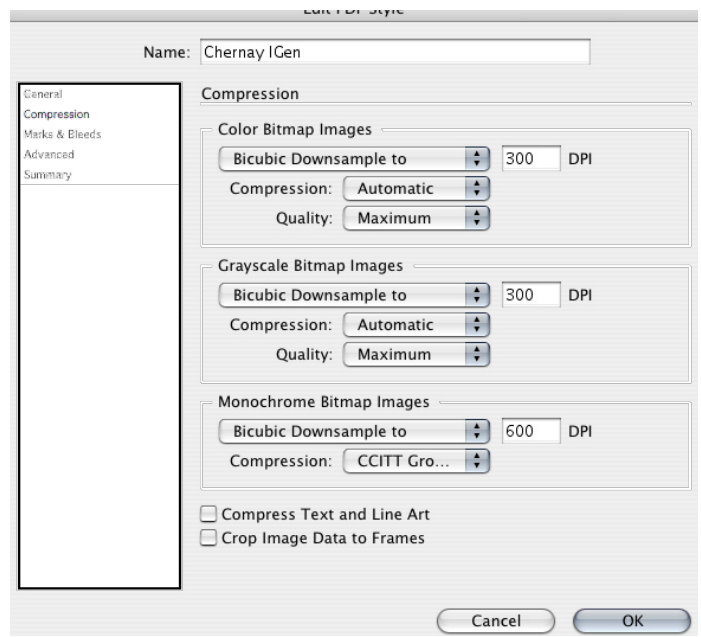
PDF's can be generated in Adobe InDesign 2.0 in a number of ways, the easiest being *Export* under the *File* menu. This is essentially *Distiller*. To make your life easier, we recommend building a PDF Style in InDesign so you can select that every time and always have the same settings.

First, the Transparency Flattener needs to be adjusted. This will minimize problems with dropshadows and any Transparency effects that were used. This can be accessed under *Edit>Transparency Flattener Styles*. The Raster/Vector balance needs to be set all the way to *Vector*, and the Flattener resolution set to 2400dpi, and Gradient Resolution set to 300dpi. Please leave the remaining boxes *unchecked*. You do not want InDesign forcing all of your text into vector shapes. You can save these Flattener settings as a style, and then use them in your PDF style as well.

When exporting a PDF, under the *General* tab, make sure that the pages are set to *All*, and *Spreads* is NOT checked. Also make sure that none of the option boxes at the bottom of the menu are checked.

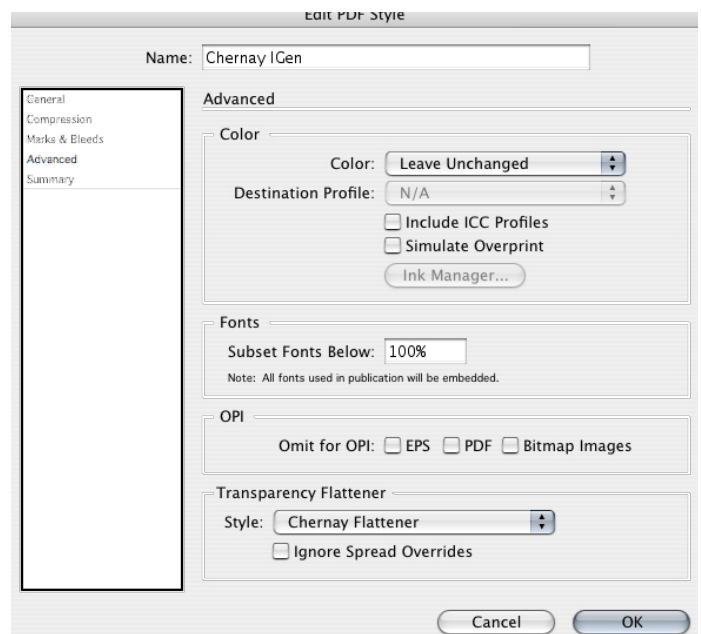


Under the *Compression* tab, please make sure your settings match those in the screen shot at the top of the next column.



Under the *Marks and Bleeds* tab, turn off all marks, and set your bleeds to 0.125" all the way around.

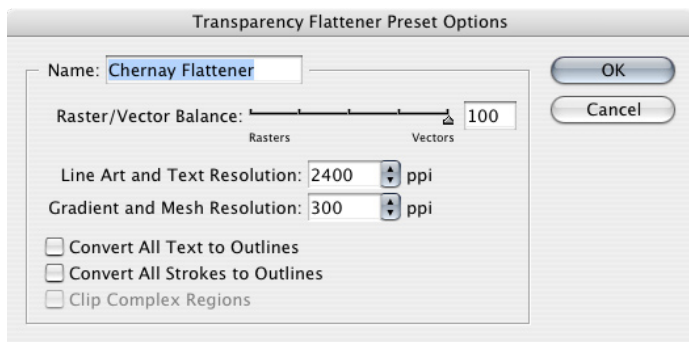
Under the *Advanced* tab, set the color to *Leave Unchanged*. Set *Subset Fonts Below* to 100%. Do not check any of the OPI settings. If you saved a Transparency Flattener Style, you can select it from the dropdown menu at the bottom.



