

# ePUBLISHER PDF Creator

## DETAILED GUIDE TO PDF CONSTRUCTION

PLUS: PRODUCT REVIEWS





# ePublisher PDF CREATOR

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Cartography Unlimited for RPGs

Also Available at [RPGNow.com](http://RPGNow.com):

## **ePublisher Guide ePublisher Guide to d20/OGL Publishing**

The mention of or reference to any company or product in these pages is not a challenge to the trademark or copyright concerned.

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## About the Writers

**NOTE:** The information in this book was written by multiple authors and there is some overlap.

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**Greg Porter** – Greg has been writing for and publishing in the game industry since about 1987. His professional training is in geology, though he also spent about a decade working in human behavioral genetics and a few years doing freelance Java programming for a now-defunct dot.com. He’s been doing game work as his full-time source of income for several years now, and lives as a high-tech hermit in the wilds of southwest Virginia. He has done work for GURPS, Hero System, Traveller, Sovereign Stone, Blue Planet and written articles applying to several other systems, as well as being the author/publisher of Macho Women with Guns, TimeLords, CORPS, EABA, 3G<sup>3</sup> a bunch of other titles and various supplements for them. [www.btrc.net/](http://www.btrc.net/)

**Anna M. Dobritt** – In 1999, Anna was one of the volunteer mappers for the Forgotten Realms Interactive Atlas. Seven months later, she received her first paying job as a freelance cartographer for role-playing games. Since that first job, she has had maps in products published by Thunderhead Games, Mystic Eye Games, Paradigm Concepts, Rogue Publishing, the novel Armour of Light by Thomas Lim, and Gold Rush Games. She has also branched out into editing, PDF layout and publishing her own products. [www.cartogunlimited.com/](http://www.cartogunlimited.com/)

# Chapter 1

# Introduction

*By Michael L. Fiegel*

## What is a PDF?

PDF is an acronym that stands for Portable Document Format. (That means saying PDF Format is like saying ATM Machine – don't do it!) The format, created by Adobe Systems, allows anyone<sup>1</sup> to create an electronic document, complete with text formatting, embedded fonts, graphics and layout<sup>2</sup>, which will be consistently viewable<sup>3</sup> by anyone else, regardless of the software or operating system used by either the creator or the end user. That's quite a complex sentence there, so let's break it apart:

### 1. "...allows ANYONE to create..."

PDF is an open standard, meaning that anyone can build the capability to generate PDFs into a product. Hundreds of products currently include it. The fact that there are so many tools available today that will generate PDFs (many of them free and/or Open Source) is a key factor in the growing popularity of PDFs among RPG publishers who wish to create electronic files for their customers.

### 2. "...complete with text formatting, embedded fonts, graphics and layout..."

PDF gives your product a level of appearance that can't be achieved with a mere single-column text document. Sure, you could use NotePad or BBEdit to bang out a masterpiece that will change the face of Role-Playing, but if it doesn't have a slick layout or graphical accompaniment, no one's going to read it. Of course, you could always use higher-end products like Quark or the Adobe suite to make it look pretty, but the only way to get that to your customers is to generate huge static image files. A PDF combines the best of both worlds: it's as easily searchable as a text document, but allows the inclusion of those graphic elements which make your product what it is.

### 3. "...consistently viewable..."

PDF offers a host of benefits, including the potential to extract and print content, reflow text on hand-held PDAs, and, recently, the ability to embed movie and sound files. For the RPG PDF publisher, there's one key reason to use it: consistency. No matter who's looking at a PDF, it'll look the same, regardless of what is used to look at it. It may look comparatively bigger or smaller, depending on what resolution it's viewed at (more on that later), but within the confines of the page itself, the layout will always be predictable. What you see when you make it, is what readers get when they read it.

## DOC vs. HTML vs. RTF vs. PDF

Consistency is not always what you get when you're dealing with formats like DOC and HTML, which can parse formatting tags differently depending on the type and version of the application being used to view them, the operating system you're using and, often, the time of day and the phases of the moon (or so it seems). Don't count on them to look the same on any two computers.

RTF (Rich Text Format) offers a bit more standardization and compatibility, but carries with it the risk that it won't be viewed as intended. As it's merely text with some markup format included, anyone opening it in a browser or other application that can't handle RTF is either going to see just plain text, or a complete mess:

```
\pard \s25\fi-360\li360\sl0\tx-1080\tx-
720\tx0\tx360\tx720\tx1440
\tx2160\tx2880\tx3600\tx4320\tx5040\tx576
0\tx6480\tx7200\tx7920\
tx8640\tx9360\tx10080\tx10800{\plain
\f4\fs20 {\f5 \'43}\tab This
is what it's going to look like if your
reader can't handle \'bd
RTF documents. Is this what you want your
brand new customer to see? \par
```

With a PDF, you don't run that risk. If your PDF opens, it's going to look as you intended all the time, just as if your reader were cracking open a printed book. Since your PDF has to be as good as (if not better than) print, that's a good place to start.

## About the ePublishers Guide

[www.RPGNow.com/product\\_info.php?products\\_id=1668](http://www.RPGNow.com/product_info.php?products_id=1668)

Dubbed “The definitive guide to electronic publishing for the RPG/Game Industry,” Minion Games’ *ePublishers Guide* is a “must-have” for anyone who’s serious about publishing RPGs as PDFs. Available on RPGNow.com for immediate download, the Guide contains over 80 art-free pages of content, content, content about how to start up and run your PDF publishing business the right way.

It includes information on budgeting, marketing, PDF creation, plus updated sales figures for 2004, along with tips, tricks and other contributions from industry professionals like Sandy Antunes (RPG.net), Monte Cook (*Arcana Unearthed*, *D&D3e*), Mark Arsenault (*Sengoku*, *San Angelo: City of Heroes*), James Mathe (*Darwin’s World*), Jim Butler (*Bastion Press*), Cynthia Celeste Miller (*Cartoon Action Hour*) and more.

Inside, you’ll find:

- Cost/budget analysis, accurate sales figures and pricing that works
- Sample contracts and tips on dealing with freelancers
- Information on prepress, formatting, content and page counts
- Legal information on copyrights, trademarks, licensing and the OGL
- Ideas for layout, interior and exterior artwork, maps, etc.
- Marketing advice: online ads, search engine placement, print ads, banners
- Access to an ePublisher forum, mailing lists, gaming directories and news
- A 12-page “newbie-eye view” of PDF Publishing and RPG e-Tailing.
- And, as they always say, much, much more!

It is, in a nutshell, “simply the best 20 bucks you can spend on your new business.”

## A Few Legal Notes

First of all, IANAL (I Am Not A Lawyer). The information that follows is based on what I know, and information gathered amongst industry folk who are generally expressing their opinions. ‘The Law’ is a big dark thing in the corner, and in general, if you’re not sure you’re supposed to be doing something, it’s safer to avoid doing it. If you’ve got the time, budget and drive to do something large enough to cause a ruckus, it’s always wise to seek the advice of a lawyer.

However, I have no intention of scaring you off this path. Ninety-nine percent of the time, there are just a few simple rules you need to follow to keep yourself out of trouble when designing your PDF product.

## Artwork – Original Art vs. ClipArt

In a time where you can do a Google Image Search, grab an image and drop it into your document or web page in about 30 seconds, it can be hard to resist the temptation to pick from the bountiful fruits of the Internet. Resist.

Most of the artwork out there, including on many “Free Clipart” CDs and websites, is protected by someone else’s copyright. Much of it, even if it is available for your use, is protected by terms of use that prohibit its use in commercial ventures. That means you can’t use it in something on which you intend to make money. Some collections are packaged to suggest they are royalty free, but when opened reveal that they are royalty free for personal, private, non-public use only, which would mean you can’t even use the art on your own website. If you do go this route, be sure you read the fine print to avoid getting yourself in trouble.

Not only is it illegal to use other people’s artwork without their express permission, but it’s not a good way to help support the RPG industry, particularly the fledgling PDF portion thereof. Your PDF product needs to stand out in a crowd of thousands, and one of the best ways to make sure it does is to be willing to put a sig-

nificant chunk of your budget into artwork. Rates vary from artist to artist. Some newer artists looking for exposure might be willing to work for free, just for the experience, whereas veterans will probably ask (and deserve!) somewhere around \$25 per quarter page, or \$100 for a full page (of black and white line art). Prices for inked work, or full page color covers, are generally higher. However, in between ‘Free’ and ‘\$100 a page’ there’s a broad range of territory, and many artists will be willing to haggle with you, provided they’re interested in your project and you’re honest about both your budget and your expectations.

### Some sites worth checking out:

[www.clipart.com](http://www.clipart.com)

\$14.95 for a week’s subscription, plenty long enough to find art that suits you.

[www.larryelmore.com/popups/misc/special02.htm](http://www.larryelmore.com/popups/misc/special02.htm)

\$20 nets you 200+ original line art drawings from Larry Elmore.

[www.RPGNow.com/search.php?query=clip+art&x=8&y=8](http://www.RPGNow.com/search.php?query=clip+art&x=8&y=8)

A wide assortment of fantasy clipart on the RPGNow site, most for under \$10.

[forum.RPG.net/forumdisplay.php?f=12](http://forum.RPG.net/forumdisplay.php?f=12)

The RPG.net Freelancer forum, a good place to scout for reasonably-priced art.

## Fair Use, or, “Can I Quote You On That?”

In general, it goes without saying that any writing you include in your document should be legally obtained, either by paying a writer for original text, purchasing rights to existing text, incorporating text that’s open for use under a licensing agreement (such as the OGL), or writing it yourself.

However, there is some fuzzy area when it comes to little bits of ‘flavor’ that publishers are fond of sprinkling throughout their documents, such as song lyrics, literary quotes, and other such tidbits that make really good chapter introductions and pull quotes.

**Under the ‘fair use’ rule (called different things in different countries, such as ‘fair dealing’ in Canada), an author can, without asking permission, make limited use of another author’s work.** The general rule of thumb for ‘fair use’ as pertains to commercial use says that: you should copy as little as possible; you should properly credit the copyright holder and/or author; you should not be in competition with the work you are quoting (i.e., you shouldn’t quote another role-playing book unless, as with the OGL, that’s explicitly allowed under certain circumstances); and you should not quote from something merely to enliven your own work – it should generally add to the work substantially, or be commented upon.

So does this mean you can’t quote songs and poems in your work to jazz things up? Yes and no. It’s still a fuzzy area. The RIAA (Recording Industry Association of America) says that no one can quote lyrics without permission, and while this is probably the case there are millions of web pages that break that rule. ASCAP (The American Society of Composers, Authors & Publishers) wants to collect royalties every time someone sings or prints the lyrics to Happy Birthday, even going after the Girl Scouts of America at one point, before quickly backing off.

Will you get in trouble for printing lyrics or quotes? Probably not. A few dozen or hundred copies of a PDF document don’t represent a serious challenge, and in all likelihood you’ll glide under the radar. You’re perfectly safe if the material in question was published before 1923, and quite possibly safe for many works published prior to 1964 (although you should research that first). You’re probably mostly safe in other regards as long as you follow the guidelines listed above. If you’re unsure, and you’re doing something that you expect to be fairly high profile, you may wish to contact copyright holders to secure permission. If you’re both unsure and unwilling to do that, ask yourself whether that little bit of ‘flavor text’ is really as essential as, perhaps, a little bit more of the original content that your customers are paying for.



### Some sites worth checking out:

[fairuse.stanford.edu/Copyright\\_and\\_Fair\\_Use\\_Overview/chapter8/](http://fairuse.stanford.edu/Copyright_and_Fair_Use_Overview/chapter8/)

A discussion of Fair Use and works in the Public Domain.

[copylaw.com/new\\_articles/fairuse.html](http://copylaw.com/new_articles/fairuse.html)

A decent summary of the core issues at the heart of Fair Use.

[www.writersdigest.com/articles/zaharoff\\_fair\\_copy\\_right\\_law.asp](http://www.writersdigest.com/articles/zaharoff_fair_copy_right_law.asp)

Another good summary of Fair Use.

## Font Usage and Embedding

According to the Wikipedia ([en.wikipedia.org/wiki/Font](http://en.wikipedia.org/wiki/Font)), a typeface is “a co-ordinated set of letter designs, making a complete alphabet, and generally intended to be made into a font,” whereas a font is “a set of images representing the characters from a particular character set in a particular typeface.” That is to say, a typeface is a set of designs, and a font is a set of images that represent that typeface. It’s important to understand this distinction as a means of grasping the legal issues of font usage.

The short of it is that in the United States, fonts cannot be copyrighted. The 1976 Copyright Revision Act (see the *Eltra Corp. v. Ringer* judgment) explicitly states as much, removing “typefaces” and “fonts” from the category of “artistic works.”

However, thanks to a little piece of legislation called the Digital Millennium Copyright Act (DMCA), passed in 1998, the area of font copyrightability gets a little fuzzy. That’s because software is protected under the DMCA, and depending on how you define software, fonts may fall into this category. While the typeface itself cannot be copyrighted in the USA, and the font (the instructions that define how the typeface is to be displayed) cannot be copyrighted, the computer program instructions that display the font can be copyrighted as pieces of software. Maybe. Adobe, Agfa and other type foundries have done their best to argue that the ‘hinting’ instructions in what they are more commonly calling ‘font software’ are a program, and thus protectable by copyright.

Of course, it gets more complex. For starters, font design may not be copyrightable, but it is *patentable* as a “novel and unique design,” as in the case of Stone and Lucida. All of the above also applies only to the United States. Germany, the United Kingdom and France all have stricter intellectual property laws that govern the ability to copyright fonts, some of which are retroactive to the early 20th Century.

Because they want to protect their own interests (and justly so), in general type foundries would like us all to assume that all fonts are copyrighted works, and ask that they not be redistributed or used for commercial use without explicit permission (usually in the form of a license agreement) from the copyright holder.

The good news is there are plenty of fonts already available for you to use, so most of the time you needn’t worry unduly about their legality. The reason for this is that lots of fonts already come with most computers and software programs, the usage thereof being defined as part of the End User License Agreement (EULA) that comes with the software. The EULA is that piece of paper you didn’t read when you opened the software. But don’t worry too much. What it **probably** tells you is this:

*“You have permission to use a single copy of the fonts to display on your monitor and print on your printer. But most of these fonts are licensed from someone else, so you don’t have permission to copy, embed, or in any way distribute the font.”*

Note that in most cases, these agreements are only concerned with preventing you from **embedding** the fonts. Anything you print out is fine, but most layout programs (such as Quark and InDesign) will happily yell at you when you “output for press” and warn you about font embedding. However, many of the fonts on your computer, and many of the fonts you can download from the Web, are probably acceptable for embedding, as long as the font can’t be extracted from the document and reused – be sure to check the license agreement that comes with the font to be sure.

Some software programs (including Microsoft Publisher) include fonts **without** any such license restrictions, allowing them to be embedded in publications without worry. Microsoft's website offers a page where you can look up the name of a font and see what software packages it ships with, to quickly determine whether or not you have a license for that font on your machine. It includes a list of core fonts for Macintosh, Unix and Adobe TypeManager (ATM) as well, and is well worth checking out:

[www.microsoft.com/typography/fonts/default.aspx](http://www.microsoft.com/typography/fonts/default.aspx)

The following fonts' have been included in multiple software packages (including the aforementioned MS Publisher), and are about as 'safe' as you can get as far as legality of usage, embedding and ease-of-use (as in, even if you don't embed, your end user is probably going to have these installed). It's more than enough of a selection to get you started on the road to PDF publishing.

**Serif:** Book Antiqua, Bookman, Garamond, Georgia, Palatino, Times New Roman/Times

**Sans-Serif:** Andale Mono, Arial/Arial Black, Helvetica, Impact, Trebuchet MS, Verdana

**Monospace/Other:** Comic Sans MS, Courier/Courier New, Symbol, Wingdings (1, 2, 3)

*\*These include Black, Bold, Italic, Narrow, etc. versions, and variants thereof.*

#### Some sites worth checking out:

[www.microsoft.com/typography/TrueTypeEmbedding.msp](http://www.microsoft.com/typography/TrueTypeEmbedding.msp)

A discussion of the difference between *Editable embedding allowed*, *Print & Preview embedding allowed* and *No embedding allowed*.

[www.adobe.com/aboutadobe/antipiracy/fonts.html](http://www.adobe.com/aboutadobe/antipiracy/fonts.html)

[store.adobe.com/type/embedding.html](http://store.adobe.com/type/embedding.html)

Adobe's own discussion of embedding certain typefaces into documents.

[www.desktoppublishing.com/fonts-com.html](http://www.desktoppublishing.com/fonts-com.html)

An excellent list of type foundries to be found on the Internet.

## Summary

### ● What is a PDF?

- A format, created by Adobe Systems, that allows anyone to create an electronic document, complete with text formatting, embedded fonts, graphics and layout, that will be consistently viewable by anyone else, regardless of the software or operating system used by either the creator or the end user.
- Use PDF whenever possible, as opposed to DOC, HTML or RTF.

### ● About the *ePublishers Guide*

- The definitive guide to electronic publishing for the RPG/Game Industry [www.RPGNow.com/product\\_info.php?products\\_id=1668](http://www.RPGNow.com/product_info.php?products_id=1668)

### ● A Few Legal Notes

- Be sure to use only artwork and clip art that you have a legal right to use.
- Avoid using quotes and song lyrics to avoid copyright issues, but be aware of 'Fair Use' issues.
- Do not embed fonts in PDFs unless you have license to do so. Safe fonts include:

**Serif:** Book Antiqua, Bookman, Garamond, Georgia, Palatino, Times/ Times New Roman

**Sans-Serif:** Andale Mono, Arial/Arial Black, Helvetica, Impact, Trebuchet MS, Verdana

**Monospace/Other:** Comic Sans MS, Courier/Courier New, Symbol, Wingdings (1, 2, 3)



## Chapter 2

# Planning

### Planning

There are two stages to planning a PDF. First is, of course, having a product or an idea suitable for PDF distribution. *This does not mean only role-playing games and supplements.* While it is a little more work for the end user, you can produce PDF versions of card games and board games as well.

Presumably, you've already gotten to the idea stage. Second, you have to decide the nuts and bolts of what your PDF will look like – not necessarily the style sheet of your graphic layout, though this does factor in, but the way the PDF will be viewed or printed by the end user. After that, you have to get your hands dirty in terms of software, formatting, art and such, but that will be another chapter. For now, we'll deal with the bits that are largely independent of the actual content of the PDF.

### Overall

You are competing in some way for the dollars of gamers, who will often be comparing your product to what they can get at their local store, or against what they see in the same sales category at an online vendor. You must have a product with a good value in terms of content (of course), *plus* the graphic presentation has to be equal to or better than what a customer can browse on game store shelves or online, *and* it has to be cheaper to download and print it than it would be to just buy a printed equivalent.

If you can't generate content, presentation and price point that are at least as attractive as conventionally printed materials, you need to reconsider why you're doing a PDF to begin with.

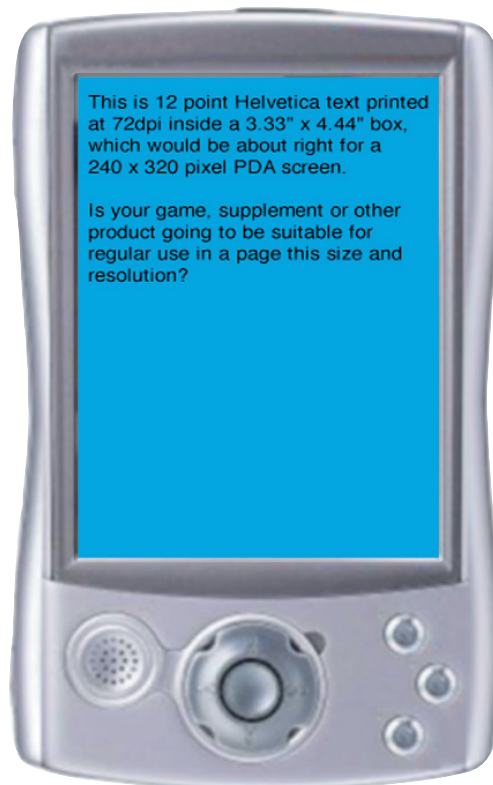
### Screen or Printer format?

About the first thing you have to decide after deciding to make a PDF product is how and where you intend it to be used. Some formats have multiple uses, while others are exclusive to a particular type of device.

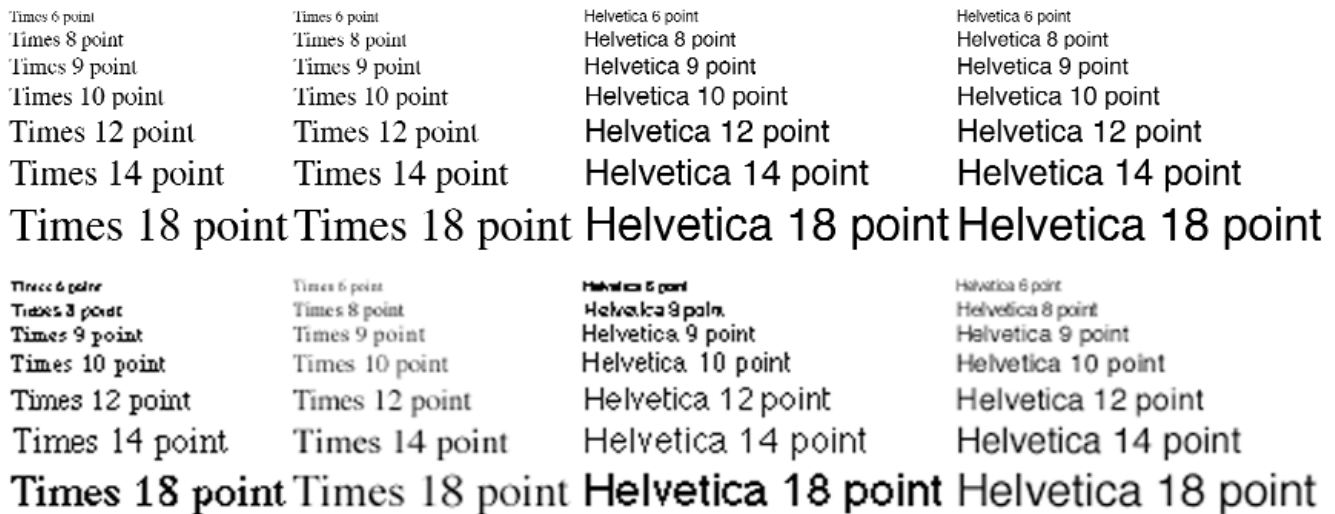
#### Screen format

Virtually everyone these days uses a landscape-orientation monitor (wider than it is tall). Pages designed to fit a *full* screen in this format would print sideways on regular paper, which is an annoying way to have to leaf through a *printed* set of rules in a binder. Don't do a landscape screen format unless being viewed on-screen is the *main* way you expect your product to be used. The normal appearance of most books (a page taller than it is wide) is called 'portrait' orientation. You need a 17-inch landscape monitor to view an 8.5" x 11" format document at 100% magnification, and this size screen will in fact display two such pages side-by-side.

The other screen format is for PDA's. This is small minority of PDF game products at the moment and most of them are accounting and mapping tools, like software to show locations, track experience points, make die







rolls and such. For a traditional role-playing game, a PDA screen might display a quarter of a printed page of information at best.

A set of rules that is 150 pages of letter-size paper would be a 600-page PDA document; cumbersome at best. A PDA format would be useful for simple rules, a condensed version of a larger rules set, or short adventures or reference works, but if it's something a reader is expected to thumb through sequentially, that's a lot of page turning. In addition, the current crop of PDA-based PDF readers discard page formatting and reflow the content into something that can be read without constant scrolling, an action that makes a mess of any charts or tables in the PDF.

Developing a PDA version should involve removing all tables and converting them into an appendix with a vertical linear orientation, rather than the typical horizontal orientation most books use. PDA-formatted pages also don't print very well unless you use pre-perforated paper and your print software is smart enough to figure out the right page order in which to print to get the pages to come out with sequential numbers front and back.

One thing to remember for any screen format is legibility. You can expect most display devices to have a resolution of about 72dpi (dots per inch), while virtually all printers are at least 600dpi. See a comparison, above.

The top rows of text are at 600dpi, while the lower row is at 72dpi. The difference is more striking if you read these on a printed page. The 72dpi samples are shown in crisp and smoothed

versions, since most display devices will have the option of smoothing text at certain sizes for increased legibility.

This gives you an idea of how small you can or should make your text for a screen-formatted PDF, and from that, how much information you can get on one screen, whether on a large monitor or the tiny real estate of a PDA screen.

## Print format

Virtually everyone who has a computer will also have a printer. Even if users read much of a PDF on-screen, they will probably print off at least part of the document; tables and character sheets at a minimum. Realistically speaking, there are two print formats: normal and half-size.

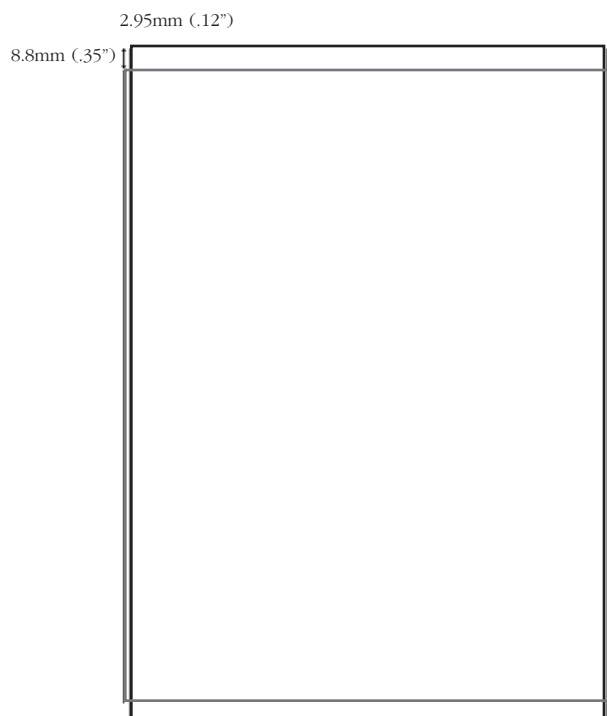
A normal-size print would be on standard 8.5" x 11" 'letter-size' paper, or in many parts of the world, the 210mm x 297mm 'A4-size' paper. These two sizes are close, but not exactly the same:

A page formatted with even margins for A4 paper will run off the top and bottom of letter-size paper, while pages formatted for letter-size paper will probably be okay on the sides, but will have a lot of white space on the top and bottom margins. If you want to sell to audiences that will use either paper, the best compromise is to design for letter-size paper, but to make sure your top and bottom margins are as close to the edges as will reliably print. Most newer printers can print within 1/4" of the edge of the paper, which gives a printed area size guaranteed to fit on either page size of 7.76" wide and 10.5" tall (197.3mm x 266.7mm).



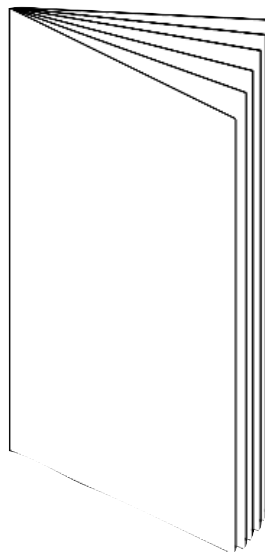
Half-size paper would be to print two pages side-by-side on one sheet of paper, and after they are printed, the user staples the pages down the middle to make a booklet like this:

A half-size printed format has the same margin notes regarding letter and A4 paper, but top and side margins are reversed. If you want a 1/4"



margin on each 'page' of a half-size printed format, then each half of the page will be no more than 5.0" wide and 7.76" tall (127mm x 197.3mm).

Remember that something designed in a half-size printed format will have to deal with 'imposition', or making sure that the pages print in the right order on both sides of the page. Among other things, this means that you will almost have to have a separate version of the PDF if you expect it to be viewed on screen. *Why?* Take a simple eight page half-size booklet. If you wanted to view it on screen, it would probably be two pages at a time, like this:



page 1	page 2
page 3	page 4
page 5	page 6
page 7	page 8

On the other hand, if you wanted to print it, you would need either to use a duplexing printer or print every even page, then feed them back through and print every odd page on the other side. Regardless, you would need pages organized like this:

If you're still confused, take two sheets of paper, fold them in half to make an eight-page booklet, number the pages 1 through 8 and then disassemble the booklet and see what numbers are where on each side of each sheet.

There are other page sizes, like digest, journal and so on, but if you expect buyers to print it, they will probably be using the paper they already use for their other print jobs. Making someone buy special paper just to print your game is not a good idea unless it is a fundamental part of the way the game works, like using



pre-cut business card paper to make a downloadable card game, or using colored paper as part of some game mechanic. Even in these cases, you should consider the options for people who don't have access to the right paper.

**Example:** If you do a PDF card game that uses pre-perforated business card stock, anyone can pick up a pack of this at an office supply store. Unless he or she is in Europe, which may not have business card stock in the US size. *Oops.* In this case, you would make an extra page or a free download that had the cards printed with a border, so that players could use *any* card stock, and simply cut the cards out with a pair of scissors.

## Why not both?

You can format a product for both a landscape screen *and* PDA *and* printed page. The question is, are your expected sales going to be worth the effort? If you were convinced your game would sell lots of copies with no problem, you would probably be going to a conventional printer rather than going the download route. However, if you are doing a piece of software that runs on both a regular computer and a PDA (for portability), then obviously things like in-program documentation will have to be formatted appropriately for each device.

The best compromise is to format your document for printing, but make it screen friendly. A 15-inch monitor can display a full page with 12-point or even 10-point text at passable legibility (depending on the font used), and 15 inches is as small a monitor as you would expect to find these days. More common are monitors 17 inches and up, which can display two full pages of

page 8	page 1
page 2	page 7
page 6	page 3
page 4	page 5

text at 100% size. If your fonts are legible on a monitor at that size, then your screen-formatted PDF and print-formatted PDF effectively become the same document. We'll get into the differences between the two, and whether you want separate versions, later on.

## Color or Black & White?

One advantage I've found in doing PDFs is that you are freed from many of the budget restraints you have on normal print jobs. It doesn't cost you any more to make a color PDF than it does to make one in black and white (or grey), except for any increased cost you are paying for color artwork. Given that, why not make the whole thing in color – chartreuse text on a paisley background with gilt-edged filigrees?

Aside from the fact that it would be tacky and impossible to read, you have to look at your audience. Anyone who creates a PDF in a print layout is tacitly expecting the work

to be printed. If it costs someone a \$30 inkjet cartridge to print your \$10 PDF, you're *never* going to get another sale from that person, or from anyone in his or her gaming group who hears that "inkjet tale of terror." PDF buyers know they will go through *some* consumables if they print your PDF. They're getting the PDF for less than a store-bought book, and even with paper and ink costs, they should be ahead. If you end up on the wrong side of that total price point, you're in trouble, and color inkjet refills are an easy way to get to that bad place.

*Color, good. Too much of it, bad.* Your cover *should* be in color if you can manage. It is both the splash screen when the PDF is opened on-screen, and the first thing you see in your binder if it is printed. Color highlights in the text are fine, as are color pieces of art here and there. Just do not go with heavy amounts of any one ink (including black) on every page.

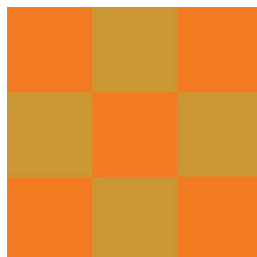
**Real world example:** The conventionally-printed 2<sup>nd</sup> edition of my **CORPS™** system had solid black bars as header and footer on each page. The first edition of the PDF got complaints almost immediately from people with inkjet printers, because each bar used as much ink as a full page of text. *Bad.* I corrected this as soon as possible, using a lighter grey bar instead. This cut the ink overhead to a manageable level, and no more complaints. This is a case where a job that looked good in a conventional print run did not work out well as a direct conversion to PDF.

The use of colored text for the above example shows how it can be useful. If this were a game book, I would make each example this color, so you would visually key on where to look for demonstrations of a rule in any given chapter. You could put gamemaster tips, notes regarding the world background, or some other subset of the rules in color. Color gives a premium look to a product, but once you get past the front cover, a little bit goes a long way.

The other aspect of using color is that not everyone has it. You have to make sure that a color PDF will print appropriately on a laser printer. Not all color illustrations print well in grayscale. Sometimes subtle shadings of different colors simply turn into featureless grey mush. Or that bright blue text you used for doing your examples prints out as an unreadably-light 20% grayscale. *Oops.* Test your color PDF on a black-only output device before releasing it. If there is a problem, fix it, either by adjusting the color balance, using a different illustration, or making a dedicated grayscale version of the PDF. If you provide a download that has a version optimized for laser printers and one optimized for color printers, you're twice as likely to have a customer who is happy with the output quality.

Yes, dedicated color and grayscale versions *will* make the download bigger, but the number of high speed connections is constantly increasing, so file size should be less and less of a problem in the future. (More on file sizes later.)

**Example:** There are two reasons you should not border the following colors in a PDF:



The first is that they're ugly colors, a sort of autumn blight mix that reminds one of pumpkins gone bad or the result of one drink too many on top of that order of buffalo wings. The second reason is that even though you can clearly *see* the difference, when you turn these colors into a grayscale illustration (or print them off on a grayscale output device), you get mush:



*(If you are reading this in a grayscale print-on-demand version, both illustrations should be equally bland.)* These two colors are made of combinations of red, green and blue (RGB) or cyan, magenta, yellow and black (CMYK). However, in terms of brightness, they convert to virtually identical levels of grey. Like I said, mush.

Now, you're unlikely to *deliberately* choose colors this bad, but it is possible that some of your color illustrations may have subtle colorations that do the same thing.

## Resolution

Resolution is dots per inch, or lines of screen—how crisp and clean you can make your text and illustrations. For all practical purposes, you can't see the difference between 600dpi text and anything higher, and most people would have trouble spotting the difference between 300dpi text and 600dpi text, so 600dpi is sufficient for most text needs. One exception – if you print in color, an inkjet printer may consider that color text a halftone and print it like it does other halftone text. Do a test and see how it looks. The closer you keep color text to one or two colors used by the

**Black(100% black)**

**Purple(50% magenta,50% cyan)**

**Magenta(100% magenta)**

**Dark blue(50% magenta,100% cyan)**

**Cyan(100% cyan)**

**Dark green(100% cyan,100% yellow)**

**Light green(50% cyan,100% yellow)**

**Red(100% magenta,100% yellow)**

**Orange(50% magenta,100% yellow)**

**Yellow (100% yellow)**



inkjet (commonly cyan, magenta, yellow and black), the more ‘solid’ the color of the text will look. Common colors would thus be:

To further complicate matters, while most *color printers* print cyan, magenta, yellow, and black (CMYK), most *color display devices* operate on red, green and blue (RGB). That means the 100% cyan, 100% yellow ‘dark green’ in a CMYK color scheme is something like 150 parts green and 60 parts blue in an RGB color scheme. You have to work out the combination of hues that gives you the most solid-looking ink coverage *and* the best screen appearance. Certain colors are a no-go. Looking at the color table, you can see that you would never use yellow text, *unless for some reason it was completely bordered by a contrasting color*:

Yellow (100% yellow)

Note to yourself

Make sure all your software involved in the PDF creation process uses either CMYK or RGB images. Preferably RGB, even though printers use CMYK. *Why?* Because the major differences will be on screen, *not* on the printer. A screen display in fluorescent international disaster green is a major headache to view, but the printer can’t duplicate it and will just do some more acceptable shade of green. *Make your PDF look good on the screen, and it will almost certainly look good on a color printer.*

**Another note:** You should always check your PDF’s color display on a computer different from your own. This is especially true when looking at creating a PDF on a Macintosh and viewing it on a Windows PC and vice versa. The colors will be the same, but depending on the software you used to create the PDF and the settings for the job, you make get substitutions that turn your subdued red text into glowing fire-engine red text. Being a Mac user, I have personal experience with this problem, and so now I try to take all my PDFs over to my beat-up old Pentium and try them out there before uploading them for sale.

