Creating a Windows 95 driver for PostScript production

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Abstract:

By default, Windows 95 PostScript[™] drivers are setup for speed. They strip unneeded information for desktop printers. This information needs to be included when creating files for prepress & production.

The default PostScript drivers also add special instructions to PostScript to activate unique device features. Often these special commands can mess up other printers.

This document will guide you through a process create a driver for production-quality PostScript files.

Files generated by the new driver have the following attributes

- 1. Fonts will be embedded in the PostScript files, except for the the standard 35 LaserWriter fonts. This ensures fonts printed in production match fonts on laser proofs.
- PostScript files are page-independent according to Adobe's Document Structuring Conventions. These conventions are needed to perform electronic imposition.
- 3. Generic Level 2 PostScript commands are used to select paper size.
- 4. Resolution is set 2400 dpi to provide sufficient resoltuion for film artwork as well as demand-print needs.

1. Download Adobe's PostScript driver:

Using your favorite network browser, go to http://www.adobe.com. Click on <u>Free</u> <u>Plugins & Updates</u>. Then scroll down to print drivers and click on <u>Windows</u>. Download the file, <u>AdobePS 4.2.3 -- U.S. English</u>. Unpack the ps423.zip file with a tool such as WINzip. This will create a directory named <u>423cd</u>.

2. Obtain the SSB.PPD file:

You should also obtain the SSB.PPD file (PostScript Printer Description) from SSB-A Prepress Services. Put SSB.PPD in the directory <u>423cd</u>.

2a.Install Setup Program

To create an SSB print driver, run the file <u>setup.exe</u> located in the directory <u>423cd</u>. (Note: do not use <u>Add Printer</u> in your Printer window as this will create a Microsoft print driver.)

The following setup window will appear. Click <u>Next</u> to continue.

AdobePS	5 4.2 PostScript Printer Driver Setup
Adobe	This program will help you add a PostScript printer to your system.
	The installation disk contains the file ReadMe that provides additional infomation about the Adobe PostScript Printer Driver.
	<u>R</u> ead
	< <u>B</u> ack <u>Next ></u> <u>E</u> xit <u>H</u> elp

The following setup window will appear. Click <u>Next</u> to continue.

Install Se	etup Program	×
	If you install this setup program onto your local disk, you may use it to add printers to your system later. Do you wish to copy the setup program? • Yes • Ng	
	< <u>B</u> ack <u>N</u> ext> <u>E</u> xit <u>H</u> elp	

2b.Printer Type

Settings should be left as shown. Click <u>Next</u> to continue.

Printer T	уре	×
	How is the printer attached to your computer? If it is directly attached to your computer, click Local Printer. If it is attached to another computer, click Network Printer. Local Printer Network Printer 	
[<u>N</u> ext <u>B</u> ack <u>E</u> xit <u>H</u> elp	

2c.Install PostScript Printer from PPD

PPD files are PostScript-Printer-Descriptions. Navigate to the directory where SSB.PPD was installed and select SSB.

Install PostScript Printer from F	PD X
<u>D</u> irectories: t:\printers\pc.ppds	Postscript Printer descriptions (PPD's) available:
 t:\ ➡ printers ➡ pc ppds ➡ Disk1 	SSB
Dri <u>v</u> es:	V
DCLN17_1.PPD 64008 2-5-199 < <u>B</u> ack <u>N</u> ext >	B8 11:34:01 Network Exit Help

2d.Local Port Selection

Select the **FILE:** port. This means the driver will write to a PostScript file.

Local Po	t Selection		×	
æ	Click the port you want to use with this printer. Click Configure Port to view or change that port's parameters.			
	Available po		_	
	COM1: Communications Port COM2: Communications Port			
	FILE:	Creates a file on disk		
	LN17 LPT1:	Digital Network Printer Port ECP Printer Port		
		<u>C</u> onfigure Port		
	< <u>B</u> ack	<u>N</u> ext > <u>E</u> xit <u>H</u> elp		

2e.Add Printer

The <u>Printer Name</u>: is chosen here. We suggest you give it a name such as <u>SSB</u>

Other settings may be left as shown.

Add Print	er	×
æ	You can use the following name or enter another name for this printer. You may use as many as 31 uppercase and lowercase characters or spaces.	
	Printer Name: SSB	
	Do you want to use this printer as your default printer? Ýes No	
	Would you like to print the test page? • Yes (Recommended) • No	
[< <u>B</u> ack <u>N</u> ext > <u>E</u> xit <u>H</u> elp	

2f.Paper

<u>Page size</u>: should be set for the size paper you are printing to. In the US, this will likely be either Letter or 11x17. You can also create custom paper sizes such as 7.5 x 9 by scrolling the Paper Size pane to the right and clicking on a Custom icon.

