# Instructions for Creating IEEE Xplore Compatible PDFs (v1.0)

These instructions explain how to adjust your Adobe Acrobat Distiller to the proper settings to produce IEEE Xplore Compatible PDFs. <u>This is a crucial step in the preparation of your final manuscript!</u> (The alternative is rejection or a scanned-in paper.)

# Do NOT use any kind of password protection, print restriction or edit restriction on your PDF. Turn these protections OFF!

Document Security	×
Security Method	None
Open Password	No
Security Password	No
Pining	Allowed
Changing the Document:	Allowed
Selecting Text and Graphics:	Allowed
Adding or Changing Annotations and Form Fields:	Allowed
[0K]	

(File --> Document Info --> Security)

For those of you who are **true experts** with Distiller, you may download the Distiller job options zip file located at <u>http://www.rawcon.org/Acrobat\_IEEE\_job\_option\_files.ZIP</u> and proceed directly to the IEEE web page that explains how to adjust your Adobe Distiller settings: <u>www.ieee.org/confstandards</u> This document may also be helpful: <u>http://www.rawcon.org/rawcon2004/IEEEAuthorPDFGuideV32.pdf</u>

A word of caution, however, the instructions on the IEEE web page are not straightforward to use. Furthermore, users of Acrobat 6 should take care: Once a PDF file is created ("distilled"), it must **not** be "Saved" using Acrobat 6 or Acrobat 6 Reader—this has been found to render PDFs incompatible with IEEE Xplore PDF compatibility requirements.

If you have any doubts about how to do this, **please** follow the detailed step-by-step instructions that follow. **Finally, be sure to perform the simple verification test shown** on page 32 of these instructions!

### **Detailed Step-by-Step Instructions:**

For the rest of us who are **not** experts with Distiller, here are detailed step-by-step instructions, along with screen shots, showing how to adjust your Distiller. Note that "Acrobat PDFWriter" will **not** produce IEEE Xplore compliant documents. Adobe "Acrobat Distiller" **must** be used instead. Also note that this procedure depends on which version of Adobe Acrobat you are using to create PDFs. The three versions are 4, 5 and 6.

As of this writing, the IEEE has recently determined the proper settings for Acrobat 6; therefore, users of Acrobat 6 no longer need to set their Distiller to "mimic" Acrobat 5. Be forewarned, however, that users of Acrobat 6 (Reader or Distiller) should take care **not** to use the 'Save' function **after** a file has been distilled using Acrobat Distiller. This has been found to render PDFs incompatible with IEEE PDF requirements.

Instructions are shown separately for Acrobat 4, Acrobat 5 and Acrobat 6. Choose the instructions appropriate for your version of Distiller. Note that there is a simple verification test shown on page 32 that you should use to test your newly created PDF for IEEE Xplore Compatibility.

# A Special Note for Users with Adobe Acrobat 4:

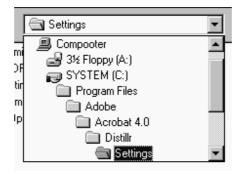
When creating a PDF from a Word document, many (but not all) users of Acrobat 4 must select an "Acrobat Distiller" printer icon in the print menu. This seems a bit odd at first encounter—the document does not print, but is created locally in the PDF Output file. We first describe the settings to create a PDF using this approach for Acrobat 4. Again, note that the "Acrobat PDFWriter" printer icon will **not** create IEEE Xplore compatible PDFs! The "Acrobat Distiller" printer icon must be used.

# Configuring Your Distiller the Easy Way or the Hard Way

There are two ways to configure your computer, the easy way or the hard way. For the easy way, you must download the customized <u>Job Settings</u> file from the RAWCON 2004 web site, and store it in a folder on your computer. Otherwise, you can do it by following a detailed series of screen captures that will show you every button press to enter manually. Either approach will work equally well:

### Downloading Customized IEEE Parameters for Acrobat 4.0, 5.0 or 6.0 (the Easy Way)

**Step 1.** Locate and open the "Settings" folder for your particular version of Acrobat Distiller. In the next few steps, you will be moving a new job option file into this folder. Typically, the Settings folder is located as shown on your hard drive (C: or D:), in the Program Files folder, in the Adobe folder, in the Acrobat X.0 folder (pick the version that has Distiller), in the "Distillr" folder, in the Settings folder. This is shown below:



(next page)

When you open the Settings folder, it will appear something like this:

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↓ →	. È		Ж	Ee		3	$\times$	>
Back Forward	U U	p	Cut	Сору	Paste	Undo	Delete	
Address 🗀 C:\Progra	am Files\Ad	lobe\Aci	obat 4.1	0\Distillr\Setti	ngs			•
Name			Size	Туре		Modified		
👪 PressOptimized			ЗКВ	Distiller Job	Options	11/20/98	3:44 AM	
🐸 PrintOptimized			ЗКВ	Distiller Job	Options	1/21/993	3:11 PM	
ScreenOptimized			ЗКВ	Distiller Job	Options	11/20/98	3:44 AM	
۲ <b>.</b>								•

None of these three standard choices (Press, Print, Screen Optimized) are IEEE Xplore compatible!