Back to resolution. The main problem is not the resolution of your text, but the resolution of your images. PDFs are well optimized when it comes to cramming the most text into the smallest amount of memory; a full page of text might only take a few kilobytes of memory.

The problem is with all those pretty pictures and header and footer images you want to include to make your PDF a masterpiece of artistic display. The bigger the image, the more memory it takes. The higher the resolution, the more memory it takes.

For a one page image (7.5” x 10”) that has information from edge to edge (no empty space), it will take *approximately* the following memory to put it in your PDF (assuming RGB color images):

	75dpi	150dpi	300dpi	600dpi
Color, no loss compression (tiff)				
	1.3MB	4.5MB	14MB	42MB
Color, some loss compression (med. qual. jpeg)				
	400KB	750KB	1.7MB	4.5MB
Color, high loss compression (low quality jpeg)				
	100KB	200KB	520KB	1.5MB
Grayscale, no loss compression (tiff)				
	300KB	1.4MB	4.1MB	12MB
Grayscale, some loss compression (med. qual. jpeg)				
	200KB	470KB	1.0MB	2.5MB
Grayscale, high loss compression (low qual. jpeg)				
	100KB	190KB	400KB	1.1MB
Bitmapped art, no compression (tiff)				
	50KB	220KB	800KB	3.1MB

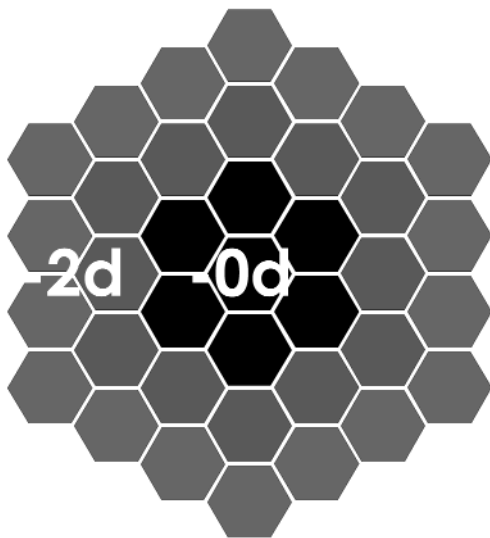
All of these numbers will vary depending on the colors and detail of the image (and the level of jpeg compression used), but the proportions should stay about the same. Notice that the tiff files go up linearly with image density (doubling the dpi quadruples the information in an image, and tiff images do not lose any of this information). Similarly, a 4-color image has four times the information as a grayscale image.

**Example:** Your PDF has a front and back cover at 150dpi and medium quality. This will take about 1.5MB of space for the pair. So, you have to decide: *Does your PDF really need a back cover illustration?* A print on demand version certainly does, but the back cover of a book traditionally just has teaser information to try to get you to buy the book. If the user is printing your PDF, he or she already *has* bought it, so, unless the back cover contains vital information needed to play, perhaps you can skip it and use the 750KB you saved for internal illustrations.

Armed with this table, some idea of the maximum size you want your download to be and the number of illustrations and their size, you can get some idea of your resolution limits. From personal experience, I've had good results with using 300 or 600dpi for crisp line art (which takes up a lot less space than pseudo-grayscale bitmapped images), and 150dpi jpeg for color or grayscale images. Even so, for something like the **EABA**™ line of RPG supplements, the full-page chapter opening pieces probably take up at least half the download time.

Similarly, if you avoid huge images, but use a graphic element for the header or footer or border of *each* page of your PDF, then that image overhead will add up to a significant amount, *if your software does not reference a common file when creating a PDF or intermediate Postscript file*. Most software is smart enough to do this, but yours might be an exception. We'll tell you how to test for that later.

A way to get around large images is to use images in EPS (Encapsulated PostScript) format. Images in this format are broken down into mathematical elements like curves and line widths and areas filled with uniform shading. For some types of image (those with uniform fills and solid lines of uniform width), this stores more compactly than the same image would in other formats, and with zero loss of detail. For instance, this image describes a small blast radius and is taken from the **EABA** RPG.

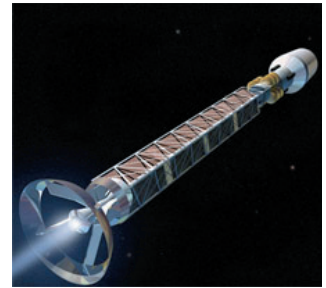


The original was generated in a vector-based drawing program and saved as an EPS file. When converted into a PDF, it was only 12KB, yet would print off at the *maximum* resolution of any EPS device (like many laser printers). EPS files work extremely well within PDFs. No surprise, since Adobe Systems developed both PostScript and the Portable Document Format (PDF).

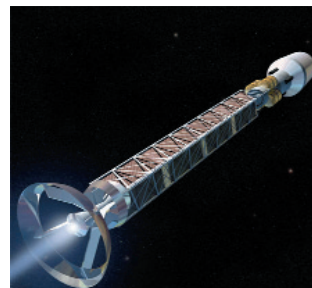
As always, test your work. Discover the lowest resolution you can use before you can detect image degradation. You do not want to see 'jaggies', either on screen or on your printout of the PDF. Look at the following public domain image (image 9906272.jpg, taken from the *NASA Image Archive*), shrunk down and converted to a fairly high quality jpeg:



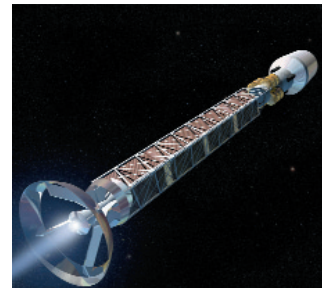
72 dpi



150 dpi



300 dpi



600 dpi

On screen at 100% scale they look the same. If you are doing a screen-only PDF, you don't need more than the resolution of the screen, which is usually about 72dpi. If you have the PDF version of this book, you can print this page off and see at which point you can tell the difference in resolution. Odds are the 72dpi illustration will be visibly inferior, but that the other three are virtually identical.

If you have the print-on-demand version of the book, it was printed at **600 dpi**, and again, you can see how initial image resolution and quality affected the final output.



As a side note, if you print this off at home or have a print on demand version, check how black the black is in the above illustrations. Different printers and different print on demand outfits vary in how black their blacks are, and how faithful printed grays are to the screen equivalent.

## How many fonts?

You're on your own when it comes to exactly which fonts you use and how you use them. *Plagiarism is probably the best way to go.* Get all the game books you think are halfway decent and a few of the absolute dogs, and put them in a pile. Leaf through them and just sort them out by the way they 'feel' in a visual sense – the ones that look clean and easy to read and to see what is where, the ones that are so-so, and the ones that are just awful.

Then see what the common characteristics are *in terms of fonts*. How the page is laid out is a completely different topic. You're just looking at the characteristics of the text.

### Questions to ask:

Does the book use only one font?

How many font sizes do you see?

What kind of spacing is used?

Does the book use serif, sans-serif or both types of font?

'Serif fonts are ones like Times, with the little hooks and protrusions on the ends of the letters, while sans-serif lacks those various bits.

In general, sans-serif fonts are good on headlines, while serif fonts are often easier to read for long blocks of text. Serif fonts usually read easier on a printed page, while sans-serif fonts often read better on the limited resolution of a computer screen. There are exceptions, with some ornate serif fonts being slow to read, and some crisp sans-serif ones quite easy to zip through. There are some examples of both types a little bit further on.

Think about the long term. If your project is a one-off, go wild. Use exactly the font that conveys the feel of the piece. If your project is a series on

a theme, such as a vampire RPG and supplements about different groups of vampires, you can still choose a font that helps set a mood, but you need to make sure it works for all the likely supplement topics as well, otherwise you'll have a jarring shift of appearance. Lastly, what if you have a series that is not on any specific topic, like a generic RPG and supplements that could be on anything from the distant future to ancient Greece? In this case, you want a neutral font, one that conveys no mood at all, but is simply easy to read, because if you plan to do a lot of supplements, people will be reading that font *a lot*.

You need to work with your own graphic ideas as to what looks good, but you have a larger audience to deal with as well. Don't be afraid to make several sample layouts, and paste chunks of text into it to see which gives the optimum combination of readability, clarity and in some cases conveys the 'feel' of the material. A dark, gothic game supplement would probably use a serif font, while a high-tech game world might suggest a cleaner sans-serif font.

1. *As you read page after page, you will get a different cumulative impression from each kind of font.*

2. *As you read page after page, you will get a different cumulative impression from each kind of font.*

3. *As you read page after page, you will get a different cumulative impression from each kind of font.*

4. *As you read page after page, you will get a different cumulative impression from each kind of font.*

5. *As you read page after page, you will get a different cumulative impression from each kind of font.*

6. **As you read page after page, you will get a different cumulative impression from each kind of font.**

Some fonts you would never get tired of reading, like numbers 2, 3, and 4. Some might make for good quotes or emphasis, but would get annoying if you had to read them page after page, like numbers 1, 5 and 6. Number 1 (Apple Chancery) has a sort of quasi-handwritten feel, and would make good text for elaborating a plot in terms of a written message. Number 2 (Book Antiqua) is similar to Times or a

host of straightforward serif fonts. It is somewhat authoritative without being antiquated.

Number 3 is Century Gothic, a clean, neutral sans-serif font that sees a lot of use. Number 4 is Comic Sans, easy to read but with a casual feel. Number 5 is SheerGrace, one of many fonts that have the look of being drawn with a calligraphic pen. It gives a more medieval feel to a piece of text. Number 6 is Upsilon, which has a more high-tech feel to it, but needs to be a little larger to be readable for extended periods.

**Example: GURPS<sup>®</sup> 3rd Edition** (Steve Jackson Games) uses one serif font for most of the book, with a slightly different font for the chapter titles and a sprinkling of other fonts in diagrams and such. Emphasis, subject changes and the like are handled by bold, italic and altering the size of the font. It's not

an eye-popping layout, but it has worked for them since day one and is consistent (in style if not the exact same fonts used) across the *GURPS* line of supplements.

**Example: Deadlands<sup>™</sup> 1st Edition** (Pinnacle Entertainment Group) does most of its work with two fonts, one serif font for the text and one ornamental font (in different sizes) for headers, footers, and chapter and subject headers. The ornamental font would be terrible to read in bulk, but for a word or two at a time, it does the job quite nicely.

If you want to *guarantee* that your document will display correctly on any device, you need to use the following fonts, which seem to be encoded into the Acrobat Reader. As a side effect, these fonts do not need to be embedded in the PDF, which can reduce its size.

### Character Types

There are no "character classes" in *GURPS*. Any character can learn any sort of ability or combination of abilities. The restrictions are those of realism and point totals, not artificial "classes."

However, the characters of heroic fiction do fall into a number of distinct types. If you need inspiration when you're creating a character, consider some of these:

**Warrior.** Whatever the time period or game-world, he (or she!) knows several weapon skills, and possibly one unarmed-combat skill. Strategy or Tactics skills can also help. ST and DX are most important, though high HT is always useful, too. Use-

# CREATING A CHARACTER

This is the first part of the game, and one of the most important. The whole idea of roleplaying is to take the part of another person — a "character" that you create. *GURPS* lets you decide exactly what kind of hero you will become.

There are two ways to create a character. The fastest way involves random

*GURPS<sup>™</sup> 3rd edition*, page 10, copyright by Steve Jackson Games Inc., 1986, 1987, 1988, 1989, 1991, 1992, 1993, 1994. Used by permission of Steve Jackson Games, Inc.

## TRAITS & APTITUDES

Characters, varmints and other critters are mostly made up of Traits and Aptitudes. Traits are things like *Strength*, *Quickness* and *Smarts*. These are always written in *Capitalized Italics* and are expressed as a type of die. A really strong critter might have a d12 *Strength*, while an elderly schoolmarm probably has a d6 or even a d4.

Aptitudes are skills, talents or trades learned during life (or sometimes unlife, but

## MIXING APTITUDES

Aptitudes are normally associated with a particular Trait. The big secret of our nifty system is that they don't have to be. When the Marshal asks for a particular Aptitude test, such as a *climbin'* roll, just use the Trait that *climbin'* is listed under. But sometimes he might ask you for a *climbin'//Cognition* roll. This means he wants to see how much your character knows about *climbin'*, not how well he can actually scale a cliff.

*Deadlands<sup>™</sup> 1st edition*, page 18, copyright Pinnacle Entertainment Group Inc., 1996. Used by permission of Pinnacle Entertainment Group, Inc.





## Chapter 3

# Working on a Budget

There are a lot of ways that money can add up when working on a PDF project, and just as many ways to save money without sacrificing quality.

## Connections

*Get online.* Find as many game industry mailing lists and forums as you can, and join them. It is almost certain that someone else has had your budget problems, and found a solution. These groups are also where freelancers and starving artists hang out, sharing bowls of watery gruel and waiting for some well-heeled person like you to come along and lift them from the economic gutter. Or maybe not. You will find people who are willing to do writing and art for far less than other forms of commercial creativity, because a) they realize the economics of RPG publishing, b) they love what they are doing, or likely c) a little of both. For instance, the author of this chapter is doing it for about half the going rate for a similar amount of fiction (which he is also trying to get published). He loves games, and is willing to spend the time to help other people who are trying to jump into the field, even if they end up being his competitors. Of course, he might also be giving you exactly the *wrong* advice in hopes of sabotaging you...

## Hardware

It's unlikely you're reading this if you don't have a computer, so we'll not go into a lot of detail here. You need a computer that can handle the level of graphics you intend to use. If you can't manipulate a full page color image at the resolution you would want to print it at, you need to upgrade your system. However, if you are clever and have a lot of time on your hands, you can get around hardware limitations for creating complicated graphics, usually by setting your virtual memory to ludicrous levels and letting the computer do the graphics-intensive operations overnight, instead of in a few minutes! It's usually

easier to just lean on a friend who has a better computer and do it that way, or cough up for the better computer that you're going to eventually need anyway.

People are going to want to print your PDF. You need a printer so you can make sure that what looks good on screen looks good on paper. If you don't have an inkjet printer, you should consider investing in one. Since ink cartridges will be the biggest cost of using an inkjet, keep the cost of replacement cartridges in mind. It will also put you in the right frame of mind when you see how much it costs per page to print those detailed color images you want to include.

*Internet connection?* That's mandatory, the faster the better. When it comes time to get your PDF online, you'll see just how long it will take someone with a mere 56k connection to download it. And if you have a *large* PDF file for a print on demand job, you either need a high speed connection, the patience of a saint, or \$4 to just send the printer a CD in the mail.

That's all you need to know on that front.

## Software

Producing really nice-looking work can be done with some amazingly low-end software packages, but it takes a lot more work than it does with the newer packages. You can do a quite nice layout for a game using nothing more than the basic suite of Microsoft Office applications. It may take a lot of tweaking to manually do the things that higher-end packages do automatically, but it can be done.

The problem with the really nice software is that most of these packages cost more than you'll make on your first few PDFs, and a full suite of new, top notch software will probably cost more than your computer. Or maybe even your car.

If money is not an object, by all means get the best. For the rest of us, there are other options. Some



of these may tread a grey area, or even cross the line if you aren't careful. First and foremost, if you are making PDFs for sale, you are getting into the business of selling an intellectual property. *Don't start that business by stealing someone else's!* Yes, I'm talking about software piracy here.

The only piece of software I think you absolutely have to have is the Acrobat editor and Acrobat Distiller from Adobe. These are the best in my opinion at creating and manipulating PDF files. Print drivers and other tricks to generate PDFs do not do nearly as good a job or have as many user-selectable options or fancy post-processing tricks you can add. Tough it out, plunk down the money one way or the other. Then grab all the free and demoware plug-ins and add-ons you can find to further enhance their capabilities.

## Abandonware

Software companies come and go, but the software hangs around forever. If a company goes bust, no longer sells a product, and no other company bought it out, then its software is called 'abandonware'. The same term also applies to antiquated packages that a still-extant company no longer supports or sells. This software is *still* copyrighted in the names of the company or individuals who created it, but if that entity is a corporation and the corporation no longer exists, acquiring a copy of that software off the Internet is one of those really gray areas, because even if you want to support the company or the creators, there is no longer any way to do so. *But the copyright still belongs to someone.* As someone on the Internet put it, "If your neighbor has a car but never drives it, does that mean you can borrow it whenever you want?" Unless you can find where the rights holder has released the software into public domain, or you are trying to reload old software *you own* but the master discs have finally gone south, abandonware is *still* software piracy.

Abandonware has its obvious limits. There is no company support, it may have bugs or compatibility issues and so on. *But, your end user simply wants a PDF.* It doesn't matter that before becoming a PDF your images and text were in some proprietary format that no longer exists. As long as your software can output a PDF, Postscript or EPS file, you can make it work.

In reality, most abandonware will not do the PDF creator a lot of good. Most true abandonware is software written for hardware that is also no longer supported, so unless you are trying to create PDFs from a Mac SE/30 or a PC using DOS instead of Windows, there may not be much out there to help you.

## Web search: abandonware

### Auctionware

My preferred method. I do not need a top-of-the-line computer to do my work, so I usually buy used. Every bit of high end software I own came with those used computers, *install CD's included.* Now, this software may be a few versions below the current offering from a particular company, but it works for my purposes just as well. I've got the original CD's, it's *my* software. Whoever I bought the computer from obviously moved on to newer versions with the purchase of the newer computer. If you scour the eBay auctions of computers or your local classified ads, you can almost always find what you need, if you are willing to be patient about it. You may also find cheap software of some utility in the discount bins of office supply stores or discount chains. That \$10, two-year old version of the "design your own home" software package might be just what you need to create an inn, starport or office blueprint for your scenario.

## Web site: [www.ebay.com](http://www.ebay.com)

### Demoware/Crippleware

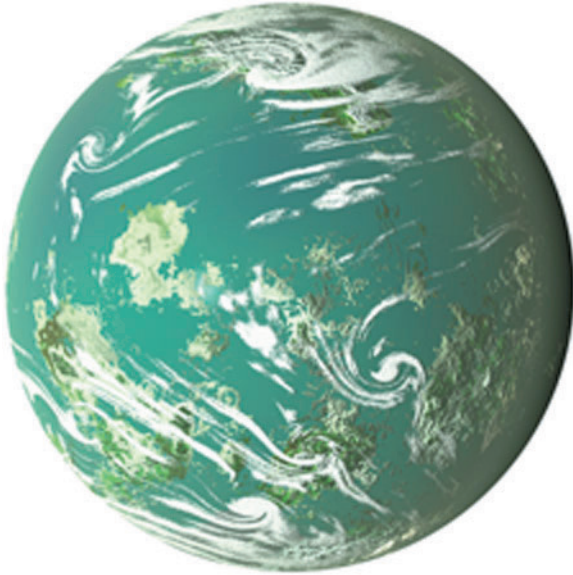
There will be times when you need a really specialized piece of software to do *one* particular thing. Perhaps you need to make up a bar code to put on the back of your print-on-demand version of a PDF. Sometimes, that software may be available as a demo, or a time/use crippled version, something that expires after a month or only works three times. *That may be all you need.* You're not actually doing the company that makes the software any good, but neither are you violating any copyrights. The company understands this, and is simply hoping that you liked the less-featured demo well enough to plunk down the cost for the full version.

## Web search: demoware

## Shareware

A lot of add-ons to useful software, and some useful independent packages, are shareware, or even freeware. If you use the software and it was worth \$20 to you, don't be a cheapskate. Other people are out there trying to make a few bucks off their work. *Send them the money.*

**Example:** *EABA Fires of Heaven* has a planetary atlas, which is spiced up with pictures of the planets. This pretty little marble is Tinhau:



It was generated on the fly by a Photoshop plug-in that had a \$20 shareware cost (LunarCell, by Flaming Pear). How long would it take or how much would it cost you to have someone hand-compose a few dozen planetary illustrations of that complexity and detail? Twenty bucks was a bargain.

## Web search: shareware

### Betaware

Some new packages or upgrades are released as beta packages. If you're willing to accept interface glitches and the occasional computer crash, these packages may have something useful to offer. It just requires more frequent backups and file saving. Beta-ware usually has a built-in expiration date, so you either have to end up buying the software to continue to get the benefits, or keep resetting your system clock to before the expiration date every time you want to use it.

## Web search: beta software (insert software type, like 'graphic')

Example: The n-Gen design machine ([www.n-generate.com/](http://www.n-generate.com/)) is at the time of this writing, on version 0.98d. It lets you generate large numbers of random graphic images based on certain themes, using its own samples and combinations of images. It took only a few minutes to generate the following decent 'covers' from a larger output sample of so-so ones:

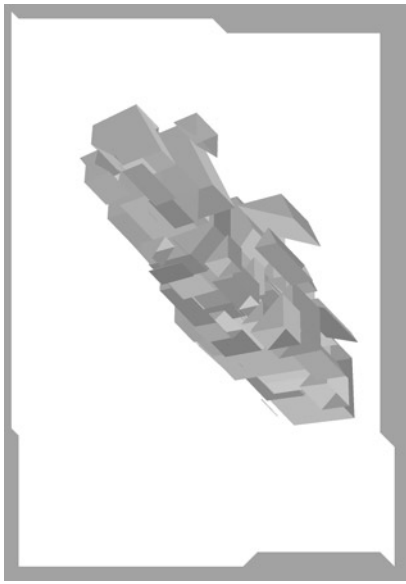


Now, none of these might be *exactly* what I want, but some are worth a second look, and if I have a game or a concept, and am trying to develop a graphic style or page layout or whatever for it, n-Gen might be worth a download. *It's not meant to do your work for you, it's meant to generate ideas that you can work with.* It's still in development, and doesn't have all the features enabled, but it is *free*, has Windows and Macintosh versions, and the site specifically says that any images I create with it are mine.

Similarly, the demo-ware packages Autoshop and Auto-Illustrator semi-autonomously create and manipulate an image, which means you don't have



to be a genius to do cool looking stuff like this odd page backdrop, which took three mouse clicks:



or turn a normal-looking clip-art graphic into this with one click:



## Workware

The software you need is on the computer where you have your day job, or at the computer lab at school. Stay late, or work through lunch. Whether you ask for permission first to use your employer's or your school's resources in this fashion is up to you. I am reminded of an incident where someone played Quake during lunch hour at work, not realizing that somehow it was managing to hog the corporation's network servers and other employees two time zones away were wondering about the excessive lag time between 10 and 11 each morning. Corporations are not known for their sense of humor in such cases. We'll miss him...

## Gameware

For game-specific applications, someone may have already come out with a package that does exactly what you need. There are fonts for doing hexagonal or square grids, mapping software for RPGs, miniature printable character illustrations for paper miniatures and the like. Go to a site like RPGNow and look around.

## Art

The difference between a plain text printout and a nicely illustrated game book is, well, art! Aside from paper and ink, which typically cost more in a conventional print run than what you pay the actual author of the work (sad but true), art is one of the big costs of production, and one that does not decrease just because you are doing a PDF. You can't just go up to Clyde Calwell, Michael Whelan or Brom and say "would you pro-rate your prices based on the number of copies I think I'll sell?" A \$500, \$1000 or \$2000 cover is out of the question if you expect to sell only 200 copies of your book.

There are a number of ways to economize on art, some better than others.

## Clip art

Clip art isn't just 72dpi web graphics. There is a *lot* of good clip art out there (and a nearly infinite amount of so-so stuff), and most of it is quite affordable, though there are some sites that sell "stock art" at "fine art" prices, presumably to companies and organizations who have more money than time or sense.

Not all clip art is created equal. Make sure you read the fine print, and that the illustration can be used for commercial purposes. If there is any question, ask.

**Example:** Clipart.com has a licensing document that says their elements can be used in books, but another proviso prohibits their graphic elements from being shared across a network or being downloaded by automated means, both of which would seem to contraindicate selling a PDF with those elements. A quick email to the parent company got me an equally quick response saying that PDF sales were okay, but they would appreciate a note in the credits about the image source

and a statement that the images could not be removed for other use. If I use Clipart.com in the future, I am now comfortable about using their images and the ambiguity has been resolved.

Clip art is usually available in four forms:

**Free:** No cost to download it. Check to make sure you can use it for commercial purposes (if your PDF is going to be sold)

**On CD:** You buy a CD that has a collection of clip art on it, which you can use with whatever limits are placed on the images by the seller.

**Per image:** You buy the images from the supplier's site on a per image basis. You pay more per image than if you had bought a CD collection, but you buy only the images you need.

**Subscription:** Usually for on-line services. For a weekly, monthly or yearly fee, you have access to download anything you want from the company site. This can be the cheapest route per image, if you get all the images you need for a project *at the same time*, using the minimum duration subscription. Tip: Use their mockup images in your draft copy, and then buy the whole mess once you are sure your art needs are complete.

If you're going to use clip art, try to keep the usage consistent. That is, art looks better if there is some sort of unity to the style. If you use a particular style to illustrate some point, like a medieval weapon or piece of armor, try to keep the same style for illustrating other weapons or pieces of armor. Remember that you don't have to use the clip art as-is. You can reshape, colorize or run the stuff through various graphic filters to generate a common 'style' from pieces that were originally quite different.

**Web search: clip art, stock art**

**Web sites:**

[www.clipart.com](http://www.clipart.com)

[www.artzooks.com](http://www.artzooks.com)

[www.stockart.com](http://www.stockart.com)

[www.artbitz.com](http://www.artbitz.com)

[www.graphics.com](http://www.graphics.com)

**Loot the bodies:** For some genres, the past is a gold mine of art waiting to be used. Think of all those all Albrecht Durer woodcuts, which by their nature convey a genuinely medieval feel. No copyright on them, use them as you want.



*Durer's Four Horsemen of the Apocalypse, circa 1498*

**Quick warning!** Someone else's reproduction of a non-copyrighted work *is* copyrightable! The immediately recognizable image of the Mona Lisa may be public domain, but using someone else's carefully composed photo of her might be a no-no (especially if the photo contains anything but the Mona Lisa), nor would you assume that just because the Grand Canyon is a non-copyrightable work of nature that you could freely reproduce the classic photography of Ansel Adams.



Maps, textures, portraits, woodcuts, margin illuminations and such all have potential use for an RPG set in a more primitive era. Unfortunately, many of the best-quality online images are copyrighted by the museums that hold the originals, and they are unlikely to allow use in a role-playing game. You can, however, find a hole-in-the-wall used bookstore or antique mall and peruse the shelves for antique books. You are unlikely to find any antiquities there, but you may find graphics or textures that you can use. *Searching for that “scuffed ancient tome” look for your game cover? Buy a scuffed ancient tome and scan it in!*

*Looting the dead isn't just for art.* If you are doing a game supplement on Elizabethan England, you can shamelessly paste in huge chunks of Shakespeare. If you are doing a supplement in Hell, Dante's *Inferno* is yours for the taking. A musketeer work could copy the work of Alexander Dumas, or an early medieval work could crib from Chaucer's *Canterbury Tales*. The prior warning applies here, too. Odds are that you can't read the *original* *Canterbury Tales*, since it wasn't written in modern English. If you copy someone else's modern English translation, make sure it's someone who has been dead for a century or so, because a translation of a written work *is* copyrightable, just as a reproduction of a piece of art is. A similar but separate issue is that of trademarks. You might be perfectly in the right making a game supplement about the Three Musketeers, but a company that holds the rights to a film adaptation of the novels might consider you to be doing an “unauthorized” tie-in to “their” concept. I'm not saying they would be right or would have any legal legs to stand on, but I *am* saying they probably have deeper pockets when it comes to paying lawyers.

## Do it yourself

Even if you are not a skilled artist, if you've got some landscape or rendering software, odds are you can get pre-packaged items that can turn your marginal talents into finished work that would have been more or less impossible for the small press company of the 1980's or early 1990's. For instance, this piece is done using a set of models and textures by Manfred Thaller (aka Django), and any SF role-playing game could use a piece of this quality with no problem:



Courtesy of Manfred Thaller, 3DDj

To make things even better, the resolution you can get with such images is really only limited by the processing power you can throw at it. While *this* illustration is only 150dpi, this could be scaled up and cropped to be the backdrop of a really nice looking 600dpi front cover, which might look something like this:



Not bad for five minutes of work! If you (or someone you can cadge a little time from) have the rendering software, you can quickly generate some really nice effects using inexpensive, off-the-shelf props and textures.

While this was a science fiction example, you can do the same for fantasy with little trouble:



The material is out there; you just have to know where to look. SF and fantasy are the best-represented prop genres, though you can find a smaller selection of Victorian, Superhero or Pulp-era props if you look hard enough.

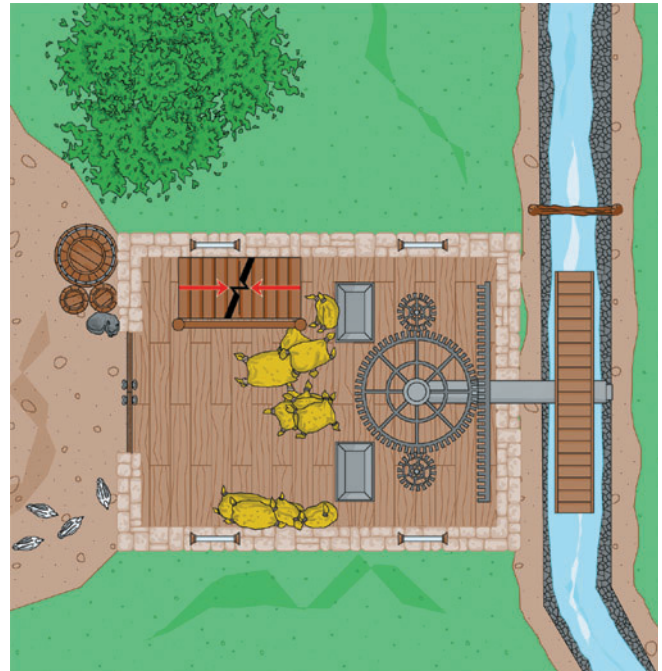
Even if you can't do creative compositions like the above, you may still be more talented than you think, at least in limited ways. Remember that you're willing to pay yourself far less than you would accept from anyone else, or you wouldn't be in the game business (another sad but true bit).

If you can draw straight lines, you can make grid paper or with a little more work, hex maps. Fonts and graphic templates can make these mundane graphic tasks child's play at little cost, including some more-detailed things like stone flooring, plank-ing and other textured surfaces. These are examples of patterns produced by some of Cumberland Games' (www.cumberlandgames.com) TrueType fonts:



As a font, these will convert to a PDF at whatever resolution you want. These examples are only 150dpi exports from Photoshop.

Software like ProFantasy's Campaign Cartographer (www.profantasy.com) can let even an amateur make absolutely gorgeous maps of anything from a grist mill to a continent:



Someone who is good with the software will be able to do more with it than a novice, but if *you* are that novice, and you're on a budget, you may find that the extra time spent on your part is more



worthwhile than paying someone else to do it. Software that is meant for the real world may be out of your price range, but that made for games and often by gamers usually has a much more affordable price point. Campaign Cartographer and Cumberland Games' specialty fonts are a good example.

## Shamelessly beg

This is the lowest-cost option, and the most difficult in some respects. If you are putting together a PDF that you are genuinely going to give away or even one which you expect is going to have a small percentage of the sales of a conventionally printed equivalent...ask for charity.

There are zillions of online galleries of work out there of computer-generated art, much of which is done by quite talented people who do it because they love what they are doing, not because they are trying to make a living at it. While a professional artist might say "How much can you pay?" an amateur artist might say "You want to put my art in your game? Cool!"

This is by no means a rip-off, or at least it shouldn't be. When I propose this to someone, I say straight up that I am working on a PDF game with possible print-on-demand hardcopy, that it *is* a work for sale, and I point him or her to my web page and places where my previous work sells (like RPGNow or Hyperbooks). I offer services in kind or as a last resort, outright bribery (i.e. payment), but say (quite honestly) that while I can pay, I can't match commercial rates for the work because of the smaller quantities in PDF distribution.

All I ask for is permission to use the art in a non-exclusive way. I offer full credit in the PDF, hyperlinks to the artist's gallery, and if the game is printed-on-demand, some copies of the printed book to show off to family and friends. (Even if you're not a role-player/artist, seeing your work printed in a game for the first time is *still* a big ego boost.)

I get a *lot* of misses, and some hits. If you check the *BTRC* page at: [www.btrc.net/html/eaba.html](http://www.btrc.net/html/eaba.html) you can see that my *EABA* RPG system has a dozen alternate covers available as free downloads, all of which were donated pieces of art. I am *deeply* grateful to each of those artists.

As another example, Manfred Thaller agreed to let me use the previous spacefighter piece in this book, gratis. (I *don't* have the rendering software, so I had to use an existing illustration.) He gets mentioned by name, and there is a web address that leads to the SF models he sells. *Everyone wins*. I get a good example for this chapter, he gets free advertising for a product which buyers of this book want to buy also. Similarly, the castle is courtesy Peter Hill, and the Campaign Cartographer examples are courtesy Linda Kekumu at ProFantasy, for the same reasons.

In addition to the groveling, it takes scads of work to go this route. You're looking for *existing* pieces of art that match your game, not commissioning new pieces. So, you have to scour dozens of online galleries, using various keywords and combinations to narrow your search, then go through the sometimes-tedious process of actually locating the artist, whose e-mail might not be in someone else's online gallery (or it might be an old, expired address), and so on. It may take you days of surfing to find the right pieces, and then there is no guarantee that the artists will give you the time of day once you contact them. You know what your time is worth. If you spend too much time looking for cheap art, you'll end up *losing* money.

This shameless promoting of your own poverty is not limited to groveling before talented amateurs. You may on occasion find a commercial artist who has a piece that was done, not on commission, but just for the hell of it, and you may be allowed to use the piece, either for a price you *can* afford, or for nothing at all. Similarly, you might find a talented amateur who will do *original* works for your project at far less than you would normally expect to pay. Don't count on it, but it has happened for me, more than once. In one case, I commissioned some original computer-rendered work, but the artist kept the rights to use the models and backdrops created, which allowed a head start on future works, since the building blocks created for me could be re-used. I got a discount on the price, compared to what I would have paid had I insisted on owning the full rights to the work.

There will always be some heartbreak in the scrounging route. You will no doubt find a piece that just aches to be in (or on the front of) your

game, but which is either already spoken for, too expensive, or which the artist simply doesn't want used in a game. If I were doing a 5,000-copy conventional print run of *EABA NeoTerra*, I'd buy rights to Kristen Perry's "Jhenna" in a heartbeat ([www.merekatcreations.com](http://www.merekatcreations.com)), but the piece is not available for the likes of my PDF budget, so I had to settle for the CafePress poster of it to hang on my wall.

On the other hand, sometimes you luck out. For the dreamlike *EABA Nocturne*, I was fortunate enough to be able to use the surreal art of Gun Legler, Jen Hudson *and* James Hunt. To the extent that there are separate PDF versions of the game based entirely on Gun's work *and* Jen's work, *plus* an alternate cover by James (all the versions also include paid-for line art by George Edward Purdy). You can download a version of the game world with a more surreal look, or one with a darker feel to it, whichever suits your vision of the game world.

