

The Big Three: Markzware Flightcheck, Adobe Acrobat Professional 7, Pitstop Professional

Troubleshoot your

Stop being frustrated with corrupt files.

The first day we started to use Macs to output pages to an imagesetter back in 1985 two things became very clear. First, this was a graphic arts revolution in the making. Second, there were often problems in the film output, even if things looked great on-screen or on a laser or inkjet print. Since that day, we've been working on ways to guarantee

that the film will work the first time. The biggest part of it is knowing how to construct our files in the first place, avoiding all the potential problems with fonts, ink colours, images, trapping, page size, colour balance and levels, and so on.

By Bob Atkinson

Despite some twenty years of practice, we still see improperly prepared files every day. This problem is most serious at print shops and output service bureaus that receive files from many clients with varying knowledge levels and millions of fonts. This is really where the rubber hits the road, and most of these people will tell you that anywhere from 30% to 50% of

file problems

Tame them with preflighting solutions

the files they receive have problems. These jobs can come in as original native application files such as InDesign, QuarkXPress, PageMaker, Illustrator, or FreeHand, with the supporting files such as fonts and images included separately or, preferably, as cross-platform interchange files like PDF or EPS, which can be saved to embed all the supporting fonts

and images. Ironically, while these interchange formats are a good idea, they are harder to edit and problems are harder to fix since PDF was designed from the start as a universal delivery format, not an editing/composition format.

The key problems include missing or damaged fonts and images, poorly processed photos with too-low or high

resolution or ink totals above press limits, incorrect colour modes—RGB or LAB—or profiles, wrong page size, improper or no trapping, unintended spot colours, and several other issues.

Not surprisingly, a whole crop of programs have appeared over the last twenty years, first focusing on detecting, and sometimes fixing, problems in the original

native application files, and, especially in the past five years, focusing on PDF files as they move to dominate the field. If you're in the business of receiving files from others for output to film or plate, the ability to preflight them is essential. With that in mind, let's look at some of the preflighting options available today.

The Acrobat option

Before you look into buying and learning a dedicated preflight program, you should look at the preflight capabilities of the programs you may already have. For example, most print and design shops have Adobe's Acrobat Professional, currently in version 7 (\$540 for Mac or Windows program; \$190 to upgrade from 6.x; or as part of Adobe's Creative Suite 2 Premium bundle for \$1,530). This version has vastly expanded and improved preflight capabilities with PDF and EPS files. It converts them to PDF as you open them, so make sure to check Acrobat's Convert to PDF preferences before you open EPS files.

Listed under Tools...Print Production and under Advanced...Preflight, the Preflight command spots a wide range of potential problems in PDF files, but correcting these problems is up to you. When you select the Preflight command with a PDF file open in Acrobat, you're first presented with a list of about 50 preflight profiles, or rule sets, that allow you to check the files for suitability with 16 common print uses, including magazine ads, newspaper ads, sheetfed CMYK, coldset web CMYK, PDF/X-1a. You also get more than 30 profiles for more specific tests, including list images lower than 250 dpi, list images not CMYK or spot, list text using non-embedded fonts, etc.

Checking your document is as simple as double-clicking on one of these profile names, and Acrobat produces an on-screen report with three indicators: Error—likely a serious problem, indicated by a big red X; Warning—possibly a problem, indicated by a yellow caution sign; or Info—not necessarily a problem, but perhaps worthy of noting or correcting, indicated by a blue circle.

Depending on which profile you've chosen, it can check almost every aspect of a file, including missing or damaged fonts, incorrect image colour modes or profiles, page or bleed size problems, trap or overprint problems, too many colour plates and much more. If the problem is caused by a specific image or text block, double-clicking on the error will highlight the problem element in the document.

Top 10 printing innovations 1980-2005

Monumental changes have occurred in this industry over the past 25 years, from photomechanical typesetting machines, PMT camera stands, paste-up tables and film stripping to computer/press systems where jobs are imaged from computer directly to the press at 300 lines per inch and the makeready is done in ten sheets or less. In short, we've jumped forward more in these past 25 years than we did in the previous 200 years. How did we get there? Here are my top 10 hits ...

Prepress

It's all about what we first called desktop publishing—it started in 1985, but was largely ignored by the graphic arts industry for a few years. But when it finally found a home there it changed everything. How did it all start? There were four components ...