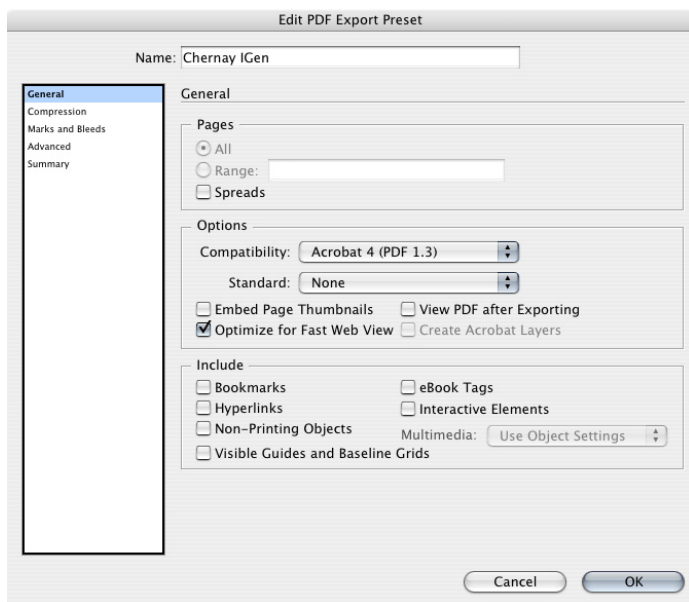
Then just hit *Export* and choose where you want to save the PDF. Please remember to check it before sending it to us.

## InDesign CS (Mac/PC)

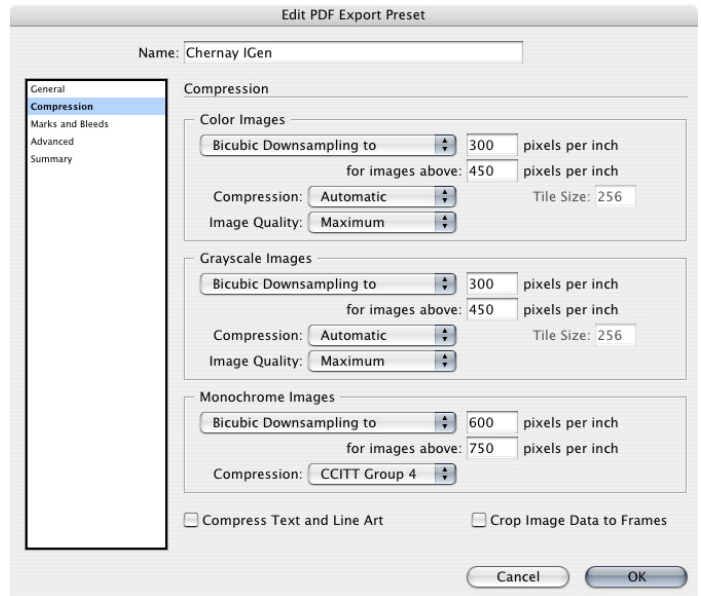
InDesign CS is very similar to InDesign 2.0. Just like in InDesign 2.0, in the CS version, you need to adjust the Transparency Flattener settings. This will minimize problems with dropshadows and any Transparency effects that were used. This can be accessed under *Edit>Transparency Flattener Styles*. The Raster/Vector balance needs to be set all the way to Vector, and the Flattener resolution set to 2400dpi, and Gradient Resolution set to 300dpi. Please leave the remaining boxes *unchecked*. You do not want InDesign forcing all of your text into vector shapes. You can save these Flattener settings as a style, and then use them in your PDF style as well.



Under the *General* tab, set the *Compatibility* to *Acrobat 4 (PDF 1.3)*, and set the *Standard* to *PDF/X-1a*. Make sure that the pages are set to *All*, and *Spreads* is **NOT** checked. Also make sure that none of the option boxes at the bottom of the menu are checked.

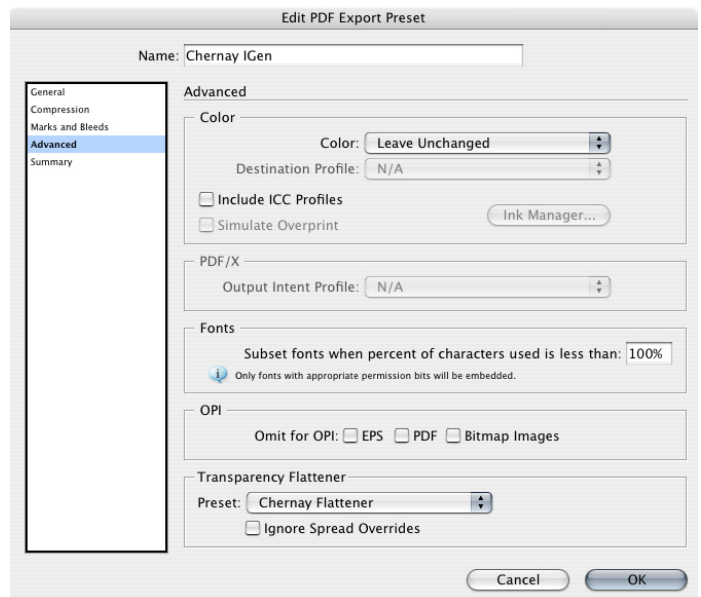


Under the *Compression* tab, please make sure your settings match those in the screen shot below.