As an aside, this is a prime example of the freedom you have with a PDF game. It can be customized with little extra effort. If you choose your fonts and style sheets properly, you can even customize the entire interior look of a game. You could make a 'goth' version, an 'anarchy' version, a 'high-tech' version, and so on. As long as your column, page and section breaks end up the same, once you have the layout, completely reorganizing the look of a PDF is just a matter of cut and paste.

**Note:** While this does not help *you* in production of a PDF game, one thing you can do to help the *end user* customize the PDF is to provide a cover template. If you have a page with all the names, logos, etc. already in place, it means that the end user can import a picture into that layout and print a custom cover with the chosen art. For the end user, this would fall under the same copyright guidelines as downloading a free screen saver. The end user enjoys the benefits of the art (under the guidelines specified by the artist), but has no commercial gain from it, just like you can download the free screen saver, but not turn around and try to sell it.

**Web search: clip art, stock art**

**Web sites:**

**[elfwood.lysator.liu.se](http://elfwood.lysator.liu.se)**

**[www.twistedrealmz.com](http://www.twistedrealmz.com)**

**[www.angularvision.com](http://www.angularvision.com)**

**[www.epilogue.net](http://www.epilogue.net)**

**[www.abnormis.com](http://www.abnormis.com)**

**[www.breedart.com](http://www.breedart.com)**

**[www.renderosity.com](http://www.renderosity.com)**

**[www.deviantart.com](http://www.deviantart.com)**

**[www.liquisoft.com](http://www.liquisoft.com)**

### Keep it in the family

A number of vendors on RPGNow sell graphic materials that may be suitable for your game. Do a search based on keywords related to art or a genre and see what comes up!

### Your tax dollars at work

The United States government commissions a huge amount of artwork and much of it ends up released into the public domain. You can check the government site where you find the art to make sure. NASA and the various branches of the US military can be mined extensively for freely usable images. For instance, the spaceship image illustrating different image resolutions in the Planning chapter is a public domain NASA image. Or, let's say you needed some spot art for a game involving modern military operations:





These two came from a US Army web page. They may be nothing spectacular, but suitable for a vehicle description or filling in an inconvenient white space in a text layout. Scale the soldiers properly, put in a synthetic terrain background and you can even end up with an “action shot” of sorts.

You never know what you might find. This passable stone knife was in an Army field manual on field expedient weapons:



And this unhappy looking snake from a survival field manual:



went through a few Photoshop filters to become this stylized snake:



who, with a little cropping and some wrap-around companion text could be a perfectly adequate “creature encounter.”

As with all the budget-saving measures, it takes a little legwork. Find the government agency that would seem to have some link to the subject matter of the art you are looking for, find its web site, and start following the links. If all else fails, hie thee to the nearest large library. There, you may be able to find hardcopy which, if no other option presents itself, can be checked out, taken home and scanned into your computer.

Not *all* images found in government sources are public domain. A web site will usually say, as will any government publication which has a copyright notice. Work done for government contractors may or may not be copyrighted in the name of the artist or the contractor, depending on how the accounting was done and the details of the contract. *Check the fine print.*

Not all public domain art is from government sources. There may be non-governmental organizations that have public domain clip art or freely usable illustrations relating to the mission of that organization.

## Web search: public domain art

### Back to School

With a graphic art or commercial art program, one of the most important skills for the budding artist to learn is producing art based on the subject matter the client wants. While the elementary aspects of this skill are trained by the various still art and live model projects the budding artist must accomplish, the real training comes as the student’s education nears its end. In the last few semesters, the assignments abstract into the production of advertising material based on particular subject matter, something for which one cannot simply pose materials and duplicate. This is where you can step in by offering professors a project or two for their various classes to accomplish. The teacher gets an unusual assignment to truly test an artist’s dedication and ability to adapt, you end up with art to use, and some of the students end up hitting the job market with a small professional credit obtained before they’ve even graduated. (A little money for the art to at least cover materials used doesn’t hurt, either.)

## Hand-me-downs

AKA second print rights art. This is a step up from ‘grovelware’, a piece of art that has been published or sold elsewhere, but which the artist retains the right to sell for other purposes. Depending on the artist and the piece of work, you may be able to find and acquire a piece that you would never be able to afford as an original commission, but is within your budget as a “second rights” piece. If this is the route you want to try, find the piece of art, locate the artist, and then just ask. The worst he or she can do is turn you down.

## Paying for it

Odds are that in the end, if you are doing a PDF of a reasonable size, you will be needing to hire an artist for at least *some* of your project, probably someone with experience in the game industry and who is aware that even *professional* art rates for games are still sub-par compared with other commercial fields. You’re unlikely to find that key, must-have cover illustration of an orc riding a giant war frog while carrying a dwarf maiden over his shoulder in any clip art collection...

So, even if (and that’s a big if) you can find existing amateur art to meet your needs, you should be bookmarking every game-industry artist you run across, because odds are you will need their services and should have some budget set aside for it.

Join a mailing list like the RPG freelance group on Yahoo, or join the Game Publishers Association (GPA), or become a member of The Forge independent publishers group, etc, etc. and make it known that you’re looking for art and the type and nature of the project, and you’ll get responses by the boatload. I have a separate folder in my email box just for storing emails from promising artists that I hope to use before they become professional enough that I can no longer afford them.

## How to search for art

If you do a Google search in the ‘image search’ section for ‘public domain’, you get around 15,000 matches. A search for ‘NASA’ had over 1,000,000 matches, ‘medieval’ had over 100,000 matches and ‘magic’ had 450,000 matches. *Some* of these will be public domain; some will be in artists’ galleries,

others on private web pages or commercial news services. One or two of them may be useful to you.

A generic web search (*not* an image search) is a good place to start. Use the search engine of your choice, and start with words that broadly fit the category you want. It’s a good idea to add ‘gallery’, ‘archive’, ‘image’ or ‘art’ as a first-level filter. Once you see how the top search results are clustered, you can make the search more and more specific until you get down to a manageable number of possible sites, at which point you start surfing each one in turn to see if it has what you want, either in general or specific terms.

**Example:** Let’s say you’re looking for starship images. You go to Google (in this case) and search for the words starship, image, and gallery, which results in 30,000 hits. You decide you don’t want to bother with sites specific to someone else’s trademarked world, so you apply a “–‘star trek’ – ‘kzin’ –‘star wars’ –‘starship troopers’ ” filter, even though this will filter out some sites you are interested in that have only subsections for those world-specific images. This gets you down to about 9,000 matches. Add ‘rendered’ as a required term (to limit this to computer generated models) and you’re down to 300 or so matches, and the first few pages of matches have several galleries of absolutely spectacular art (much of which is either not for sale, or which you could never afford). *Then the legwork begins.*

If you do an image search, the same method applies, but you would use content-specific terms instead of searching for ‘galleries’ or ‘archives’.

**Example:** A search for ‘magic’ in a Google *image* search had 450,000 hits. If we are looking for images relating to Celtic magic, we search for Celtic and magic, and eliminate results for Magic Johnson or the Orlando Magic or the Boston Celtics by adding “–orlando –johnson –celtics” to the parameters, which narrows this down to about 1,000 matches. If we don’t want book covers or anything from Amazon.com, we toss in “–book –amazon”, which drops us down to 850 or so matches. At this point we’re getting diminishing returns from *excluding* terms, so it’s time to get dirty and dig through the top several pages of results, or come up with a keyword that can usefully narrow down the search even further. If you add ‘druid’ to the mix, there are only about 35



matches. Half of these are still book covers from non-Amazon sources, (which is not necessarily a bad thing, since it might be more reference material for the subject you're writing on,) there are a few album covers, some web buttons, and a few useful images. You then have to track down the provenance of the images and discover whether there is any chance you can acquire the right to use them.

## How much art?

If a picture is worth a thousand words, then a little goes a long way. Practically speaking, since a full page of text is somewhere up to a thousand words, a full-page picture is literally worth that amount!

If you're on a budget, you need to minimize the amount of art you are paying for. You need to put your best foot forward for the cover, especially if it is a print-on-demand item. After that, make yourself a priority list: places where art of some kind is mandatory, places where it is useful, and places where it is simply illustrative. Mandatory art is that which you must have, either because it is something like the cover, required because of your stylistic layout (chapter headers), or is necessary to illustrate a particular rule or story point (like firing arcs or a village map). Useful art will of course vary in usefulness, but can be character illustrations, filling out chunks of white space, and so on. Illustrative art consists of nice pieces that add a counterpoint to the text they are near, giving that section a little extra 'oomph!' This can also be white space filler.

Once you have your list, and how much you are willing to spend, you now can see exactly how thin you have to spread it, which will in turn help you figure out how much wheedling, web searching and data mining you'll have to do.

## Fonts

Fonts are both an appearance and a cost issue. You've already thought about the appearance and the mix of fonts you want for your document. Now comes the matter of whether you can afford them.

A small set of fonts certainly came with your computer, including the most common of the serif fonts like Times or Palatino, or sans-serif fonts like Helvetica or Arial, but there are zillions of fonts out

there, with varying degrees of legibility, complexity and oddly enough, cost. Yes, Virginia, fonts are actually a saleable commodity. For instance, some corporations, TV series or movies have their own fonts, designed as part of an overall identity, just like (and often in combination with) a logo. Sometimes these fonts are available for use, sometimes not. For instance, the for-sale font FF Meta was originally designed for the exclusive use of the German Post Office (which turned it down), and Fedra Sans was designed for the insurance firm Bayerische Rück, which got bought out by another company before it was finished.

There is a nasty grey area in how 'copyrightable' fonts are at the current time. There is not a lot of case law on the subject, but it seems that typefaces and bitmapped fonts might not be copyrightable, while the computer code involved in scalable fonts (i.e. PostScript and TrueType) is, exceptions being the embodiment of fonts in a trademark or logo (like say, the Exxon logo), or a 'design patent'.

Does that matter to you? To be honest, probably not. It is unlikely a commercial type foundry is sniffing through every last PDF document looking for people using its fonts without permission. (What the company does instead is make sure no one is archiving fonts for free download on the Internet.) It is worth noting that if you embed fonts in your PDF so the end user can see it as you intend it to be seen, then you may be selling the scalable font code that belongs to someone else. *Just FYI.*

To complicate matters, for every font that might be copyrighted, there are probably half a dozen freeware or shareware knockoffs that are just different enough to be legal and so alike enough that it is hard to tell the difference. Even the big companies get into the fray of developing or acquiring cheaper fonts so they don't have to pay licensing fees on more expensive ones. For instance, Arial (one of the standard Microsoft fonts) is a character-for-character spacing match for Helvetica. The biggest difference is that Microsoft doesn't have to pay a licensing fee for Arial.

This sentence is written in Helvetica, which at one time was king of the sans-serif fonts.

This sentence is written in Arial, which can be perfectly substituted for Helvetica.

At first glance, can you see the difference?\*

Commercial font foundries make up new fonts all the time, from ornamental to utilitarian. Individuals with font creation software create many times more. A Google search for the phrase “font archive” gives about 15,000 matches, and as far as I can tell, most of the matches *are* font archives! That’s a *lot* of fonts to choose from.

### **General font advice #1**

If you just looked over the internet for a font and downloaded one that looked cool, go back and look again. You might have downloaded something that wasn’t that site’s to give away, i.e. a pirated font. Even if you grabbed a shareware or freeware font, go back and make sure there are no usage restrictions on it. The designer might allow free use for personal projects, but a small licensing fee might be required for commercial use of the font. Some font foundries have different costs for a font, depending on whether it is for personal use, PDF embedding or conventional printing. And this does make a difference, since the Adobe Acrobat Distiller can check for certain flags set in the coding of a font, and refuse to embed fonts that have an “exclusion” flag.

### **General font advice #2**

Make sure your font works well when used as an embedded font in a PDF. If a glitch in the font means that every third person who downloads it has to read and print it in oddly-spaced Courier, you won’t get good reviews or repeat customers. Sometimes, despite your best efforts and system checking, an end user will have a font problem, and it will almost always be because of a custom font you used. To *guarantee* compatibility and perfect rendition, you almost have to stick with the default fonts that come with most computers, and furthermore to use only that subset which works on both Windows and Macintosh computers, which is a fairly bland and boring set of fonts. Odds are that you will use the fonts you think are

cool, and never have any problem. If you have recurring problems getting a font to display your PDF on someone else’s computer, remember that some fonts can include coding that prevents them from being embedded in a PDF. You may be able to view it fine on your computer, but the Distiller might not be embedding the font so others can use it.

### **General font advice #3**

Make sure your font is legible at 100% magnification on-screen. Presumably, portable devices with decent screens will increase in popularity and decrease in cost, which means that if your PDF has legs, more and more people will eventually be viewing it on screen rather than on paper. It may not have to look great, but it should be legible. Because of screen resolution, fonts that look perfect on paper at 100% may need to be viewed on-screen at 125% or more to be perfectly clear. If you are designing a PDF primarily to be printed, this is less of a concern, but if your PDF is screen-formatted, it is your biggest concern. The examples in the “Planning” chapter can give you an idea of what to expect. Also remember that different versions of the Acrobat Reader may have different screen quality for the same document.

### **General font advice #4**

Okay, you’ve found a font you like. In fact, you like it so much, you’re going to cough up money for it. Not so fast! First, check to make sure the font is complete. A vast number are simply upper case, lower case, numbers and a period. Check to make sure the font has a relatively complete punctuation set as well, including commas, apostrophes, dashes, hyphens, and everything else you expect to use. If it doesn’t have everything, inquire first to see if a more complete version of the font comes with the license you’re willing to pay for. There’s nothing more annoying than putting together a great looking book, only to notice all sorts of funky rectangular characters where most of your punctuation is supposed to be.

### **Web search: font archive**

\*This is a trick question. Every other letter in that sentence alternated between Arial and Helvetica.



## The work itself

So far, everything we've talked about assumes you are PDF publishing a work *you* created. What if you're publishing someone else's work? All we've said still applies, but odds are that authors aren't going to give away their work to you, although for the likely sales on most PDF titles at this time, they might as well. Even if sales go into the thousands (which is *excellent* for a PDF piece), the lower initial price compared to a print product means that you don't have wads of cash to toss around.

All the normal notes regarding contracted work apply. You can pay outright as a 'work for hire' and recoup the payment (you hope) in sales down the road, or you can pay royalties. Work for hire is more in up-front costs, but once paid, it's paid. The writers involved with *this* book are being paid as a work for hire. RPGNow assumes they'll sell enough copies to recoup the 'per word' rate, but once this point is reached, the rest is pure profit, and since they are their own distributor, this point will be reached faster than normal. Of course, my comments on this book (including this sentence) cost RPGNow about two bucks... Royalties are pay-as-you-go, which requires extra bookkeeping, but it means that if a book does really well, *everyone* shares the wealth.

Since PDFs are made of electrons, the cost of making an electronic copy is nil. Once you pay the overhead on a sale (distributor's cut, credit card processing, etc.), what's left is profit – less any banner ads, web hosting or other recurring costs. So, you can afford to offer a higher royalty percentage than for a comparable print product. While we're on that topic, since you may indulge in print on demand, a royalty arrangement should take into account both the increased sales price, increased cost per book, and different distributor's percentages for print titles. A royalty arrangement might be best served with multiple rates: one for PDFs, one for print-on-demand, and if you think you'll eventually go into a conventional print run, another rate for that.

## Final notes

Everything that goes into the making of a PDF has a cost. Since you can't really divide that cost by the number of copies printed as you would for a conventional print job, you have to look at it as general costs and specific costs.

General costs are those involved in making *any* PDF: your computer, your software, supplies like paper, ink and toner. Specific costs are those involved in making a *particular* PDF: your time (which covers a multitude of tasks from layout to emails to web searches), artwork, diagrams, and such.

**Example:** My personal contributions to this chapter involved writing, e-mails to the publisher, e-mails to artists and software vendors, web searches, software downloads, use of various graphics programs and uploading drafts of the chapter to the publisher and other authors involved in the project.

Regardless of how you are producing a game, you want to minimize both types of costs, without being "penny-wise and pound-foolish." Although it does not fall into any particular category of savings, remember this: If you are really good at something related to game publishing, other people out there may value your services and you theirs. *You make the most of your time when you work with your strengths.* If you, the game designer/editor can trade a few hours of editing and layout service for a few hours of some game designer/artist's time, then you both come out ahead in terms of time and actual money spent.

## Feature

# Publishing on a Shoestring Budget

So you want to publish a PDF. You already have your product hand-written or typed out, you've selected a nifty title for it and now you're ready to go. Uh-oh. You have just run into your first obstacle – you don't have Adobe Acrobat! *Well, that's easy enough to fix*, you think, as you go the Adobe site to see how much it costs. Your heart skips several beats when you see the price of the full version. Don't panic! No need to rob a bank or (horror of horrors) use a pirated copy. There are alternatives out there that are more wallet-friendly, or even free. Be advised, though: the ones that are free are for personal use only, not for making money.

## Artwork

Creating a PDF on a shoestring budget can be done, including having filler art and unique fonts. There are a number of stock art and font products available from RPGNow. Here's a partial list:

APG Studio Companion, Vol. I (Revised)  
 Arcane Publisher's Edition 1  
 Arcane Publishers Edition Vol 2  
 Arcane Publishers Edition Vol 3  
 Arcane Publishers Edition Vol 4  
 Arcane Publishers Edition Vol 5  
 Chaos Runes & Glyphs TTF  
 Dark Urth Heiroglyphic system TTF  
 Deep Dwarven TTF Font  
 Draconic TTF Font  
 Dragon ClipArt  
 Fantasy Clipart Collection 1  
 Fantasy Filler Art by Rick Hershey  
 Halfling Hero TTF PC & Mac  
 Humanoid Clipart  
 Image Portfolio 1.1 Fantasy  
 Image Portfolio 1.2 Fantasy

Image Portfolio 1.3 Superhero  
 Image Portfolio 1.4 Fantasy  
 Image Portfolio 1.5 Superhero  
 Image Portfolio 1.6 Fantasy Cityscape  
 Image Portfolio 1.7 Fantasy Headquarters  
 Image Portfolio Anthology Volume 1  
 Law Glyphs & Runes TTF  
 Legion Publishing: Art Portfolio #1  
 Neutral Glyphs TTF Font  
 OtherWorldly Art Portfolio Volume One  
 Rogue Clipart  
 Sci-Fi Clip-Art Collection One  
 Sci-Fi Clip-Art Collection Three  
 Sci-Fi Clip-Art Collection Two

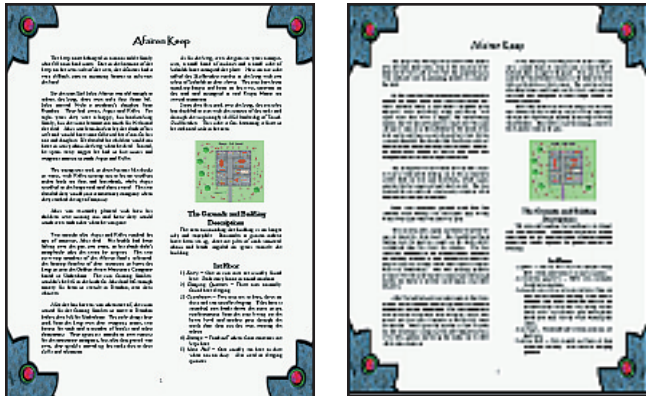
Additionally, companies like SkeletonKey Games and Ronin Arts have started releasing single images as stock art. Many of these images are suitable for – when combined with an attractive design – use as cover images.

## Software and Samples

You also need a program that will convert a document to a PDF, and a word processing program. For the purpose of this article, I'm using MS Word 2003 and PDF995 the free version. There are two files you will need to download from the website, the free converter and the PDF995 program. The files installed without a hitch, just make sure to disable any antivirus programs you may have running before installing the files. The page corners used in the accompanying screenshots are from *Fantasy Layout Templates* by Ronin Arts. The text and maps are from *The Town of Umberham* PDF by Cartography Unlimited for RPGs.

The first example I'm doing is a two-column portrait layout. The left image at the top of the next page shows how it looks in Word:





Remember to edit your text and have someone else read through it to find any errors you might have missed.

For a four-page document with images, the PDF size came out at 1,069KB. Not too bad. I set the image resolution for PDF995 at 144dpi. (The default setting is 600dpi.) The image to the right, above, demonstrates this.

Let's see how it looks with grayscale images. The left image below shows it still in Word:



The right image, above, shows the same page after it's created as a PDF:

The file size for the grayscale came out to be 1,369KB.

Next I'll do a two-column landscape layout. Landscape is excellent for on-screen viewing. Portrait is better for printing out. Other things to keep in mind are the number and types of images for each type of layout. On-screen you can use backgrounds (but make sure the text is readable if you use one) and color images. For portrait, use no backgrounds and have the images in grayscale.

All right, here's the landscape layout in Word:



And here it is as a PDF:



Again, it came out perfectly. File size for this PDF is 1,345KB.

Here is the color version of the landscape PDF.



File size for the color landscape PDF is 447KB. I changed the image resolutions in PDF995 to web version; that helps to lower the file size.

Creating a PDF without Adobe Acrobat is possible and cheap. Try out a less-costly program before you plunge into creating a PDF. My attempt at creating a PDF using CIB PDF plug-in for MS Word was not pretty. It turned a 4-page document into a one-page document with the text overwriting itself.

I would recommend PDF995 for creating PDFs, if you cannot afford Adobe Acrobat 6 (Standard or Professional).

## Chapter 4

# Layout: Style and Format

*By Greg Porter*

You've got an idea, some thoughts about what you want it to look like, a budget that probably can't make that happen to perfection. Now, a few words on laying it out.

## Style

Your book is going to have a certain appearance. This can be a unique item for a one-off or standalone product, or an appearance that you will duplicate for several related products like an RPG and its supplements. This is where your decisions on fonts, graphic borders and the like will become reality.

Start with the basic text of your first chapter. Use your page layout program and just start playing with the elements. Set up pages with different numbers of columns and spacing, with headers, footers, different spots for placement of the page numbers, alter the fonts, and so on. Draw out things on a sheet of scrap paper and then use the page layout program to duplicate what you scribbled. As you work with it and use the suggestions in this chapter, you'll get down to a handful of concepts. Bounce them off your friends. If you have playtesters online, make a PDF of the mockup and get comments from them. In addition, ask players what they want to see and how they want the book organized.

Your text should have a consistent organizational structure. This helps you follow it visually, and also ties directly into how the table of contents is organized. For instance:

### ▼ MAJOR SUBJECT CHANGE –

When you see a block of text that starts with a ▼ and is in all caps, you know that you've started a new topic of some importance.

**SUBHEADING** – When you see a block of text that starts with bold-face text and small capital letters, you know you are in a subtopic of the last major topic.

**Minor heading:** When you see this, it is clear that you have hit a further elaboration on the topic of the last subheading.

Games can have lots of levels of organization. You will need to decide how deep your particular nested structure has to be. *The Wheel of Time* (Wizards of the Coast) has four levels, *GURPS 3rd edition* (Steve Jackson Games) has three, and my old 4th edition Hero System rules have four main levels, and some additional specialized (but consistently used) levels.

## Format

Your normal RPG or supplement is going to have several different visual layouts, depending on where you are in the book.

Credits  
Table of contents  
*Chapter breaks*  
Basic pages  
*Sidebar pages*  
*Glossary*  
Index  
*License text*

Items in italics are optional. The rest are usually mandatory.



## Credits

Your name, company name, copyright notice and so on. Look in any published game for examples. This is where you give kudos to those who deserve it, list the artists and so on. Most of the time this will be one column of text the entire width of the page, but you can do two columns if you have a lot of material to mention.

## Table of contents

An extremely important page or pages. Your contents will reflect your text organization, and someone trying to find a subject heading should be able to get to it directly with the table of contents, or indirectly by means of an obvious heading that leads to it.

<b>Combat</b>	page 12
Attacker modifiers	page 13
Defender modifiers	page 15

So, if you want rules related to combat, start at page 12. If you want to know about making called shots, then that's almost certainly an "attacker modifier", but "partial cover" might be a modifier the attacker takes, but which the defender initiates, so we're not sure it that is page 13 or page 15. If your rules have the space to elaborate on the table of content, you could nest it another level:

<b>COMBAT</b>	page 12
<b>Attacker modifiers</b>	page 13
Called shots	page 14
<b>Defender modifiers</b>	page 15
Partial cover	page 16

Or if your rules are so short that all the combat section is from page 12 to page 16, then you probably don't need to, since there is a forty percent chance that a particular combat modifier will be on the first two-page spread the player opens the book to.

If you are doing a PDF, you can spend a little extra effort to hyperlink the table of contents, so clicking on a topic takes you directly to that page. It's a nice touch that doesn't cost you anything but a little time to implement.

As something to think about, there is more than one way to number your pages. The traditional 1,2,3 works just fine, however if you expect to revise your document later, adding one page somewhere means that every item after that in the index, contents and any references and hyperlinks within the text will have to be changed. If you number your pages by chapter, like page 1.1, 2.3 or 5.7 (the last item being the seventh page in the fifth chapter), then any changes you make only cascade through the rest of the chapter rather than the rest of the document.

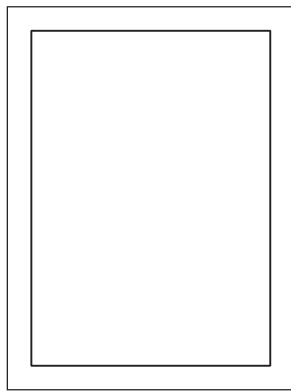
## Chapter breaks

Many games will have the first page of a chapter look somewhat different than normal pages, even if only by having a big number in the upper left corner. It is just a way to let people flipping through the game quickly know when they've reached the chapter they are looking for. There are other ways of doing this as well, which we'll get to in the next section.

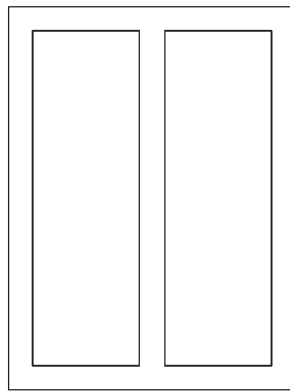
## Basic pages

This is the meat & potatoes of your game. Most of what a player or gamemaster will read will be on pages with this layout. It needs to be clean and easy to read in large chunks. There are a lot of formatting notes dealing with these pages, and some will also deal with other game sections.

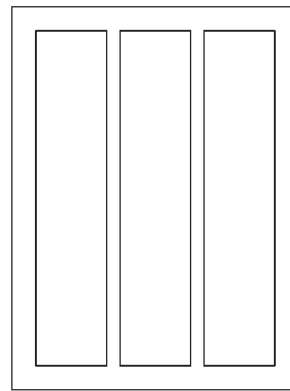
First is "how many columns"? Most games using a letter-size format go with two columns, though you can do three or one, but it doesn't seem to look as good most of the time. You can also do a one-and-a-half column format, which is great if you have a lot of sidebar material. **GURPS** uses this format to good effect on many pages. You alternate the layout so the narrow column is always on the side away from the spine of the book. Sidebar pages are places to put tertiary topics, diagrams, examples or whatever. Just make sure you use the sidebars in a consistent manner.



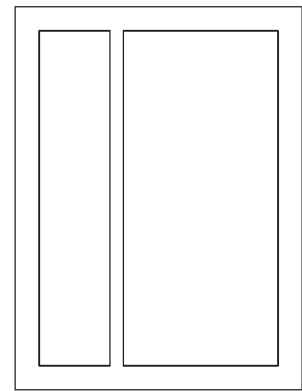
one column



two column



three column



one-and-a-half column

Smaller sizes of paper are more likely to get away with one column of text, especially if the graphic design has significant white space around the edges. The spartan 7" x 8.5" pages of the award-winning "My Life with Master" (Half Meme Press) rely on a one-column layout, creative use of *one* font and a lot of white space around the edges. And they looks *good* that way...

With columns, you also have the secondary considerations of margins, spacing, headers, footers, borders, justification, and font size.

For print-on-demand work and most home printers, you cannot get good coverage past about 1/4" (6mm) from the edge of the paper. In addition, print-on-demand work usually trims the edges of the book so the paper is even, which may take a few millimeters more. It's a safe bet if you make sure no part of the ink coverage is within 3/8" (9-10mm) of the edge of the page. Also see the information in Chapter 2 about letter-size and A4-size paper differences.

Your columns will need a certain amount of space between them to get a good visual separation. This is purely subjective and depends on your font size, line spacing, justification and the font itself. Play with it until it looks right. Some fonts actually look better at spacing other than their default, and you can get special effects just by tweaking the font parameters a little bit. For instance:

## **Subject change**

**T**his particular paragraph uses the same font (Times) for everything, with tweaks to size and spacing to generate a unique look. It may not

win any awards, but it does illustrate what you can do with even a basic word processor as your layout software.

Headers and footers are those bars across the top and bottom of the page. These can be both ornamental and informative. For instance, page numbers are usually in the header or footer. The name of the chapter or the major heading being explored can also be part of a header or footer. For instance, here is a simple footer for a left-hand page:

---

## **14 Melee Combat**

---

Someone thumbing through the book will see that this is page 14, and that it is the "Melee Combat" section. The usefulness of this is pretty obvious, but it can be easily overlooked.

Like column spacing, headers and footers need to be played with to get the right amount of separation. Make sure that if you use graphic elements that you remember how much ink is going to be sucked up by them. The example above is very sparing on ink use, but it is also not particularly catchy. Doing it like this:

## **14 Melee Combat**

makes it stand out more, but all by itself it uses as much ink as a third to half a page of normal text. A compromise could be gotten by doing it like this:

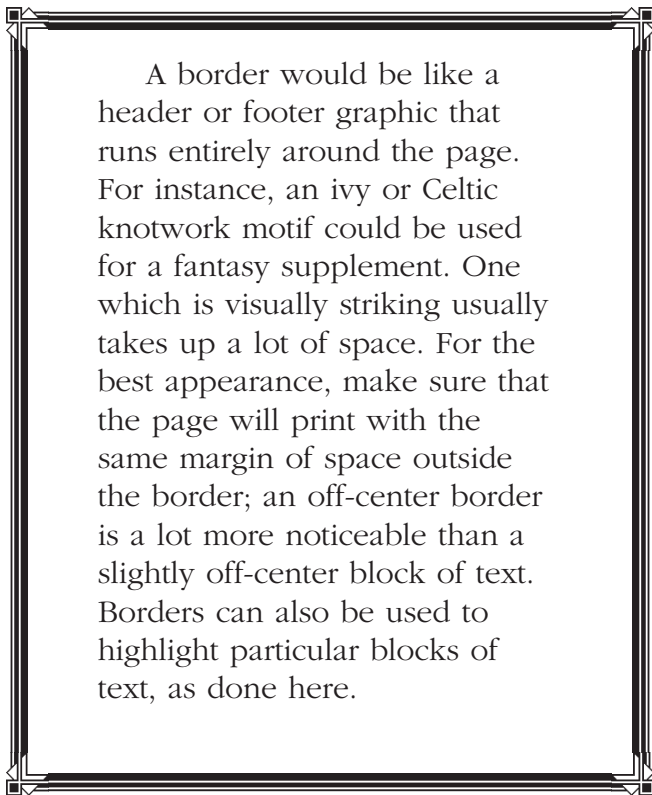
## **14 Melee Combat**

This uses 30% grayscale, for a drop in ink use of over two-thirds compared the previous footer. Or like this:

## 14 Melee Combat ▲▲▲▲▲▲

Both of these stand out more than the first example, but use far less ink than the solid black example.

Headers and footers can usually embed repeating or incremental information, like a graphic element, page numbers, the current date and so on. Check the manual for your software to see what options are available.



Justification is whether or not a line of text ends naturally, leaving a jagged right-hand edge to a paragraph or column, or whether your page layout software adds microspacing to make sure all the right-hand text edges are ruler-straight.

This is a simple example of a paragraph of text that has not been justified.

This is a simple example of a paragraph of text that *has* been justified.

Justified text looks neater on the page, but unjustified text is easier to read, because the uneven line ends provide visual cues as to where you are on the page. Turning justification on or off is a trivial matter in most programs, so you can toggle it back and forth to see which works best for you.

Related to justification and line spacing is the 'text grid'. If you use multiple columns, make sure that adjacent lines are even. That is, a straight edge under one line goes the same distance under adjacent lines, like this:

### Column of text

### Other column of text

Not this:

### Column of text

### Other column of text

If you use different-size fonts or columns that are uneven, you can end up with a difference between adjacent lines. This is an aesthetic rather than functional consideration. Many programs have a hidden text grid that forces lines to be even, and this function can be toggled on and off. If you don't have this function, you can manually get alignment by altering the size of blank lines between paragraphs, usually right before or after the line of text that causes the disruption.

One last tidbit to consider is hyphenation. Most word processing and page layout programs have dictionaries or rule sets to decide when and how to hyphenate words at the end of a line of text. Once you have a few pages of text in your desired form, look at the hyphenation and see if you like the appearance of the text. Too much of it can be annoying, as the eye zigzags from the end of one line to the beginning of the next just to finish a word. Not hyphenating at all can give you lines that either have a visible amount of microspace justification or a large indentation at the end of the line where a long word completely wrapped. For instance, all three cases are below:

You can say that role-playing game design is as much of an art as it is a science.



You can say that roleplaying game design is as much of an art as it is a science.

You can say that roleplaying game design is as much of an art as it is a science.

Once you have a layout you are happy with, save it. Most page layout programs have style sheets or master layout functions, so that whenever you want to make a new document formatted like a previous one, you just say so, and the new document opens with the right number of columns, line spacing and such. You can and should do the same with your table of contents, index, and other pages that will repeat from game to game.

## Glossary

If you have a lot of specialized terms in your game, or you are pitching it to a new audience that might not immediately know what is meant by things like “gamemaster” “NPC” or “d20”, then a glossary might be in order. If you put it at the end, make sure it is referenced at the beginning.

## Index

The place you put everything that didn't fit in the table of contents. Since each line is typically just:

Item.....page number

you can get away with using more columns than normal. For instance, if you have two-column text pages, try a three-column index. Using strings of periods between the index item and the page number is just a way to make it easy for the eye to follow that line. If you can, hyperlinking the index entries is nice. It may be tedious unless your page layout software can do it automatically, but it's a feature that end users will appreciate and remember if they use the PDF from their computer.

Do you need a table of contents, an index *and* a glossary? It really depends on your game and your audience. If your game is only 24 pages long, then probably a table of contents alone will do just

fine. If it is 240 pages long, you'd better have an index. If you decide against having an index, then you might want to make sure your table of contents is detailed enough to find everything. Have one of your playtesters try to find particular sections pointed out by another playtester, especially on the aspects of the game that are most important. For a role-playing game, this would include most aspects of character generation, possibly combat, and definitely any genre-specific aspects of the rules such as magic, status, cyberware and so on. If people are buying your product because it's a cyberpunk supplement, then it should be easy for them to find the meatiest cyberpunk-ish bits.

## License text

If your game uses one of the many open licenses out there, you usually need to put a copy somewhere in the rules. The very end is probably the best spot.

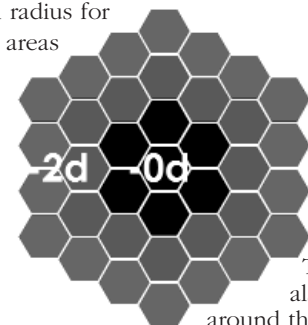
## Using graphics

Inserting graphics and art into your text can sometimes be a challenge, both in terms of dealing with your software and with cramming it into the space so it looks good.

For letter-size pages, a common art size is the ‘quarter page’, somewhere around 3.5” wide and about 4.5”-5” tall. You can often arrange your text to leave the appropriate amount of space for the art, and it is large enough that you can illustrate just about any concept or convey a feel with it. How many pieces you use and where you place them is a function of your budget and layout.

