Setting up stable PS to PDF work flows from FrameMaker 5.5.6

Creating stable PDF from Adobe® FrameMaker® is simple and easy to do. In order to have it work repeatedly with satisfactory results, careful steps must be taken long before actual production takes place. This document outlines the basic steps to insure a stable FrameMaker to PostScript to PDF work flow on the Windows 95/8 operating system.

Apologies, but only cursory information is provided for the other platforms. Experts on the other platforms are urged to share their own ideas in future InFrame articles.

Overview

If you've subscribed to either FrameMaker email list, then you've seen many frantic posts about printer drivers. Perhaps you are one of those unfortunate individuals who have encountered numerous errors and frantically scratched at your scalp while the impending deadline fast approaches. While still a newcomer to FrameMaker culture, I vowed to avoid printer drivers in an effort to save myself painful distress.

Luckily, I was using FrameMaker on UNIX at the time, and was comfortable enough to laugh at the frantic masses while they scrambled to discover how to make their printers work. I soon discovered that the universe has a way of punishing those who laugh at others. Due to corporate reorganization, I was ripped away from my UNIX machine and evolved to support FrameMaker templates for both Macintosh and PC users.

After much troubleshooting, extensive testing, and bullet dodging, I've come to learn something about these strange printing devices we humans use to bring our intellectual designs to paper. Thanks to the Framers email lists and helpful contributions from experts like Dov Isaacs and Shlomo Perets, we now have a clear map through tangled printer cords, software version numbers, and obscure settings. Hopefully, you can spare yourself some extra grief.

Process

Two methods to generate PDF on the Windows platform are commonly used. One method invokes the "Save as PDF" feature. If "Save as PDF" works for you, continue to use it at your own risk.

The recommended method is to print to PostScript first and then distill the file separately.

The two methods are described in more detail below.

Comparing methods to generate PDF

Creating PDF from either method is dependent on the printer driver, the Acrobat Distiller PPD version, and the version of Distiller used to create the PDF. For standard PDF, establish a set of Distiller job options which meet all publishing requirements. Acrobat 4.0 allows Distiller job options to be saved as a file, which allows multiple setups for different output and easy distribution of standard settings.

Save as PDF:

1. Creates a PDF of the entire book.

2. Always generates Acrobat Data.

3. Uses the default printer (user must select Acrobat Distiller ahead of time, and switch back later).

4. Uses the user's Distiller (users often vary from standard job options).

Print to PS:

1. Allows you to create single PDFs for each chapter if desired.

2. Allows the user to decide whether or not they want Acrobat Data.

3. Allows the user to select the correct printer instance.

4. Allows user to take advantage of standard Distiller job options on a network watched folder.

An optimal PDF work flow will use a standardized Print to PS process and seek to eliminate the myriad of variables which may be introduced using Save as PDF. Save yourself and print to PS before you Distill.

Building a stable foundation

A good printing setup on any platform requires several basic ingredients. Like a premier chef, be familiar with each ingredient, its quality, and where it comes from. Don't expect to build a PDF skyscraper using paper clips and super glue. Take the time to standardize production workstations in order to build a solid foundation.

Fonts

PostScript Type 1 fonts installed through Adobe Type Manager are recommended. These high quality fonts will eliminate your chances of unpredictable line breaks in most every case, even when switching printer drivers or changing between PS and PCL printers. Adobe Type 1 fonts offer the most stable foundation for printing to any PostScript device.

Although some experts advise against using any TrueType fonts, you can get away with it provided you are acquiring these fonts from trusted sources. If you must use TrueType fonts with Acrobat 3.x, use the AdobePS 4.2.6 printer driver. Use the font substitution table under the Fonts tab of the printer properties dialog box to send TrueType fonts to the printer as Type 42.

In Acrobat 4.x, TrueType fonts are searchable if the AdobePS 4.3.1 driver is properly installed. Use the AdobePS 4.3.1 driver in Acrobat 4.x work flows. Again, send TrueType fonts to the printer as Type 42.

Printer instance

The basic equation for printer drivers on Windows is:

Printer Instance = PPD + Printer Driver

The PostScript printer description (PPD) is a .ppd file in the Windows\System folder that manages the device specific information for a printer or, in the case of Acrobat, a virtual printer. DPI settings, paper trays, output bins, etc. are specified via the PPD. The Acrobat PPDs are exclusively written to work with Distiller, which makes their correct installation a requirement for making stable PDF.

⚠ **Warning:** No matter where your PDF will be printed or viewed, use the appropriate Distiller PPD when generating the PostScript file from FrameMaker.

The printer driver is also located in the Windows\System folder and has an extension such as .drv. This is the printing engine that actually writes the PS file for use with the printing device.

It is a common misconception that the printer driver and PPD are the same. This is largely due to the Windows OS vocabulary. In some dialog screens where the user is prompted to select a "driver," the user is actually selecting a PPD.

⚠️ **Warning:** Do not use or install the following AdobePS printer drivers with FrameMaker 5.5.6 under any circumstances!