Under the *Marks and Bleeds* tab, turn off all marks, and set your bleeds to 0.125" all the way around.

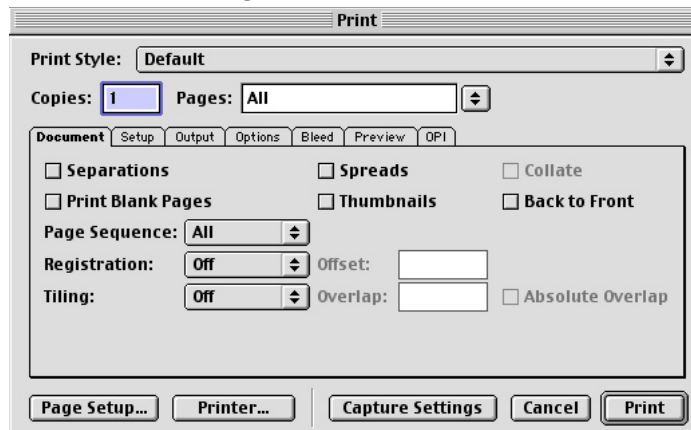
The *Advanced* settings will change depending on whether you are using the Color Management settings of InDesign CS. If you are, please set both the *Destination Profile* and *PDF/X Output Intent Profile* to *Document CMYK*. If you are not using the color management in InDesign, then you only have to make sure that the *PDF/X Output Intent Profile* is set to *Document CMYK*. The Transparency Flattener settings should be set to the style you saved.



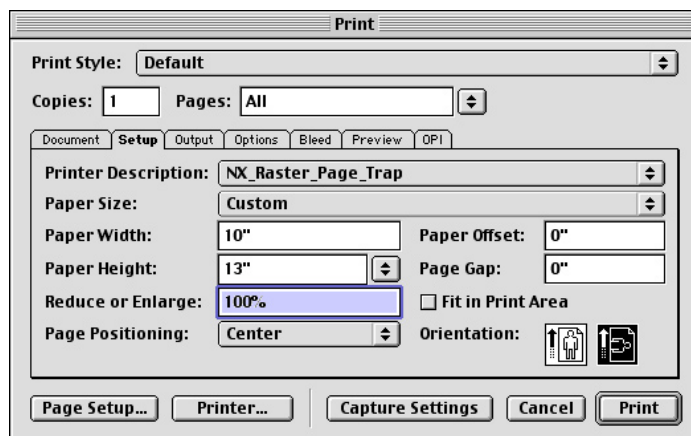
### Quark Xpress v4.x/5.x Mac versions

For creating PDF files from Quark 4 and 5, we highly recommend using Acrobat Distiller. For the settings we recommend, please see the section on Acrobat Distiller for the version you are using.

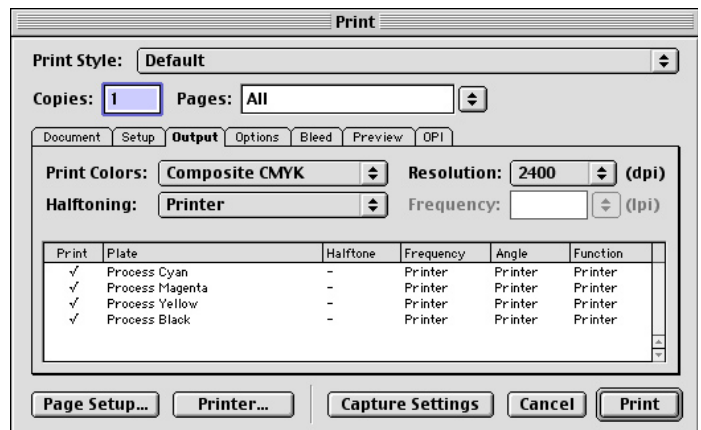
To get a PostScript (PS) file that Distiller can turn into a PDF, select *Print*. Under the *Document* tab, make sure that *Separations* are OFF, and so are *spreads*. If separations are left on, you will get a PDF with separate grayscale CMYK separations. Also, make sure that *Registration* marks are turned off.



Under *Setup*, select a PPD for a COLOR printer. If you select a B/W printer PPD, your PDF will be in B/W. Set your paper size to 1 inch greater than your actual page size. If your job is 6<sup>7/8</sup>"x 10<sup>1/2</sup>", your page size here would be 7<sup>7/8</sup>"x 11<sup>1/2</sup>". This will ensure that your bleeds don't get clipped from the PDF. DO NOT reduce or enlarge the pages. Finally, set the *Page Positioning* to *Center*.