The tricky bits are art or graphics that have to be integrated with the text. Most programs allow you to create custom sized graphics boxes, and flow the text around them, something like this:

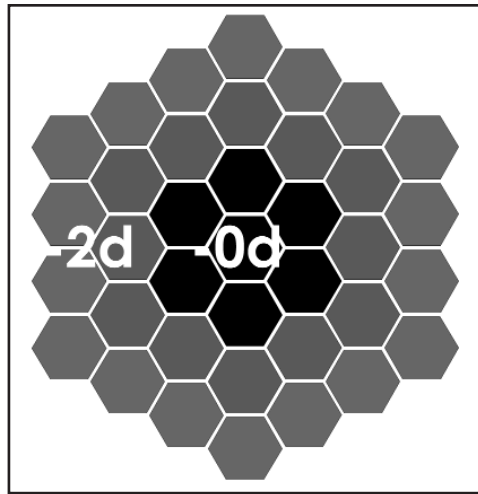
This is the explosion radius for a 4d6 blast. The -0d areas are at full effect, the -2d areas do 2d6 damage, and areas outside that take no damage.



The text flows around the image, giving a nice appearance, much better than what you would get

with a square box that contained the illustration (borders shown for clarity):

This is the explosion radius for a 4d6 blast. The -0d areas are at full effect, the -2d areas do 2d6 damage, and areas outside that take no damage.



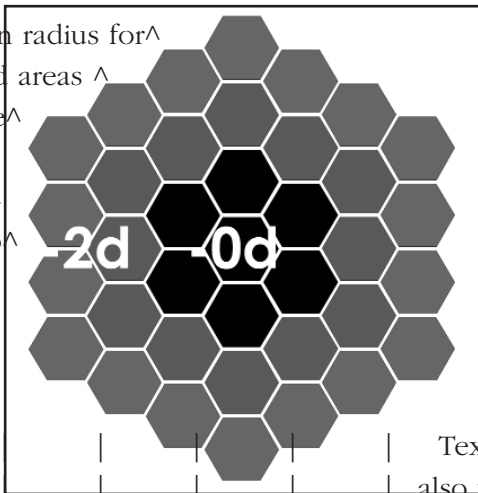
Text can also wrap around the image on the other side as well.

Even if you are stuck with a piece of software that only allows square graphic boxes, you can still get the first affect most of the time.

**EXAMPLE:** The author's manuscript for this chapter was done in a version of Microsoft Word

that only had square graphic boxes. To make the example clear, the graphic was placed *behind* the text, and then tab stops or manual carriage returns were placed after each line, like this:

This is the explosion radius for a 4d6 blast. The -0d areas are at full effect, the -2d areas do 2d6 damage, and areas outside that take no damage.





Text can  
also wrap  
around the image  
on the other side as well.

It takes a little more time and tweaking to do it this way, but the results look just as good.

The crispness of your image borders is a matter of aesthetics. Some people prefer images to have razor sharp edges that exactly match the width of

the text columns. Others like a more natural feel that wanders occasionally into the white area between columns or even forces text to wrap around it for more than one column, like putting a large emblem, portrait or logo in the center of a

two column page and having the text flow around it on either side. Experiment and see what works for you.

Another layout issue involving graphics is the file format of the images. Since you can set the level and type of compression when you distill a file into a PDF, you should start with the best quality possible and the most efficient format for the type of image. Typically, you can set different types of compression for color images, grayscale images and monochrome (line art) images. For instance, if you want the highest quality output, you probably don't want to use lossy JPEG compression on an already lossy JPEG image. This will be an issue for you to tinker with later. For now, use the best-quality images you can. This will also save you time if you make a separate print-on-demand version, since you will already have the highest-quality source file as your starting point.

## Summary

1. Unless your game is really short, you need at least a table of contents. If you think it might need an index, it almost certainly needs an index.
2. You need to define the way the text is organized in terms of major topics, subtopics, etc.
3. You should have a style for your pages which is useful for the game and any possible supplements. Remember the cost in paper and ink for the end user.
4. See if the games you like and find easiest to use have layout concepts you can borrow.
5. Even little things like line spacing can have a significant effect on the subjective 'feel' of a game

## Where next?

From here, you have plenty of work to do to get your game from a pile of printouts to something approaching a professional-looking product. There will be a lot of trial and error, some backtracking and "d'oh!" moments, but when you are done and run a copy off on your home printer, you should be quite pleased with the results.

Then you just need to turn that file which only works on your computer, into a well-optimized and hyperlinked PDF that anyone can use.



## Chapter 5

# Layout: Step by Step

*By Michael L. Fiegel*

## Disclaimer

It would be impossible to cover all the intricacies of layout in a single PDF document such as this, unless said document was hundreds of pages long. But you don't have the time to read all that, and I don't have the time to write it! Thus, instead of trying to be comprehensive, this chapter will instead do its best to give you a firm grasp of the basics, along with some simple Do's and Don'ts that will carry you about 95% of the way towards becoming a better designer. The rest of the journey will be up to you.

It would be naïve to assume, however, that these tips will be definitive. Ask any five designers how they would lay out an RPG product, and you're bound to get six different opinions, each of them valid, many of them contradictory in some regard. What you're getting here is one man's opinions – based on the opinions of others, granted, but still filtered through the necessarily-biased view of one individual designer.

It's also worth noting that you'll see snippets of these same topics covered in slightly different ways in other sections of this overall package. When separating "layout" from other aspects of PDF design, it's difficult to make a clean cut. Where information provided here bumps up against similar information elsewhere, use your best judgment in deciding what works best for you and your product. As long as you get the basics down, you're well on your way to a stellar product.

In referring to specific functions and shortcuts, the following applications were used for layout: Microsoft Word X, Adobe InDesign 2.0.2, Quark XPress 5.0. All were run under Macintosh OS 10.3.4. Your mileage may vary.

## The Basics

Take away the glossy cover, strip away the graphics, and turn the content into rectangles and numbers, and the biggest-selling RPG handbook on the market looks like this:

- *Page dimensions of 8.25 x 11 inches, slightly less than standard Letter size*
- *One-inch left and right margins, .75-inch top and bottom margins*
- *A 'content frame' of 6.25 x 9.5 inches of space (page minus margins)*
- *Two 3-inch columns of text for most of the book with a .25-inch gutter*
- *Three roughly 2-inch columns for the back section, with .25-inch gutters*
- *About one piece of art per four pages (front loaded)*
- *Exactly 67 'lines' of text per page (with a helpful grid beneath)*
- *Fully justified text (both left and right flushed)*
- *10-12 words per line, on average*
- *Body copy set in the Celestia Antiqua Medium typeface (Caslon 540 is close)*
- *Headlines set in the Pterra-dactyl typeface, blue, ALL CAPS*

Those are the nuts and bolts of the product, the bits that you notice without actually paying attention to them. And in many respects, they're the most important element of the whole package. Layout is to content what a carton is to milk – without structure to hold what's within, all you get is a big mess. Without a good layout – no matter how clever and original your concept, no matter how perfect your rule set, no matter how exacting your editor, no matter how exciting your artwork – your product isn't going to shine.

## What is Layout?

At its simplest, layout (the noun) is an orderly design and arrangement of content (words and pictures) on a page, be it digital or print. Layout (the verb) is the process of designing and arranging these elements. Generally, one says one is “designing a layout” rather than “laying out a design,” although thanks to the wonders of the English language they’re oft treated as synonyms, so you could even say you were “laying out a layout” or “designing a design” if you wanted (though you’d get some strange looks).

Back in the old days, designers didn’t have desktop publishing software available to them, so the term “layout” literally referred to the process of cutting up and “laying out” bits of paper on a board to see how they fit together. These were then pasted (hence the term, “pasteboard”) onto a master form and then photographed. There wasn’t a whole lot of tinkering – once something had set up, it was hard to move it around again without making a mess.

Today, of course, you can do the same thing digitally, which can lead to all sorts of creative fussing-about that isn’t necessarily good. Just because you *can* have all your content skewed 25 degrees to the right with drop-shadowed headlines doesn’t mean you should. There are rules to follow. Failing to adhere to these relatively few basic tenets leads to bad layout. Avoiding truly bad layout is fairly simple if you use common sense.

For example, assuming your primary audience is English-speaking, you’ll want to write in English; you wouldn’t even think of handing your readers a document written in, say, Aramaic. No one would understand it.

Likewise, you would never write words backwards, or begin a paragraph at the lower right of a page and move up towards the upper left. Most languages are written so that the reader’s eye begins in the top left and reads left to right, top to bottom, and working counter to this expectation would lead to frustration and confusion.

Most aspects of layout follow just these sorts of common sense rules. Breaking some of them is fine, from time to time, as long as you’re at least aware of the rule before you break it. But trying to argue “Yes, but I was being creative,” being differ-

ent just for the sake of being different, or merely being lazy in your approach to layout, is no excuse.

## Step By Step

The layout design process described hereafter is broken up into the following steps:

1. *Know your limits.*
2. *Decide on a size and desired format.*
3. *Sketch out a design on paper.*
4. *Establish a template, with margins, columns and a baseline grid.*
5. *Set up headers, footers and common elements.*
6. *Choose a font and place text elements.*
7. *Tweak your text.*
8. *Place graphic elements.*
9. *Add the finishing touches.*
10. *Generate a Table of Contents and/or Index.*

Note that you don’t actually start “laying things out” until Step 4. It’s the early phases that will save you time in the long run. Take your time, plan carefully, and do it right!

## 1. Know your limits.

Before you even get near the computer to begin designing your layout, you should have a very specific idea of what it is you’re actually designing. The type, length, scale and complexity of your product will have a direct impact on the layout process.

A good place to start (since you should have it all ready) is with your **copy**, a somewhat “archaic” term that refers to any textual elements of your project. **Body copy**, which is what we’re mostly concerned with, is the bulk of that text: the words, sentences, paragraphs and chapters that make up the main portion of your product. If you have your text finished, you can get an accurate **word count**, and if you have that then you can get a pretty accurate **page count**.

A 10-point font like Times New Roman will get you approximately 1,000 words, or about 5,000 characters, to an average page, regardless of whether it’s laid out in one or two columns. At 12

point **leading** (standard), that's about 55 lines of text per page. (If you tinker with margins you can always fit more, but remember that we're only looking for an approximation here, and we need to save room for headers and footers.) At 1,000 words per page, it's pretty simple to take your body copy, count the words, round up, and divide by 1,000. If it's 20 thousand words, that means you have about 20 pages of just words.

Next, take a look at your artwork. If you have 20 pages, and on average, one quarter-page image for every four pages of text, you'll have five quarter-page images, which total 1 and 1/4 pages of images, which we'd want to round up to two pages. Of course, if you have the art in front of you, you can get a much more accurate picture of what you have to work with. Simply add up the quarter-pages, half-pages, full-pages, etc. and see how many complete pages they fill, always rounding up. Let's say we have five quarter-pages, three half-pages and a full page, which add up to 4 and 3/4 pages (rounded up to five).

Add in at least one page each for (if you have them) a Table of Contents, an Index, a Credits page, any Character Sheets or other "handout" type material and any legal text (such as the OGL text) that you're legally required to include. For our example, we'll be adding eight more pages to our sample, which gives us a grand total of  $20 + 5 + 8 = 33$  pages.

If you never intend to actually professionally print and bind your product, add in pages for front and (if you have one) back covers, and the result is what your page count will be. If you *do* intend to print, do not add in covers, but *do* round that number up to the nearest multiple of 4. It's becoming less standard, but in general the rule when it comes to printing is having a total page count that is divisible by 4 (or less commonly, multiples of 2, 8 or 16, depending on the size of the paper and the printer you're working with). This is why we don't add in covers if you're printing – the cover stock is generally different, and the accurate page count only refers to what's in between.

## Working Backwards

Of course, it's also possible to do your math in reverse. Let's say you're designing a project and you need to assign writers and artists specific amounts of work to do. For a simple adventure module or the

like, 24 to 28 pages is a pretty good starting point; for a full-blown RPG rule or setting book, you could be looking at anywhere from 128 to 256 pages (which is on the large side for PDFs).

Take your page count and divide by 16 to account for full-pages-worth of artwork. Then take that number of pages and subtract it from the total page count, along with one page each for your Index, etc. Multiply the remainder by 1,000 to get a rough word count.

## 2. Decide on a size and desired format.

If you're new to this, the simple answer to "What size should I make my PDF?" is either **Letter** (8.5 x 11", or about 21.6 x 27.9cm) or **A4** (21 x 29.7cm, or about 8.3 x 11.7"). If you don't know what A4 is then you probably don't need to worry about using it and should stick with Letter, which is the default setting for a page about 100% of the time in whatever application you're using.

You'll note that I did not lead off here by saying that you need to consider screen size, or paper vs. monitor, or **portrait** vs. **landscape**. You really don't. Debates have raged (and continue to rage) about which is preferable for what, but in the end it really comes down to pleasing most of your customers, most of the time, and what's going to accomplish that the best is Letter size, in Portrait orientation, which is what your layout program is going to throw at you by default. If you're content to stick with what works most of the time, you can skip ahead to step 3. For those of you who are curious and/or obstinate, feel free to continue on.

## PPP - Pixels, Points and Picas

**Pixels** are the P you're most familiar with. They're the little dots on your screen, and they're measured in **PPI**, or Pixels Per Inch (often mistakenly called **DPI**, or Dots Per Inch, which is more correctly applied to Inkjet Printers, not monitors).

If you're an average computer user, you've probably heard that computer monitor resolution is 72 PPI. If you're an above average computer user, you've probably also heard that 72 PPI is the Macintosh standard, and 96 PPI is the Windows standard. If you're reading this, you're about to be told that what you've heard is mostly wrong.



In the early days of true **WYSIWYG** (What You See Is What You Get) desktop computing on the Macintosh, the resolution of the computer screen was pretty close to 72 PPI. When you consider that an inch contains 72 Points (a print measurement), this meant actual true WYSIWYG – one inch on the screen was one inch on the printed page. However, this hasn't been the case for a long time, and you can test it yourself right now by getting out a ruler, opening up a program that has rulers in it, and holding your ruler underneath the ruler on the screen. Nine times out of ten, you're going to see that 1 inch in the "real world" is not the same as 1 inch on screen.

So if your screen resolution isn't 72 PPI, what is it? Well, this is one time when Windows machines have sort of beaten the Macintosh to the punch. Windows has always *guessed* that the resolution of the monitor was around 96, whereas Macintosh has tended to *guess* 72, even though the newer monitors are creeping closer to 96. However, almost none of them are exactly 96 PPI, and the reason for this is because PPI is not a fixed number, but is instead dependent on both the pixels represented on your screen and the monitor's actual physical size. A 21-inch monitor running at 1600x1200 pixels is close to 96 PPI, but the same monitor running at 1024x768 is only showing about 60 PPI.

The point of this little tangent is this: you can't count on pixels as a means of accurate measurement, as they're relative to the screen resolution. If you're designing a web page, then it's more of an issue, particularly when it comes to font sizes. But we're interested in designing something that will represent a printed page, and likely be printed out at some point, so we shouldn't fuss about with pixels when we're doing layout. We need an alternative.

**Points** and **Picas** give us what we're looking for. As units of measurement, they precede pixels by a long shot, having been used by typographers well before desktop publishing took off. Like inches and centimeters, points and picas represent absolute lengths, portions of an inch, and thus they're much more useful for our purposes.

There are different types of points, however. A **typographer's point** is equal to 0.013837" or 0.35146 mm, with 72.27 points per inch, while an **Anglo-American point** is equal to 0.01383307" or 0.35136 mm, with 72.29 points per inch.

Luckily, a company named Adobe came along and simplified this for us by creating the **PostScript point**, which is equal to 0.0139" or 0.35278 mm. Rounded off, this gives us 72 points per inch. Not a truly useful measurement in and of itself, which is where picas come in. Twelve points make up a pica, so there are 6 picas per inch. Picas are used quite often in the printing world, and in most true layout applications you can easily change your ruler to display points and picas, instead of inches or pixels, merely by right-clicking on it. If you must, feel free to use inches on your ruler, but do not get into the habit of measuring your layout in pixels.

## You Can't Make Everyone Happy

Many designers will happily tell you that Landscape-aligned layouts are 'better' for viewing on a monitor, and Portrait-aligned layouts are preferable for things that will be printed. For the most part this is true; if you are creating a product that you are absolutely certain will only ever be on screen, Landscape is a good option. However, Portrait is almost always the better overall option for our purposes – even for onscreen viewing – if your document has a proper layout, and there are several reasons for that.

First of all, you can't please everyone. People are going to find lots of reasons to either like or dislike your work, and if your content and artwork truly shine, orientation isn't going to be a deal-breaker. There are those who encourage creating both Landscape and Portrait versions of the same document and offering both, and while programs like InDesign can help automate this task, it's certainly an extra step that's not always necessary. Consider the many options that smaller segments of your potential customer base might conceivably be interested in:

- Portrait, high-resolution, for a high quality printed copy
- Landscape, low-resolution, for a good on-screen viewing experience
- And how about a Portrait at low-resolution for extra copies
- While you're at it, how about a Landscape version at high-resolution

- And could you do all four of those in A4 format for my European players?
- Oh, and maybe a version of each without any graphics...

You're not going to please everyone, so don't even try. Do what works for you, and what will work for most of your customer base. For 95% of them, a properly-laid out Portrait-aligned Letter-sized document will serve their needs quite nicely. With all the time you save, you'll be able to work on the follow-up product, which will make your fans much more happy than an extra PDF with the exact same content in differently-sized columns.

The number one problem that people have with viewing a Portrait-aligned page on a screen is the fact that the columns make them have to scroll up and down, up and down. And that's an issue we're going to address, and avoid, in the pages to come.

### 3. Sketch out a design on paper.

Take out your favorite RPG books and/or PDFs, the ones you use most often. Set one up on the desk or couch, and take a few steps back so that you can't read the words. Look at the shape of the page, the rectangles formed by blocks of text and artwork. Chances are the RPG products that you use the most often are the ones that have the best layouts – clean, organized, with good balance and contrast. The fact that you don't notice those things means that they're doing their job well. That's what we want to replicate. Readers shouldn't notice your layout; they should only notice that you've got a good product.

If you can find tracing paper, try putting a sheet of paper over one of the pages of your favorite RPG book, and trace the shapes formed by the margins, border artwork, interior artwork, and columns. Note how headings and subheadings break up the long rectangles into smaller squares on the page. Close the book and look at the shapes themselves, removed from any content. Where is your eye drawn? Does it naturally move from the top left corner to the bottom right?

Now, think about what you want to achieve for *your* RPG product. Consider what sort of artwork you might want in the margins, how many columns you think will look good, how much artwork you

want on each page, and where you think it'll be positioned. Don't worry about the specifics – we're going to cover those in a short while. Just get an idea of what you want your readers to see when they look at your document. Consider: will this be a one-shot product, or do you have an entire series in mind? A quirky layout might work well for something a reader only has to see once, but after the fifth 'quirky' book, that reader might tire of all the excitement. You'll want a consistent style for any product line, and now is the time to start thinking about what that 'style' is going to be.

Finally, get a clean sheet of paper or ten and start drawing. Draw columns, rectangles, squares. Get an idea for how big your margins are, where the artwork will go on the page, how many headings and subheadings will logically fit into the area available. Come up with several ideas for designs. Not all of them will work, but it's likely that you'll hit upon some good ideas, and those are worth keeping. Try and keep the number of elements (text and image blocks) on a single page under five or six. Too many little blocks of text can make things hard to read. Give your reader a clear path to follow.

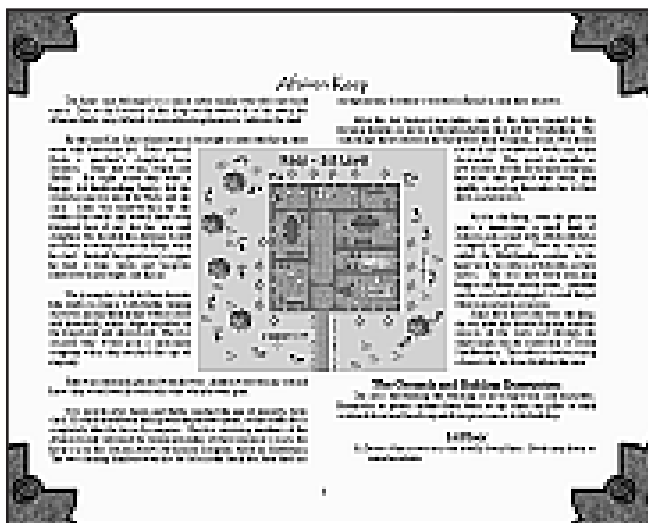
### Keeping Things Above the Fold

In a newspaper, stories that are 'above the fold' are those printed above the point on the paper where it's folded in half. Stories 'above the fold' get noticed first. Stories that start 'above' and continue 'below' entice a reader into reading the rest of the story. But if the reader couldn't unfold the paper, he'd have to read the top of the first column, then flip the paper over and read the rest, then flip it back over, and so on. It would get tiring.

This is the same problem that PDF documents in Portrait orientation face on many computer monitors. When the page is printed out, it all fits nicely onto one neat sheet of paper. But on the screen, in many cases, a portion of the bottom is 'chopped off', the content lying 'below the fold'. Readers of a document will have to scroll down to read content there, and if you've got your document laid out in columns, this can result in that 'newspaper flip' I just mentioned, where they have to scroll down, read, scroll up, read, etc. Landscape-oriented documents avoid this, but they're not necessarily the only solution to the problem.

## Landscape vs. Portrait

One of the arguments for designing a document in Landscape alignment is typically that “the reader can see the entire document on screen at one time, without scrolling.” While certainly true to a degree, this is an oversimplification. Consider the following images:



Both represent a Letter-sized PDF opened in Adobe Acrobat under Windows XP, using default settings, at 800x600 resolution (still the standard). On the top is the document viewed in Letter orientation, and on the bottom is the document in Landscape orientation. Both have been scaled to fit the screen - 40% on the left, and 52% on the right.

Thanks to the Windows taskbar, and Adobe Acrobat's Title bar, Menu bar, Tool bar, Page Navigation bar, and Document Size information, only 80% of the vertical screen space (about 480 pixels) is

available for the actual document to fit into. The point being that our “better for the screen” Landscape document, about 25% larger than the Portrait on the same-sized screen, is still forced to about half the actual size in order to fit.

Now, while viewing a document at 52% of its actual intended size may work just fine, we can't simply argue that in every case a Landscape-oriented document provides a more optimal on-screen viewing experience. We cannot account for resolution, task bars and tool bars; we do not know if our reader will view full screen or in a window.

There's value to a Landscape orientation, but it's no magic-bullet solution to what can be a complex problem, especially when we know that most readers will eventually want to print out their documents. Fortunately, there's a way to ensure that if you *do* go with Portrait, your reader's not going to be forced to go scrollbar crazy. No matter what size or resolution your reader is using, there's one assumption we can make.

## Making It Fit

Readers *hate* having to scroll horizontally to view things, which is why very few web pages are designed that way. The human eye likes to work from top to bottom, and so scrolling vertically is a much more natural movement. Therefore, no matter what size or resolution your customer is using for her monitor, we must assume that she will be willing and able to view the entire horizontal axis of a Letter-sized document. Of course, it's impossible to determine what your reader is going to use to view your document - computer, monitor, and software will all vary. To view the entire width, someone may have to adjust the screen resolution, or turn off menu bars, but those things are out of our control. We control the layout of our document, and thus its dimensions.

Given a Letter-sized document of 8.5 x 11", we can thus make the bold assumption that a reader will be able to display the width of that document - 8.5" - comfortably on-screen. What this means is that your reader should also be able to simultaneously view 8.5" of height. There may be certain situations where a user has gone menu bar crazy and has only a tiny 100-pixel sliver of space in which to view documents (I've seen some people who do this), but that's the user's problem, not ours. If the reader is capable of seeing at a glance the entire width of a



Letter-sized document, she is also capable of seeing that same amount in height – 8.5” out of 11”, or approximately 77% of the page. (For A4, it’s slightly less – about 70%) Whatever the case, this point – about 75% down the page – is where we make our ‘fold’.

When you’re busily sketching out those sample layouts on paper, take a moment to fold the paper vertically into fourths – in half, and then in half again. The crease nearest the bottom of your paper is the approximate point of the ‘fold’ that we’re looking for. Everything above that point, “above the fold,” we *must* assume that our reader will be able to see on screen without scrolling.

Do any of your designs have columns that dip below that fold? Don’t change them at the moment – just be aware of them. One of our goals will be to prevent our reader from having to scroll up and down all the time by reducing the number of columns that dip below the fold and continue at the top. The layout tips that follow will include suggestions as to how to accomplish that.

## 4. Establish a template, with margins, columns and a baseline grid.

The key to good layout is **effective** and **organized** arrangement of content on the page, and the first step in organizing your content is creating a **template** with a **master page**.

Templates offer consistency and save you time as well. Not only will every page based on a template be identical in overall layout, but you won’t have to spend time re-drawing columns, headers and page numbers for each document. You simply do it once for the template’s master page, and then clone that page each time you need it.

In layout programs like Quark Xpress and Adobe InDesign, master pages can be found in the **Document Layout** or **Pages** palettes (respectively), labeled Master-A. If you’re doing a PDF, there’s probably no need to worry about the difference between left and right; chances are if it’s printed out, it’ll be printed out single-sided, so nothing will face anything else. If you’re seeing two master pages, you can simply lay out the same design on both, or create an alternate layout for a different section of your document.

In a program like Microsoft Word, there are no Master Pages. You’ll merely open up a new, blank document, and when you’ve made all your initial design decisions, you will save it as a Document Template, just as you will with Quark Xpress and Adobe InDesign. The advantage to saving it as a template is that each time you open a template file, it generates a new untitled document, without altering the original.

All the design elements described in steps 4 and 5 will be made on your master page, so be sure you’ve got that page selected. Only changes made to a master page will appear on every page in your document. You can always edit it later, but it’s much easier to do it once to begin with.

## Margins

Your application starts you off with default **margins**, which create areas of **white space** around all four sides of the page, thus showing you the boundaries of your content. Some programs (MS Word, notably) are a little stingier here than is absolutely necessary, taking away 1 inch at the top and bottom, and 1.25 inches from each side in the default settings. You really don’t need that much taken away. On the other hand, some programs are too generous; InDesign sets all your margins to .5 inches by default.

A good place to start is by adjusting your margins to about .75 inches at the top and bottom, and 1 inch on either side. On a Letter-sized page, that gives us an area 6.5” wide and 9.5” high to work within. This is significant for several reasons.

First of all, by building in margins of that size, we ensure that our Letter-sized page will also fit reasonably well even if printed out on A4 paper; the margins will have a little more white space in them, but it won’t be forced to resize because it’s too wide.

Secondly, this ratio falls close to what’s called the “Golden Proportion” of 3:5, which is widely accepted to be visually appealing. To compare for yourself, divide the higher number by the lower number in your ratio; any result that’s about halfway between 1 and 2 is a good ratio. For example, 5 divided by 3 gives us 1.67, whereas 9.5 divided by 6.5 gives us 1.46. Compare this to the D&D 3e PHB (9.5 divided by 6.25, or 1.52).

Keep in mind that your margins are not meant to be an indication of your **maximum print area**. The reason for this is obvious – you have no idea what sort of printer your reader is going to use to print the document out. Most people will be using home inkjet printers purchased within the last five years, which will print out to about .25 inches (about 6mm) all the way around, but some older printers require more space around one or more of the margins, possibly as much as .5 inches (13 mm). On laser printers and some inkjets, the non-printable space (the area around the edges of the paper where the printer rollers grab it) might be non-existent, meaning their printable area is the entire page. And of course, programs like Adobe Acrobat also feature a function called “Shrink to Fit,” which will allow anyone to print out the entirety of your document by scaling it down if necessary. You can’t tell what your reader’s going to do; all you can do is design it in the best way possible.

Please note that the margins you set here are **not intended** to be left completely empty. They provide space for your header and footer, page numbers and, if you so choose, fancy borders, which we’ll work with later. The amount of space left here is plenty of room for those elements, as well as the non-printable space of most printers. However, if you decide on a more ornate border on that requires more space, you can always thicken the margins later.

It may be tempting to shrink those margins in order to cram more content in, but try to resist the urge. Don’t fear white space. Readers hate ‘gray pages’ that are jam-packed with text and images. It’s better to add a few more pages to a document rather than shrinking margins and decreasing text size to try to cram pages full of text. Numerous PDF buyers have said that they appreciate more space around the edges, rather than less space – the extra area not only makes the page easier to look at, but it gives them room to make notes during a gaming session.

Remember that many of your customers might be interested in putting their printed PDF in a 3-ring binder, which means they’ll need the extra space off to one side.

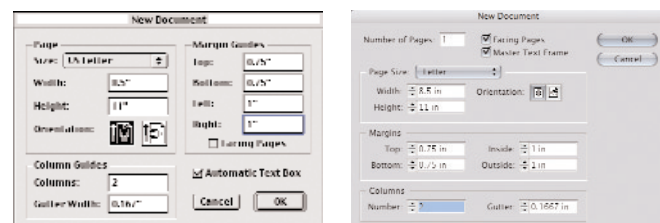
## The Grid

The moment you create a new document, no matter what program you’re using (MS Word, Quark Xpress, Adobe InDesign, etc.), you’ve got a grid. At the top and left hand sides of the screen are rulers, split into increments that draw a web of invisible lines across the page. Once you’ve got your margins set, it’s time to make some of those lines visible. (Alas, Microsoft Word users won’t be able to do this.)

First, make sure that your document is properly zeroed out, by checking to see that the two rulers have their “0” mark at the top left edge of your document. If it’s not, zero it out by clicking the top left corner and dragging the crosshairs to the proper place.

Next, draw your fold line. If you’re using inches, click on the ruler and drag a guide down to 8.5 inches. If you’re going to work with picas, the place to drop it is about 51 picas down. Anything that falls below this line on your page is likely to be ‘below the fold’ of many people viewing it on screen, so we’ll have to use caution.

Third, we’re going to indicate the center of the document. If you opted to create a 2-column layout when you created your new document, your master page will already have a nice clean line vertically down the middle of the page (a gutter, described in a moment). Two-column layouts are the most often used, so it’s a good idea to start out this way if you can. Here’s what you want to select in Quark Xpress and Adobe InDesign:



If you choose not to work with a master 2-column page, you can simply drag a line to the 4.25” point or, if you’re using picas, drag two lines to the 25 and 26 pica marks. Then drag a line from the top to the horizontal halfway point of the page – 5.5”, or 33 picas.

The rest of your grid, the **Baseline**, is going to be based on the **leading** of your font, which may be undetermined at this stage. If you’re unsure

where to begin, it's best to stick with the standards – 10 point Times New Roman text with 12 point leading (point size multiplied by 1.2). In this case, your horizontal grid is going to have one line every 6 picas.

Both Adobe InDesign's and Quark let you View and Hide the Baseline Grid under the View menu, but you edit it in different places. In InDesign, it's under Preferences – Grids. In Quark 5.0, it's under Preferences – Paragraph. In both cases, be sure to set the start point to .75", which is your top margin width, and the increment to 6 picas (obviously, if you choose to use a different font size and leading, your increments will need to be adjusted). If you do it right, you'll see a nice series of lines down your page. Any line of text that's near a line should be resting on that line. Lines of text that are in adjacent columns should line up. And graphics should rest one or more edges on lines.

## Columns

Now that we have our grid laid down, we need to think a bit more about columns. Every layout features columns – even if it's only one. Above, I've suggested starting with a 2-column layout; it's the most common and probably the best option. There are a wide variety of other options, but not all of them are necessarily *good* options.

Optimal columns are designed in accordance with font size. A good rule of thumb is to take the size of the font and multiply by 1.2, as we did to determine optimum leading earlier. The result, in picas, is generally considered the ideal minimum column width. Multiply the size of the font by 3 to get the recommended maximum column width, also in picas. Here are some guidelines, with measurements rounded off:

Sticking with our choice of 10-point Times New Roman, this means our columns should be a minimum of 12 picas (2 inches), and a maximum of 30 picas (5 inches). For comparison, the columns in a newspaper or magazine are generally 12 picas in width.

A good way to determine what will work is to type out the alphabet, and when you reach 'z' start typing it again. Anything between one-and-a-half and two-and-a-half alphabets (39-65 characters), is a pretty good length, since what we're shooting for is around 40 to 60 characters per line (typically about 9-10 words). For anything less than a full-page, one-column layout, it should mostly fit onto one single line within a column.

Since we're concerned about words, perhaps a more 'real world' test is this 46-character sentence: **"The quick brown fox jumped over the lazy dog."** For anything less than a one-column layout, that sentence should usually fit in a single column with room to spare. If it falls a bit short, it's fine. It's just an approximation.

If a column contains too many or too few words, it becomes more difficult to read and comprehend, and if your reader can't easily understand your writing, you're in trouble from the get-go. Having fewer columns means wider columns, and larger font sizes. The 6.5"-wide area suggested as the optimum default width for your content frame, with Portrait orientation, and 10-point Times New Roman text, gives us adequate space to put in two or three columns of text that will be within 'optimal' range.

It's also worth mentioning that what's in between the columns – nothing – is just as important what's inside. The white space between columns is known as the **gutter**, and your layout

Font Size	Min. Column Width	Max Column Width
9	11 picas, 1.8 inches	27 picas, 4.5 inches
10	12 picas, 2 inches	30 picas, 5 inches
10.5	12.5 picas, 2.1 inches	31.5 picas, 5.25 inches
11	13 picas, 2.2 inches	33 picas, 5.5 inches
12	14.5 picas, 2.4 inches	36 picas, 6 inches
13	15.5 picas, 2.6 inches	39 picas, 6.5 inches
14	17 picas, 2.8 inches	42 picas, 7 inches



program will assign an optimum setting for these in order to keep things clean. You should probably never adjust these measurements. White space is good! The margins between pages of a book are also gutters, and there's often a slightly wider margin at the inside edge to account for bookbinding, but since PDFs are rarely bound like that, we're going to leave those settings alone.

For more on columns, see the samples and commentary at the end of this chapter.

## 5. Set up headers, footers and common elements.

Still working on our master page, we're going to turn to those empty margins outside the content frame, adding elements that we want to appear on every page of our document, such as page numbers, book title and chapter information, and border details.

Let's start at the top. Text that appears in the margin above the body copy is called a **header**. In the bottom margin, below the body copy, is the **footer**. Headers and footers are both typically between a half-inch and an inch in height. For the purposes of this chapter, we're assuming .75 inches, which will serve most people's needs quite well.

Depending on your particular product, headers can include information such as the name of your PDF, the title of the current chapter, and possibly the page number. Footers can theoretically contain all the same information as the header, but they're generally relegated to information that is more repetitive and less crucial to navigating your product, such as your company name or your web address. Many people also like to use the footer to put the page numbers, which is a perfectly valid choice. Just don't put the page number in both the header *and* the footer!

Another place to include meta-information such as chapter titles and page numbers is in the right hand margin of your page (which for our purposes is 1 inch wide). Obviously, any textual elements here longer than a few characters will have to be tilted 90 degrees to fit along the edge of the page. In such cases, it's generally a good idea to have them angled so that whatever word or words you're including start at the top of your page and

run towards the bottom, facing "in" towards the rest of the text. If you reverse it, it'll be more difficult for a reader to easily see what it says at a glance.

Avoid putting any such content in the left-hand margin. In a book, this inner edge is what gets bound into the spine, and since some of your audience will want to print out and put your pages in a three-ring binder, they'll need space to push the rings through.