Macintosh SE/30

■ **Apple's Macintosh line of computers (1984)** While woefully underpowered in the first few years, the Mac was the world's first widely popular WYSIWYG—what-you-see-is-what-you-get—computer, showing type and graphics accurately on-screen. It went on to sell millions, especially in the graphic arts, new media and education markets. Its visual metaphor of the desktop inspired MS Windows a few years later, although it took well over a decade for it to catch up and make any impact in the graphic arts marketplace. Today, both Mac and Windows computers are common in print and design shops, creating all of the print work we do.

■ **PostScript—Adobe's first product (1983)** This page-description language describes all text and graphics mathematically, meaning that an output device that understood it—a laser printer or, later, a film-based imagesetter—could produce an image at whatever maximum resolution the device was capable of. That could be 300 dpi for an early laser printer like Apple's 1986 LaserWriter, an Apple/Canon-built device that combined a photocopier mechanism and a small laser that "drew" the image on the copier drum, or 2,400 dpi or higher for the laser-based film imagesetters that soon followed from Linotype, Compugraphic and Varityper. PostScript-format typefaces followed soon after.

■ **Professional software and PostScript print drivers for Mac and Windows** Apple's early MacWrite, MacDraw and MacPaint programs inspired Adobe and a dozen small start-up software companies to create the first generation of professional graphic arts software, starting with Adobe's Illustrator, PageMaker from Aldus, and FreeHand from Altsys. Adobe's Photoshop followed not long after, giving designers and prepress people an early but complete tool set. QuarkXPress was last on the scene at the end of the '80s.



Nikon CoolPix 8700

■ **High-quality digital input and proofing devices** Over the course of about ten years, we went from film-based cameras and \$200,000 drum scanners to high-quality digital cameras and \$500 desktop scanners used to produce *Time* magazine and millions of other print projects around the world. From expensive and time-consuming film-based contract proofing systems like Chromalin and MatchPrint to dye-sub, digital halftone and inkjet printers capable of highly accurate proofs in minutes at a fraction of the cost.

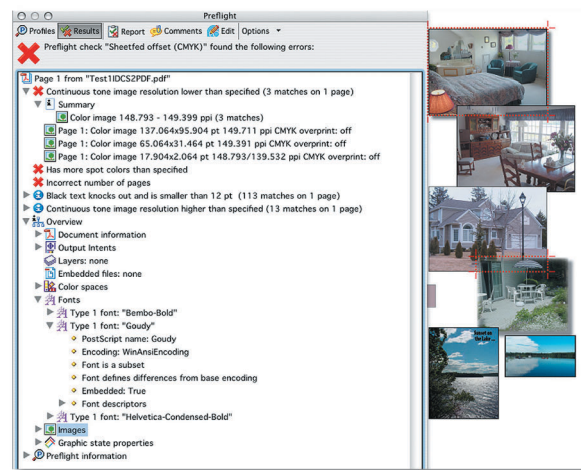
One problem, however, is the detail presented. The report, viewed in its entirety, can run on to 20 or more pages, because many of the profiles, especially those that verify PDF/X compatibility, will list a bevy of small problems that would not really affect the output in the vast majority of cases. Fortunately, Adobe allows you to easily create your own preflight profiles. Just bring up the Preflight window, click on the Edit tab at the top, click on an existing profile close to what you want, hit the Duplicate the Selected Profile button below the list and give the copy a new name, then save it. Now you have a profile you can edit to check for just what you want, setting warning, caution, info and ignore status for every item. Unless you work in PDF/X, you'll want to turn off a number of the warnings under PDF/X and Custom Checks. Acrobat's online Help system does a fairly good job of explaining all the various options available.

Acrobat 7 is my candidate for most-improved application of the past year, offering a host of new capabilities for prepress pros, including trapping, colour conversion, plate previews, ink table adjustments, PDF optimization and JDF support. It's easily worth the upgrade price and, if you work in a PDF workflow, is an essential tool.