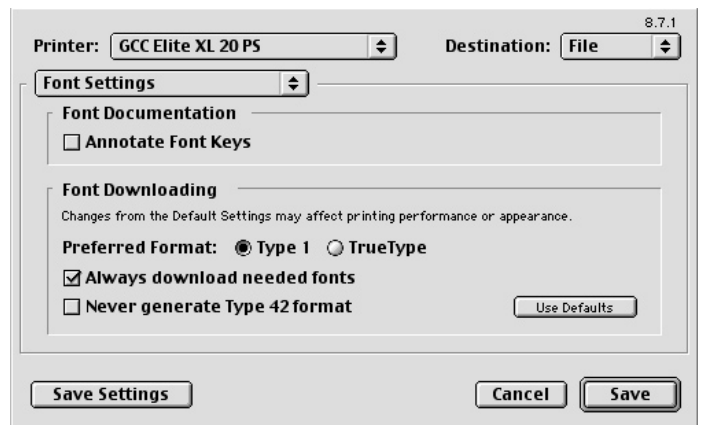
In the *Output* tab, set the *Print Colors* to *Composite CMYK*, the *Resolution* to *2400*, and the halftoning to *Printer*.



Use the *Bleed* tab to set your bleed to 0.125" and set it to *symmetric* to make it even all the way around. You should check the preview to make sure that the page and document sizes are correct, if they are, then click the *Printer* button.

In the *Printer* menu the *Printer* should match the PPD you selected earlier, and then set the *Destination* to *File*. Make sure you are making 1 copy of all the pages.

Click on the dropdown menu, and select *Font Settings*. Set the *Preferred Format* to *Type 1* and make sure the *Always download needed fonts* is checked,



Under the *File Save* menu, set the *Format* to *PostScript*, and select *Level 2 and 3*. The *Data Format* should be *Binary* and *Font Inclusion* should be set to all.

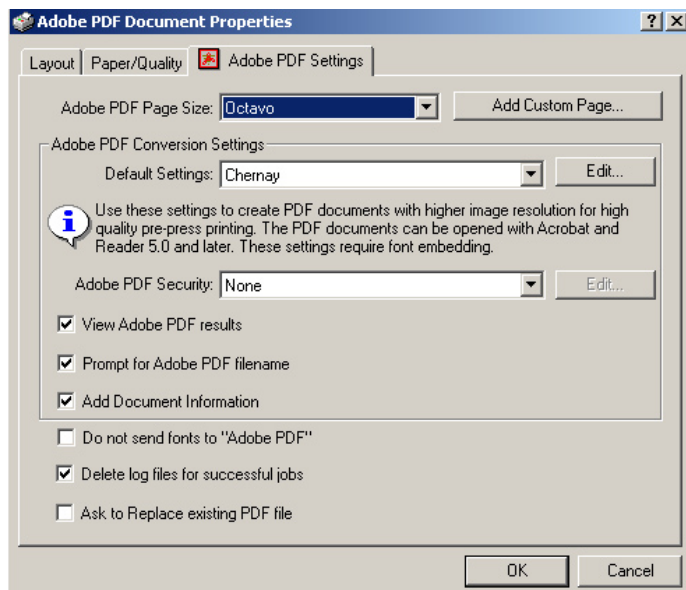
After checking that all of the settings are correct, select *Save* and choose the location for your file. Then choose *Print* in the *Print Dialogue* box and the PostScript file will be saved to the location of your choice.

## Quark 5.x PC

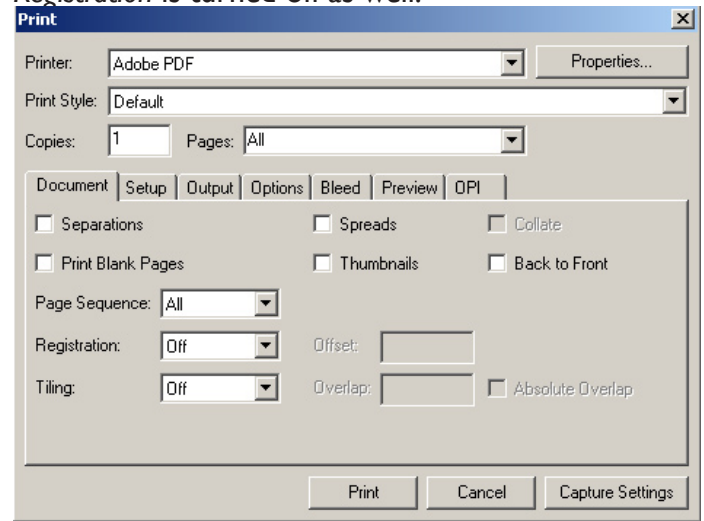
You must have Acrobat Distiller installed on your system in order for this method to work. You must also have the correct Distiller settings loaded to correctly create a PDF. Please read the section on the version of Distiller you are using.

Your first step is to set your printer to Adobe PDF. Click on Properties. You will need to define your page size here. If your page size is not in the dropdown menu, you will need to define one by clicking *Add Custom Page*. Remember that your page size needs to be one inch larger than your actual document size. If your document is 6.875"x10.5", your PDF page size should be 7.875"x11.5".