Borders and the elements within them can be as simple or as ornate as you feel fits your project. But you should make them distinctive enough that they can't be confused with your body copy or other elements within your main content area. Use a different font and font size, something distinctive from anything used elsewhere, and consider separating these elements with a graphic element of some sort.

Graphics need not be particularly impressive – a simple **rule** (or line) at the top and bottom of the page will serve to frame the content within, while keeping page numbers and chapter headings easily identifiable. On the other side of the spectrum, you could choose to go all out and have fancy scrollwork borders. If you're confident that what you have to put there is truly pretty to look at, then it can improve your design tremendously. But a poorly-designed border is worse than a poorly-drawn piece of art – your reader can't flip past it to avoid it, since it's on every page! Make sure that whatever you use is professional looking and appropriate to your overall theme – no strings of seashells for a book about dwarves (unless, perhaps, they're oceanic dwarves).

Another option for a common page element is a full-blown background graphic, whether it's a series of gridlines, a logo, or something else that fills your entire page. The key here is ensuring that whatever image it is does not detract from the overall reading experience. You want your readers to barely notice the image; if they're actively noticing its presence on every page, they're going to be distracted, and that means they're not going to enjoy your product as much. Screen the graphic to 10 or 15% opacity.

## Beware the Bloat

One thing of which you must be aware if you choose to include borders and background images is that they can significantly increase the size of your PDF document. This may be less of an issue for you personally if you're selling your product through a third-party vendor, but it still means that your reader is going to have to take more time to download your document after the purchase. One of your goals is to have as small a footprint as possible.

First of all, if you're going to have borders and backgrounds, be sure that you use just a single image on your master page, and not a different image on each different page. Every time you change images, it means another huge hit to file size. When you finally distill your PDF (whether with Adobe Acrobat Distiller, or Ghostscript), the software is intelligent enough to notice when you've got common images, and only includes one instance of that image in compressing the file. Better to have just one memory hit if you must.

Secondly, you must keep in mind that your reader is most likely going to want to print out this document at some point, and your deep red-and-gold inch-thick border that wraps around your entire page is going to decimate her inkjet printer's. Use up someone's ink cartridges with your PDF, and that \$10 download just turned into a \$35 download, since she's now got to buy new ink. Think she'll buy another PDF from you? Possibly, if your product is worth it, but don't take the chance. Keep it as simple as possible. Fade images out to percentages of grey rather than black, use outlines rather than solid areas when possible, and avoid the use of color wherever you can, leaving it for any fancy cover art you may have up your sleeve.

Finally, while we're on the subject of ink, it's worth mentioning that you shouldn't even consider **full bleed** pages as an option here. Full bleed is when the art on your page covers the entire page, edge to edge. If you're designing a print product and you know for a fact that the pages can be printed and trimmed to account for this bleed, then it's another story. But for a PDF product, you can't count on your customer's software, printer or paper. His computer program might automatically reduce the size of your document to 95% scale,

leaving a white rim anyway, or the printer might require space around the edges. Even if he has a newer printer that can print edge-to-edge, you still have to assume he's using, at best, standard inkjet paper and, at worst (and most likely), standard copy paper. That fancy black-and-blue border that bleeds right to the edge is going to look like a soggy bruise when it rolls out of the printer. Don't do it.

## 6. Choose a font and place text elements.

With all of our document's common elements in place, our copy and artwork ready to go, and a solid idea of how many columns and pages we need, it's time to begin **pagination**. This is the point when we actually place the text and art into the allotted pages. It's been a long road to this point, but if you've followed along you'll end up saving time in the long run. However, there are still some decisions that need to be made.

First, you must choose a font for your body copy. This single choice affects about 95% of what your readers will experience when they read your product, so it's not something to do sloppily. The process of properly selecting a font, type style, proper size and spacing, etc. is called **typography**. As this is an article about layout, not typography, we won't go into too much detail, but you do need to know the basics.

### Font Types and Sizes

Almost all typefaces can be pushed into one of seven categories, which are arranged according to various common features, including the presence or absence of **serifs** (the little lines at the ends of letters), line thickness, and line emphasis and direction.

**Decorative** typefaces are those that have extra little decorative features about them, and are often designed to evoke a particular mood (such as the Wild West or Comic Books). Some of them consist entirely of little abstract symbols, which are called **Dingbats**. Decorative fonts can have their uses as chapter and book titles, but are of little use for body copy or even headings and subheads. Examples include Comic Sans MS, Symbol and Wingdings.

**Old Style serif** typefaces are what you see whenever you pick up a book, a newspaper, or a magazine. It's what you're looking at right now, and it's what you'll probably want to use for your RPG product. These typefaces have been around for a long time, and were designed for ease while reading large amounts of text at one sitting. These have serifs to help visually link letters to one another, with transitions of thickness between parts of a letter, and angles in lowercase letters. The best example is Times New Roman (also called Times Roman, or just Times), and that's the font suggested for newcomers to layout. Everyone uses it, and no one will criticize you for using it too. Other alternatives, if you're feeling adventurous, include Bookman, Garamond, Georgia, and Palatino.

**Modern serif** typefaces are a good contrast with Old Style fonts, but they don't look great as body copy – they're meant for use in headlines and advertisements, with their thin, horizontal serifs and vertical lines. The overall impression one gets is often cold, artificial, and industrial. Examples include Bodoni, Times Bold and Ultra.

**Monospace** typefaces always fall into one of the other categories, based on their structure (those that lack serifs, for example, are sans-serif fonts). Since every character occupies the same amount of horizontal space, these typefaces thus resemble the sort of text you'd see on a typewriter or an old computer terminal, and are generally only useful for 'flavor text' or instances when you're trying to evoke one of those sorts of moods. They are not suitable for body copy. Examples include Andale Mono, Courier, Courier New and Monaco.

**Sans serif** typefaces are so named because they have no serifs. ("Sans" means "without" in French.) They have few thickness transitions, and are generally thought to be more ideal for viewing online. Examples include Arial, Gill Sans, Helvetica and Verdana.

**Script** typefaces are so named because they resemble cursive, or script, handwriting. Examples include Linotype and Zapf Chancery. They make good fonts for graphical touches, but are irritating and difficult to read when overused. You might wish to use one for a piece of "color text" in your product, but *do not* use a script font for your body copy.

**Slab serif** typefaces were designed for use in advertising, as they are easily visible from a distance. Their name comes from the fact that they are slab-like, having no (or very little) transition of thickness within the letters themselves. Like Modern typefaces, their serifs are typically horizontal. Examples include Clarendon and New Century Schoolbook.

## **Mirror, Mirror**

Although there are thousands of fonts available, many look quite similar:

The quick brown fox says this is Arial.  
The quick brown fox says this is Helvetica.

The quick brown fox says this is Book Antiqua.  
The quick brown fox says this is Palatino.

The quick brown fox says this is Times.  
The quick brown fox says this is Times New Roman.

The case of Times is particularly interesting. Times Roman (or just Times) is created by Linotype, used on Macintosh computers. Times New Roman is created by Monotype, used on Microsoft Windows-based computers in a font called Times New Roman PS (PS meaning PostScript). These variations are *completely indistinguishable* to the untrained eye. What this means is that you can use any variation you want. You should, though, get in the habit of only using one – don't mix and match between Times and Times New Roman, or for that matter, Arial and Helvetica, Book Antiqua and Palatino, or any fonts which are nearly indistinguishable. Even if your reader can't really tell, it's sloppy.

## **Making the Call**

One of the most common mistakes new designers make is using too many fonts. No project should contain more than two or three fonts within the main content frame, and even that's not nec-



essary in some cases. When in doubt, use fewer fonts rather than more. Just because you *can* use a different font on every page doesn't mean you should. Your primary goal in font selection is readability, not style. Customers are not going to think your product is better because it has really cool curly headlines, but they may very well reject it if the font you choose makes it harder to read.

**Body copy:** In general, you'll want to stick with the classics, which means an Old Style Serif font like Times New Roman. There's no reason you can't use a Sans Serif font like Verdana, or even another type of Serif, but if you're unsure it's good to fall back on what you know works. Forget about the argument that Serif is better for print, and Sans Serif is better for online – what's more important is your overall presentation and how well the font is spaced out. As detailed earlier, body copy is usually typeset at somewhere between 9 and 11 points, depending on the font. Fonts with a smaller **x-height**, which is simply the height of the font's 'x' character, need to be set in larger point sizes (compare Bookman and Times). If in doubt, use 10-point Times with 12-point leading.

**Things to Avoid:** Don't use Script, Monospace or Slab Serif fonts, or any font with 'Bold' or 'Extra Bold' in the name. Don't make copy larger to fill more pages; better to have fewer pages in a smaller font, then twice as many in 14-point font. People will notice and complain if you do that. And whatever you do, don't get cute – black text on white background, only. No colored text.

**Headings and Subheads:** You'll likely have different levels of Headings and Subheads to work with. The minimum point size you'll want to use for the lowest-level Subhead is 2 to 4 points larger than your body copy, depending on the font. Headings should increase incrementally from there. Your top-level heading should probably be no larger than twice the size of your body copy (i.e., for 10-point text, a 20-point header is a good limit). If you find yourself with more than three layers of subheads, you might consider reorganizing your text; readers might get lost in the many layers and lose context.

If you choose to stick with the same font as the body copy (as newspapers do), you'll need to further distinguish between the body and the headings in some way, such as using a **bold**, *italic*, or

**bold italic** style, or set them off from the text with a **rule**. Another good option is to use a font from a different font category to offer a cleaner contrast. For example, if you're using an Old Style Serif font for your body copy, you could use a Sans Serif or Slab Serif font for your various headings. Whatever you choose, be sure that all your headings and subheads use the same font.

When you're laying out headings, be sure to keep them closer to the content they introduce, with more space before them, giving a clear separation from previous content. You can insert a space by hitting the return key, or adjusting the leading, but the best way to do this consistently is by using the Space Before and Space After settings in your Paragraph template. Also, whenever a subhead falls within the bottom third of your page (or below 'the fold'), consider whether or not you should try to move it up to the top of the next column or page, either by maneuvering artwork or adding space. Extra white space can improve readability and organizational structure.

**Things to Avoid:** Try not to set headings in ALL CAPS, and don't use color. Do not use any drop shadows, outlines or underlines, and don't use any Decorative or Script fonts – save those for elsewhere. Avoid headings that run onto more than one line of text; decrease the font size, or reword the heading instead. Also avoid centering your headings and subheads – it looks amateurish, and conflicts with elements in the header.

**Captions, Tables and Sidebars:** Text below artwork, within tables, charts and diagrams, and in the sidebar should contrast well with your body copy. If you use a Serif font for the body, you should probably use a Sans Serif font for these other items, and vice versa. Such items should also tend to be 2 to 4 points smaller than the body copy. If your body text is set at 10-point, try using 8-point here. How small you can go depends on the font you choose; fonts below 8-point in size can be hard to read.

**Things to Avoid:** Don't use heavy or thick fonts, such as Slab Serif fonts, or any other font that draws too much attention to itself. If your readers are constantly distracted by the heavy black text in the sidebar, they're not going to be reading the body copy closely.

**Flavor Text:** If your project includes lengthy pieces of ‘in-character’ fiction, fake journal or diary entries, mock-ups of computer terminals, etc., then you will want to select fonts for those items that best fit the mood. Script, Decorative and Monospace fonts, which should be used sparingly (if at all) elsewhere, are good choices – since they’re not seen elsewhere, the reader will instantly know that this is something different, and can either pay attention to it or skip past it, if so inclined. Anything goes; just be sure to clearly delineate between Flavor Text and Body Copy.

**Headers and Footers, Titles and Page Numbers:** Any secondary information that will appear on every single page, such as title, author, or a URL, should be small and unobtrusive. It’s already on every page, so that’s enough emphasis. Pick a Sans Serif or Old Style Serif font and set it as small as you can get away with – 6 to 8 point, depending on font. With more vital information, such as chapter titles, you can go simple or ornate. Simple titles can be set using a Slab Serif or Sans Serif font, whereas more ornate titles might use a Script or Decorative font, or something custom-made. Anything goes – just be sure that whatever you choose is readable. You don’t want your reader confused about whether the page is 49 or 94 because your fancy font makes them look the same.

## Stylesheets

Once you’ve got a definite set of font styles picked, write them down and stick to the list throughout. Consistency is everything. Here’s a good place to start if you’re unsure:

**Body Copy:** 10 pt Times Roman

**Subheads:** 14 or 16 pt Times Bold

**Heading:** 20 pt Times Bold

**Captions/Sidebar:** 9 pt Arial

**Header/Footer Text:** 8 pt Arial (for Title and URL)

**Chapter Titles:** 24 pt Impact

**Page Numbers:** 20 pt Impact

Keep in mind that you can’t just go including fonts willy-nilly. Without embedding fonts into a PDF, the fonts you choose will be replaced with

something else on the customer’s end of things if the font you used is not available. (Often, unknown fonts become Courier or another Monospace font.) If you *do* embed the fonts, your PDF will get larger in size (to say nothing of licensing issues, addressed in the chapter 1 of this document).

Once you’ve got them all picked, it’s a *huge benefit* to define those styles in your program’s **Stylesheets**, and then apply those styles to your text when you import it. Doing so will make things more consistent, and will help automate the process of generating a Table of Contents and Index later on. In Microsoft Word, you define Styles under the Format – Styles Menu. InDesign defines them in the Type menu, and in Quark XPress they’re defined in the Stylesheet Menu – in both cases, you can also hit F11.

When you’re applying styles like **bold** and *italic*, try to select from the Fonts menu instead of the Style menu. This is less of an issue if you’re not going to professionally print your product, but it’s a good habit to get into, since true bold and italic are actually redrawn into different shapes, rather than just being slanted or thickened.

## Pour It In

Grab your text file (likely .doc, .txt, or .rtf), and import it into your main text frame, in whatever manner your particular program lets you. Select it all, and set it to the font and size you’ve selected as your body copy font. Then, starting on page one, go through and change headings, subheads, etc. to the appropriate fonts and sizes (preferably using your Stylesheet). Those items you want to appear in sidebars and captions can be cut and pasted into separate text frames, captions stored on the pasteboard for now.

## 7. Tweak your text.

What you should have at this point is a long document filled with text, with all the headings, subheads, captions, etc. set to their proper fonts, as defined in your style sheet. Take a look at what you have, and ask yourself if it’s what you were imagining. Is it a few pages too long? Too short? Do the columns look a little ragged? Now’s the time to tweak the text by adjusting things like **leading**,  **Kerning**, **tracking** and **alignment**.

The reason we want to do our tweaking now, rather than later, is we need to make all our text adjustments before artwork is placed. Artwork should always be relevant to the page on which it's going to appear and if you place art, then adjust your text further, you might find that sentences and entire subsections move onto different pages, making some of your artwork irrelevant to the text it's suddenly near. At that point, it'll become a struggle as you move boxes around, trying to make things line up properly. It's usually much easier to hold off on the art for now, unless you know for certain that you want certain images on specific pages, which is likely if you've done this a few times.

When you're making text adjustments, always keep in mind that every time you reduce space between letters or lines, you eliminate white space, making your page visibly darker, and vice versa. Within a certain range, most of this is imperceptible, but after a point your pages can wind up looking either horribly cramped, or resembling a third grader's essay on his summer vacation, with huge gaps in between words.

## Typeset, Don't Type

If you learned to type on a typewriter, you were probably taught such rules as "double-space after each sentence" and "indent paragraphs with a tab." When we're doing desktop publishing, however, those rules don't apply most of the time.

First, do not double-space after sentences. Use only one space. Instruct your writers to do this, and check all your copy to make sure the extra spaces are not there. If you must, do a search-and-replace on double-spaces and replace them with single spaces. Those extra spaces will throw off each line of text slightly, and give your page an odd appearance. The sole exception to this rule is if you're using Monospace fonts anywhere; these are meant to resemble typewriter text, so you should double-space accordingly.

Second, there's generally no reason to use a full standard tab (which is usually 3 picas, or one-half inch) in your document. One or two picas are probably plenty. It's also a good idea to avoid using tabs altogether if you can. Layout programs allow you to set the initial indent of paragraphs automatically, which is much more exact. Never use the spacebar to indent, and in general, avoid

indenting the first paragraph of a section. Indents are a visual clue to identify new paragraphs, and your Heading or Subhead is enough of an indicator. In places where there is no Heading, you might wish to use a **Drop Cap** instead, which is when the initial letter of the sentence occupies more than one line (often 3). Obviously, you should never indent *and* use a Drop Cap at the same time.

Third, avoid using the tab and space bar to format lists and tables. As your font size shifts about, these items will tend to get knocked out of alignment. Instead, select the section of text you wish to align and use tab stops to set custom tabs (aligned left, right, center or on decimal points). Be consistent with lists: use numbers for sequences, and bullets for unordered lists. Be sure to use the same size and shape bullets consistently.

Also avoid underlining or CAPITALIZING words and phrases to indicate emphasis or importance. Instead, use **bold** or *italic* to present a more professional look.

Finally, be consistent in your use of punctuation and capitalization, as these things will affect the appearance of your layout. It's generally encouraged that you use 'smart quotes' and apostrophes, and substitute **en-dashes** or **em-dashes** ( – ) instead of double-hyphens ( — ), but as long as you're consistent you can usually get away with anything.

## Spacing and Alignment

After you've done a "raw pour" of text, and made font and size adjustments, you may wish to consider changing your text alignment, or **justification**. By default, your text is all **left-justified**, which means that the left side of each column lines up, while the right side is left ragged. There's nothing particularly wrong with this – some newspapers and magazines do it – but for a cleaner look, you might want to go with **fully-justified** text, which aligns the text on both margins evenly by adding small bits of white space in between the words. The exceptions are the last sentence, which is usually not long enough, and the first sentence, if it's indented.

Smaller columns (as in a three- or four-column layout) are often best kept left-aligned, as full justification can add in too many spaces and make lines look quite odd. If you wish to fully justify



smaller columns, consider decreasing the font size of the body copy. Another option is to enable word hyphenation, which allows the layout software to split words at appropriate points in order to prevent gaps in sentences. Just be careful that you don't end up with a row of hyphens; two or three in a row on the right edge of a column looks odd, and draws the eye away from the text.

Two other alignment options are **right-justified** text, in which the right margin is aligned and the left is ragged, and **centered** text, in which the text is aligned with the middle of the column or page, and both sides are ragged. You should never right-align body copy, reserving its use for captions, sidebars, header/footer elements and possibly headers and subheads. Avoid centering anything not in a header or footer.

## Tracking Widows and Orphans

In general, as has been said before, you should leave settings such as **leading** (the space between lines), **tracking** (the space between words) and  **Kerning** (the space between letters) at their default, automatically adjusted, values. On occasion, however, you may need to make some fine adjustments to your text, in which case it's OK to adjust these values. In general, do your best to adjust as little as possible, in single point or decimal increments, and try to adjust consistently across your entire document.

One reason to adjust **tracking** is to remove **widows and orphans**. Orphan is fancy layout-speak for single words and lines of text at the top of a column, whereas a **widow** is a word, heading or sentence left alone at the bottom of a column. Decreasing the tracking of a paragraph with an orphan can often pop that word back where it belongs, but if you find yourself adjusting the tracking by more than a very small amount, it's better to edit the paragraph by removing a few words. English is a great language with many different ways of saying the same thing, so adjust text instead of manipulating white space when you can.

Increasing tracking to try to eliminate a widow is almost always a bad idea. Try moving artwork around, or simply hitting the return key to pop the widow to the top of the next column. A little extra white space at the bottom of a column never hurt anyone.

## 8. Place graphic elements.

Despite the fact that it will probably eat up most of your budget, artwork is secondary only to text. Unless you're designing a comic book or graphic novel, you'll average one quarter-page image for every four pages of text, which means 94% of your product is made up of words and the occasional chart or table (treated hereafter as a graphic element). Graphics, then, should enhance and expand upon the ideas presented in the text portions of your PDF, and should never overpower or overwhelm your body copy. This is one of the reasons I encourage you to import and polish your text first.

The second reason is one of relevance – art shouldn't be scattered about throughout the text like confetti. Artwork can always be seen as a rectangle of one sort or another (even if that rectangle is a square). Circular or oblong art still fits inside a rectangular frame to begin with, and when you place art on the page you should look at it in that way, as rectangles inside rectangles. Each of those rectangles should be placed with care, distributed as evenly as possible, and located beside relevant text. Unless you know where your text will fall in the product, you can't know where to put your text.

## Shades of Gray

Some graphics, such as rectangular-framed artwork, tables and charts, will benefit from a **border** of some sort, which emphasizes the rectangular shape and helps anchor a portion of the page. Experiment with different border thicknesses, but try to be consistent with those elements where you use it. If you choose a 2-point-thickness frame for several images, try to use it on all your framed images. Be sure to differentiate clearly between the weight of such frames and your page border, if you have one. They should be of different thicknesses, to allow the reader's eye to more clearly glide across the page. You can also experiment with using artwork for boxes, or rounding the corners, or using dashed lines. Be consistent, and you'll probably be fine.

The overall "grayness" of the artwork will have a significant impact on where you choose to place

it. Darker images with thicker lines will probably “feel heavier,” and you’ll often want to drop them towards the bottom of the page. Large areas of darkness in an image will give you an indication of which direction you may wish to place it. For example, if you have a square image that depicts a moonlit sky, and the bottom left corner of the image is a pool of blackness, then a good spot for that image, if it’s textually relevant, might be the bottom left corner of your page. This isn’t a fixed rule – there are always exceptions – but it’s a good guideline to follow.

Although they contain text, **sidebars** can also be seen as a graphic element in this regard. To set them off from the body, they are generally surrounded by a border, and will likely have a gray background (no more than 25-30%). Their frames should generally share the weight of any other framed artwork. The same goes for any other text boxes on your page, such as examples of game play, lists of definitions, etc.

You can even use graphics such as borders to surround portions of your text, more clearly dividing distinct ideas. Just remember that whenever you draw a box around something, the reader assumes that everything inside the box is somehow related, even if you didn’t intend that. Don’t group unrelated items. Things that are close to one another have an implied relationship in the eye of the reader. Know when to use that, and when to avoid the implication.

## Between The Lines

Lines, invisible and otherwise, can help shape the placement of artwork on the page. Obviously, if you have a page border, sidebar, or rules in the header and footer, those lines help constrict the placement of art within their boundaries.

Additional rules can be placed on the page to help further delineate between elements in a less obvious manner than square borders. These are most effective when they’re smaller – huge, thick lines provide more distraction than distinction, and should be restricted (if they’re used at all) to the header and footer of your page. Instead stick with a rule no more than 2 points, and no less than .25 point. Anything smaller will be nearly imperceptible and won’t print well. Feel free to experiment with dotted and dashed rules, but be consistent in

their use throughout the entire document, and don’t get carried away. You don’t need rules to separate every section and subsection – headings and subheadings do that for you – and putting rules between columns of text is also a mistake, as white space does a far better job of separating words in that fashion.

Keep in mind the invisible lines of your page. If an edge of a graphic comes close to a gridline, a border, or the start of a line of text, push it so it directly lines up. When designing with the online reader in mind, be aware of that invisible line 75% of the way down your page called ‘the fold.’ The bottom of the page is a good place to put graphics, since it keeps the bulk of your product – the text – above the fold, while allowing your readers to see the graphics if they desire.

## Breaking Out

Once you feel confident with placing graphics inside frames and lines, a very effective design trick is to intentionally break out of those lines. A hero’s sword-arm thrusting out from within the borders of his frame can add a burst of energy to a fairly standard layout, and a borderless image which is clipped and placed in the center of a two-column-layout can give the text a jolt of excitement, as the words and art seem to interact on the page.

The latter technique – known as **text wrapping** – is the most oft-used variation of this philosophy, and thus it’s also the most often abused. When you’re going to wrap text around an object, you must always be aware of the effect the image is having. Wrapping by itself makes text harder to read, but bad wrapping makes text *really hard* to read.

Art placed along the side of a page forces the text abutting the image to come out of alignment as it wraps. If the text is fully justified, it also causes a problem with kerning, as the layout program automatically adjusts white space to make the words fit properly. Furthermore, the automatic “edge discovery” that happens when you make a clipping path can sometimes push words into odd white spaces within the artwork; imagine a picture of an axe-wielding barbarian, with words stuck between the warrior and his axe blade, cut off from the rest of the text.

To avoid such problems, try wrapping on the right-hand side of columns when possible, where the text is likely to produce better results as it wraps and kerns, leaving the left side aligned properly. If you must wrap on the left-hand side, adjust the clipping path to produce angular shapes for the text to wrap around, rather than jagged lines. Never wrap within a single column, as it splits sentences on either side of the image and makes them impossible to follow. If you must wrap between columns, do so carefully and only occasionally. Overuse is a sure way to get bad results.

## Image Type and Size

Although this is an article about layout, and not illustration or graphic design, it's worth spending a few words to discuss what sort of art you should be using in your layout.

In general, you should be using black and white line art for the interior pages of your PDF, reserving color for the front cover and any special full-page images such as maps or "flavor pieces." It's tempting to go all out and fill your document with full-color art. Not only is that expensive for you, it can be expensive for your reader, who's got to spend extra time downloading and extra ink printing. Charts, tables and sidebars should follow the same rule, and be done in either black and white or shades of gray (generally no more than 25 or 30%).

You should generally be using either **TIFF** or **EPS** images for your document, which are **non-lossy**. This means that they don't discard information to compress the image, like JPGs do, and as such are larger and of higher quality. Logos and other vector-based pieces of art (such as some charts and tables), created in programs like Adobe Illustrator, should definitely be saved as EPS files, since they compress much more than TIFFs do and make your PDF smaller. If all you have to work with are JPGs, BMPs or GIFs, you can probably get away with using them as long as they're smaller and are of fairly high resolution.

Every extra bit of information included in an image makes your PDF document a little bigger, so it's a constant battle between PDF size and quality. Some designers will produce two copies of a PDF: one optimized for printing, with 300 DPI images, and the other optimized for screen use, with 72

DPI images. The hidden advantage seems to be that those who want to view the file on screen can just get the lower resolution file, but since most people ultimately want to print, providing two copies of the same PDF actually increases their download time, because they have to grab both copies and then store both on their hard drives. Bandwidth used to be much more of an issue, but with more and more people using broadband, it's a much safer prospect than ever before to just go ahead and use 300 DPI images if you're that concerned about quality.

However, there are alternatives. The general consensus among PDF designers seems to be that while 300 DPI provides optimal quality for printing at home, for most purposes 150-200 DPI is an acceptable tradeoff. This can be achieved either by saving 300 DPI images and then allowing Adobe Acrobat (or Ghostscript) to compress down to the desired resolution, or simply saving a lower-resolution copy and placing that in the file. Color images seem to fare better at lower resolutions in many cases than do black and white images, which can get a little fuzzy when you print. Smaller images will work better at the lower end of the scale (150 DPI), with larger images generally requiring more resolution to reproduce accurately in print. When in doubt, try it out and weigh file size against quality. Every project will have different requirements.

## Final Words

Once you've imported and placed all your graphics, drag any captions that you have off on the side and place them below the appropriate images. Be sure, if you do use captions, that you keep them close to the images they describe, and that you're consistent in their placement and use. After that, be sure to go back and check the flow of your body copy again. Placement of artwork will probably have knocked some of the text out of alignment, creating widows and orphans, thus requiring readjustment.

## 9. Add the finishing touches.

Once all your content is settled, you need to add in the other bits that need to be there "just in case,"



even if most readers will just ignore them 99% of the time. Though these are technically numbered pages, you can usually leave off page numbers and don't need to include them in your Table of Contents or Index. Some or all of these may be optional, depending on your particular circumstances; if the content of your PDF is only 10 pages long, including 10 pages of other non-content material will bulk up your document needlessly and only serve to irritate your reader. Let logic dictate.

**Credits/Copyright Page:** You want everyone to know who did the work, right? Avoid the temptation to center all the text on this page. Make it clean, legible, and left-aligned, using two columns to clearly lay out who did what, and, if appropriate, on what page(s) their work appears. If you are claiming any trademarks (on the title of the book or names of characters, for example), say so on this page, at the bottom, in small text. If anyone else holds copyright to material included within, say so. For anything that's your work, all you really need to include is "Copyright © 2004 John Doe." In general you don't need to worry about "All Rights Reserved" or anything like that, though if you're unsure about the specifics of your particular situation, based on what country you're in, etc., consult a lawyer.

**Preface/Introduction:** If you're writing a longer work and you want to say something to your audience, do it here. Obviously this goes at the front. Don't write an introduction just to say hello; use this only if you really have something important to say.

**Appendix/References/Bibliography:** If you've quoted other sources or used references to printed or online material within your product, it's a good idea to back up your data by providing a list of references for your readers to check out. Most people don't want or need this information so you can generally leave this out. It's just something to consider. It should always go near the back of your book, and is often found just after the last content page and before any other 'End Matter.'

**Glossary:** A list of words within your text that need definition or clarification. This includes concepts specific to your game system or setting. If you're doing a product designed for a broader gaming audience that may include new gamers, it might include terms such as **roleplaying** and the like.

Some glossaries include page references and information on pronunciation. Generally put it at the back, before the index, and obviously list everything alphabetically.

**Acknowledgements:** Thank Mom, Dad and the next-door neighbor, but put it at the back of the book, just before the Index. Those who want to read it will be able to.

**Legal/License Texts:** If you're licensing a system or using content under a license, such as the Open Gaming License (OGL), there will be specific requirements as to how you must present the license within the text. Generally this is in a fairly small font, at the back of the book.

## 10. Generate a Table of Contents and/or Index.

Only after all your text and artwork is settled can you truly begin work on your Table of Contents and/or Index. These are essential tools that allow your readers to easily locate information when they revisit your document. The more detailed your Table of Contents is, the less detailed your Index needs to be, and vice-versa. There's no need to repeat information. You don't need both, but you should strongly consider at least one.

A **Table of Contents** gives readers a sequential overview of your entire product, allowing them to scan a summary to see what your PDF covers and where information appears in relation to other sections. It also allows users of your product to more easily locate information that's relevant to a particular situation. It is of particular help if a reader wishes to locate a specific illustration or chart, since these are not easily referenced in an Index. It is generally located at the front of the book, before any other page (save, perhaps, a credits page).

The **Index** organizes information alphabetically, and is more useful to those looking for specific information, allowing them to find an exact page for an entry, as opposed to a chapter, heading or subheading reference, as is the case with a Table of Contents. It is generally located at the back of the book, preferably on the very last pages.

There are two ways to build a Table of Contents into a PDF – the standard way, occupying a page at the beginning of your document, and the digital way, inside the PDF.

Since your reader will probably want to print your document at some point, you should at least include a traditional Table of Contents. This can only be done properly once the rest of the book is completely designed and paginated, since specific page references are required. Simply go through your book, from the first page to the last, and copy all the Chapter Titles, Headings and possibly Subheads, organized in order of the page number on which they appear. If a section spans several pages, you can opt to list only the first page, or the first and last pages. Use tab markers to properly align them into an easy-to-read guide to your entire product:

<b>Chapter 1: Introduction .....</b>	<b>1</b>
Heading 1 .....	3
Subhead 1 .....	5

If you've used Paragraph styles in your document, as recommended, then creating a Table of Contents and/or Index may be somewhat easier, since many applications will automate the process to a point. In Microsoft Word, this is done under the Insert – Index and Tables menu. In Quark, there is an Index tab that lets you define styles and generate an index (View – Show Index) and a Lists tab to help build a Table of Contents (View – Show Lists). For InDesign, you use Layout – Table of Contents and Layout – Table of Contents Styles for both; to make an index you basically make an alphabetical Table of Contents.

When generating a Table of Contents, it's fairly standard to use a **leader** or **fill character** such as a period ('.') to fill in the white space between title and page number. InDesign's Tabs menu calls it a Leader. In Word, it's under Insert – Index and Tables or in Format – Tabs and it's called a Tab Leader. In Quark, it appears in the Tabs dialog box (Style – Tabs) as "Fill character."

Automating the build of an Index is a bit harder, since specific words and references won't necessarily be set in specific styles. If you've gone through your text and **boldfaced** key words, you can have your automated Index builder pull those words based on that style. Microsoft Word also lets you 'tag' key words that can then be used to build an index, but (speaking from experience) it doesn't always work as expected.

Adobe Acrobat also includes several tools that will help you build navigational tools to assist readers using the document on-screen, allowing them to locate information using small thumbnail images of pages, an index of key words, or by clicking on hyperlinked text within the page itself. These tools are quite useful, but they fall outside the boundaries of page layout design, and are not helpful to a reader who prints out your document, and so will not be discussed here. Be aware of them, and use them as appropriate, but don't be dependent on them.

Some sites worth checking out:

[writing.colostate.edu/references/documents/desktop\\_publishing/index.cfm](http://writing.colostate.edu/references/documents/desktop_publishing/index.cfm)

A basic guide to desktop publishing and layout. A bit out-of-date (doesn't mention InDesign, does mention PageMaker) but still a good basic overview.

[www.tamari.com/dtp/dtp.html](http://www.tamari.com/dtp/dtp.html)

Another good basic guide, though incomplete, with an emphasis on typography.

[desktoppub.about.com/cs/pagelayout/qt/](http://desktoppub.about.com/cs/pagelayout/qt/)

A list of various tips and hints for good layout, including the "rule of thirds" and information on visual focus.

[www.geocities.com/rgfdfaq/tsrfonts.html](http://www.geocities.com/rgfdfaq/tsrfonts.html)

Ever wondered what font your favorite RPG product used? Wonder no more.

[www.typography-1st.com/typo/typterm.shtml](http://www.typography-1st.com/typo/typterm.shtml)

A glossary of basic typographic terminology.

[www.eyewire.com/magazine/columns/robin/](http://www.eyewire.com/magazine/columns/robin/)

Column by Robin Williams (the designer, not the actor) about typography, offering helpful tips on layout and design.

# Sample Layouts and Analysis

In each of the following pairs of layout examples, the first image illustrates a layout with some troublesome elements, and the second sample illustrates a better option. The dotted line indicates the imaginary fold if we were viewing onscreen.

**One-Column** layouts, where the text flows from the left margin to the right margin, are mostly reserved for narrative portions of text, such as flavor fiction, chapter introductions and stories. They're the best way to let a reader sink into the material a bit deeper, taking more time to absorb what's being said. Because of this, the text is usually a bit larger – between 12-16 points of font size, depending on what font you use and your margins. Don't go too big unless the font warrants it; no one wants to see 22-point text in your PDF, even if it fits. A good option is the 12-point size in which this document is laid out, which means we fit about 15-16 words, and about 80 characters on a line.

One of the keys to effective use of this layout is placement of artwork. If you're writing a story, you don't want to break it up awkwardly with graphics just splashed willy-nilly in the center of the text, disrupting the reader. Keep graphics off to one side – generally upper right or lower left, or else faded back as a background image.

One of the advantages to this sort of layout is that since everything's in one column, we don't get the column-bounce with a Portrait-aligned layout. Your reader only has to scroll down once.

**NOTE:** The examples with a red border – on this and following pages – are the bad examples that should be avoided.

## Bad 1-Column Layout

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## Better 1-Column Layout

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## One-Column Landscape Layouts Almost Never Work Well

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## Better One-Column Landscape Layout

This Works Better Because It's In Bite-Sized Chunks

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**Better 1.5-Column Layout**

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acil diti lo tiam ip enno ad  
diti bla facit delit et do dianet  
accum quatit diti dolene tenam  
dore foritit nri inella diqat.

Ut lan venis ex fengait aliqat en  
faciem do dolore facit ut volere  
to conueniam dignat zant.