Next, you will add a job option file that is compatible.

Step 2. Download the zip file located at:

http://www.rawcon.org/Acrobat\_IEEE\_job\_option\_files.ZIP

Step 3. Open (or Save and unzip) this file on your computer. You will see the following:

₩inZip - job_option_files.ZIP		Tetto Alex		
<u>File Actions Options H</u> elp				
New Open Favorites Add	Extract View Cher	kOut Wizard		
Name	Туре	Modified	Size	Rat
IEEE_PDF_for_Acrobat4.joboptions	Distiller Job Options	12/8/03 4:45 PM	2,223	64
IEEE_PDF_for_Acrobat5.joboptions	Distiller Job Options	12/9/03 3:22 PM	2,296	63
IEEE_PDF_for_Acrobat6.joboptions	Distiller Job Options	12/8/03 4:32 PM	12,618	- 77
TalingJobOptions-V32-Win.pdf	Adobe Acrobat Document	12/18/03 10:17 AM	13,371	35

**Step 4.** Click (and hold) on the appropriate job option file and drag & drop this file into your Settings folder from Step 1. The Settings folder will now appear as follows:

<u>F</u> ile <u>E</u> dit ⊻iew <u>G</u> o	F <u>a</u> vorites	<u>H</u> elp					1
Back Forward	탄 Up	Ж Cut	⊑ <u>⊡</u> Copy	ि Paste	ා Undo	X Delete	>>
Address 🛅 C:\Program File	es\Adobe\Ad	robat 4.	0\Distillr\Setti	ngs			•
Name		Size	Туре		Modified		
👪 PressOptimized		ЗКВ	Distiller Job	Options	11/20/98	3:44 AM	
🔤 PrintOptimized		ЗКВ	Distiller Job	Options	1/21/993	3:11 PM	
🔤 ScreenOptimized		ЗКВ	Distiller Job	Options	11/20/98	3:44 AM	
IEEE_PDF_for_Acrobat4		ЗКВ	Distiller Job	Options	12/8/03 4	k45 PM	
							Þ
1 object(s) selected			2.17KB	🗐 My Comp	uter		

**Step 5.** Close the Settings folder by clicking on the "**x**" in the upper right corner.

**Step 6.** Next, you must select the Job Option file that you just downloaded to your computer. The steps required to do this are given in detail. (The screen shots that follow are shown for Acrobat version 4.0) Press the **Start** button, usually located on the lower left portion of your screen. A pull-down menu will appear. Click on "**Programs**". Another pull-down menu will appear. Click on "**Acrobat X.0**". Yet another pull-down menu will appear. Click on "**Acrobat X.0**".

12 -	Administrative Tools (Common)	
	Adobe Acrobat 4.0	🕺 Acrobat Catalog 4.0
	Advanced Design System 2002 💿 🕨	🚈 Acrobat Distiller 4.0
— Q	Advanced Design System 2002 🔷 🕨	Acrobat Reader 4.0
	Ansoft HFSS 7.0.04	😕 Adobe Acrobat 4.0
e de la companya de la	FLEXIm for Ansoft	📲 Register Acrobat 4.0
	Ansoft 🕨	🐨 Uninstall Adobe Acrobat 4.0
	Axum LE	
🧭 Open Office Document 🛛 🏈	Internet Explorer	
🗩 Sametime Connect 🛛 🗟	Jasc Software 🕨 🕨	
😧 Motorola eHelp 🖉	Java Plug-in Control Panel	
🕼 IE & PPT Selector 🛛 🗐	Java 2 Runtime Environment	
S. Daraman S.	JInitiator Control Panel 1.1.8.11	
Programs	JMP 🕨	
💌 Favorites 🔰 📖	Lavenir 🕨	
Documents	LPA Design Tool (DEMO)	
Settings	Mathematica 3.0	
log <u>F</u> ind I ⊂	MathSoft Apps	
🥙 Help 🛁	MathType 4	
空 <u>R</u> un 回	Matrox PowerDesk NT	
چ لے og Off QA0057 ه	Maxwell	
🔊 Shut Down 📎	Microsoft Binder	
Start 2 . W X	Microsoft Access	e: Ele 💯 Micros 🖂 RE: El 🖉 IEEE C

Step 7. Adobe Distiller will begin running and a window will appear:

📧 Acrobat Distiller	
<u>File S</u> ettings <u>H</u> elp	
Job Options: ScreenOptimized Compatibility: Acrobat 3.0	
File: none Size: Source:	<u>P</u> ause Cancel Job
Progress Status: Ready	
Acrobat Distiller 4.0 Started: Monday, November 03, 2003 at 5:40 PM Adobe PostScript software version: 3010.106	A

Step 8. Click on the "Job Options" pull-down menu and select "IEEE\_PDF\_for\_AcrobatX".