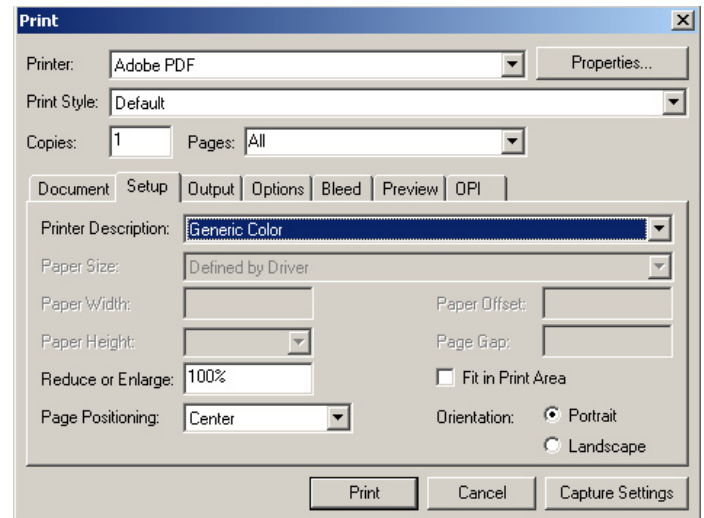
Select the PDF Job Settings from Distiller. If you need to modify the settings, you can click on *Edit*, this will bring up the Distiller Job Settings window. Check the *View Adobe PDF results* box to open Acrobat and view the PDF when it's created. Turn on *Prompt for PDF filename*, and *Add Document Information*. Make sure *Do Not Send Fonts to "Adobe PDF"*, is turned **OFF**. If this option is checked, your fonts will not embed in the PDF.

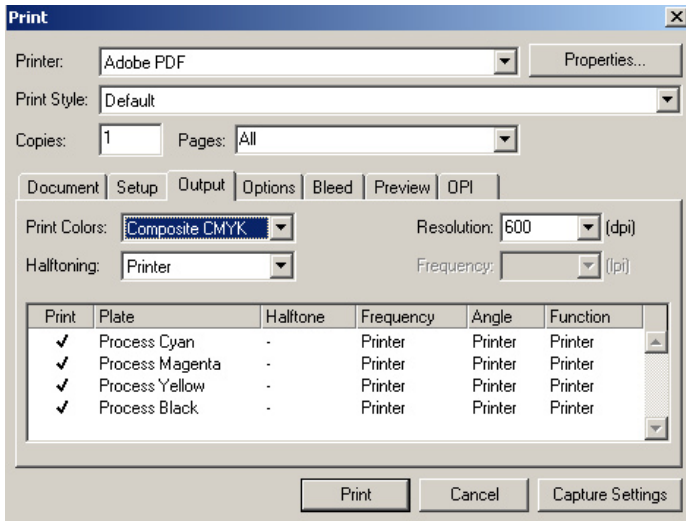


In the *Document* window, make sure *Separations* and *Spreads* are both turned off. Make sure that *Registration* is turned off as well.



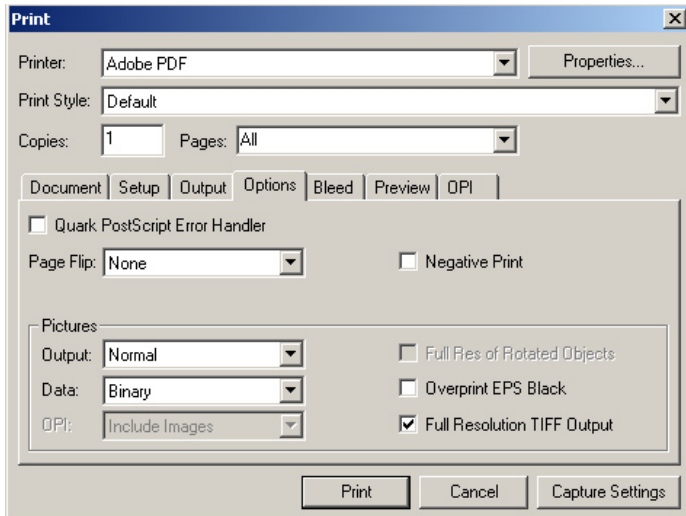
Under *Setup*, set your *Printer Description* to *Generic Color*. Set *Page Positioning* to *Center*.





In the *Output* window, set the print colors to *Composite CMYK*, *Resolution* to 600dpi, and *Halftoning* to printer.

In the *Options* window, set your *Output* to *Normal*, *Data* to *Binary*, and check *Full Resolution TIFF Output*. Leave everything else in this window unchecked.



Set your bleeds to 0.125” *symmetric*.

Clicking *Print* will now print directly to Distiller, all that is left is choosing where to save the file.