**One-and-a-Half-Column** layouts are those where the bulk of the body copy on a page is in one column that occupies roughly 2/3 of the page, and associated material is relegated to a **sidebar**. Such layouts are not uncommon; you'll find them in R. Talsorian's *Cyberpunk 2.0.2.0*, and many of Steve Jackson Games' *G.U.R.P.S.* products. First, split your page into thirds by creating three columns, and then mark off the right-hand column as a sidebar, before turning the remainder of the text into one column again. Font size for the main copy section tends to be a bit larger than two-column layouts – typically 11 or 12 point – while the sidebar copy, depending on how much information is contained therein, is either a few points smaller or larger.

If you're designing a layout for a printed book, which will have left and right facing pages, then putting sidebars on the left of the page for every left-hand page makes a good deal of design sense. However, for a PDF document that'll be printed out without facing pages, the left-hand sidebar is a bad idea. The reader's eye wants to begin at the top left of the page, and the sidebar there is a distraction. Sidebars indicate additional or supplemental material, and should be read after the main body copy.

Placement of images in a layout like this is delicate. You don't want to cram your text into too narrow of a space next to the sidebar if you can avoid it. A good place to put images is at the bottom or over the 'fold'. For onscreen viewing, the readers get all the information they need on one screen, without scrolling, and when they print they'll see the artwork as well. Of course, there are ways to place art in such a layout. Be creative, and see what others have done for ideas.

**Two-Column** layouts are what you'll see most often in RPG products, because they're an effective use of space and easy to design. The most notable example is Wizards of the Coast's *D&D3e Player's Handbook*, which uses a 2-column layout for most of the book's content. With a two-column layout, a font size between 10 and 12 might work, depending on the font. (10.5 is a favorite of many designers).

**Bad 2-Column Landscape Layout**

The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog.

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accum quatit diti dolene tenam  
dore foritit nri inella diqat.

Ut lan venis ex fengait aliqat en  
faciem do dolore facit ut volere  
to conueniam dignat zant.

**Better 2-Column Landscape Layout**

The quick brown fox jumped over the lazy dog. The quick brown fox jumped over the lazy dog.

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**Lor sent lan  
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accum quatit diti dolene tenam  
dore foritit nri inella diqat.

Ut lan venis ex fengait aliqat en  
faciem do dolore facit ut volere  
to conueniam dignat zant.









## Summary:

### ● 1. Know your limits.

- Know how large your project will be. A 10-point font will let you fit about 1,000 words on a page. Also consider artwork, as well as pages for your Index, Table of Contents, etc.
- If you're printing your project, try to stick to page counts that are evenly divisible by 4.

### ● 2. Decide on a size and desired format.

- If you're unsure, stick with Letter or A4 paper in Portrait alignment.
- Try to measure in points and picas instead of inches. Never measure in pixels.

### ● 3. Sketch out a design on paper.

- Think about what you want before you even get near a computer.
- Be aware of 'the fold' about 75% down the page, which can hide text viewed online.

### ● 4. Establish a template.

- Use Master Pages provided to save time and ensure consistency.
- If you're unsure, set your margins to .75" at top and bottom, and 1" on the sides.
- Establish a baseline grid with columns and grid lines, based on document leading.
- Consider how many columns you'll use; if you're not sure, stick with a 2-column layout.
- Columns should fit one-and-a-half to two-and-a-half alphabets on each line.

### ● 5. Set up headers, footers and common elements.

- Try placing chapter titles in the header and page numbers in the footer.
- Use artwork in your margins creatively but sparingly. Avoid color and ornate designs. Avoid putting information in the left hand margin, which is used to bind documents.
- Avoid using large background images, and don't use full bleed images.

### ● 6. Choose a font and place text elements.

- For body copy, start with 10-point Times New Roman with 12-point leading.

- Headings should contrast with body copy. Use a Sans Serif font like Arial, or a bold Serif font such as Times Bold. Set your smallest heading at 4 points larger than the body, and keep your top level heading around twice the body copy size (i.e., around 20-point).

- Use Sans Serif fonts for captions, tables, page numbers and other non-body-copy text.
- Use decorative text sparingly but appropriately.
- Be sure to set all your font choices in your application's Stylesheets to save time.

### ● 7. Tweak your text.

- Don't type as if you were on a typewriter; avoid double-spaces and tabbed indents.
- Use left-justified or fully-justified text for your body copy. Avoid using centered text.
- Adjust leading, tracking and kerning as little as possible.

### ● 8. Place graphic elements.

- Place the graphics after the text to ensure that art lies near relevant text.
- Shoot for one image for every 4 pages, on average.
- Allow 'heavier' artwork to sink to the bottom of the page.
- Line up artwork with textual elements when possible, but know when to 'break out.'
- Use TIFF or EPS images at 300 DPI where possible; downsizing to 150-200 DPI will help decrease file size with a (usually) acceptable loss of quality.

### ● 9. Add the finishing touches.

- Add Credits, Copyright, Preface, Introduction, Appendix, References, etc. in relevant places. Only add those things you must have; some readers ignore this content.

### ● 10. Generate a Table of Contents and/or Index.

- Use your application's built-in functionality to generate a Table of Contents and/or Index. Use at least one of these organizational tools to help your reader.

## Chapter 6

# Functions & Tricks

This chapter is about shaving bytes, making things look a little better or easier to use, and other look-and-feel issues that can make your PDF stand out from the rest. *All of the program-specific notes in this chapter refer to the Adobe Acrobat Distiller or Editor. Other programs may lack some of the features mentioned, or have different implementations of them.*

## Bit shaving

File size is not your biggest concern. High bandwidth connections mean that people can download even the largest PDFs in minutes, and cheap mass storage means there is no problem fitting it onto a hard disk.

However, not everyone has a cable, DSL or other high-speed connection. Some may be using an older computer and actually have to be concerned about mere 50MB chunks of disk space. Imagine downloading a 20MB file with a 56kb modem.

Anything you can do to minimize the size of your PDF without sacrificing quality is probably worth doing, just as a matter of principle.

## Use Acrobat Distiller

Applications which can output PDF files without using Acrobat Distiller can sometimes generate very inefficient PDFs. If you are using a non-Distiller means of generating PDFs and can't seem to get your file sizes down, this could be the reason. Distiller lets you customize most features you will need for first level optimizing, like image compression, font embedding and subsetting.

**Note!** *If you're using an older version of the Distiller, make sure it isn't version 4.0. There were some bugs in that version that prevented it from correctly compressing JPEG files, so images bloated file sizes beyond reasonable levels. This was fixed in the version 4.05 update.*

## Repetitive images

The Acrobat Distiller software is smart enough to know when you submit a PostScript file that includes repetitive images, like a graphic border that appears on every page. When it makes a PDF, it does not include a separate image for each page. *Usually*. I say usually, because this has been *my* experience with *my* software. Your mileage may vary.

The simple way to test this is to make a ten-page document that has nothing in it but your repeating graphic element. *Nothing else*. No text, no page numbers, nothing. Make this document into a PDF, and be sure it is optimized. Write down the file size. Then delete pages 2 through 10, save it again (optimized), and check the file size. If your combination of page layout and PDF creation software is 'smart', the two numbers should be pretty close, since each page is a complete blank except for the repeating element.

For purposes of writing this chapter, I did this three times with Quark XPress, using an EPS (Encapsulated PostScript) graphic, a WMF (Windows MetaFile) graphic and a JPEG file as my repeating graphic element. The deviation between the one-page document and the ten-page document in each case was less than one percent.

There is one little bugaboo you may want to watch out for. If you remove a page with a repeating graphic element, and replace it with a page that also has that element, your software may not catch on that the two graphics are the same, and might store it twice.

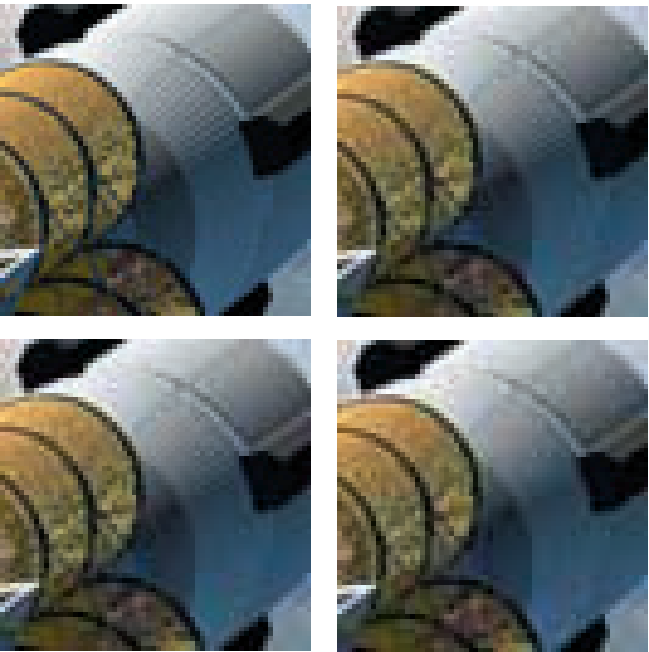
For instance, say you're about done editing and hyperlinking your PDF, and you see page 48 has a typo. You go back to your page layout software, correct it, make a PDF of that one page and substitute it in for page 48 in the main PDF. There is a chance that every time you do this, you're doubling up on the graphic element. Normally, this won't be a big deal compared to the overall file size, but if you do it a lot, it can be a several-percent overhead.

While the final file size for storage and download purposes is becoming less and less of a problem, it is still not an excuse to be sloppy.

Image optimization

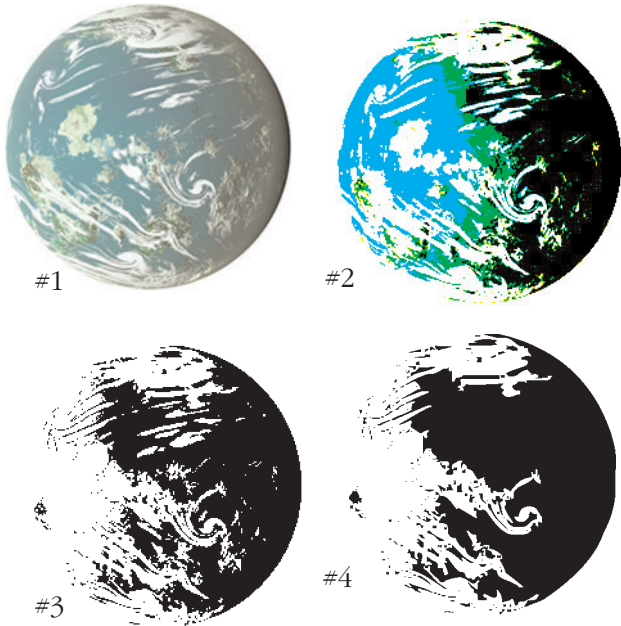
When you create an image, it makes sense to save it in your graphic program the way you want it to be viewed, and set the Acrobat Distiller to *not* resample or recompress the images in a different way. Or, you can do it the other way around. Put everything in your layout file at the *maximum possible* quality and resolution, and let Acrobat Distiller uniformly downsample and compress the files according to the parameters you've set for color, grayscale and monochrome images.

For instance, we're going to start with an enlarged sample of a tiff file (no image loss in compression). You can see the pixelation because the extreme enlargement. If you take this picture and save it as a medium-loss JPEG, you get the second picture. If you save the original as a high-loss JPEG, you get the third picture, but if you save the second picture as a high-loss JPEG, you get the fourth picture.



It's not extreme, but if you look closely you *can* see the differences. That is, JPEG-saving a JPEG (like having Distiller alter the JPEG compression of a JPEG original) is inferior to simply saving it in the final form.

Different types of image optimize best in different ways. Take the following four images:



These are all the same image, just with different levels of color. The first has a lot of subtle gradations of color, the second only has four colors and they generally cover large contiguous areas, the third is a 600dpi bitmap, and the last is the third image converted over to a vector graphic format. The format in which these files are saved (and distilled) does make a difference. In order of file size (1 being the smallest), each file type saved the images as below:

	JPEG	TIFF	EPS
Image 1	1	2	3
Image 2	2	1	3
Image 3	2	1	3
Image 4	3	1	2

So, if file size is a concern, and you have a repetitive graphic element that has large blocks of a solid color, JPEG might not be your best file type. A TIFF might give you a smaller file size, and has the advantage of being a lossless form of compression, which would give a better-looking final image. For size purposes, Zip encoding will be the same as TIFF for the types of images for which it is best.

While EPS is the loser across the board, remember that if a PDF contains an EPS or other vector image (like WMF), it may possible to print it off at a better resolution. A 150dpi JPEG or TIFF is *always* going to be 150dpi, while an EPS or WMF file could print at 1200dpi on a 1200dpi laser printer.



Like everything else in this book, your mileage may vary. Try things out a couple different ways and see which result you like best.

## Font subsets

You want your PDF to display the way you meant it to, on any device capable of displaying it. While it is very likely that an end user will have certain fonts like Arial or Times, or near-exact substitutions of them, you never know. It's probably worth it to you to include or embed all the fonts you use rather than hoping the end user has the right ones.

Regardless of what you choose to embed, Acrobat Distiller (or at least some versions of it) will never embed the following fonts:

Courier  
Courier-Bold  
Courier-Oblique  
Courier-BoldOblique  
Helvetica  
Helvetica-Bold  
Helvetica-Oblique  
Helvetica-BoldOblique  
Symbol  
Times-Roman  
Times-Bold  
Times-Italic  
Times-BoldItalic  
ZapfDingbats

The Acrobat Reader has the encoding to make sure these fonts display correctly on *any* machine running it.

If you use a lot of fonts in a document, you can save some space by embedding only a subset of the font. That is, the PDF only includes the letters or symbols in the font that are actually used. So, if you have text in FF Meta, but you never use Z, q and &, it leaves those out of the PDF. You save the most with subsets if you have a font from which you only use a few symbols in the entire document. So, if you really needed a ✕ somewhere, you don't need to include the entire *ExocetHeavy* font to get it to show up, just the ✕.

## Use the software

If you have Adobe Acrobat Professional 6.0, go to Advanced > PDF Optimizer > Audit Space Usage. The resulting window will tell you exactly where the memory space of the document is going, both in absolute and percentage terms. This software can also unembed fonts, change image compression options and generally let you tweak the file until it has the size and image quality you want.

There are also add-ons and discrete software packages available for pre-press and pre-PDF use that will monitor image types, postscript errors, font conflicts and a host of other occasional bugaboos. This will be entirely dependent on the page-layout software and PDF-creating software you use, and your budget. There are some nice shareware packages out there if you look for them.

## Printing vs. publishing

There should be a big difference between a PDF you intend for downloading and one you are setting up for print on demand. This difference is almost always going to involve image quality. If you are sending something to a printer, you want your printer to have the very highest quality file possible. This is one reason we suggested your source file always be the best quality, and you use your PDF distiller to adjust it as needed. If you have a reasonably thick role-playing game with a fair number of illustrations, a PDF for the print-on-demand outfit could easily run a few hundred megabytes. If you remember the table from the Planning chapter, a full page of 600dpi color art with zero-loss compression can run you 40 megabytes or more. A quarter-page 1200dpi piece of line art could be 3 megabytes without any problem. A print-on-demand outfit may be able to do your work at up to 2400 dpi, depending on the machine used, and while the human eye might not be able to see the difference in text crispness and line art, it will show up as an extra level of smoothness in grayscale and color illustrations.

If the higher dpi isn't noticeable, you need to find out why. You may have to alter your print driver settings. It is possible that no matter how large your output file, you may have set your lines of halftone screening at a lower level and the output device obliges you. Or, it could be a problem

with the printer doing the job, and the company has to adjust its settings. Keep an eye on these things. The print-on-demand outfit doesn't have to worry about selling the game. They get *their* money when you get your product. Yes, they probably want your business again, but they might not be bending over backwards to get it.

## Goodies

These are things that will add size to a PDF, negating all those hard-won gains you got from following all the other tips. On the other hand, you can look at all those bit shaving measures as a way to include some goodies without bulking the file up even more.

## PageOpen effects

You can embed code that will do simple animation style actions when a page is opened in the PDF. Transitions can be set by the user on the Preferences>Full Screen menu, but these cannot be set by the creator of the PDF. To do this, you have to embed code in the document to make it happen. This is usually done as PostScript code or EPS files or the PDFMark programming language. For instance:

```
% The following line ensures PDFmark is used only when
% the PostScript file is processed by Acrobat Distiller.
% Printing to a printer will have no effect.
systemdict /PDFmark known not {userdict /PDFmark systemdict /cleartomark get put } if

%this is the transition, glitter at 270 degrees.
[/{ThisPage} << /Trans << /S /Glitter /Di 270 >> >> /PUT PDFmark
```

If this code were an invisible bit of PostScript on a page, when distilled, each time this page came up on the screen, you should get a 270° glitter transition instead of just having the new page pop up on the screen.

Transitions don't take up much space, but they *will* visibly slow the page display of a PDF on a slower computer.

If you're really hard up for things to fill your time, page open effects can trigger movies or animations or just about anything you can program in Java, so if you want orcs to have a running battle across the footer of every page when viewed on screen, you can probably find a way to pull it off.

**Web search: PDFmark**  
**Web sites:**  
[www.planetPDF.com](http://www.planetPDF.com)

## Thumbnails

Unlike repetitive images such as in headers or footers, thumbnails are unique to each page, and can add several hundred kilobytes to your PDF, depending on its page count. If space is at a premium, don't use them. Similarly, if you can't tell one page from another in thumbnail mode, why bother? Thumbnails work best if you have some fairly distinctive pages in your document, like a particular page style every time there is a major subject change, or a distinctive chapter break style. Thumbnails can be added or deleted at will in Acrobat Editor, so experiment and go with what works best for you. Note: If you insert or replace pages in a PDF, the quality of the thumbnail for that page may change, and you may have to Delete All Thumbnails and then Create Thumbnails to regain a unified appearance for them.

## Bookmarks

Bookmarks take a lot less space than thumbnails, and are generally more useful. A good set of bookmarks is something between a table of contents and an index, which users can click on to zoom right to the page they are looking for. Bookmarks can be hierarchically arranged. I usually have a major bookmark for the start of each chapter, and then indent for major topics and subtopics.

## Hyperlinks

I personally think that any time you reference another section of your rules, you should have a link to that section to let readers zoom right there. Make the link a different color of text, a special link icon, or something to make it obvious. Speaking of zoom, make sure your hyperlinks are set so that they display the new page at a reasonable magnification. If every bookmark zooms out to ‘fit to page’, someone viewing your 10 point text on a 15 inch monitor is going to get annoyed fairly fast. If you use the magnification the Acrobat Reader is *currently* set at, it means your link will display the new page at no change. Just make sure the view comes up at the right spot on the destination page. It wouldn’t do to have a link to the lower left of a page when the topic of the hyperlink is at the upper right.

If you have a table of contents and/or index in your document, hyperlink them. It’s painfully tedious, but it’s a nice touch.

**Quick tip:** If using the Link tool in Acrobat Editor, hold down the “option” key when you click on a word and it will generate a perfectly sized link box around that word. No tedious click-drag to get a link around a particular keyword.

## Sounds

The simplest kind of multimedia to add. The “Notes” tool has several options. One of them lets you add a sound file as a ‘sticky note’ to the document. You can add commentary in your own voice, sound effects or any audio information that doesn’t mess with someone else’s copyrights. See the Techknology Test PDF for an example of sound in action.

## Layering

PDFs of specification 1.5 and above (not Acrobat version, but PDF version) can use layers, to toggle the visibility of information, so you could have a dungeon map with a GM version and a player version on the same page, and with a simple button click, you could print one or the other as needed. *Neat.* However, if your user doesn’t have the latest version of the Acrobat Reader software, she might not be able to use this functionality, and would only see the default layer setting. *Not so good.* It’s something to keep in mind.

A lower tech way to do this for older versions of Acrobat is to set up your graphics as ‘buttons’, and you toggle the visibility by clicking them. See the Techknology Test PDF for an example of this feature in action.

When you click on one button, one image should appear, and when you click on another button, the other should appear. The images are simply labeled Button 1, Button 2, Button 3 and Button 4, with the parameter of when you click Button 1, Button 3 becomes visible and Button 4 becomes hidden, and when you click Button 2, Button 4 becomes visible and Button 3 becomes hidden.

## JavaScript

The short form is that you can do a lot with JavaScript in a PDF, limited only by your competence with the language. You can do graphics, pop-up menus, database import, dynamic document stamps, multimedia, the works. Even if you’re a complete dummy, you can still use Acrobat’s built-in functions to do simple math within a document, as we’ll show in a few paragraphs.

## Using form fields as a bonus

You can use form fields in a few ways. The simplest is as placeholders. You can put empty fields on any form or character sheet in your document. This will let the end user fill the form out while he has the document open on his computer, and then he can print off a nice, neat version of whatever form or table he was working on.

See the Techknology Test PDF for an example of this feature in action.

## Using form fields for customization

Time, date or other dynamic information stamps can be added to a PDF. Then, when the user prints a page, it could include the date and time on each footer. *Why would you want this?* Well, if the document is one that will have different versions or regularly added material, it lets the user know if she remembered to print the latest update. Another customization that is possi-



ble is to “name stamp” the PDF with the buyer’s name, so that anyone who prints it sees that person’s name at the bottom. I haven’t found a cheap or easy way to do this as part of an e-commerce system yet, so individual serial numbers on a PDF to deter/track PDF piracy does not seem to be a viable option yet.

## Using form fields for calculation

If you are willing to muck around and do some tedious work, you can make a PDF act like a spreadsheet. Form fields can interact, call data, and do a number of mathematical operations. There is a full-page example in the additional material, taken from the *Stuff!* supplement for *EABA* (still in development at the time of this printing). What that page does is let you generate unique projectile or beam weapons on the fly, using the guidelines that were presented in the previous pages of that chapter. Just use the pull-down menus; maybe add in a few custom numbers of your own, and when you’re done, voila! You have a brand new weapon completely compatible with the *EABA* system. Just so you know: that *one* page is about 250 kilobytes of hidden fields and JavaScript. Detailed examples like this are not for the faint of heart.

To do your own simple example from within the Acrobat Editor:

1. Grab any PDF document and open it with the editor
2. Use the form tool to make three form fields. Call them a, b and c. Make them text fields. Give them borders using the Appearance tab so you can see them when they aren’t active.
3. Double-click on field ‘c’ to open its properties.
4. Click the format tab and set field c’s format to “numeric”
5. Click the “calculate” tab and set the value to be the product of “a,b”
6. Exit the Properties window and go to the “action” mode (usually the “hand” icon in the toolbar)

7. If you click on field ‘a’ and enter a number, and do the same with field ‘b’, field ‘c’ should now show the result of ‘a times b’.

*You’re done!* So, if you are designing an RPG, and the cost of buying a skill is some function of a character’s Attributes and the level of the skill, you can make the character sheet in the PDF automatically figure out the costs. Then you could have a ‘total’ field at the bottom that adds up all the costs for all the skills and tells the player how many points he has spent. Cool.

The only downside to forms is that unless a user has the Acrobat editor, she cannot save, export or import the form data unless you have the PDF set up to access an external database that the user *can* modify. Once the end user closes the document, any changes made to the form will disappear. So, if you spent half an hour doing up your character, once you print it off and exit the application, you’d better hope you did it right.

## Backwards compatibility

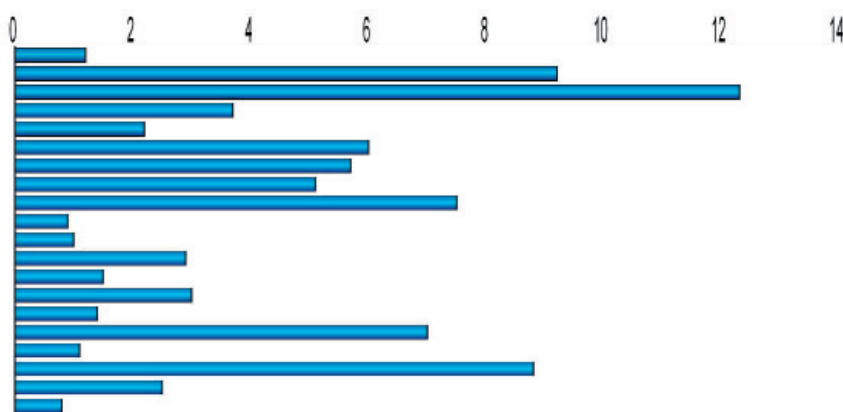
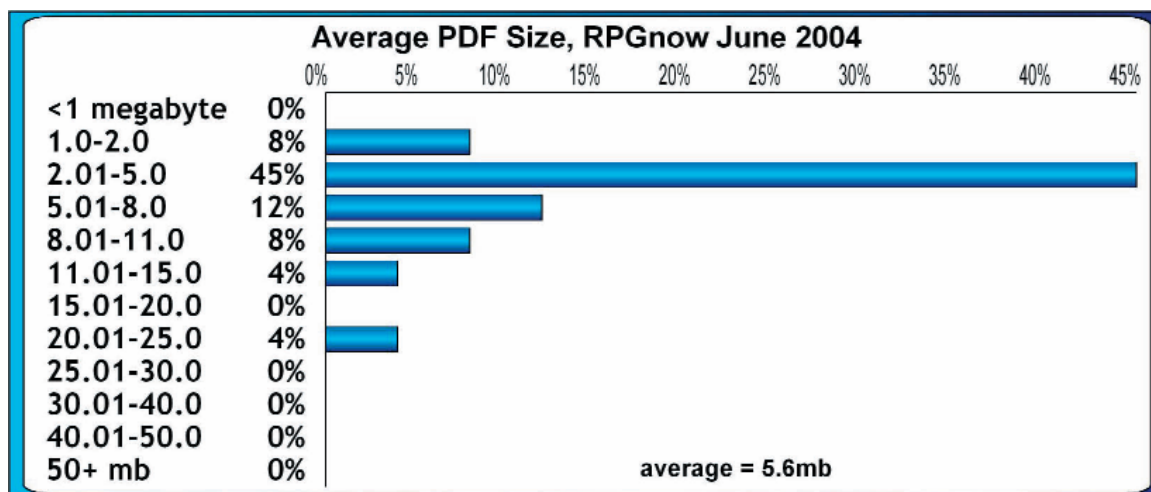
If you are not utilizing any feature of the latest version of Acrobat, you should produce PDFs that are backwards compatible by two generations of software. Acrobat 6 is a Windows XP/OSX only program, which would eliminate the large market of people still using Windows or Mac operating systems prior to those versions. Remember, some of those special features actually go back quite a few versions; Acrobat JavaScript, for instance, was introduced in Acrobat 4.0

## How Big is Too Big?

*How big is a reasonable PDF?* That depends on who you are and on your Internet connection. A sampling of the offerings on RPGNow in June 2004 gave the download sizes as shown on the graph on the next page.

The second graph on the next page show how the June 2004 RPGNow top 20 best sellers broke down.

So, taking into account that many of the really small PDFs are samples, short adventures or entirely text-based products, you can figure the average full-length game product is somewhere in the 50-75



megabyte range. This number will probably slowly climb as more and more people get high-speed access, but it gives you a number to work with.

If your final PDF is freaking huge for some reason, you might consider breaking it down into two smaller documents. Some vendors may be able to transmit a single 'sale' as multiple files, while others might require multiple purchases. It depends on the product. An RPG broken into a GM and Player book might work, but selling a downloadable card game as 'rules' and 'cards' probably would not.

If your PDF is too huge, you end up doubling the trouble for the end user. First, it takes longer to download, and second, it will take longer to print. Bear it in mind.

## To protect or not to protect?

To what extent do you want to protect your PDF? Can the end user lift graphics and text for his own use, or not? Is the PDF password pro-

tected or not? If you make a product that becomes popular, people *will* pirate it. Standard PDF protection can be cracked by anyone who wants to search for the software to do it. Even Adobe's Digital Rights Management (DRM) software is not invulnerable; it just sets the bar a little higher.

As a creator, my main concern is protecting the rights of any artists in the product, and making sure the end user doesn't accidentally mess up his or her own document. To that end, I allow printing and changing form fields, but do not allow copying text or graphics or changing the document, protected by the basic password system in Acrobat.

Think about your needs as the creator or the work, and the needs and convenience of the end user, and come up with a compromise that will work for you both.

## Summary

Make sure you aren't paying a repetitive image penalty.

Play with optimization settings for your images and see the size difference.

Extra stuff is cool, but adds bulk. Thumbnails, form fields and JavaScript can add the most; bookmarks and hyperlinks add the least.

Make sure your final PDF is optimized.

## Chapter 7

# Selling Yourself: Distribution, Packaging, and Advertising

You can have the best role-playing product in the world, but if you don't properly present that product to the rest of the world, you're not even going to get out of the starting gate. You'll be competing against hundreds and thousands of other products, many of which are established brands, all of which have been online longer than your product. In order to convince shoppers that they should download **your** product, you're going to have to look as good as, if not better than, every other kid on the block.

Failing that, you should at least look professional.

The good news is there's a simple way to keep up with the Joneses when it comes to selling your product. Just take a look at what everyone else is doing, and follow along in their footsteps. Think of it not as copying, but as following an established standard. There may be a lot of room for variation and creativity when it comes to developing your product, but when you get down to selling it, it's time to toe the line.

Ok, enough with the clichés. Let's get down to brass tacks.

## Naming

There are at least three different ways that someone will be able to refer to your product: title, product code, and filename.

### Title

By now you should have settled on a title, whether it's simple and descriptive like "The Complete Guide to Killing Half-Elves" or more specific and creative, such as "The Enchanted Forest of

Whispering Shadows." Exactly what you choose depends on your product, but if nothing else you should strive to adhere to a few guidelines:

**1) Short.** Anything more than half a dozen words and you're pushing it. Any longer, and not only is your title not going to fit well on the cover of your product, but no one is likely to remember it. This goes for movie titles, band names, book titles and, yes, even RPG products. The shorter and catchier the title, the easier it is to remember. If you really need to use more than six words, consider a subtitle.

**2) Simple.** It may be tempting to include the Elvish name of your protagonist in the title, but really, if no one can pronounce *Srlvinishilllithi*, do you think they're going to remember it and recommend it to their friends? Keep It Simple, Stupid. There's a reason the *D&D Monster Manual* is called that – it's clear what's inside. *Unearthed Arcana* is a bit vaguer, but still short enough to be understood; imagine if it were *Mordenkainen's Magical Tome of Eldritch & Arcane Knowledge*.

**3) Descriptive.** Titles shouldn't be so short and simple that no one knows what you're selling. *Orcs* might be at the heart of your product, but it's not going to catch a reader's eye. *Orcish Hordes*? Better, but *Orcish Hordes of the Northern Wastelands* gives a reader an even better sense of what your product is all about.



**4) Unique.** You don't want to be the seventeenth *Ultimate Guide to Elves* listed, do you? Take a look at those items already for sale that will compete with your product, if you haven't already. Make sure your title will stand out in a crowd, and won't be confused with someone else's, even if your material is unique. Sometimes it's unavoidable: *Unearthed Arcana* and *Arcana Unearthed* might be confused, as might *Rune Stryders* and *Doom Striders*, yet all these exist, and sell well.

## Product Code

If you plan to produce only one or two PDFs, then referring to them by code is probably not necessary. However, if you plan to release extensive lines or larger quantities of products, or be distributed in various online venues, it's extremely helpful and professional-looking to have a Product ID Code unique to your product.

The standard in use by most of the major players in the industry has a two-to-four letter prefix (generally based on the company name) followed by a suffix of three or four numbers, uniquely identifying that product and serving to indicate its order of release relative to other products in a line.

The prefix can serve as a strong identifier for your brand name if used consistently and appropriately. Consider: EDN, 9LG, SJG, TSR, WOTC, WW. Chances are you can identify at least half (if not all) of the companies represented by those abbreviations, which are used as part of their product codes. If for some reason you don't have a company name, you can always choose something else relevant, such as your initials, or the title of your product line, for the prefix.

The numeric suffix can be used in multiple ways. In general, your first product will be 001 or 0001, but if you have multiple product lines you can use the hundreds or thousands place to indicate the difference. For example, 0001 might indicate the first of your "0-line" of Adventures, whereas 1001 might be used to indicate the first of your "1-line" World Books. Most of the smaller companies don't distinguish in this fashion, and to avoid confusion it's usually a good idea to just stick with sequential numbering for all your products. Four digits are plenty, unless you plan to release more than ten thousand products over your lifetime.

## Filenames

It's tempting to use descriptive filenames like "The Evil Wizard Pépe's Lair of Doom.pdf" but as a general rule it's best to avoid doing so. Some operating systems and applications (particularly older ones) can't handle fancy characters (like accented é's and such) or spaces. You have no way of knowing if your clever naming scheme is going to result in chaos. It's best to keep things simple and standard – this goes for HTML pages, PDF documents or anything you plan to send to a printer.

Some online vendors require that your files have specific types of filenames before you upload them. For example, RPGNow asks that the Zip file name be the same as your product's code number. Where requirements aren't given, however, try to adhere to the following guidelines:

**1) Eliminate spaces.** In some instances (especially with some web browsers), spaces in filenames turn into bizarre characters like %20, which can make files unreadable on some computers. It's best to avoid spaces altogether. We could turn "the evil wizard pépe's lair of doom" into "theevilwizard-pépe'slairofdoom" but that's a bit hard to read, isn't it? How about we instead insert underscore characters in place of spaces – "The\_Evil\_Wizard\_Pépe's\_Lair\_of\_Doom".

**2) No accents, apostrophes or punctuation marks.** Removing accent marks and punctuation isn't going to affect the ability of the user to understand what it means, and it will help further ensure that the file will remain accessible across all platforms, and keep programs such as Microsoft Word from happily swapping in curly quotes and such. So we get "The\_Evil\_Wizard\_Pepes\_Lair\_of\_Doom".

**3) Nothing longer than an alphabet.** While most versions of Windows and Macintosh OS X can handle long filenames (up to 255 characters long), older Mac file systems and many applications will truncate down to 31 characters, which can mean your file might get lost or garbled. If you keep five characters for our file extension (see point 4), that leaves a core filename of 26 characters –

exactly one English alphabet long. “The\_Evil\_Wizard\_Pepes\_Lair\_of\_Doom” is 34 characters long, so let’s remove “The\_” and “Evil\_” since in our case, it’s more important to keep the wizard’s name in the title. So we have “Wizard\_Pepes\_Lair\_of\_Doom”.

#### 4) Always include a file extension.

Without an extension at the end of your filename, your user’s operating system is going to have to guess as to what application to use to open the file. It might open the file with the wrong application, or worse, it might simply fail to do anything when the user double-clicks on it. We’ve saved five characters for that filename – one for a period, and four for the extension itself. Most extensions you’ll use (.pdf, .txt, etc.) are three characters long, but some are four, such as .html, .indd (InDesign), etc. Since we’re making a PDF, our file is now known as “Wizard\_Pepes\_Lair\_of\_Doom.pdf”. Still quite readable and understandable to the end user, but much more compatible with the broad range of operating systems and applications in use by your prospective customers.

## Bundling and Compressing Files

If your product consists of a single document, bundling isn’t an issue, and you can skip ahead to the section about Zip files. If you’ve got multiple documents, continue on.

### Directories

Though they’re referred to as ‘folders’ in some operating systems, the little slices of organizational space that keep files orderly are more properly referred to as directories, as they direct the user to the proper information. The term ‘subdirectories’ refers to any directories that are one or more levels ‘deeper’ than your top-level directory. In the following example, RPGNow and PDF are subdirectories of the directory called Documents – **Documents/RPGNow/PDF/**

If you have more than one file to get to your readers, you’ll need at least one directory to store everything – otherwise, your customers will just get a big jumble of documents all over their computer, and that will create an immediate bad impression. In general, a single directory is adequate for most needs – just create a new “folder” and dump all your documents into it before you compress it (see below).