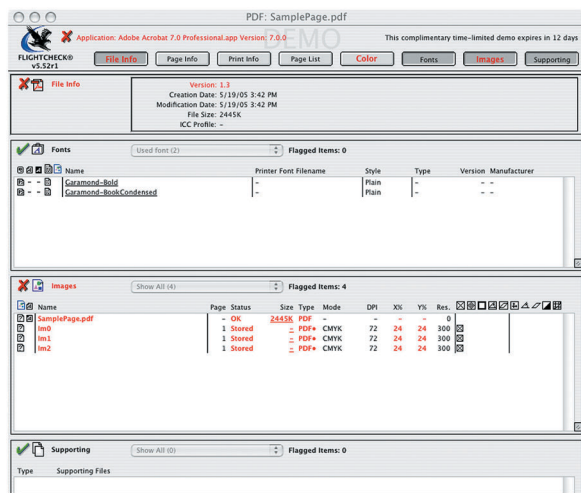
Other options

Since Acrobat can detect, but not correct, problems in files, PitStop Professional 6.51 from Enfocus (\$730; part of a line of PDF products that includes Instant PDF and PitStop Server) is a fabulous companion to Acrobat. Acting as an Acrobat plug-in, it can do even more detailed inspection of PDF files and, more importantly, can automatically or manually correct many of these problems.

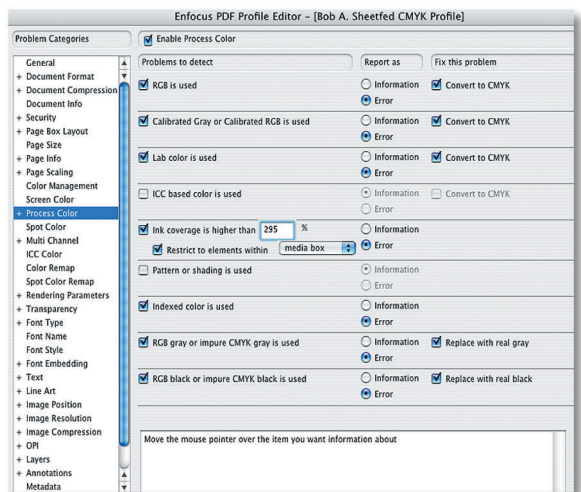
PitStop Pro allows you to inspect and edit text, images—resampling resolution or adjusting colour space, for example—and colours. It corrects more than 100 potential problems in PDF files and tracks all the edits made to the file along the way, creating a Certified PDF. While PitStop mod-



Acrobat 7 Report A typical preflight report in Acrobat 7. The red Xs indicate potentially serious problems. Note the selected photo in the layout which has a problem identified in the report.



FlightCheck Pro Report A sample preflight report from FlightCheck Professional. Clicking on each of the buttons at the top will show you the results of checks in colour, fonts, images, and potential trouble spots.



PitStop ProfileEditor Creating your own custom profile to preflight with PitStop Pro inside Acrobat. Note the fixes you can choose to apply on the right.

ifies almost any element of a PDF file, we'll focus here on its preflighting detection/correction capabilities.

Like Acrobat's own preflight system, PitStop also has a list of standard print-industry preflight profiles. They are brought up under Window...Show Pitstop PDF Profile Panel or under the toolbar that it adds to the top of the screen on installation. You can select any of these profiles and then hit the Create Report to check the PDF file you have open in Acrobat, but the difference here is that PitStop can actually correct many of the problems detected, rather than just reporting them. After a minute or so, it generates a PDF file of the report, telling you the problems it detected and those it fixed. If none of the standard profiles is right for you, you can create your own custom profiles with the checks and fixes you need.

The list of things PitStop can detect is huge, including PDF version, PDF/X compliance, ASCII format, improper colour modes or profiles, total ink coverage, inadvertent spot colours, transparencies, font types and embedding, image resolution, and much more, and many of these can be corrected on the fly. The Acrobat Professional 7/Pitstop Pro 6.51 combination, while expensive at about \$1,270 total, is an unbeatable duo for fast flight-checking and automatically fixing most problems in PDF files.

The major shortcoming is that Acrobat, with or without PitStop, can't open or check native application files. While these native programs have a variety of preflighting capabilities—InDesign CS2 is probably the best at it—you'll want a different preflight program that can open and detect problems if you get a lot of these files through your shop.

Perhaps the best example of a multi-file-format dedicated preflight program is FlightCheck Professional 5.52 (\$629 for Mac or Windows, from Markzware, part of a whole line of plug-in, stand-alone, server and Web-based preflight programs). FlightCheck Pro can open a wide range of files, including Illustrator, PhotoShop, and InDesign CS, as well as

CorelDraw 9, FreeHand MX, QuarkXPress 6.5, PageMaker 7, PDF, EPS and even files created by non-pro applications like Word, PowerPoint or Microsoft Publisher. It has excellent default sets of standard checks for generic prepress files and all variations of PDF files, and, as with Acrobat Pro and PitStop Pro, you can set a huge list of checks—up to 160 items—for FlightCheck Pro to run on files, setting each to offer a warning (big black box) or a note (small black box). You can create as many different custom “ground control sets” as you like for different sorts of job requirements.