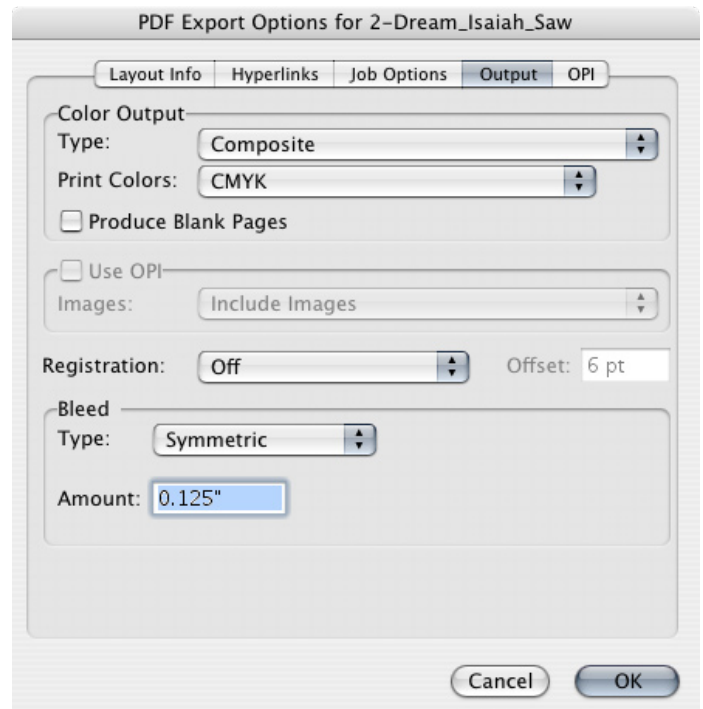
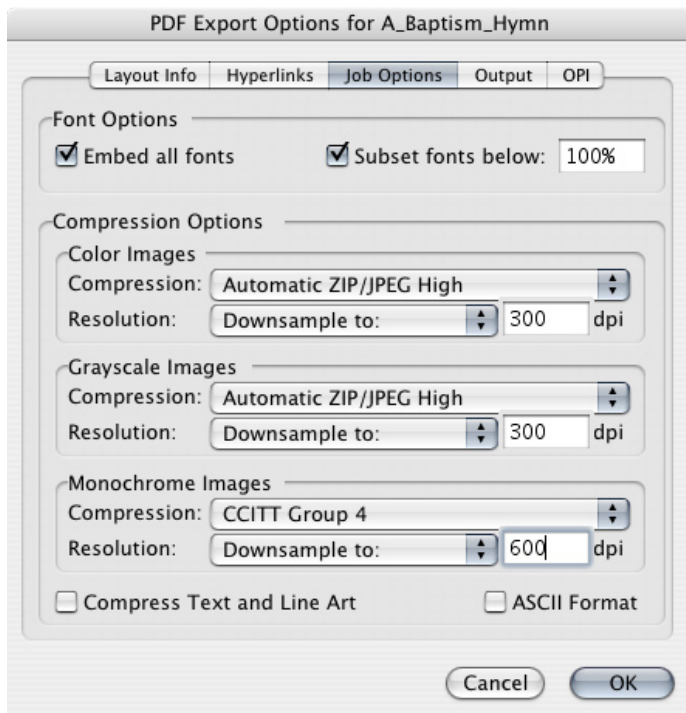
## Quark Xpress 6.x

The newest version of Quark has a create PDF filter in it, this method, as well as saving the PostScript file and running it through Acrobat Distiller- both work for creating PDF files from Quark Xpress.

To create a PDF using the new filter, go to *File>Export>Layout as PDF*. Choose the name of your file, and then click the *Options* button on the bottom of the window. You can name your PDF and embed Authoring information if you choose to. This data has no impact on our ability to print your file.

In the *Hyperlinks* window, make sure that *Include Hyperlinks* is off. This will gray out all of the other options in the window.

In the *Job Options* window, set your fonts options to *Embed all fonts* and *Subset fonts below 100%*. Set your compression options to match those in the screen shot below.



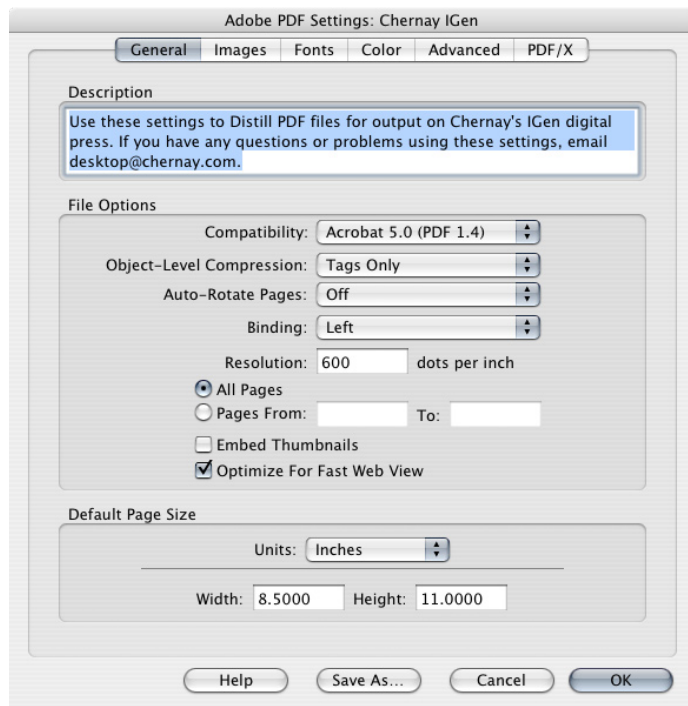
In the *Output* menu, set the *Type* to *Composite*, and the *Print Colors* to *CMYK*.