If you have a more complex structure, however, you may need to include several levels of subdirectories. When in doubt, use as few as possible – the more levels of folders you have, the more likely it is that your reader is going to get lost looking for things. A helpful way to organize is to have a top-level directory for your main documents, and then subdirectories for any additional material that’s not essential to the overall experience, such as licenses and documentation, artwork, character sheets, etc.

Always give your customers a document to “double-click” in the top-level directory (otherwise they’ll have no idea where to start after they download your product!), and if you include subdirectories, explain what they are in a ReadMe file.

When naming directories, use the same guidelines as for files, above, although it’s probably OK to use capitalization if your company name or product name depends on it.

### ReadMe, License and Other Documentation

Again, if your product consists of a single PDF or other document, you probably won’t want or need to include any other documents with it – the fewer bits your reader has to deal with, the better. But if you do have multiple documents, it’s a good idea to also create a ReadMe file to tie everything together. Depending on your particular situation, you might also need to include a License document and possibly other documents as well, such as Corrections, FAQs, etc.

In general, it’s a good idea to include all this additional information in a single subdirectory, such as **Docs/** – that way, it’s less likely to get misplaced, and if your customers decide they don’t want to see it, it’s easily ignored.

## ReadMe

Your standard ReadMe file includes information that is relevant to your readers, but does not ruin their experience if they happen to ignore it. It should be as short as possible, using bullets to illustrate major focal points, and should be no longer than a single page, (or two if you *really* can't help yourself). It should almost always be in plain text (.txt) format to ensure that everyone is able to read it – avoid using .rtf or .pdf for this purpose.

Things you might want to include in a ReadMe file include:

- Contact Information - Name, Company Name, Address, Phone, Email
- Website URLs - Company website, store, updates, customer forums
- Version Info - When the product was updated, and what was changed
- 'Sitemap' - If your bundle has subdirectories, list them and what's inside

If you are including any information that a reader *must* have before he can fully enjoy your product (such as password information, special codes or instructions, software/platform limitations, etc.), keep the ReadMe in your top-level directory and name it **ReadMeFirst.txt**. Leave no doubt in your reader's mind as to what he must do.

## Licenses

In a single-file product, your license information (if applicable) is generally located at the back of the main document, but if you have multiple files and your license requires it, you might need to include a standalone license document that applies to everything included. Refer to your particular license for specific requirements, but in general try to include this as a plain text document whenever possible. No need to get fancy.

## Other Documents

There's a wide array of miscellany that you might wish to feature in a product bundle. This could include anything from characters sheets, charts and printouts, high-resolution artwork, and other game-relevant information, to information

about the product itself, such as last-minute changes and corrections, FAQ pages and the like. Obviously your particular needs will vary – just try to sort such documents appropriately, keeping things like character sheets and game printouts in one subdirectory, and relegating informational docs such as Corrections and Errata to your **Docs/** subdirectory, so your reader always knows where to go to find them.

## Doing the Splits

Recent studies suggest that there are now more Internet broadband users than there are dialup users. This trend can only continue. What this means for the PDF designer is that now, more than ever, the overall file size of the download is quickly becoming less of an issue, as more and more users are able to download files in a matter of minutes, rather than hours.

However, there is still a size consideration: large PDF documents take longer to load on-screen than shorter documents. While the download size may be identical, there's an immense difference between a single 10 MB PDF document and three 3.3 MB documents. The single file will load more slowly, as the entire document has to be loaded into memory before it displays. Furthermore, as more memory is being used to hold the entire document, pages will tend to redraw slower when the user pages through the document, making simple searches and even basic navigation ponderous with extremely large documents.

With the files split, each of the three pieces will load significantly faster when viewed by the end user, and will be easier to page through, especially on older machines. While the difference may be imperceptible on today's most current hardware, you can never make assumptions about what your customer is using.

Consider the size of your document if you're dividing it up. In general, smaller files (under 100 pages in length or so) can probably be kept in a single PDF file. For every additional 75- to 100-page increment, consider where a logical split falls in the content and divide the PDF into separate documents there; don't just count pages and chop it off in the middle of a paragraph or chapter.

If there are too many individual pieces, however, your reader might get confused. Imagine down-



loading a document and discovering it is fifty individual PDFs with no way to tell their order. Also consider basic ease of use: those small files may load really fast, but if a reader has to constantly close one file and open another to reference the material, the time saved is lost again.

In general, keeping your product to a maximum of 2 or 3 files is a good idea, unless you truly need more. Although it uses RTF and not PDF files, the d20 System Reference Document ([www.wizards.com/default.asp?x=d20/article/srd35](http://www.wizards.com/default.asp?x=d20/article/srd35)) is a good example of a larger division that makes sense. The SRD is available as one big “All-in-One” file, or 86 individual chapter files, or seven “Grouped Downloads” split into logical chunks (Basic Rules, Spells, Etc.). Would your customer prefer one large file, 86 individual files, or seven logically divided and easily organized files?

In all cases, if you are splitting your document into more than a few chunks and the page order is important, be absolutely sure to assign filenames that make it clear in what order the documents fall. Prefix the files with a number (1-Intro.pdf), indicate page numbers before the file extension (Intro\_p1-20.pdf) or provide some other obvious way for your reader to know what comes first. For multiple files, you may also wish to indicate their order in your ReadMe file.

## Compressing Files

There are as many ways to archive and compress files as there are file types, but just as .pdf is the standard for RPG products, .zip is the standard for compression. Do not use .sit or .sea or .bin simply because you’re using a Mac, or .tar or .tgz because you’re using Linux. In the past it may have been difficult to transfer .zip files across platforms – Macs, PCs and Unix-based machines all had their favorites, and didn’t always play nice – but nowadays just about everyone can, and does, use the .zip format. You should too.

Most modern operating systems includes some means of uncompressing .zip files: PKZip, WinZip, ZipIt and StuffIt are just a few of the standalone applications available, to say nothing of the built-in functionality available in OS’s like Macintosh OS X, which allows you to “Create Archive” .zip files with a control-click.

If you’re dealing with a single document such as a PDF, zipping your document will provide a means to compress it, giving your user a quicker download. The standard settings for whatever program you’re using will be adequate to fully compress whatever it is you’re working with. The distiller you use to create a PDF will already compress images if you have those settings enabled, but zipping will often provide another small, but noticeable, amount of compression – generally 5 to 10%.

If you’re working with multiple files, zipping also provides a means of organization, allowing your customer to download a single .zip file that includes all the documents contained within your product. When zipping, be sure that you’ve got all your files and subdirectories stored within a single top-level directory. This will ensure that when the file is unzipped, everything will appear neatly on the user’s computer in one single folder, rather than in a mess all over the place.

Some files compress more than others, generally based on whether or not they are already compressed file formats. GIF, JPG and MP3 files, for example, don’t compress much when zipped because they are already compressed – once something is squashed flat, it can’t get any flatter. BMP files, on the other hand, can be compressed by a factor of 90% or more, saving quite a lot of space. TIFF and EPS files also compress reasonably well, generally by a factor of 10 to 50%, depending on the file.

## Advertising Your Product

There are numerous ways to advertise any product, including PDFs. You could take out radio or television ads, buy magazine or newspaper space, or stand on the corner holding a sign that says “Will Sell PDFs For Food.” None of these are likely to gain you new customers, since they’re not really good places to reach a gaming audience. More likely to be successful for a PDF are online advertisements, including banner ads, pay-per-click text ads, and positioning on your own website.

However, in the long run the best opportunity to sell your product will come through the ads that appear on the particular merchant site you’re using, be it RPGNow or a competing website. People who know they want to buy your product

will buy it regardless, and will find their way to where they can buy it. For those members of the gaming population who aren't sure, or who don't know you exist until they stumble across your offering while randomly browsing the listings, you'll need to do a much more convincing job of advertising your product.

Things you may need to consider when crafting such an ad include:

**1) Product Name** - Obviously, you need to indicate what your product is called.

Keep in mind the tips above when naming your product. Also be sure to indicate whether or not your product is part of a series, has a volume number, etc.

**2) Publisher/Author Name(s)** - The name of your company, if there is one; failing that, your own name (which may also be the name of your company).

**3) File Size** - The size of the downloadable, in MB, calculated to a single decimal place (as in 7.2 MB, or 3.1 MB). Generally this is the size of the Zip file, but if for some reason you're using a single PDF that isn't zipped, it's the size of that file. This helps your customers decide if they feel like spending the time to download what you're selling, so when compressing (discussed elsewhere), get as small as you can.

**4) Page Count** - Many people make a decision about a product based on how much content it offers, relative to the type of product it is. Are you selling a complete rulebook that weighs in at 12 pages? It better be a rules-light system, or you're not going to sell many copies. How about that one-night adventure that comes in at 256 pages – is it far too weighty for what it proclaims to be? Be accurate, of course.

**5) Logline** - In movie speak, a 'logline' is a sentence or two that summarizes an entire movie script. Here, the 'logline' might be called the brief description – it's what a reader sees before she sees the entire description. When writers or their agents pitch a script to a production company, they often sell it based on a logline. Your prospective customers will often make the same snap judgment about your product based on how well you summarize it. Avoid unnecessary detail – make it simple,

exciting and enticing. *"Evil wizards battle small furry animals for dominance in this exciting new fantasy world. Uses the popular d12 system for ultimate carnage and expandability. Your players will love it!"*

**5) Description** - This is where you plop most of the information your prospective customer needs to know about your product. What system does it use? Who's it for – players or Game Masters? What does it include? What sort of license is it under? Most importantly, what's it all about? Keep it under 250 words if at all possible, but make every word count. If you must include more information, offer a URL that people can visit to get more detail. Don't try to cram it all in one little ad.

**6) Thumbnail** - The thumbnail image of your product – generally a shot of the cover, although it could conceivably be an image of some interior art as well, or something else – is what half of your customers will base their buying decision on, like it or not. Exciting cover art will attract attention, drawing customers to take a moment to read about your product, whereas dull or poorly-drawn art will almost certainly make them ignore your product as "amateurish" or inappropriate.

Thumbnails are generally rectangular, in the same proportions as a sheet of paper, and downsized to roughly 200 pixels wide by 267 pixels high, with a smaller version being generated automatically for longer lists of products. They are typically JPG or GIF format (use JPG if you're unsure, to avoid images looking chunky when colors get dropped out), and compressed to about 75% to 85% quality, which is generally unnoticeable to the untrained eye but can reduce the image size by a large factor.

Resist the temptation to use huge images – save anything high-resolution for your own website – and for the sake of all that's holy, never use an animated image. Do, however, use something colorful, as colorful images draw the eye to them.

## Preparing for Print

In general, you'll only be concerned with setting up a PDF for downloads, but there may come a time

when you wish to provide a higher-resolution option for either Print-On-Demand or a traditional Offset Printer. In either case, there are some significant differences and additional considerations.

The first rule when designing for print is to get detailed instructions from your printer. Every printer on earth has different pre-press requirements as to how you should prepare and submit files, include fonts and images, provide instructions, etc. Never be afraid to ask – your printer won't think less of you for not knowing, and will be much happier if you get it right after asking, rather than guessing incorrectly and having to redo it after you find out what you did wrong. Most online Print-On-Demand vendors offer specs online. For example, RPGNow has a page at [www.RPGmall.com/pod.php](http://www.RPGmall.com/pod.php).

Despite the differences, there are some common issues to consider.

## Font Usage

As has been discussed elsewhere, the embedding of fonts in a PDF, which is essential in getting a PDF to print out exactly as you intend it to be seen, carries with it some potential legal issues. Be certain that you are including only fonts that you have a legal right to use, or that your printer has access to legal copies of the same fonts and can replicate on their end. When in doubt, printers usually want you to include fonts.

## Art Resolution

When you're designing for print, everything needs to be saved at a higher resolution. In general, you'll want a minimum of 150 dpi images for interior art, 300 dpi for cover art and 600 dpi for any line art, bitmapped images. Be aware that if your interior is all black-and-white, and you submit color artwork for one of those pages, the results will be unpredictable. At best, you'll get a grayscale version of your image, and at worst you'll end up with Rorschach-like patches of black and white.

## Covers and Spines

Even though you may have designed the front and back covers as individual elements, as far as the printer is concerned there's only one single cover that wraps around your book, keeping the pages together. Generally you'll have to submit both front and

back covers as a single image, with the back cover on the left hand side, the front cover on the right hand side, and the spine of the book in between.

While the front and back cover sizes are easy to determine, based on the size of the paper you're printing on, the spine size will vary based on the thickness of the paper being used and the number of pages in the product. Your printer will be able to provide you with a detailed caliper size based on the paper stock you've chosen; simply take the page count of your book (including unnumbered pages!), divide it by two, and multiply the result by the caliper thickness. For example, a 128 page book would have 64 sheets of paper; multiplied by 0.0039 inches per page (a standard caliper for 50# paper), this gives us a spine size of 0.2496, just under a quarter of an inch.

When designing your spine, you generally only need to be concerned with tenths and hundredths of an inch – so the above could be rounded to 0.25 inches. Very rarely will your readers notice if the spine of their book is an extra thousandth of an inch thick.

## Bar Codes

Barcodes, though nearly ubiquitous nowadays, are not essential for products sold online. They are, of course, used when items are scanned by lasers in retail settings, and since customers purchasing products online never need to scan your item, the barcode need not come into play. However, if you intend to sell your product in a brick-and-mortar store, or you simply want to make your product look more professional, barcodes are a good addition.

Barcodes are based on ISBN (International Standard Book Number) codes, ten-digit numbers issued by a licensing authority in lots of ten (about \$20), 100 (about \$60) or more – see [www.isbn.org/standards/home/isbn/us/application.asp](http://www.isbn.org/standards/home/isbn/us/application.asp). Note, however, that in addition to the per-ISBN cost there's usually a setup cost that can run into the hundreds of dollars. It's well worth it for larger operations, but something that may be costly if you're only doing one or two products.

The ten-digit ISBN can be used by itself in online forums (such as amazon.com, which **requires** an ISBN to be assigned to the PDF products they sell), or can be converted into a barcode for print use. This is not the UPC code we all know and love, but rather what is known as a Bookland EAN (European Article



Numbering) code, which typically consists of two separate sets of bars: one, 13 numbers long, and the other 5. This is referred to as EAN-13 or EAN-13 plus 5.

On the larger EAN barcode, the first two digits identify the country and numbering system. The next ten are based on your ISBN. The thirteenth digit is a checksum, calculated from the other twelve numbers to ensure that it all makes sense when scanned.

On the second, smaller barcode, the first digit indicates currency: for example, 5 indicates American currency, and 6 indicates Canadian. The remaining digits indicate the price of the book, up to \$99.99 – anything higher, and the book will either require an additional UPC code or manual entry of the price, although if your RPG product costs more than \$100 you probably won't have to worry about selling too many copies of it.

While all of that is nice to know, you needn't worry about the specific calculations involved. There are plenty of places eager to sell you barcodes online, but a better option is one of the many freeware or shareware programs available on the Internet, all of which will generate high-resolution barcodes of various sizes in EPS or TIFF format. A good place to start is Version Tracker ([www.versiontracker.com](http://www.versiontracker.com)) – simply enter a search for “barcodes” relevant to your software platform and poke around. Most of the shareware programs available will let you try them out before you buy them, and some of them can be used to generate small numbers of barcodes without purchase.

When generating your own barcodes, do not try to get creative. Although colored barcodes are possible, the accuracy of the scan is decreased when you deviate from the norm. Always use black text (and bars) on a white background, chopping a block of white out of your back cover's design if necessary. Use Arial or Helvetica for the font, including any ISBN “human readable text” included above the barcode, and try to make the largest bars about an inch in height.

## Summary:

### ■ Naming

- Keep your product title short and simple, yet descriptive and unique.
- Assign a product code consisting of a relevant acronym and unique number (ABC1001).
- Avoid spaces or special characters in filenames; keep filenames under 26 characters long, and always assign an extension (.pdf, .txt).

### ■ Bundling and Compressing

- Use directory structure when necessary to organize multiple files, but don't use too many levels of subdirectories.
- Use short ReadMe files to communicate crucial information to your reader; keep them, along with other documentation, in a separate directory.
- Consider dividing large documents up into 2 or 3 smaller PDF files.
- Use Zip to compress and bundle groups of files.

### ■ Advertising

- Your product's ad should include: Product Name, Publisher/Author Name, File Size, Page Count, a Logline, a Description and a Thumbnail.

### ■ Preparing for Print

- Always ask your printer for specific guidelines.
- Embed fonts where necessary, but make sure you're using fonts you own.
- Keep artwork at about 150 dpi images for interior art, 300 dpi for cover art and 600 dpi for any line art.
- Design your front and back covers and spine as one single document, using a caliper (given to you by your printer) to calculate spine thickness.
- If you desire, purchase ISBN codes and create EAN-13 plus 5 barcodes to make your product look more professional; some online vendors require ISBN codes.

# References & Links

## Part One

Five years ago, you would have been hard-pressed to find decent material online that pertained to PDF publishing, or desktop publishing of any sort, for that matter. Everyone was busy doing, but few were interested in documenting. Thanks to the steady addition of material from the major players in the industry, as well as the organization and searchability offered by sites like Yahoo and Google, you no longer have to find the nearest University library to learn the ins and outs of publishing.

The following links are, of course, hardly comprehensive. The Internet has billions of pages, and even if you separate the wheat from the chaff you still come up with thousands of pages with relevant information. These aren't necessarily the best, nor are they always definitive as regards their subject matter. They are a good jumping off point, providing a sound basis for beginning your journey, and a great foundation on which to build as your own skills grow. They are organized alphabetically by topic.

### Clip Art

<http://www.clipart.com>

\$14.95 for a week's subscription, plenty long enough to find art that suits you.

<http://www.larryelmore.com/popups/misc/special02.htm>

\$20 nets you 200+ original line art drawings from Larry Elmore.

<http://www.RPGNow.com/search.php?query=clip+art&x=8&y=8>

A wide assortment of fantasy clipart on the RPGNow site, most for under \$10.

### DTP Software

<http://www.adobe.com/>

Where it all starts – your primary source for Adobe Acrobat software, as well as Adobe Type Manager, Photoshop, Illustrator and InDesign.

<http://www.quark.com/>

Long (and still, in many areas) the standard layout application in the publishing industry. More expensive than InDesign, but many would argue also much better.

<http://www.versiontracker.com>

Excellent source for finding Freeware and Shareware applications, searchable by platform or keyword.

<http://www.cs.wisc.edu/~ghost/>

Freeware alternative to Adobe's Distiller.

<http://www.gimp.org/>

GNU Image Manipulation Program, a freeware alternative to Adobe Photoshop.

[http://graphicssoft.about.com/library/products/aabyb\\_imageedit.htm](http://graphicssoft.about.com/library/products/aabyb_imageedit.htm)

Information from About.com on how to select an image editing program.

<http://www.enworld.org/forums/showthread.php?t=98538>

An EN World thread on making a PDF without using Adobe Acrobat.

<http://sourceforge.net/projects/PDFcreator>

A free, open source PDF creator program for Windows.

## E-Publishing Guides

[http://www.RPGNow.com/product\\_info.php?products\\_id=1668](http://www.RPGNow.com/product_info.php?products_id=1668)

Dubbed “The definitive guide to electronic publishing for the RPG/Game Industry,” Minion Games’ ePublishers Guide is a “must-have.”

<http://www.planetPDF.com/>

Online community with many links to tips on PDF design, software, etc.

<http://www.writerswrite.com/epublishing/PDF.htm>

Writer-focused list of PDF resources, software and books through Amazon.

## Fair Use

[http://fairuse.stanford.edu/Copyright\\_and\\_Fair\\_Use\\_Overview/chapter8/](http://fairuse.stanford.edu/Copyright_and_Fair_Use_Overview/chapter8/)

A discussion of Fair Use and works in the Public Domain.

[http://copylaw.com/new\\_articles/fairuse.html](http://copylaw.com/new_articles/fairuse.html)

A decent summary of the core issues at the heart of Fair Use.

[http://www.writersdigest.com/articles/zaharoff\\_fair\\_copyright\\_law.asp](http://www.writersdigest.com/articles/zaharoff_fair_copyright_law.asp)

Another good summary of Fair Use.

## Fonts and Font Usage

<http://www.microsoft.com/typography/TrueTypeEmbedding.mspix>

A discussion of the difference between *Editable embedding allowed*, *Print & Preview embedding allowed* and *No embedding allowed*.

<http://www.microsoft.com/typography/fonts/default.aspx>

Look up a font and learn what software packages it ships with. Also contains a list of core fonts for Macintosh, Unix and ATM. Yes, it’s Microsoft, but it’s useful.

<http://store.adobe.com/type/embedding.html>

Adobe’s own discussion of embedding certain typefaces into documents.

<http://www.adobe.com/aboutadobe/antipiracy/fonts.html>

Another Adobe page about embedding fonts, focusing on piracy issues.



<http://www.desktoppublishing.com/fonts-com.html>

An excellent list of type foundries to be found on the Internet.

## ISBNs and Barcodes

<http://www.isbn.org/standards/home/isbn/us/application.asp>

Primary source for purchasing ISBN numbers.

<http://www.amazon.com/exec/obidos/tg/feature/-/237844//102-3734781-8200150>

Amazon.com guide to using ISBNs and Barcodes in their online store.

## Layout and Design

<http://desktoppub.about.com/>

About.com's DTP page, one of the few About.com pages that's regularly updated with informative information and helpful links.

[http://desktoppub.about.com/library/glossary/bl\\_glossary.htm](http://desktoppub.about.com/library/glossary/bl_glossary.htm)

Also from About.com: "This dictionary of terminology contains layout, paper, printing, software, and typography terms. It is regularly updated with more common words and phrases for desktop publishing. **This is more than just a glossary.** Most entries are mini-lessons on each subject with links to more detailed discussions and tutorials for each topic and links to related terms."

[http://writing.colostate.edu/references/documents/desktop\\_publishing/index.cfm](http://writing.colostate.edu/references/documents/desktop_publishing/index.cfm)

A basic guide to desktop publishing and layout. A bit out-of-date (doesn't mention InDesign, does mention PageMaker) but still a good basic overview.

<http://desktoppub.about.com/cs/pagelayout/qt/>

A list of various tips and hints for good layout, including the "rule of thirds" and information on visual focus.

## Open Gaming License/d20

<http://www.openroleplaying.org/resources/>

List of websites dealing with the OGL in some fashion. Quite definitive.

<http://www.opengamingfoundation.org/>

The Open Gaming Foundation, a source for the OGL and the d20 System Reference Document, and other open gaming information.

<http://www.dragonsandmonkeys.com/gallery/vector/>

High-resolution vector version of the d20 logo, by George Edward Purdy.

## RPG Design Forum Sites

<http://forums.RPGhost.com/forumdisplay.php?f=8>

RPGHost's e-Publisher forum, one of the most active in the industry.

<http://forum.RPG.net/forumdisplay.php?f=5>

RPG.net's Industry forums, which include areas for design and publishing advice.

<http://www.enworld.org/forums/forumdisplay.php?f=68>

The EN World “Open Calls” forum, a great place to find writers and artists.

<http://www.indie-RPGs.com/>

The Forge, popular online forum site for independent game design and theory.

## **Typography**

<http://www.typography-1st.com/typo/typeterm.shtml>

A glossary of basic typographic terminology.

<http://www.eyewire.com/magazine/columns/robin/>

Column by Robin Williams (the designer, not the actor) about typography, offering helpful tips on layout and design.

<http://www.tameri.com/dtp/dtp.html>

Another good basic guide, though incomplete, with an emphasis on typography.

<http://www.geocities.com/rgfdfaq/tsrfonts.html>

Ever wondered what font your favorite RPG product used? Wonder no more.

<http://forum.RPG.net/showthread.php?t=139831>

An RPG.net forum thread on the best font to use in a PDF.

<http://en.wikipedia.org/wiki/Font>

Wikipedia entry on Fonts, providing a detailed history of typography.

# References & Links

## Part Two

### Adobe Acrobat

PDF Zone – The Online Authority for PDF and Adobe Acrobat Professionals <http://www.pdfzone.com>

Adobe Acrobat Professional – <http://www.adobe.com/products/acrobatpro/main.html>

Adobe Acrobat Forum (Windows) –

<http://www.adobeforums.com/cgi-bin/webx?13@182.obfgc4uKZ0j.0@.ee6b2f2>

Adobe Acrobat Forum (Mac) –

<http://www.adobeforums.com/cgi-bin/webx?13@26.tbG9c5tjZ84.0@.ee6b2ed>

Adobe Acrobat Tutorials – <http://www.adobe.com/products/tips/acrobat.html>

Adobe offers a subscription service to create your PDF –

<https://createPDF.adobe.com/index.pl/4275635959.65997?BP=NS6&v=AHP>

**How to Do Everything with Adobe® Acrobat® 6.0 (Windows)** by Doug Sahlin; 16.99 at Amazon.com

**Adobe Acrobat 6 PDF Bible** by Ted Padova, Sarah Rosenbaum; 30.59 at Amazon.com

**Adobe Acrobat 6.0 Standard Classroom in a Book** by Adobe Creative Team; 30.60 at Amazon.com

**Adobe Acrobat 6 PDF for Dummies** by Greg Harvey; 15.39 at Amazon.com

**Adobe Acrobat 6.0 Pro Classroom in a Book (Classroom in a Book)** by Adobe Creative Team; 30.60 at Amazon.com

**Adobe Acrobat 6.0: Getting Professional Results from Your PDFs** by Carl Young; 23.79 at Amazon.com

**Adobe Acrobat 6 for Windows and Macintosh: Visual QuickStart Guide** by Jennifer Alspach; 13.99 at Amazon.com

**The 100 Best Adobe Acrobat 6 Tips and Tricks** by Donna Baker; 10.49 at Amazon.com

**Adobe Acrobat 6: The Professional User's Guide** by Donna L. Baker, Tom Carson; 27.19 at Amazon.com

**Adobe Acrobat 6 Complete Course** by Ted Padova; 30.59 at Amazon.com

**Acrobat 6 and PDF Solutions** by Taz Tally; Ph.D. 23.79 at Amazon.com

**Adobe Acrobat 6.0 Quick Source Guide** by Quick Source; 4.95 at Amazon.com

**Real World Adobe Acrobat Pro 6** by Christopher Smith, Mohamad Tawil, Anita Dennis; 30.59 at Amazon.com

**How to do Everything with Adobe® Acrobat® 5.0** by Doug Sahlin; 16.99 at Amazon.com

**Adobe® Acrobat® 5.0 Classroom in a Book** by Adobe Creative Team, Adobe Press; 31.50 at Amazon.com

**Creating Adobe Acrobat Forms with CDROM** by Ted Padova; 27.19 at Amazon.com



## Adobe InDesign

Adobe InDesign – <http://www.adobe.com/products/indesign/main.html>

Adobe InDesign (Windows) —

<http://www.adobeforums.com/cgi-bin/webx?13@235.rJ2c6CrZ2O.0@.ee6b33c>

Adobe InDesign (Mac) — <http://www.adobeforums.com/cgi-bin/webx?13@179.AbvTc7GVZJk.0@.ee6b330>

Adobe InDesign Tutorials — <http://www.adobe.com/products/tips/indesign.html>

**Adobe InDesign CS Classroom in a Book (Classroom in a Book)** by Adobe Creative Team; 30.60 at Amazon.com

**Adobe InDesign CS Bible** by Galen Gruman; 30.59 at Amazon.com

**Real World Adobe InDesign CS (Real World)** by Olav Martin Kvern, David Blatner; 30.59 at Amazon.com

**How to Do Everything with Adobe InDesign CS** by David Bergsland; 16.99 at Amazon.com

**InDesign for QuarkXPress Users** by David Blatner, Christopher Smith, Steve Werner; 23.79 at Amazon.com

**Adobe InDesign 2.0 Classroom in a Book** by Adobe Creative Team; 31.50 at Amazon.com

## Quark Xpress

**Quark Xpress** — <http://www.quark.com/products/xpress/>

**Quark Xpress Resources** — <http://www.quark.com/products/xpress/resources/>

**QuarkXPress 6 for Windows and Macintosh (Visual QuickStart Guide)** by Elaine Weinmann, Peter Lourekas 16.99 at Amazon.com

**Real World QuarkXPress 6** by David Blatner; 30.59 at Amazon.com

**QuarkXPress® 6 Bible (Bible)** by Galen Gruman, Barbara Assadi, Rick LePage; 30.59 at Amazon.com

**QuarkXPress 4 for Dummies** by Barbara Assadi, Galen Gruman, John Cruise; 16.99 at Amazon.com

**QuarkXPress 6 Killer Tips** by Eda Warren; 20.39 at Amazon.com

**QuarkXPress 6 for Print and Web Design** by Michael Baumgardt; 27.19 at Amazon.com

## Capsule Book Reviews

*InDesign CS for MacIntosh & Windows Visual Quickstart Guide* by Sandee Cohen. Copyright 2004. Peachpit Press. Cover price: USA \$24.99, Canada \$37.99, UK £18.99. 562 pages. ISBN 0-321-21348-3.

Of all the books I've bought, this one has been the best in explaining how to use InDesign CS. There are 20 chapters; the first covers the palettes – what they are, working with them and information about contextual menus. The following chapters cover setting up a document, working with text and objects (such as text frames), working with color, styling objects, graphics and text effects, layers, tabs and tables, interactive PDF elements (a new feature in InDesign CS), exporting documents and customizing InDesign. The Appendix has keyboard shortcuts for Windows and Macs. All in all, this Quickstart Guide gives you solid information for using InDesign CS.

Throughout the book there are sidebars that contain either further explanations for a specific feature of the program or humorous stories from the author about desktop publishing. The way the book is laid out and the tone used by the author gives you the feeling of being in a classroom. The book is good for those just learning to use InDesign CS or those who already have experience with the program. I highly recommend adding this book to your bookshelf.

*How to Do Everything with Adobe InDesign CS* by David Bergsland. Copyright 2004. McGraw-Hill/Osborne. Cover price: USA \$24.99, Canada \$34.95, UK £16.99. 474 pages. ISBN 0-07-223153-X.

This book is broken down into 18 chapters, dividing into 6 parts. Part one covers InDesign CS palettes, setting your preferences, documents old and new and customizing the program. Part two covers formatting text, editing, paragraph design, using styles in your document and adding a table. Part three deals with graphics. Part four discusses working with color. Part five covers web and multimedia documents – a new feature in InDesign CS. Part six covers assembling your design, preparing documents for production and producing your documents.

Throughout the book you will find many sidebars that contain tips and how-tos, which are very nice to

have. This book can be used by the beginner or the expert. I highly recommend adding this book to your bookshelf.

*Adobe Acrobat 5 Master Class Interactivity and Multimedia for PDF* by Pattie Belle Hastings, Bjørn Akselsen and Sandee Cohen. Copyright 2003. Peachpit Press. Cover Price: US \$45.00, Canada \$69.99, UK £33.99. 382 pages. ISBN 0-201-74883-5.

If you ever wondered what types of bells and whistles you can add to a PDF, this book is the one to show you and explain how it's done. The CD that comes with the book has sample PDFs you can examine to see how the various interactivities work.

The book has eleven chapters. Chapter one deals with Acrobat 5, describing the components, work area and the Acrobat Reader viewing area, while chapter two covers creating PDFs and managing file size. Chapter three deals with navigating a PDF, covering such things as the initial view, using bookmarks and thumbnails and making destinations in the PDF. Chapter four covers the interactive PDF including a section on Acrobat JavaScript (which allows you to make drop down menus in a PDF). Chapter five goes over interactive forms (which would be good for character sheets). Chapter six deals with comments in PDFs, and chapter seven covers editing PDFs, including text and graphics. Chapter eight discusses security in PDFs and enhancing searches. Chapter nine covers multimedia – from integrating movies to making sounds, chapter ten covers presentations, and chapter eleven discusses e-books.

If you want to get more out of the PDFs you create, then this book is definitely one to own.

*Adobe InDesign CS Bible* by Galen Gruman. Copyright 2004. Wiley Publishing. Cover Price: US \$44.99, Canada \$64.99, UK £29.95. 938 pages. ISBN 0-7645-4227-3.

I consider this book to be the ultimate reference for InDesign CS. There are 42 chapters divided into nine parts. Part one is the welcome to InDesign CS. Part two covers document fundamentals, part three deals with object fundamentals; part four is text fundamentals; and part five discusses graphic fundamentals. Part six deals with output fundamentals while part seven is cross-media fundamentals. Part eight is going beyond the program using plug-ins

and scripts; part nine is an introduction to publishing including a chapter on layout theory and practice. Part ten has the appendices: Appendix A – installing and upgrading InDesign; Appendix B – what's new in InDesign CS; Appendix C – Switching from QuarkXPress; Appendix D – Switching from PageMaker; Appendix E – switching to Mac OS X; Appendix F – Using Adobe InCopy; Appendix G – The InDesign central website; Appendix H – Shortcuts cheat sheet.

The book also has a companion website where you can find plug-ins, scripts, information and tips. I highly recommend this book.

*Adobe Acrobat 6 PDF Bible* by Ted Padova. Copyright 2003. Wiley Publishing. Cover Price: US \$44.99, Canada \$67.99, UK £31.50. 913 pages. ISBN 0-7645-4047-5.

This book is an excellent reference for Acrobat 6 Standard and Professional. There are 27 chapters divided into six parts. Part one welcomes you to the Adobe Acrobat program. Part two covers converting documents to PDFs, with Chapter Seven detailing the Acrobat Distiller. Part three covers how to edit PDFs in Acrobat including a chapter on scanning and OCR conversion. Part four deals with PDF interactivity, with chapters on links and their actions, multimedia, working with layers and accessibility. Part five covers PDF publishing, with chapters on PDFs and the web, presentations, e-books, printing and prepress. Part six is all about PDF forms and includes a chapter on JavaScript. There are also two appendices: Appendix A details what is found on the CD that's included with the book, and Appendix B has the list of keyboard shortcuts for Windows and Mac.

If you have the extra money, I highly recommend getting this book.

## **PDF Programs – Free or Cheap**

### **PDF995**

<http://www.PDF995.com/>

PDF995 makes it easy and affordable to create professional-quality documents in the popular PDF file format. Its easy-to-use interface helps you to create PDF files by simply selecting the “print” command from any application, creating documents

which can be viewed on any computer with a PDF viewer. PDF995 supports network file saving, fast user switching on XP, Citrix/Terminal Server, custom page sizes and large format printing. PDF995 is a printer driver that works with any Postscript-to-PDF converter. The PDF995 printer driver and a free Converter are available for easy download.

### **PDFEdit995**

<http://www.PDF995.com/>

PDFEdit995 offers a wealth of additional functionality, such as: combining documents into a single PDF; automatic link insertion; hierarchical bookmark insertion; PDF conversion to HTML or DOC (text only); integration with Word toolbar with automatic table of contents and link generation; autoattach to email; stationery and stamping.

The free versions display a sponsor page in your web browser each time you run the software. If you would prefer not to see sponsor pages, you may upgrade by obtaining individual keys for each product at any time for \$9.95 each.

### **AcroPDF 2.00**

<http://www.acroPDF.com/index.html>

Convert your documents to Adobe PDF format quickly and easily. AcroPDF installs as a virtual printer and is accessible from any program that offers a Print option. It allows you to create PDF files from any printable document (.doc, .xls, .ppt, .vsd, images, text, web pages etc.) \$69.00 US.