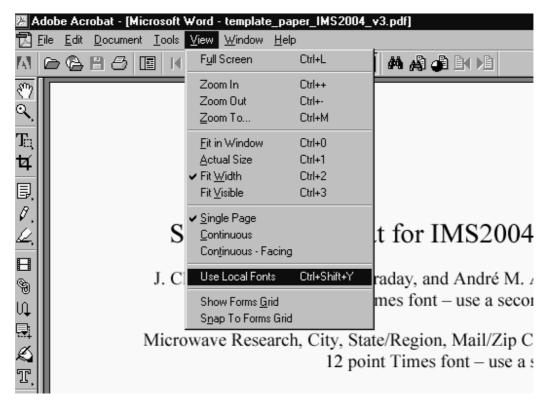
🔊 Acrobat Disti	iller	
<u>File S</u> ettings <u>H</u>	elp	
Job Options:	ScreenOptimized	•
Compatibility: Info File: no	IEEE PDF for Acrobat4 PressOptimized PrintOptimized ScreenOptimized	
Size: Source:		<u>C</u> ancel Job
Progress Status:	Ready	
	l.0 day, December 31, 2003 at 12:3: t software version: 3010.106	9 PM

Step 9. The window will now appear as follows:

🔝 Acrobat Distiller	
<u>File S</u> ettings <u>H</u> elp	
Job Options: IEEE_PDF_for_Acrobat4	
Compatibility: Acrobat 4.0	
Info File: none Size: Source:	Pause Cancel Job
Progress Status: Ready	
Acrobat Distiller 4.0 Started: Wednesday, December 31, 2003 at 12:44 Adobe PostScript software version: 3010.106	PM

Notice that there is no "Save" button. At this point, you simply click on the little "**x**" to close this box. Acrobat will remember these settings and apply them to every PDF that you create from now on. That's it! You can now proceed to convert your Word document into an IEEE Xplore compatible PDF file.

**Step 10.** Note that you should **UNCHECK the "Use Local Fonts" feature** under the "View" pulldown menu on the Acrobat distiller screen. See the next page for a screen-shot. Step 10, continued...



The "Use Local Fonts" feature should NOT be checked!

# AFTER YOU CREATE YOUR PDF FILE, GO TO <u>PAGE 32</u> AND PERFORM THE COMPATIBILITY VERIFICATION STEP!

### Setting Parameters Manually for Acrobat 4 (the Hard Way)

If for some reason you do not wish to modify Acrobat 4 using the Easy method on page 3, you can do it **manually** by following these steps:

**Step 1.** (for version 4 of Adobe Acrobat): Press the **Start** button, usually located on the lower left portion of the screen. A pull-down menu will appear. Click on "**Programs**". Another pull-down menu will appear. Click on "**Adobe Acrobat 4.0**". Yet another pull-down menu will appear. Click on "**Acrobat Distiller 4.0**":

-		
12 😐	Administrative Tools (Common)	
	Adobe Acrobat 4.0 🔹 🕨	👰 Acrobat Catalog 4.0
	Advanced Design System 2002 💿 🕨	🚈 Acrobat Distiller 4.0
— @	Advanced Design System 2002 💿 🕨	Acrobat Reader 4.0
_ @	Ansoft HFSS 7.0.04	😕 Adobe Acrobat 4.0
e.	FLEXIm for Ansoft	📲 Register Acrobat 4.0
— @	Ansoft 🕨	🐨 Uninstall Adobe Acrobat 4.0
1. State of the st	Axum LE	
🖻 Open Office Document 🛛 🏈	Internet Explorer	
🗩 Sametime Connect 🛛 📼	Jasc Software 🕨 🕨	
😧 Motorola eHelp 🖉	Java Plug-in Control Panel	
🖏 IE & PPT Selector 📃	Java 2 Runtime Environment	
E Brazine	JInitiator Control Panel 1.1.8.11	
Erograms	JMP 🕨	
	Lavenir 🕨	
	LPA Design Tool (DEMO)	
Settings	Mathematica 3.0	
A) Eind →	MathSoft Apps	
🖉 Help	MathType 4	
2 <u>B</u> un	Matrox PowerDesk NT	
😤 Log Off QA0057 🧃	Maxwell	
🗊 Shut Down 😵	Microsoft Binder	
🕂 Start 🛛 🗭 🖭 💥 🔍	Microsoft Account	e: Ele 🕎 Micros 🖂 RE: El 🛛 🖉 IEEE C