On the Mac platform there is one more option, *OPI*. Just turn this setting off. *OPI* information embedded in a PDF is one of the most common reasons for a PDF to not print properly.

## Acrobat Distiller 6.0 Professional

There are several versions of Acrobat 6.0 available from Adobe, the Professional version is the only one we recommend using. A PostScript or EPS file can be converted into a PDF by choosing *File>Open*, or on a Mac, by simply dragging the file onto the Distiller icon.

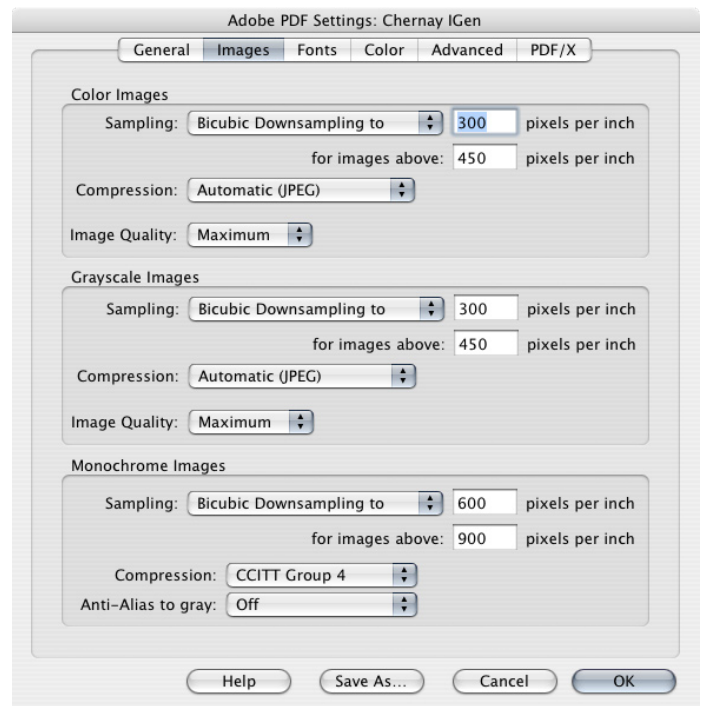
Under the *General* tab, set the compatibility to *Acrobat 4.0 (PDF 1.3)*; set the *Level Compression* to *Tags Only*. Set the *Auto-Rotate Pages* to *Off*. Make sure the *Binding* is set to *Left* and set the *Resolution* to *2400*.



In the *Images* menu, for both *Color Images* and *Grayscale Images* set the *Sampling* to *off*, *Compression* to *Automatic* and *Quality* to *Maximum*. In the *Monochrome Images* area, set the *Sampling* to *off*, *Compression* to *CCITT Group 4* and *Anti-Alias Gray* to *off* as well.

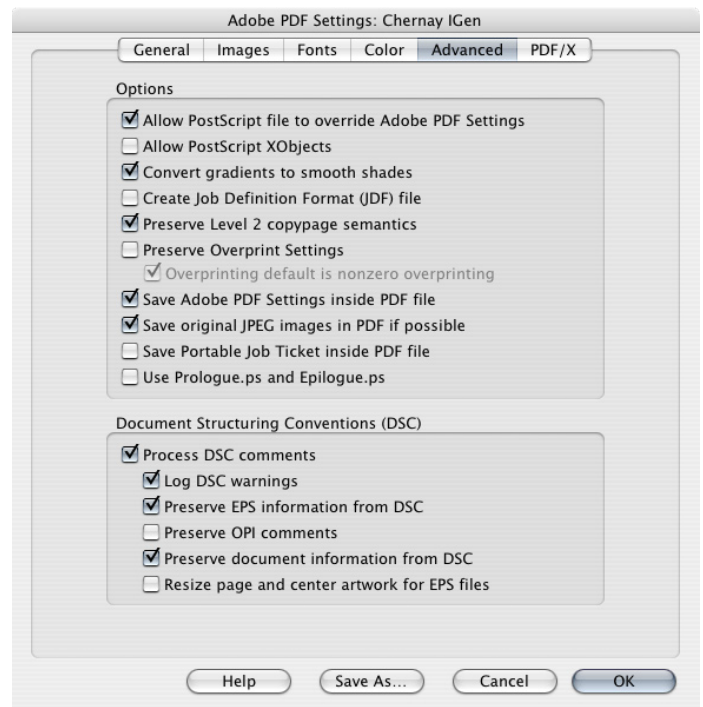
In the *Fonts* menu make sure *Embed All Fonts* and *Subset Embedded Fonts* are both checked, and the *Subset* amount set to *100%*. We also recommend that the *When Embedding Fails* option be set to *Cancel Job* so that you are warned of any possible font issues before the PDF is created.

Under the *Color* tab, set *Settings File* to *Color Management Off*. At the bottom of the menu, make



sure both boxes are unchecked, and *When Transfer Functions are found* set to *Remove*.

In the *Advanced* tab, please make sure that your settings exactly match those of the screen shot below.