- AdobePS 4.3.0 for Windows 95/8

- AdobePS 5.1.1 for Windows NT

- AdobePS 8.6 for Macintosh

At present, the ingredients listed below work well with FrameMaker 5.5.6:

Acrobat version	Printer driver	PPD
3.x (3.02 for Distiller)	AdobePS 4.2.6 for Windows 95/8	Acrobat Distiller 3.0 (adistill.ppd)
	AdobePS 5.1 for Windows NT	
	AdobePS 8.5.1 for Macintosh	
4.x (4.05 shipping soon)	AdobePS 4.3.1 for Windows 95/8	Acrobat Distiller (adist4.ppd)
	AdobePS 5.1 for Windows NT	
	AdobePS 8.5.1 for Macintosh	

The above information was recently announced by Adobe's Worldwide Product Support Manager on both Framers email lists. The newer printer drivers (Macintosh 8.6 and AdobePS 5.1.1 for NT) offer useful features for Adobe InDesign which are incompatible with FrameMaker.

◆ ***To determine which PPD and Printer driver are in use***

1. Print a test page (from Start>Settings>Printers, choose the printer and select Properties). This provides detailed information.

2. In the printer Properties dialog box (Start>Settings>Printers, choose the printer and select Properties), click the Paper tab. Near the bottom middle is a button called "About." Clicking that gives you a message box about printer driver version number and the PPD in use. This method is quick, but not as thorough.

Installation and tweaks

Once you've selected the printer driver and PPD to use, you must be careful to install it properly. There are several printer properties which can be helpful to standardize results.

◆ ***To install an AdobePS printer instance***

1. Download the appropriate driver from the Adobe website (see http://www.adobe.com/support/downloads/pdrvwin.htm).

2. Delete all previous Acrobat printer instances from Start>Settings>Printers (including PDFWriter, Distiller Assistant, etc.).

3. Identify and locate your appropriate Acrobat Distiller PPD files (adistill.ppd for Acrobat 3.x and adist4.ppd for Acrobat 4.x).

4. Execute the driver installation sequence.

5. During the installation, be sure to set up the printer instance as follows:

   a. Local printer.

   b. Set to FILE.

   c. Pointed to appropriate PPD.

   d. Named as desired, indicate version of Acrobat or printer driver manually for easy future reference.

◆   ***Tweaking the printer instance***

At the end of the installation process, configure the printer properties as below.

Note: the printer properties can be accessed for tweaking at any time through Start>Settings>Printers by highlighting the printer and selecting File>Properties.

1. Click the Advanced button (under the PostScript tab) to change PS output to binary.

2. Under the Graphics tab, set the dpi value to match your Distiller job options.

3. *For AdobePS 4.2.6 only:* Set PostScript tab to read optimize for portability if you're unable to successfully distill using the default optimize for speed setting. This will create a larger PDF, but can help in some situations.

    Note: The AdobePS 4.2.6 driver is known to have two bugs:

    a. A 256 page printing limitation.

    b. Spacing and display errors if used in conjunction with a PPD of PS version less than 2015.

        If using AdobePS 4.2.6 with a physical printer, be sure the PPD to that printer displays a PS version of 2015 or higher. This change can easily be done in a text editor. Locate your PPD in the Windows\System folder, back it up somewhere safe, open in a text editor, and search for "PSVersion" without the quotes. Change 201x to 2015 in all cases and put the new file in the Windows\System folder.

Known limitations

Publishing on the Windows platform is possible for a wide range of FrameMaker projects using the prescribed printing setups. However, two major limitations can be ascribed to the platform. These limitations are largely due to how PostScript is generated from FrameMaker. As a graphic display interface (GDI) application, FrameMaker is subject to restrictions imposed by the operating system while interfacing with the driver to build PostScript.

1. Windows is an RGB world. Without the aid of powerful PDF plug-ins, there is no way for FrameMaker to natively maintain CMYK colors through the distillation process for *composite* PDF output. For more information, see http://www.grafikhuset.dk/ColourChameleon.htm and scroll to the FrameMaker example.

    When using the "Print Separations" option in the FrameMaker print dialog box, the PostScript output will generate the necessary CMYK separated pages with no distortion to imported EPS files.

2. PDF file size is potentially larger than the same PDF created from FrameMaker on other platforms. Using the modern printer drivers and FrameMaker 5.5.6, PDF files created on the Windows platform can be two to five times larger than the same FrameMaker files on the Macintosh (using AdobePS 8.5.1 or LaserWriter 8.6). There are numerous factors which can influence PDF file size for better or worse, but consider using a different platform if file size is an issue. Distiller 4.05 for Windows is unable to resolve this problem.

Adobe technical support considers both of these limitations to be FrameMaker related bugs. The bugs have been reported to the appropriate engineering teams, and we hope to see some improvement in the future. Maintain a close watch for future Adobe technical documents which may address these issues.

Additional reading

There are countless sources of information on printer drivers and setups. I've shared the five most useful information sources below:

http://www.FrameUsers.com
Host of the FrameUsers email list and many useful FrameMaker links, plug-ins and more

http://framers@omsys.com/links.htm
Host of the FreeFramers email list, and many useful FrameMaker links, plug-ins and more

http://www.microtype.com/
Host of the frame2acrobat list, many useful tips and FrameMaker to PDF resources, plug-ins and more

http://www.adobe.com
Adobe home page, thousands of advanced technical documents, links to Adobe User to User forums

Online manuals and help guides for FrameMaker and Acrobat
Useful and detailed guides are already on your desktop