Step 2. Adobe Distiller will begin running and a window will appear:

😹 Acrobat Distiller	_ 🗆 ×
<u>F</u> ile <u>S</u> ettings <u>H</u> elp	
Job Options: ScreenOptimized	
Compatibility: Acrobat 3.0	
Info File: none Size: Source:	<u>P</u> ause Cancel Job
Progress Status: Ready	
Acrobat Distiller 4.0 Started: Monday, November 03, 2003 at 5:40 PM	
Adobe PostScript software version: 3010.106	<b>v</b>

Step 3. Click on "Settings" and then click on "Job Options", as shown below:

憲 A	crobat Distiller			
<u>F</u> ile	<u>S</u> ettings <u>H</u> elp			
	Font Locations	Ctrl+L		
	Watched <u>Folders</u>	Ctrl+F		
	Job Options	Ctrl+J		
	<u>S</u> ecurity	Ctrl+S		<u>P</u> ause
	Size:			Consertiet
	Source:			<u>C</u> ancel Job
- Pr	ogress			
	Status: Ready			
				_
Acr	obat Distiller 4.0			<b>A</b>
Sta	rted: Monday, Novemb	er 03, 2003	at 5:40 PM	
Add	be PostScript software	version: 30	)10.106	

Step 4. Adobe Distiller will begin running and another window will open:

Under the **General** Tab, as shown below, Choose Compatibility: **Acrobat 4.0** Activate **Optimize PDF** Activate: **Generate Thumbnails** Enter Resolution: **600 dpi** Choose Binding: **Left** 

ScreenOptimized - Job Options	×
General Compression Fonts Color Advanced	
- File Options	ОК
Compatibility: Acrobat 4.0	Save <u>A</u> s
ASCII <u>F</u> ormat	Cancel
C Optimize PDF	I
Generate <u>T</u> humbnails	
<u>R</u> esolution: 600 dpi	
Binding: Left	

Step 5. Click on the Compression Tab, as shown below,

Click on the check boxes to activate them and adjust the pull-down screens as indicated. Enter the dpi (dots per inch) settings as indicated:

ScreenOptimized - Job Options	×
General Compression Fonts Color Advanced	
Color Bitmap Images	OK
✓ <u>Resampling</u> : Bicubic Downsampling at _ 300 dpi	Save <u>A</u> s
Compression: JPEG	Cancel
Quality: Medium	
Grayscale Bitmap Images	
Resampling: Bicubic Downsampling at 💽 300 dpi	
Compression: JPEG	
Quality: Medium	
Monochrome Bitmap Images	
Resampling: Bicubic Downsampling at 💽 600 dpi	
Compression: CCITT Group 4	
Compress Text and Line Art	

Step 6. Click on the Fonts Tab, as shown below,

Click on the check boxes to activate them and adjust the pull-down screens as indicated. Enter the settings exactly as indicated:

IEEE_PDF_for_Acrobat4 - Job Options	×
General Compression Fonts Color Advanced	
<ul> <li>✓ Embed All Fonts</li> <li>✓ Subset All Embedded Fonts Below: 100 %</li> <li>When Embedding Fails: Cancel Job</li> </ul>	OK Save <u>A</u> s Cancel
Embedding Base 14 Fonts Courier Courier-Bold Courier-BoldDblique Courier-Oblique Helvetica-Bold Helvetica-BoldDblique Helvetica-BoldDblique Helvetica-Oblique Symbol Times-Bold Times-Bold Times-Roman ZapfDingbats Add Name	

Step 7. Click on the Color Tab, as shown below,

Click on the check boxes to activate or deactivate them, exactly as indicated below:

IEEE_PDF_for_Acrobat4 - Job Options	×
General Compression Fonts Color Advanced	
Conversion    Leave Color Unchanged   Tag Everything for Color Mgmt (no conversion)  Tag Only Images for Color Mgmt (no conversion)  C Convert All Colors to sRGB	OK Save <u>A</u> s Cancel
Assumed Profiles	
Gray: Adobe Gray - 20% Dot Gain	
<u>R</u> GB: sRGB IEC61966-2.1	
CMYK: Adobe CMYK	
Options         Image: Preserve Overprint Settings         Image: Preserve Under Color Removal and Black Generation Settings         Image: Preserve Transfer Functions         Image: Preserve Halftone Information	

Step 8. Click on the Advanced Tab, as shown below,

Click on the check boxes to activate or deactivate them, exactly as indicated below. If necessary, configure the Page Default Size as shown:

EEE_PDF_for_Acrobat4 - Job Options         General       Compression         Fonts       Color         Advanced         Options         Use Prologue.ps and Epilogue.ps         Allow PostScript file to Override Job Options         ✓         Preserve Level 2 copypage Semantics	OK Save <u>A</u> s Cancel
Save Portable Job Ticket inside PDF file     Document Structuring Conventions (DSC)     Process DSC Comments     Log DSC Warnings     Resize Page and Center Artwork for EPS Files     Preserve EPS Information from DSC     Preserve DPI Comments     Preserve Document Information from DSC	
Default Page Size <u>W</u> idth: 612.0 U <u>n</u> its: Points ▼ <u>H</u> eight: 792.0	

**Step 9.** Click "Save As" and a Save Job Options pop-up window will appear. If necessary, click the "Save in" pull-down menu and navigate to the "Settings" folder under the Adobe Acrobat 4.0 folder. This is illustrated below:

F	Preserve Document Information from DSC Acrobat Distiller	
	IEEE_PDF_for_Acrobat4 - Job Options	×
	Save Job Options As	
k	Save jn: Settings   BC_Optim Compooter   BC_Optim 3% Floppy (A:)   IEEE_PDF SYSTEM (C:)   PressOptin Program Files   PrintOptim Adobe   ScreenOp Acrobat 4.0   Distillr Settings   File name:   IEEE_PDF_for_Acrobat4 Save   Save as type: Job Options Files (*.joboptions)   Default Page Size   Width: 612.0   Units: Points	OK Save <u>A</u> s Cancel 35 F 6

**Step 10.** Give this newly created job option a file name you will remember, such as IEEE\_PDF\_for\_Acrobat4, or something to that effect. Type it in the File name box. Then click Save:

Save Job Op	tions As				? ×
Save jn:	🔄 Settings	•	£	Ċ	
BC_Optimi	zedIEEEXplore				
EEE_PDF	_for_Acrobat4				
📲 PressOptin	nized				
🛛 🔛 PrintOptimi	zed				
ScreenOpl	imized				
File <u>n</u> ame:	IEEE_PDF_for_Acrobat4				<u>S</u> ave
Save as <u>t</u> ype:	Job Options Files (*.joboptions)		•		Cancel

Then click "OK" on the pop-up window shown in Step 9.

**Step 11.** In the Acrobat Distiller Box from Step 2 on page 10, click on the Job Options pull-down menu and select your newly created Job Option.

🔝 Acrobat Distiller	_ 🗆 ×
<u>File S</u> ettings <u>H</u> elp	
Job Options: ScreenOptimized	•
Compatibility: IEEE PDF for Acrobat4 PressOptimized PrintOptimized	
File: not ScreenOptimized	
Size:	<u>C</u> ancel Job
Source:	
Progress	
Status: Ready	
Acrobat Distiller 4.0 Started: Wednesday, December 31, 2003 at 12:35 Adobe PostScript software version: 3010.106	I PM

**Step 12.** The Acrobat Distiller Box from Step 11 will now appear as shown below:

🛤 Acrobat Distiller	
<u>F</u> ile <u>S</u> ettings <u>H</u> elp	
Job Options: IEEE_PDF_for_Acrobat4	
Compatibility: Acrobat 4.0	
Info File: none Size: Source:	Pause Cancel Job
Progress Status: Ready	
Acrobat Distiller 4.0 Started: Tuesday, December 30, 2003 at 4:35 PM Adobe PostScript software version: 3010.106	×.

Notice that there is no "Save" button. At this point, you simply click on the little "**x**" to close this box. Acrobat will remember these settings and apply them to every PDF that you create from now on. That's it! You can now convert your Word document into an IEEE Xplore compatible PDF file.

**Step 13.** Note that you should **UNCHECK the "Use Local Fonts" feature** under the "View" pulldown menu on the Acrobat distiller screen. (See page 8 for a screen-shot.)

# AFTER YOU CREATE YOUR PDF FILE, GO TO <u>PAGE 32</u> AND PERFORM THE COMPATIBILITY VERIFICATION STEP!

### Setting Parameters Manually for Acrobat 5.0 (the Hard Way)

If for some reason you do not wish to modify Acrobat 5 using the Easy method on page 3, you can do it **manually** by following these steps:

**Step 1.** Start up Adobe Acrobat Distiller 5.0. Press the **Start** button, usually located on the lower left portion of the screen. A pull-down menu will appear. Click on "**Programs**". Another pull-down menu will appear. Click on "**Adobe Acrobat 5.0**". Yet another pull-down menu will appear. Click on "**Acrobat Distiller 5.0**":