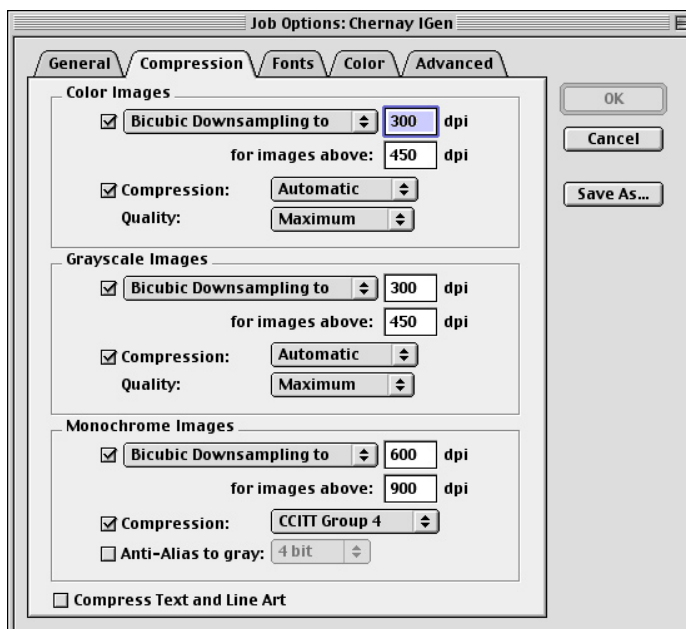
Make sure *nothing* is checked under the *PDF/X* tab, and then create your PDF.

## Acrobat Distiller 5.0

Adjusting the Job Options in Acrobat 5.0 is under the *Settings* menu. *Compatibility* should be set to *Acrobat 4.0 (PDF 1.3)*. The *Embed Thumbnails* option can be checked if you like, this will make your PDF larger, but will embed a thumbnail of the file to make navigation easier. An embedded thumbnail will have no effect on our ability to print the file, so this can be set as to your preference. Set the *Binding* to *Left* and make the *Resolution 2400dpi*.



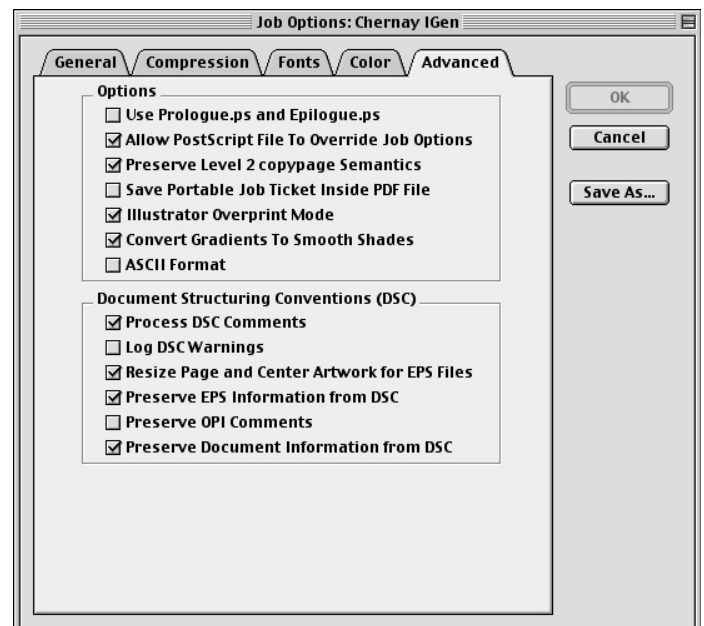
In *Compression*, match your settings to those shown in the screen capture below.



In the *Fonts* menu make sure *Embed All Fonts* and *Subset Embedded Fonts* are both checked, and the *Subset* amount set to 100%. We also recommend that the *When Embedding Fails* option be set to *Cancel Job* so that you are warned of any possible font issues before the PDF is created.

In *Color* select *Leave Color Unchanged* from the dropdown menu under *Color Management Policies*. Make sure none of the boxes are checked at the bottom of the menu, and that *Transfer Functions* are set to *Remove*.

In the *Advanced* tab, please make sure that your settings exactly match those of the screen shot below.



## Photoshop

In general, we do not recommend using Adobe Photoshop as a page layout program. Photoshop is designed for editing digital imagery, and does not handle type as well as many other programs available. Photoshop tends to rasterize all text at 300ppi, which means that your type will not be as sharp as if it stayed as a true *font* all the way through our workflows. We recommend that you edit your imagery in Photoshop, but if there is any type in the job, add the type in either a page layout program like Quark Xpress or Adobe InDesign; or in a vector art program like Adobe Illustrator, or Corel Draw.

This Is Photoshop Text  
This Is Photoshop Text

## MS Office

Microsoft Office can generate PDF files when you have Distiller installed on the same system. We recommend not creating PDF files from MS Office applications. Office is an RGB program, and your text will be an RGB black in your PDF file. If you absolutely must, Acrobat Distiller can turn the \*.prn files that Office applications create and turn them into PDF's. In order to do so, just make sure in the *Print Dialogue* box, *Print to File (PC)* or *Save to File (Mac)* is selected.