<u>Orientation</u> should be set as necessary for your document. Most of the time, this will be <u>Portrait</u>.

Other settings should be left as shown.

Click on <u>OK</u> to go to the next window.

Acrobat Distiller 3.0 Properties			
Device Options Paper	PostScript Graphics	Watermarks Fonts	
Paper size: Letter	(8.50 x 11.00 in)		
Letter Le	+] +] egal Executive L	+ + Ledger 11 x 17	
Layout 1 0 1 up 0 2 u	12 34 <u>123</u> 155 10 € 4up € 6up (9 up © 16 <u>u</u> p	
Orientation ▲ ● Po ▲ ● Lai	rtrait ndscape 🗖 <u>R</u> otate	ad Adobe	
Paper <u>s</u> ource:	OnlyOne	_	
<u>C</u> opies: 1 ≚	Custom	Unprintable Area	
More Options	A <u>b</u> out <u>H</u> elp	Restore <u>D</u> efaults	
	OK Ca	ncel <u>Apply</u>	

2g.Graphics

Resolution should be set to 2400.

Other settings should be left as shown.

Acrobat Distiller 3.0	Properties	? ×			
Device Options	PostScript	Watermarks			
Paper	Graphics	Fonts			
	2400dpi	_			
Halftoning					
O Use printer's s		ettings <u>b</u> elow			
Screen frequency	: [60.0] Screen ar	ngle: 45.0			
_ Special					
	Print as a <u>n</u> egative image				
	Print as a <u>m</u> irror image				
Scaling: 100 🚆 %					
	<u>H</u> elp	Restore <u>D</u> efaults			
	OK Can	cel <u>A</u> pply			

2h.Fonts

Select the option for <u>Always use TrueType fonts.</u> This will ensure production jobs match laser proofs.

Click on <u>Send Fonts As...</u> to go to the next window.

A	Acrobat Distiller 3.0 Properties				
	Device Options	PostScript	Watermarks		
	Paper	Graphics	Fonts		
	Send TrueType fonts to printer according to the <u>font</u> Substitution Table The Font Substitution Table enables you to specify which TrueType fonts should be replaced with built-in printer fonts.				
		<u> </u>	it the Table		
	C Always use <u>P</u> ostS	Cript fonts instead of True	eType fonts		
	If you use PostScript fonts, jobs will usually print faster; however, jobs printed from different printers may look different.				
	Always use <u>True</u>	Type fonts			
	If you use TrueType fonts, jobs will usually print slower; however, jobs output from different printers will look identical.				
	Update Soft Fonts				
	Send Fonts As <u>H</u> elp Restore <u>D</u> efaults				
		OK Can	cel <u>A</u> pply		

2i.Send Fonts As...

To get to this window, click on <u>Send Fonts As...</u> in the previous Fonts window.

Send TrueType fonts as should be set to Outlines

Send PostScript fonts as should be set to In Native Format.

Send Fonts As	×
TrueType fonts	7
Send <u>T</u> rueType fonts as: Outlines	
Threshold to switch between downloading bitmap or outline fonts, measured in pixels (in pixel size at the current resolution) 100 Eavor system TrueType fonts over printer fonts that have the same name.	
PostScript fonts	-
Send PostScript fonts as: In Native Format	
OK Cancel <u>H</u> elp Restore <u>D</u> efaults	

2j.Device Options

Available printer memory (in KB): should be left at 1000.

A	Acrobat Distiller 3.0 Properties					
	Paper	Grapi	hics		Fonts]
	Device Options	Pos	tScript	W	atermarks	Ļ
	Available printer <u>m</u> emor	y (in KB):	1000	ŧ		I
	<u>Available font cache (ir</u>	n KB):	204	•		l
				_		l
						l
						I
						I
						I
						I
					I	
						I
						I
						I
						I
		11-1-		Destau	Defeulte 1	
		<u>H</u> elp		Restore		
		OK	Can	cel	Apply	

2k.PostScript

<u>PostScript output format:</u> must be set to <u>PostScript (optimize for portability -</u> <u>ADSC</u>. This is important for production! Files that are not set to ADSC cannot be imposed.

Other settings should be left as shown.

Acrobat Distiller 3.0	Properties	?×
Paper	Graphics	Fonts
Device Options	PostScript	Watermarks
PostScript output for	mat:	
PostScript (optimize	for portability - ADSC)	
Download he	eader with each print job	
🔿 Assume hea	der is downloaded and <u>r</u> eta	ained
	<u>S</u> en	d Header Now
🔽 Print PostScript <u>s</u>	error information	
PostScript <u>t</u> imeout	values	
Job timeout:	0 🔹 seconds	
<u>₩</u> ait timeout:	240 🔹 seconds	
Ad <u>v</u> anced	<u>H</u> elp	Restore <u>D</u> efaults
	OK Can	cel <u>A</u> pply

2I.Advanced PostScript Options

PostScript Language level should be set to Use PostScript Level 2 features.