Step 2. Adobe Distiller will begin running and a window will appear:

🖾 Acrobat Distiller	- DX
File Settings Help	
Job Options: IEEE_PDF_for_Acrobat5	•
Compatibility: Acrobat 4.0 (PDF 1.3)	
File: none	<u>P</u> ause
Size: Source:	<u>Cancel Job</u>
Progress Status: Ready	
Acrobat Distiller 5.0 Started: Wednesday, December 31, 2003 at 6:00 Adobe PostScript software version: 3011.104	8 PM

Step 3. Click on "Settings" and then click on "Job Options", as shown below:

🖾 A	crobat Distiller	- DX
File	Settings Help	
	Font Locations Ctrl+ Watched Folders Ctrl+	-JE
∣ ⊓ In	Job Options Ctrl+	1
	Security Ctrl+	S <u>P</u> ause
	Size: Source:	<u>C</u> ancel Job
Pr	ogress Status: Ready	
Sta	obat Distiller 5.0 ited: Wednesday, December 3 ibe PostScript software version	

Step 4. Adobe Distiller will begin running and another window will open:

Under the **General** Tab, as shown below, Choose Compatibility: **Acrobat 4.0 (PDF 1.3)** Activate **Optimize for Fast Web View** Activate: **Embed Thumbnails** Activate: Page Range: **All** Choose Binding: **Left** Enter Resolution: **600** dpi Set Default Page Size and Units as shown below:

IEEE_PDF_for_Acrobat5 - Job Options	×
General Compression Fonts Color Advanced	
	ОК
File Options	Save As
Compatibility: Acrobat 4.0 (PDF 1.3)	
Optimize for Fast Web View	Cancel
Embed <u>T</u> humbnails	
Auto-Rotate Pages: Individually	
Page Range: 💿 All	
C Erom: To:	
Binding: Left	
<u>R</u> esolution: 600 dpi	
Default Page Size	
Width: 612.0 Units: Points ▼	
<u>H</u> eight: 792.0	

Step 5. Click on the Compression Tab, as shown below,

Click on the check boxes to activate them and adjust the pull-down screens as indicated. Enter the dpi (dots per inch) settings as indicated:

	Fonts Color Advanced		ОК
Color Images	nsampling to 🚽 300	dpi	
Bicubic Dow	· · · · · ·	_	Save <u>A</u> s
	for images above: 601	dpi	Cance
Compression:	JPEG	<u> </u>	
<u>Q</u> uality:	Medium	•	
-Grayscale Images -			
Bicubic Dow	nsampling to 📃 🚽 🛛 🚽	dpi	
	for images above: 601	dpi	
Compression:	JPEG	•	
Q <u>u</u> ality:	Medium	<b>•</b>	
Monochrome Imag	es		
Bicubic Dow	nsampling to 📃 🗾 🕞 🗖	dpi	
	for images above: 601	dpi	
Compression:	CCITT Group 4	•	
🔲 Anti-Alias to gra	y: 4 bit 💌		

(next page)

Step 6. Click on the Fonts Tab, as shown below,

Click on the check boxes to activate them and adjust the pull-down screens as indicated. Enter the settings exactly as indicated:

IEEE_PDF_for_Acrobat5 - Job Options	$\mathbf{X}$
General Compression Fonts Color Advanced	
Embed All Fonts	OK
Subset embedded fonts when percent	Save As
of characters used is less than: 100 %	Cancel
When Embedding Fails: Cancel Job 💌	
Embedding	
Base 14 Fonts Always Embed:	
Courier Courier-Bold Courier-BoldOblique Helvetica Helvetica-Bold Helvetica-BoldOblique Helvetica-Oblique Symbol Times-Bold Times-BoldItalic Times-BoldItalic Times-Roman ZapfDingbats	

(next page)

Step 7. Click on the Color Tab, as shown below,

Click on the check boxes to activate or deactivate them, exactly as indicated below:

eneral   Comp -Adobe Color <u>S</u> ettings Fi	-	<b>•</b>	OK Save <u>A</u> s
<u>C</u> oundo I	juncan.		Cance
Color Mar	agement Policies		
Leave (	Color Unchanged	•	
Intent:	Default	•	
-Working S	paces		
<u>G</u> ray: [	None	+	
<u>B</u> GB: [	sRGB IEC61966-2.1	*	
См <u>ү</u> к: [	J.S. Web Coated (SWOP) v2	*	
Device-Dep			
	e <u>O</u> verprint Settings e Under Color Removal and <u>B</u> lack Generation Settings		
Remove	Transfer Functions		
Preserv	E Halftone Information		

**Step 8.** Click on the **Advanced** Tab, and click on the check boxes to activate or deactivate them, exactly as indicated below:

E_PDF_for_Acrobat5 - Job Options	
General       Compression       Fonts       Color       Advanced         Options       Use Prologue.ps and Epilogue.ps       Allow PostScript file to Override Jab Options         Image: Allow PostScript file to Override Jab Options       Preserve Level 2 copypage Semantics         Image: Save Portable Job Ticket inside PDF file       Illustrator Overprint Mode	GK Save <u>A</u> s Cancel
Convert gradients to smooth shades     ASCII Equat      Document Structuring Conventions (DSC)	
Process DSC Comments     Log DSC Warnings     Resize Page and Center Artwork for EPS Files     Preserve EPS Information from DSC     Preserve Document Information hom DSC	

**Step 9.** Click "Save As" and a Save Job Options pop-up window will appear. If necessary, click the "Save in" pull-down menu and navigate to the "Settings" folder under the Adobe Acrobat 4.0 folder. (This is illustrated on page 16 of these instructions for Acrobat 4.0)

**Step 10.** Give this newly created job option a file name you will remember, such as IEEE\_PDF\_for\_Acrobat5, or something to that effect. Type it in the File name box. Then click Save. (This is illustrated on page 17 of these instructions for Acrobat 4.0.)

**Step 11.** In the Acrobat Distiller Box from Step 2 on page 19, click on the Job Options pull-down menu and select your newly created Job Option. (This is illustrated on page 17 for Acrobat 4.0.)

**Step 12.** The Acrobat Distiller Box from Step 11 will now appear as shown below: If there is a save button, click Save. If there is no "Save" button, simply click on the little " $\mathbf{x}$ " to close this box. Acrobat will remember these settings and apply them to every PDF that you create from now on. That's it! You can now convert your Word document into an IEEE Xplore compatible PDF file.

**Step 13.** Note that you should **UNCHECK the "Use Local Fonts" feature** under the "View" pulldown menu on the Acrobat distiller screen. (See page 8 for a screen-shot.)

### AFTER YOU CREATE YOUR PDF FILE, GO TO <u>PAGE 32</u> AND PERFORM THE COMPATIBILITY VERIFICATION STEP!

### Setting Parameters Manually for Acrobat 6.0 (the Hard Way)

If for some reason you do not wish to modify Acrobat 6 using the Easy method on page 3, you can do it **manually** by following these steps:

**Step 1.** Start up Adobe Acrobat Distiller 6.0. Follow the steps as previously shown for Acrobat 5 so that you get to the Adobe PDF Settings panel. Click on the **General** Tab and adjust your settings exactly as shown below:

IEEE_PDF_for_Acrobat6 - Adobe PDF Settings
General Images Fonts Color Advanced PDF/X
Description
Use these settings to create PDF documents suitable for IEEE Xplore. Created 15 December 2003.
File Options
Compatibility: Acrobat 4.0 (PDF 1.3)
Object Level Compression: Off
Auto-Rotate Pages: Off
Binding: Left
Resolution: 600 dots per inch
All Pages     C Pages From:     To:
Optimize for fast web view
Default Page Size       Width:       612.0       Units:       Points
Height: 792.0
Save As OK Cancel Help

Step 2. Click on the Images Tab and adjust your settings exactly as shown below:

Downsample:	Bicubic Downsampling to 🔽 300 📮 pixels per inch
	for images above: 601 — pixels per inch
Compression:	
Image Quality:	Medium
Grayscale Images	
Downsample:	Bicubic Downsampling to 💽 300 🛨 pixels per inch
	for images above: 🛛 601 📑 pixels per inch
Compression:	JPEG 💌
Image Quality:	Medium
Monochrome Image	15
Downsample:	Bicubic Downsampling to 💽 600 🛨 pixels per inch
	for images above: 601 😴 pixels per inch
Compression:	CCITT Group 4
Anti-alias to gray:	Off 📃

Step 3. Click on the Fonts Tab and adjust your settings exactly as shown below:

E_PDF_for_Acrobat6 - Adobe	PDF Settings		
General Images Fonts Color	Advanced	PDF/X	
Embed all fonts			
Subset embedded fonts whe	n percent or cha	aracters used is less tr	nan:  100 :
When embedding fails: Cancel	ljob	<b>•</b>	
Embedding			
Font Source:		Always Embed:	
C:\WINDOWS\Fonts\	-		*
AharoniBold			
<table-of-contents> Andalus AngsanaNew</table-of-contents>	Add>		
AngsanaNew-Bold		-	
AngsanaNew-BoldItalic AngsanaNew-Italic			*
AngsanaUPC		Never Embed:	
AngsanaUPC-Bold AngsanaUPC-BoldItalic		-	*
AngsanaUPC-Italic			
RabicTransparent ArabicTransparent-Bold	Add>		
Arial-Black Arial-BlackItalic			
Arial-BoldItalicMT			
Arial-BoldMT	<u> </u>		
		Add Name	Remove
Save As 0	K	Cancel	Help