Once you choose either a built-in set of checks or create your own, just pick it and open the file you want to check, and after a few seconds, FlightCheck will generate a report for you with all the errors and warnings it detected and brief—sometimes cryptic—recommendations on how it might be fixed. (One of the first program preferences I changed was to turn off the eagle squawk alert sound you hear when it finishes its check with Flight.) You can save the check results as a text file or print them for reference. Remember, FlightCheck Pro will not fix the problems detected, it just warns you about them and recommends how they should be fixed before output. That said, FlightCheck Pro is probably the best single program when you need to check many file formats.

Regardless of your preflight software choice, not all file problems can be easily corrected in your shop: 72dpi images will not work if forcibly re-sampled up to 300dpi; a missing font is still missing; a page 2" wider than planned is still too wide. You'll need to get the file's original creator to fix the file from the raw components in many cases.

That said, preflighting is an essential self-defense capability for publications, output bureaus and print shops that receive files from clients daily. Design shops and others who create (but do not output) files should look at more basic preflight programs like Markzware's FlightCheck Designer—\$249—which offers much of the basic functionality of the Pro version at a lower price. With programs like it, you can verify that your files are ready to output before sending them off. ■



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Press:

■ **High-quality/high-volume Xerography and VI Printing** Toner-based printers have come a long, long way from their photocopier parents. Modern systems, like Xerox's iGen3 and others, can produce images virtually indistinguishable from conventional presses, on paper, card, vellum and even mylar or other plastics. And with in-line finishing equipment, they can produce entire magazines, reports or books in a single run. To that, add their capability of real-time imaging each page and you get VI—variable image—printing, allowing for the ultimate in customization with a unique print piece for each and every reader.



Docucolour iGen



■ **CTP** Just under a decade after the first film-based imagesetters, the first large-format (4- and 8-up) computer-to-plate devices began to appear, using thermally imaged metal plates. This eliminated film from the print process, saving considerable time and money. It also meant the beginning of the end of traditional film-based contract proofs, but fortunately digital proofing devices like high-quality inkjets have stepped up to the task. Today, we use metal and polyester plates, imaged with thermal and violet light technology while process-free plates are moving into the mainstream.

■ **Colour moves into quick-print shops** In 1980, quick print shops worked almost entirely in black and white or spot colour, but all that's changed. Today, with colour DI presses and high-quality colour toner-based devices, even the smallest shops can offer good-quality full-colour work, even in very short-run, 500-copy jobs.

■ **New imaging technologies** A family of new technologies has gone a long way to improve the quality of the images we print. Waterless presses use new inking and plate chemistries, abandoning the traditional oil/water methods, allowing for much higher line screens (250 to 400 lpi) and faster makereadies. FM, sometimes called stochastic, screening abandons the traditional AM screens entirely, replacing them with a scattering of much finer ink dots, like those produced by inkjet printers. This eliminates artifacts like moirés and rosettes entirely, producing printed sheets that rival photo prints. Finally, wide-gamut/smooth gamut printing, using six or seven process ink colours produces incredibly smooth mid-tones and an extremely wide gamut of printable colours, including previously impossible deeply saturated blues, violets, oranges and reds.

■ **DI/DOP presses** These are the next wave, connecting the computer directly to the off-set press and imaging the plates in real-time. DI presses like Heidelberg's popular GTO/DI series have been around for just over a decade now, and are popular for short-run work at small sheet sizes. DOP (digital offset presses) take this technology to the next level, with large-format presses and high-volume, high-quality jobs. Look for current offerings to become more flexible and cheaper, both on the sheetfed and web fronts. *This is probably the most important technology for the next 25 years in our business.*



■ **Eco-friendly printing** With the rise of environmentalism in the '70s, we all became more aware of pollution issues, and the print industry stepped up to the plate. Vegetable-based inks, recycled papers, heavy-metal recovery methods and low-pollution film and plate processing techniques were common by the late 80s. Today's process-free CTP plates continue the trend, virtually eliminating the environmental issues associated with film and plate processing.