Data Format should be set to ASCII data.

The other options may left as shown.

Advanced PostScript Options
These settings have been chosen to optimize printer performance. You should not change them unless you have specific reasons to do so.
PostScript Janguage level: 2
Data format
C Binary communications protocol
C Lagged binary communications protocol
C Pure <u>b</u> inary data
Send CTRL+D before job
✓ Send CTRL+D after job
Display alert for applications incompatible with driver features.
OK Cancel <u>H</u> elp Restore <u>D</u> efaults

2m.Watermarks

Select a watermark should be set to [None]

Acrobat Distill	er 3.0 Prop	erties		?)	×
Paper Device Op	otions	Graphics PostScript		Fonts atermarks	1
<u>S</u> elect a wat [None] CONFIDENT COPY DRAFT	ermark:	elete			
Print watern □ On first (□ In back) □ As outlin	page only ground		<u>H</u> elp		
		ОК С	Cancel	Apply	

2n.Print to File

The driver will now ask for the name of a test output file. Give it a file name and location. The file can be copied to a local PostScript printer to verify that Adobe 4.2.3 is being used.

Print To File		?×
File <u>n</u> ame: adobe423.pm	Eolders: C:\WINDOWS\\adobe.tmp	OK Cancel N <u>e</u> twork
Save file as <u>t</u> ype: Printer Files	Dri <u>v</u> es:	

20.Setup Complete

This completes the setup for your Acrobat Distiller driver. You should verify the settings for your Acrobat driver by inspecting the Properties of the driver. If you need to make a change, driver settings can be changed via Properties.

Setup	X
2	Setup has successfully added the PostScript printer to your system. To add another PostScript printer to your system, click Add Another. To Exit the setup program, click Exit.
	A test page is now being sent to the printer. Depending on the speed of your printer, it may take a minute or two before the page is printed.
	Add Another Exit <u>H</u> elp

3. Creating a driver for a desktop printer

Now that you have created a print driver for Acrobat, it is easy to create matching print drivers for your desktop printers. Download PPD files for your printer from the Adobe Web page and install them with the <u>setup.exe</u> application in the <u>423cd directory.</u>

When the install procedure asks for a PPD, be sure to chose the printer description that matches your local printer. Many driver options will be different. In most cases you should use the defaults defined by the PPD file. Critical options are shown on sections 2h, 2i, and 2k.

2h sets the handling of TrueType fonts.

- 2i sets the format for TrueType and PostScript fonts.
- 2k sets conformance to the Document Structuring Conventions. ADSC is important when creating files for prepress production. (optimize for portability ADSC) must be on when creating PostScript files. If the driver will only be used for local printing, (optimize for speed) will result in faster printing.

Once the driver is complete, create a test print. Drivers created with the Adobe's <u>setup.exe</u> will display the Adobe logo on the upper left corner of the printed page. Your printer should print a piece of paper. The Adobe PostScript driver will display the following header:



If the page display the Windows logo, the driver was created with Microsoft's Add printer application.

4. Other considerations

Many decisions about print quality are outside the scope of print drivers. Your choice of authoring application application and fonts can have dramatic effects on the producability of PostScript documentation.

4a. Fonts

The best fonts for print production are PostScript Type 1 fonts. Digital's SSB carries all of the Type 1 fonts in Adobe's Font Folio 8.0. Our print suppliers have access to these fonts as well.

TrueType fonts are prone to production problems. The settings selected will cause TrueType fonts to print exactly as shown on laser proofs *if they print at all.* Working around TrueType font problems can cause delays on production.

4b. Authoring Applications

Some authoring applications change margins and re-paginate text when changing PostScript drivers. Word processing applications such as Microsoft Word and Office are prone to this syndrome. Top-quality page-layout applications don't have this problem.

4c. Graphics Applications

Graphic applications also make a big difference. The big three are PhotoShop, Illustrator, and Freehand. Other popular applications are not at par when it comes to generating production quality PostScript.

When creating graphics file, be sure not to next EPS grahic files inside one another. The only exception would be be nest a Photoshop EPS file inside an Illustrator or Freehand EPS graphic.

4d. Page Position

When printing on oversize paper, i.e. 7.5x9 on letter, page position should be indicated by crop marks. This feature can be activated in most page layout applications.