### **DocuCom PDF Driver**

<http://www.pdfwizard.com/eng/product/driver.asp>

By just executing the ‘print’ command in the application, it can instantly produce wonderful PDF documents with rich function settings from a variety of formatted documents such as doc, txt, ppt, xls, jtd, 123, rtf, htm, html, log, ini, jpeg, jpg, tif, tiff, gif, png, bmp, pcx, dib etc., under almost all of the Windows applications. It will work perfectly on Windows 95/98/Me/2000/NT/XP. Fully functional ‘Trial’ versions are available for free downloading. After being satisfied with the product, you can purchase it online.

Standard Edition	\$49.95
Light Edition	\$14.95



## PDF Plus

<http://www.pdfwizard.com/eng/product/plus.ASP>

PDF Plus enables users to get advanced controls over PDF document output and provides flexible Annotation/mark up capabilities plus the powerful ability to view, print, make bookmark, extract and combine pages into a new PDF documents. It also allows user to insert, extract, delete and rotate easily, and re-order pages from multiple PDF files to produce one PDF file.

Standard edition      \$29.95

Professional edition   \$49.95

## CutePDF

<http://www.cutePDF.com/>

CutePDF Writer (formerly CutePDF Printer) is the free version of commercial PDF creation software. CutePDF Writer installs itself as a “printer subsystem”. This enables virtually any Windows applications (with the ability to print) to create professional-quality PDF documents - with just a push of a button!

FREE for personal and commercial use! No watermarks! No Popup Web Ads!

*Have specific and advanced needs above and beyond that of other users? Custom Redistribution now available! **Installation Requirements***

- Supports Microsoft Windows 98/ME/2000/XP/2003.
- Requires PS2PDF converter such as Ghostscript (recommended). You can get the free GNU Ghostscript 7.06 at **<http://www.cutepdf.com/download/converter.exe>**

## CIB PDF plug-in for Microsoft Word©

<http://www.cib.de/english/products/PDF/cibPDFplugin.htm>

The fastest and easiest way of generating *PDF documents* for private use directly from within *Word*. A large number of useful features *free of charge*.

## Mail Lists

### InDesign Talk

*About the InDesign Talk Email Discussion Group:*

InDesign Talk is an email list for discussion on topics related to the InDesign product from Adobe Systems. This list is owned and maintained by Blue World Communications as a service to the InDesign community.

<http://www.blueworld.com/lists/indesign.html>

### Acrobat Talk

*About the Acrobat Talk Email Discussion Group:*

Acrobat Talk is an email list for discussion on topics related to Acrobat™ from Adobe Systems, Inc. This list is owned and maintained by Blue World Communications, Inc.

<http://www.blueworld.com/lists/acrobat.html>

# Product Tips and Reviews

## What to look for in any Publishing Program

### 1. What's the price?

What can you afford? In each category there are high-end, expensive programs (Quark XPress, Photoshop and Adobe Acrobat), less-expensive options (InDesign, Serif PagePlus) and free options (GIMP, OpenOffice). The most expensive option is not always the best, even when it comes to 'industry standards' like Quark XPress; Adobe InDesign and Serif PagePlus are both much more competitively priced and offer the same or better features. Also keep an eye out for 'cross-upgrade' pricing specials, whereby one software publisher will offer discounts on its product to 'convert' you from another. You can save hundreds of dollars in some cases.

### 2. What's the availability/support like?

Is the product still being sold? Is it still being developed and upgraded? Will there be future releases or bug fixes? If none of the above, is it at least still actively supported by the manufacturer in the form of help files? Adobe PageMaker, for example, is being phased out in favor of Adobe InDesign, so its future viability, particularly as far as support from printers, is in question.

### 3. What version is it?

You need not use the most current, cutting-edge (and generally most expensive) version of a program, nor must you always upgrade immediately upon the latest release being made available. In fact, sometimes sticking with older versions can be preferable, as they produce more predictable results (if it worked once, it'll work again). For years, print houses stuck with Quark XPress v. 3.3r5 because it was stable, and newer versions of the program were less than perfect. However,

older versions of some programs might have serious flaws that have been fixed in more current versions. A good example of this is Adobe InDesign — early releases were little more than patched-together PageMaker clones, but InDesign 2.02 is a great option for those who don't want to shell out for the brand new InDesign CS. Acrobat 5.0, Photoshop 7.0, and Illustrator 10.0 are also fine options for those who can't afford the most current versions of those applications.

### 4. How will it help me save time?

It's the little things that make the biggest difference in the end. Does the program let you automate tasks with Macros or Scripts? Quark XPress on the Mac, absolutely. Quark on the PC? Not so good. How much work is it to create an index or table of contents? Adobe InDesign, pretty easy. Microsoft Word, also sort of easy, but less predictable when it comes to formatting. How does the program handle the creation of 'master pages' and templates? Word's master documents leave much to be desired, whereas Quark XPress and Adobe InDesign do a much better job. In short, consider how much time you'd like to save by having the program do repetitive, boring tasks for you.

### 5. How cohesive is it?

Cohesive is a big word that basically means 'plays well together.' Some programs are meant to work well with others. Macromedia offers a QuarkXPress and Freehand MX Bundle, for example, as does Serif (PagePlus, PhotoPlus, etc.). However, the best cohesion is seen with the Adobe package, sold in various bundles that include Photoshop, Illustrator, InDesign, Acrobat and a few other toys.

# What to look for in a Layout Program

## 1. Is it really a layout program?

Stupid question, or so it seems. Many people assume Microsoft Word and OpenOffice are layout programs because, well, they can handle simple layout tasks (basic typography, columns, images and indexing). True layout programs, however, are set up more like a classic desktop publishing studio, with a pasteboard area around the document to store image and text clippings, advanced typographic capabilities and the ability to import a wider variety of higher-resolution image formats. Adobe InDesign and Quark Xpress are the industry leaders in this category. Also worth noting – Microsoft Word, geared towards the home user, treats everything as an RGB document, whereas true layout programs like InDesign and Quark by default assume CMYK, which is what printers want. Some specific features that true layout programs do best include:

- The presence of a pasteboard, allowing easier moving of graphics;
- Finer typographic controls (leading, kerning, etc.);
- Better graphics integration, including transparency and text-wrapping;
- Better postscript handling to ensure more accurate PDF appearance.

## 2. Do you really need a layout program anyway?

Microsoft Word and OpenOffice are not true layout programs, yet many small publishers swear by them, especially for producing products with simple interiors (few fonts, bitmapped images, etc.) Theoretically, if you don't need a complex layout and your only "fancy color pages" will be your outside covers, you can let a word processor handle the middle bits and just use an Image Editor to completely lay out your covers. If you really want flexibility, or are seeking to incorporate more than average design elements (such as wrapping text dynamically around images, advanced typographic tricks, etc.), then you probably need more than what MS Word or OO can do for you. If that's the case, you've probably already figured that out.

## 3. What's the specialty?

Beware programs that claim to do everything. Microsoft Publisher, for example, is lauded as being capable of "professional marketing materials in house for print, Web, and e-mail." Anything that designs documents for e-mail is not going to be specialized for high-quality print projects too. Rather, look for the right application for what you're primarily going to be designing. If you're going to be doing PDF projects with occasional print-on-demand, Adobe InDesign is a good choice. Are you primarily focusing on high-quality print pieces? Quark XPress may be a good choice, as it's still the most widely used format taken by print houses. (Many newer upstarts actually prefer PDF nowadays; go figure.) The ultimate specialty layout program is probably Framemaker, which is designed for technical documents that are hundreds and thousands of pages long. It may not be what you're looking for, but you never know. It's out there if you need it.

## 4. How does it handle graphics?

Consider the amount of graphics manipulation you'll have to do once images are dropped into your document. Adobe InDesign lets you import native Photoshop and Illustrator files and re-edit them as you work. Quark XPress likes EPS and TIFF files, but has some problems with displaying EPS files on screen, and occasional issues with printing transparency effects. Microsoft Word works best with BMPs and TIFFs, won't let you import some file types at all and doesn't like when you mess with graphics much except to resize them a little bit.

## 5. How does it handle text?

Microsoft Word handles words well enough, but its text rendering engine leaves much to be desired. For example, it handles justification by just adding white space between words, which can create "rivers of white" down your page. It also applies text styles like Bold and Italic in a much more haphazard way than professional layout programs. PageMaker and Quark handle text much better, and Adobe InDesign's text rendering image has typesetters alternately drooling and crying with



joy. The good (?) news is that most people won't notice the difference between the same block of text generated in all these programs. The bad news is that even if they don't consciously notice it, they'll be perceiving the page differently.

### 6. What does your printer say?

Many printers will scoff at you, or charge you extra money, if you try to hand them files generated from Microsoft Word or Publisher, due to the inconsistencies that inevitably creep into these documents when they're printed out on different printers (even after they've been turned into PDFs, in some cases). Most old-school, larger printers prefer Quark XPress files, though the young upstart Adobe InDesign has more and more converts every day. If you're only doing PDFs, or your printer just wants PDF files from you to print from, then your larger concern will be distiller programs, detailed below.

## Layout Program Reviews

### Adobe InDesign CS

Reviewed by Preston P. DuBose

InDesign CS is the most recent version of Adobe's professional desktop publishing program. For those familiar with PageMaker, InDesign is a tremendous step forward in terms of tools. To help with creative layout tasks, InDesign offers tools found in other Adobe products such as Photoshop, Illustrator, and even Acrobat.

InDesign CS offers built-in support for exporting files to the Acrobat PDF format. When choosing the PDF export option, you are presented with a simplified version of Acrobat similar to what is found in the older Acrobat 5.0. The PDF creation tool comes with the usual bunch of presets for common tasks, such as 'e-book', 'print', etc. These settings are all customizable, and the program allows you to create and add your own preset to the dropdown menu.

InDesign does NOT give users the ability to edit existing PDF files. At best, it allows users to import and place PDF files on their pages as if they were pictures.

As one would expect, the PDF export tool gives you control over the level of image compression, which is an (if not the) important aspect for reducing file sizes. Strangely, the tool does not give users

as much control over fonts, and only fonts with appropriate permission bits will be embedded. This may cause trouble if you're using freeware or shareware fonts without the proper permissions embedded.

The InDesign PDF export tool's best feature is a simple checkbox. To explain, let me back up. InDesign can automatically generate a table of contents (TOC). To do so, just indicate which styles to include (thus, you'd better have used the style sheet to distinguish varying levels of headings from the body text) and how you want the text in the TOC to appear. Voila! Instant table of contents! When you choose to export the file as a PDF, you're shown a checkbox allowing the program to automatically create bookmarks. InDesign does this based on your TOC. This is potentially a big time-saver if you thoroughly bookmark your products, which an RPGNow poll indicates is a feature buyers want.

In conclusion, InDesign CS is a very powerful tool layout married to some basic PDF exporting options. With an MSRP of \$699, InDesign clearly isn't something to buy just for its PDF functionality. However, if you're already shopping for a high-end layout workhorse for your e-RPG masterpiece, you'll most likely find the PDF export tool meets your needs.

### Quark Xpress

Reviewed by Greg Porter

Quark Xpress is a long-running and fairly expensive page layout program with a full suite of features. It has a fairly standard, if initially bewildering, menubar and toolbar interface, and between the two of them you can accomplish any page layout, most word processing and some graphic needs. It will spell check, manage images, create any sort of shaped graphic box, and do special text effects like putting text on a curve. It can also support third-party extensions to do a variety of extra functions, like putting the hyperlinks in the source document rather than adding them later.

If you have it available to you, it is well worth the time it takes to learn how to use it, and even if you only scratch the surface, you can still create amazingly good looking layouts.

Approximate retail cost: US\$800

## Adobe PageMaker 7.0

Reviewed by John Alger

Review Rating: 3/5

This software is designed for those who are seeking to publish in print or PDF format. However, since it is primarily intended to create documents for printing, it lacks all the functionality that a true PDF creator would have.

Whether this product is good or bad depends a lot on what you want to do with it, hence I give it an average rating of 3 out of 5. If you plan to print your books, either through the POD option at RPGNow or through a more traditional printing method, this is a good tool to have. It offers dozens of templates and options for printing everything from flyers and brochures to textbooks. However, if you are planning to produce only PDFs, this is probably not what you need. Although it does create PDFs, it lacks some basic PDF creator functionality. For example, it does not allow for sub-directories in the bookmarks and it has a limited capability to add embedded scripts.

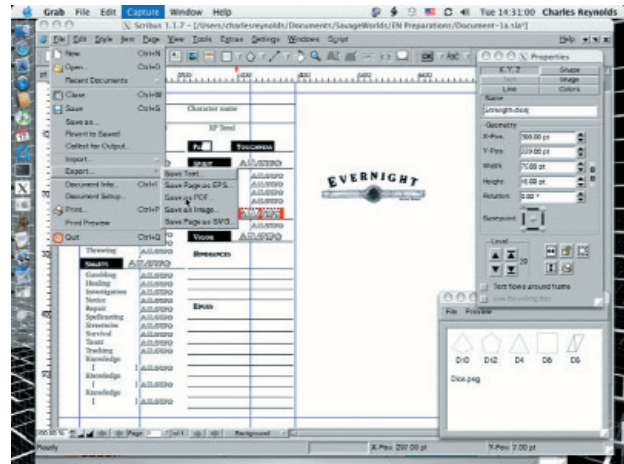
Adobe PageMaker 7.0 offers some basic security features including password protection and cut and paste lockout, though you might find it better (from your customers' point of view) not to use them. Like most PDF creators, it can automatically generate a table of contents, thumbnails, and an index and it can create a basic list of bookmarks. It uses master pages and allows for background images, automatic page numbering, internal and external hyper-linking, and other basic PDF functions. Another good feature is that it works seamlessly with other applications including Photoshop and Microsoft Word. Clicking on an image in PageMaker will automatically open a Photoshop application (if you have one) to manipulate the image. Clicking on any imported tables will automatically open your word processor and allow for manipulation of the text and colors. Some of the functions take some experimentation before you get them right, but for the most part they are not hard to figure out.

The User's Manual, however, is almost useless for PDF publishing. Since the PageMaker software is intended primarily for print publication, the User's Manual is dedicated almost entirely to functions related to that. Only a few short chapters in the back of the User's Manual are dedicated to PDF creation and this information leaves a lot of questions unanswered.

In summary, Adobe PageMaker 7.0 is a good product if you intend to produce both PDF and print material. However, if you plan to publish only in PDF format, some other application would be better suited to your needs.

## Scribus

Reviewed by Charles Reynolds



Scribus (<http://www.scribus.net/>) is page-layout software written for Linux and other UNIX and UNIX-like operating systems. It currently runs on any Linux, MacOS X (via Fink), Solaris, Open/Free/etc BSD. It is an open-source application released under the terms of the GPL. As of the time of this writing (17 Aug, 2004), version 1.1.7 is the recommended version for use with version 1.2 currently in "feature freeze" for ironing out bugs, awaiting language support files and documentation updates. 1.2 is scheduled for release in mid-September.

Full specifications for the program can be found at <http://www.scribus.org.uk/documentation/specs.html> and are slightly out-of-date as of the time of this writing.

I have found the learning curve of this program to be less steep than similar products I have used. While it lacks many of the higher-end and less-often-used features of programs like Adobe InDesign® and Quark Xpress®, it does contain all of the most useful features such as full Unicode support, text import, kerning, round and/or rounded objects including text frames, layers, CMYK color separation, PDF-forms creation with full JavaScript action support and automatic page-numbering.

It contains full support for plug-ins and is fully scriptable with Python (<http://www.python.org/>). Scribus was the very first PDF creation program – commercial or free – to be fully PDF/X-3 specification compliant. According to such PDF pre-flight software as MarzWare FlightCheck® and Enfocus Pitstop for Acrobat®, Scribus produces fewer PDF output errors than *any* other PDF creator available.

Overall, I consider this a very solid application. If you need to produce clean PDFs for print production – regardless of whether you need CMYK, ICC, PostScript Level 3 or full-press support – and can't afford that \$1,000+ per seat for Quark or InDesign, this is the program for you.

### **Microsoft Word**

Reviewed by Greg Porter

This package dates back to the days before there were page layout programs, and as a result it was often forced into that role. Current versions

have enough features that it is still passably useful if you don't mind spending the time and effort to push it past its designed limits. It is not as customizable as a dedicated page layout program, but you can spell-check, set up multiple column layouts, import a variety of images, do basic text effects, minimal drawing tasks, have custom headers, footers, tables and frames. It would take a lot more work than in other programs to do certain things, and some things are *still* impossible, but it is the software you are most likely to have access to on the cheap. It is available as part of the Microsoft Office suite of programs [Microsoft Word (word processor), Microsoft Excel (spreadsheet), Microsoft Outlook (office management), and Microsoft PowerPoint (presentation graphics)], or as a standalone product.

Approximate retail cost: US\$350 (as part of the Microsoft Office suite of products), US\$250 (standalone)

## **What to look for in a Distiller Program**

### **1. Do you need a separate program?**

A growing number of layout and image programs (as well as the Macintosh Operating System) are capable of generating PDFs natively, without a separate distiller. Newer versions of Microsoft Word, OpenOffice and Adobe InDesign will all distill from within the program, and even Adobe Photoshop will let you export a one-page 'PDF'. Some of these do a better job than others. With Microsoft Word, you're usually better off generating a PostScript .prn file first, and then distilling that separately, to ensure better accuracy. OpenOffice and InDesign will generate fairly clean PDFs, but they won't be optimized, and will thus be anywhere from 25% to 50% larger in size than they will be after optimization in, say, Adobe Acrobat. Serif PagePlus, the newest young upstart, apparently does a decent job as well.

### **2. Does it have bells and whistles?**

Many of the free distillers on the market will do a great job of giving you a PDF, but they won't allow you to add many of the features that make PDFs more appealing to an audience, such as bookmarks, hyperlinks and a detailed table of contents. Adobe Acrobat, of course, offers all these and more. Some of the other programs also give you more to work with, including

PDF995 (though less reliably). If you're going for the ultimate whiz-bang effect with your PDFs, you'll probably want Adobe Acrobat, although version 5.0 will give you just about everything you need at a lower price.

### **3. How reliable is it, and how gracefully does it fail?**

Adobe Acrobat Distiller does a fine job of distilling most of the time, but when it fails due to a problem (such as, finding an RGB image when it's going for Grayscale, or a missing font), the error reporting leaves a lot to be desired. It tells you what went wrong, but not where the problem lies in the file. This is particular issue when using Microsoft Word. In many cases you can hand-edit the .prn file to remove the offensive font reference, but this is hardly an optimal situation for a non-power user.

### **4. How easy is it to use?**

Ghostscript is powerful, but using it can be confusing for those unaccustomed to a command line interface or Open Source software. Here's an example of a command (from <http://mapage.noos.fr/kimble/papers/pdf-from-word.htm>):



```
gs -q -dNOPAUSE -sPAPERSIZE=a4 -
sDEVICE=pdfwrite -dPDFSETTINGS=/default -
sOutputFile=pdffile.pdf analysis.ps
```

To be fair, there's a long list of programs used to enhance Ghostscript to make it easier to use, but for the novice it can still be daunting. Adobe Acrobat, on the other hand, has a nice user interface, with plenty of built-in help files and tips, as well as good online support. Your own personal comfort level is the major factor here.

### 5. How transparent is it?

Adobe Acrobat Distiller is the opposite of transparent – you open a separate program window and watch it actually distill, page by page, until it spits out a PDF for you to open in Acrobat. Programs like CutePDF allow themselves to be installed like a printer, so any program that can print is thus able to print to a PDF, using the program as the printer. Further transparency comes in the form of a built-in distiller such as that used by the current Macintosh OS; if you take a snapshot of your screen, it's saved as a PDF instead of an image file like a TIFF or PICT file, as has been common.

## Distiller Program Reviews

### Acrobat Professional

Reviewed by Greg Porter

The distilling and editing program made by the company that invented the portable document format (PDF). It has all the whistles and bells for customization, but also has presets and drag-and-drop functionality so that once you know what you want, it is trivial to go from an output format like PostScript to a nearly complete PDF. It also provides all the print drivers needed to generate PDFs directly from most programs.

Approximate retail cost: US\$400

### Adobe Acrobat

Reviewed by Dana Jorgensen

No, not the Acrobat Reader, but the full-fledged, full-blown copy of Acrobat, the software that was created to make all the files you read with Acrobat Reader. For various reasons, I ceased upgrading Acrobat after version 4.0. At that point, Acrobat had

added fledgling DRM components, Acrobat JavaScript, and adherence to font restrictions. Due to the font issues (which had been provoked by an unfounded industry-wide fear that licensed font files could be extracted and stolen from PDF files) I first fell back to Acrobat 3, then later began searching for better alternatives to using software nearly 10 years old. I have tested more recent versions of Acrobat, but none of the “new” features provided me a value that overcame the font restriction hassles.

Acrobat comes with a number of subprograms. First is Acrobat itself. This is Adobe's PDF viewer and editor. When you open it up, you'll find it looks identical to Acrobat Reader, but also provides a number of additional features for editing and enhancing your PDFs. It can add security features and bookmarks, generate page thumbnails, even add form processing, database interfacing, and JavaScript programming. The superiority Acrobat has over its competitors comes from the fact that all editing you do is live and active within the PDF the moment you finish making the change. The majority of the alternatives simply do not include this feature.

The second subprogram is Acrobat Distiller. This is your PDF generator, used as a print driver to create the initial PDF files. Amusingly, almost universally, to get the distiller working as a print driver, you're forced to also install a separate PostScript driver which must be downloaded from Adobe's website, rather than being included with the installation files.

Third is Acrobat Catalog. With this, you can take an entire folder of PDF files and process them, generating a word index of the PDF files. This index can be searched, not only providing a list of files including the search term, but in newer versions also displaying a context sample to help you figure out which reference is most appropriate for your search. In addition, Acrobat and Reader will both highlight the search term's every appearance when you open the document.

Today, many alternative programs provide most or all of the commonly-used features of Adobe Acrobat, and at a significantly lower cost. In addition, a number of Adobe DTP programs like InDesign or PageMaker also come with a copy of Acrobat Distiller. Overall, for the starting PDF publisher, the role of Adobe Acrobat is vastly diminished in the marketplace. Most of us have no use for features that are, quite frankly, aimed at the world of big business

and corporate culture, rather than creative works and general publishing. Adobe Acrobat's role is further diminished by its price. In the past, Acrobat retailed for \$149 to \$199 for the full version, with upgrades costing \$69 to \$99. With the release of version 6, you need to obtain Acrobat 6.0 Professional in order to get the features that have been standard for so many prior versions, so it will set you back \$449 for the full edition or \$149 for the upgrade. For many starting publishers, these costs are simply too much to bear in the first year or two of business, and perhaps longer.

### **JAWS PDF Creator**

Reviewed by Dana Jorgensen

For years, I relied on Acrobat 3 for my PDF generation, even after upgrading to 4.0. I had issues with 4.0, mainly consisting of the sudden and unexpected support for font restrictions years after Adobe introduced that feature to fonts it sold. For the record, my issue isn't with the font embedding restriction technology, but rather the ridiculous number of restriction states that many font developers refuse to properly document. There's nothing more annoying than blowing \$30 to \$50 for a supposedly "full commercial-use licensed" font, only to find out I cannot embed it into a PDF headed out to the printers, nor can I distribute the font to my printers on a limited basis so they can output my books without problem.

Anyway, after a drive failure that coincided with a big scratch on my Acrobat 3 CD, I began the hunt for a new PDF writer. My first choice was JAWS PDF Creator, which I stuck with for about three years. JAWS PDF Creator is a nice little program which integrates itself into the print layer of the operating system. This means that you can generate a PDF from any program capable of outputting data to your printer, everything from your favorite text editor to your web browser to your preferred DTP program. It also supports a very impressive range of page sizes, including architectural/blueprinting standards, as well as posters up to 200 x 200 inches. There are also a number of other, somewhat useless, features they've added lately, like support for Kanji (Japanese text).

Along with JAWS PDF Creator, the company also produced JAWS PDF Editor. While I have never used their editor software, the feature list provided on their site indicates the program is competitively feature-rich when compared to Adobe Acrobat. No Acrobat JavaScript, however.

As I stated earlier, I stuck with JAWS PDF Creator for several years. I found that the software worked fast, created end files sized competitively with optimized Acrobat-generated PDFs, didn't choke in character positioning with some troublesome fonts like Busorama, and most importantly, I didn't have to worry about font embedding issues. Unfortunately, I did finally encounter one issue that ultimately forced me to dump JAWS PDF Creator. The PDFs it generates are encrypted. This means that while any PDF reader software can open a PDF for your viewing pleasure, if you need to index the text of the file, Adobe Catalog will think there's no text to be found. At \$79.00, JAWS PDF Creator is an excellent option for the beginning publisher seeking a full-featured generator. Additionally, it can be obtained with the JAWS PDF Editor as the JAWS Partner program package for a mere \$95.00, less than half the price of Adobe Acrobat. However, if you are working on a series of related products for which you intend to eventually generate a unified Adobe index, you'll need to choose a different software package.

### **PDF995**

Reviewed by Dana Jorgensen

<http://www.pdfedit995.com>

PDF995. Strange name, isn't it? Well, I'll start by telling you that PDF995 refers to what the program does and it's retail price. That's right, a PDF generator that costs a paltry \$9.95! There isn't a single PDF maker that's cheaper, and if you don't have that kind of cash, you can use it for free, as long as you don't mind the pair of web browser popup ads that will appear every time you make a new PDF. Based on the code for Ghostwriter, PDF995 isn't a particularly powerful program, and it doesn't create particularly small files; mine average about 40% larger than a file out of Acrobat 4. However, size aside, folks won't have much to complain about. Unfortunately, PDF995 just creates the PDF file and no more.

To gain additional features, you need to obtain PDFEdit995. This additional program allows you to add a number of features to your PDF, similar to what you would be able to add if you opened the initially-distilled file with Adobe Acrobat. Unfortunately, PDFEdit995 suffers one serious drawback; it is essentially a GUI control panel for a command line program. This means that editing changes are processed in a batch, rather than being live changes in the active file. In other words, you cannot add these features while you watch what you are doing like you would in Acrobat. This means you need keep the original distilled PDF backed up, check the edited PDF, and if not correct, start all over again with the backed-up distilled PDF. This “backup, edit, review, try again” process continues incrementally through each individual feature you want to add to the PDF with PDFEdit995. Quite a troublesome process, to say the least. However, there are a number of benefits to some of the features which you won't find in Adobe Acrobat.

Need to add a link repeatedly? PDFEdit995 can batch process the entire PDF and create a hyperlink for every instance of the selected text. There are plenty of other cool things, too. Apply ‘stationery’ to an entire document adding repetitive headers, footers, & background art. Add text watermarks. Run batch merging of multiple PDFs. Export your text as HTML or a Word document. Export the graphics. And, of course, optimize the document. This definitely helps bring file sizes down, sometimes doing a better job than the optimization in Acrobat. However, don't expect to be using PDF security features. They aren't supported in this program.

If you want ‘security’, then you move on to the last program of the PDF995Suite triumvirate, Signature995. Amusingly, Signature995 in and of itself does not support the standard PDF security scheme (which consists of optionally locking printing, editing and/or cut'n'paste). Instead, it provides an encryption system that allows digital signing and verification based on the digital certification scheme built into Microsoft's e-mail programs. Additionally, it also provides a password-protected encryption system that seals not only .PDF, but also .DOC, .XLS, .PPT, and .ZIP files, preventing them from being opened without first decrypting the file with Signature995. But don't worry. There is a free

add-on that allows you to utilize the usual PDF security scheme.

Separately, these programs cost \$9.95 each, or you can buy them as PDF995Suite for \$19.95. Overall, while slow and not exactly intuitive to use, these three programs can do a job that not only competes well with Adobe Acrobat, but adds a few extra features you can use outside the PDF arena.

However, we are not done yet!!! Next we have Search Within. You guessed it, retail price of \$9.95. This program is synonymous with the Adobe Catalog program in that it generates searchable indexes of file collections. However, these publishable indexes don't work with anything but Search Within, so you'd still be left opening up a PDF reader and going to the right page of the document. Search Within does have a few plusses to it. First, it indexes more than just PDF files. It will also process Text, HTML, Word, Excel, PowerPoint and Word Perfect documents. On top of that, the engine can be integrated by CGI script with a web server, making it a very powerful internal site search engine. This program isn't necessary if you have a copy of Acrobat. The PDF995-generated PDFs are compatible with Acrobat Catalog.

There is also Omniformat, a document conversion program that handles 75 different file formats. It can cope with a variety of document, image, and video formats, including a wide array of extremely uncommon, esoteric ‘professional’ formats. More importantly, it also includes digital rights management via a module in Signature995, and there is a free OCR module for converting image files of page scans to text. I currently cannot speak for the quality of this OCR feature.

The same company also produces PhotoEdit995, a generic photo-editor package that has the usual basic amateur features of the photo-editor software that was probably bundled for free with your scanner. A GIMP-based add-on module beefs up the features, but it's still no Photoshop.

There are also a number of other programs. The Backup995, FTP995 and Zip995 programs obviously have little to do with PDF creation, and UltraPDF, while it sounds like a powerful big brother to PDF995Suite, is actually for a proprietary file format. While it is cool to be able to merge PDFs, Word DOCs and Flash animations into a single file, it will choke anything in which you try to



view it, other than UltraPDF. However, if you thought PDF995Suite was a great deal at \$19.95, the company will sell you all the programs I've mentioned in this review as the PDF995 Toolset for a mere \$29.95. Best of all, for that one flat fee, you get an entire package that sets you on your way to doing business with RPGNow: you get PDF creation and editing software, a Zip tool to prepare your file for upload, and an FTP client so you can upload to RPGNow's file server.

On the most basic level, PDF995 is one of the easiest and cheapest PDF generators to use. Unfortunately, once you move past PDF generation, the system becomes very user unfriendly with its counterintuitiveness. In my opinion, the greatest flaw is the fact that editing and security are not live features, but added via the batch processing principle, so you don't see what's going right or wrong. Some of their other programs are similarly flawed by odd design decisions, such as Omniformat. To convert from an RTF file to a Word file, for instance, you must first convert the RTF to an image format, like JPG, then OCR that image file to re-extract the text. In the process, you also lose most of your font and formatting selections. The only software the company produces that approached the ease of use of PDF995 is FTP995, their FTP software.

### **FinePrint PDFFactory Pro 2.24**

Reviewed by Dana Jorgensen

PDFFactory Pro is in my opinion, simply the best PDF generator you can possibly buy. Working as a print driver, the software easily generates accurate PDFs, even taking into account the fonts. Two features made PDFFactory superior. First, it doesn't create the final PDF until you're ready, and second, it will stack up print outputs. This means that you can create your book in smaller parts that are easier for your computer to manage, print them one by one to PDFFactory, and then arrange them into proper order before finally outputting the PDF. One more very important feature is the ability to select what version of the PDF standard you want the final PDF to support. With this capability, you can produce PDFs that can only be read on Adobe's latest software (version 6, usable only on Windows ME/2000 and up, as well as Mac OS/X) or be so backward-compatible as selecting PDF

standard version 1.2, which should be supported as far back as Acrobat Reader 2.0. That would mean people could read your PDFs on pre-Windows 95 computers running the old DOS operating system, as well as just about every other operating system used between 1990 and 2004. One final important feature is the ability to create multiple PDFFactory printer drivers. You can create one for screen output and another for POD output, and create two versions of your PDF in a very orderly fashion by shuffling back and forth between print drivers.

While no PDF reader is included, the use of additional features (such as creating bookmarks or including security options) is relatively easy, since PDFFactory has two important features to support this. First is the preview window, which allows you to see what you're doing as you prepare your list of bookmarks or do anything else that requires access to the PDF's contents. Second is the capacity to save the PDF without PDFFactory closing. This means you can open the file in Acrobat Reader, review it, and immediately go back to PDFFactory Pro in order to make any additional changes you desire. While more difficult than simply using a full-blown copy of Acrobat, it is also vastly easier to do with PDFFactory than it is the PDF995's suite of tools.

As a final note, I'd also like to mention that PDFFactory Pro's PDF files are compatible with Acrobat Catalog, and I used it to generate again all the PDFs for the indexing of my Big Bang series of products. At \$99.95, I consider PDFFactory Pro to be the best buy of the many programs I've reviewed here.

# What to look for in an Image Program

## 1. How does it handle color matching?

Adobe Photoshop is the hands-down winner here. Unlike some cheaper (or free) competitors, Photoshop includes accurate palette matching and Pantone swatches, and has the most flexibility with color calibration between monitor and printer. If you need to tell the difference between Pantone 540c and CMYK values of 100,55,0,55, Photoshop may be your best bet.

## 2. Is it designed for bitmap or vector-based images?

Simply put, bitmapped images consist of little dots, whereas vector-based images consist of paths and points that define how a shape is made. Adobe Illustrator is meant for creating vector-based images, which you'll generally find in files labeled .ai or .eps. However, Photoshop and other programs will happily generate an Encapsulated PostScript file with an .eps extension that contains no such path information. Photoshop can even make vector-based shapes and typography, but they become part of the bitmap image once it's rasterized. Don't be fooled by Photoshop's pseudo-eps files! So which do you need? If you're generating logos, or drawing diagrams or figures from scratch for your document, you probably need Illustrator or something else that handles vector-based images. If you're working with art submitted by other people, retouching or colorizing, then Photoshop or the like is what you need.

## 3. What's the desired medium?

Some programs in this category can theoretically be used to generate graphics for print, but are geared more for use in creating web pages, online graphics and slides for presentations (Macromedia Freehand and Fireworks, for example, or Adobe ImageReady). Others can do mid-range graphics for things like PDF and print-to-order (like GIMP), but aren't optimized for use in professional print projects as they lack certain features. If you're gearing up to actually do a print run of several thousand glossy-covered books, you'll want to be sure the program you choose is going to make them look their best.

## 4. How does it handle change?

How the program treats layers is a key factor to consider. Being able to apply changes to the underlying image, and then remove them by deselecting overlaying layers, will save you lots of time when tweaking images. Despite this simple concept, each program seems to handle it a bit differently. For example, Adobe Illustrator has some peculiarities when it comes to grouping and regrouping objects, and learning to properly apply a layer mask can be difficult. Being able to undo changes to a document is another overlooked factor. Some image editing programs only give you a few dozen 'backward steps' or 'undo's', meaning that if you try to hit Control-Z too many times you'll find yourself unable to erase those last few bits that you really want to get rid of. Adobe Photoshop, in particular, lets you configure the number of 'undo's' that you want to allow (up to 1000 levels deep).

## 5. How much is too much, and how much isn't enough?

Most users don't need all the bells and whistles of Adobe Photoshop CS, and so a program like Photoshop Elements (cheaper) or GIMP (free) can be a much better option. Aside from the cost factor, too many options can be confusing and difficult to use. The aforementioned Photoshop Elements or Jasc Paint Shop Pro seem to offer a good mix of ease of use and availability of options. Of course, if you're an illustrator or are really going for power use, get something that offers you the widest range of options possible. If you try to cut corners and then find out you can't do something after all, it will only be more frustrating, not to mention potentially more expensive.

## Program Reviews

### Adobe Photoshop

Reviewed by Greg Porter

This program has been around long enough to be a standard. It's complex, but it needs to be. If it involves images, you can do it with Photoshop. There are also numerous plug-ins for nearly every imaginable purpose (such as the artificial planet shown in Chapter 3). However, if your needs run to vector-based art, there are simpler and less expensive programs which will handle that better.

Approximate retail cost: US\$650

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