Step 4. Click on the Color Tab and adjust your settings exactly as shown below:

PDF_for_Acrobat6 - Adobe PDF Settings	
eneral Images Fonts Color Advanced PDF/X	
Adobe Color Settings	
Settings File: None	
Color Management Policies	
Leave Color Unchanged	•
Intent: Default	-
Working Spaces	
Gray: None	Ŧ
RGB: None	Ŧ
CMYK: None	v
CMYK: None	
Device-Dependent Data	
Preserve under color removal and black generation	
When transfer functions are found: Remove	

Step 5. Click on the Advanced Tab and adjust your settings exactly as shown below:

General Images Fonts Color Advanced PDF/X	
Options	
Allow PostScript file to override Adobe PDF settings	
Allow PostScript X0bjects	
Convert gradients to smooth shades	
🗖 Create Job Definition Format (JDF) file	
Preserve Level 2 copypage semantics	
Preserve overprint settings	
Overprinting default is nonzero overprinting	
Save Adobe PDF settings inside PDF file	
Save original JPEG images in PDF if possible	
Save Portable Job Ticket inside PDF file	
Use Prologue.ps and Epilogue.ps	
Document Structuring Conventions (DSC)	
Process DSC comments	
Log DSC warnings	
<ul> <li>Log DSC warnings</li> <li>Preserve EPS information from DSC</li> </ul>	
Preserve EPS information from DSC	

(next page)

**Step 6.** Click on the **PDF/X** Tab and adjust your settings exactly as shown below:

E_PDF_for_Acrobat6 - Adobe PDF Settings	
General Images Fonts Color Advanced PDF/X	
PDF/X Reporting and Compliance	
When not compliant: Continue	
If Neither TrimBox nor ArtBox are Specified Preport as error C Set TrimBox to MediaBox with offsets (Points): Left: 0.0 Right: 0.0 Top: 0.0 Bottom: 0.0	_
If BleedBox is Not Specified	
Set BlendBacto MedaBac	
C Set BleedBox to TrimBox with offsets (Points):	
Left 0.0 Right 0.0 Top: 0.0 Bottom: 0.0	1
Default Values if Not Specified in the Document	
Dutputintent Profile Name: None 🖉	Ø
DutputCondition	ø -
RegistryName (URL): http://www.color.org	8
Trapped: Insert False	9
Save As., OK Cancel Heb	1
Carter Inte	

**Step 7.** Click "Save As" and a Save Job Options pop-up window will appear. If necessary, click the "Save in" pull-down menu and navigate to the "Settings" folder under the Adobe Acrobat 6.0 folder. (This is illustrated on page 16 of these instructions for Acrobat 4.0)

**Step 8.** Give this newly created job option a file name you will remember, such as IEEE\_PDF\_for\_Acrobat6, or something to that effect. Type it in the File name box. Then click Save. (This is illustrated on page 17 of these instructions for Acrobat 4.0.)

**Step 9.** In the Acrobat Distiller Box, click on the Job Options pull-down menu and select your newly created Job Option. (This is illustrated on page 17 for Acrobat 4.0.) If there is a save button, click Save. If there is no "Save" button, simply click on the little "**x**" to close this box. Acrobat will remember these settings and apply them to every PDF that you create from now on. That's it. You are done! You can now convert your Word document into an IEEE Xplore compatible PDF file.

**Step 10.** Note that you should **UNCHECK the "Use Local Fonts" feature** under the "View" pulldown menu on the Acrobat distiller screen. (See page 8 for a screen-shot.)

## AFTER YOU CREATE YOUR PDF FILE, GO TO THE NEXT PAGE AND PERFORM THE COMPATIBILITY VERIFICATION STEP!

# A Simple Test to Verify that Your Newly Created PDF is IEEE Xplore Compliant

We recommend this **manual** process to check for font embedding, the single biggest obstacle to PDF file compliance with the IEEE Xplore specifications:

- 1) Once the PDF file is created, open it with Acrobat.
- 2) Open the Acrobat Print panel ("File" > "Print") and check the "Print to file" button:

Print	? ×
Printer —	
<u>N</u> ame:	VTx14prt01VTX14PRT009
Status:	Ready 🗖 Reverse pages
Type:	LANIER 5635 PS 🗖 Print as jmage
Where:	TX14-1st Floor-7B-DD20-19_1-G-420-D_10.63. Fit to page
Comment:	Lanier 5645 Printer BW PS - TX14 1st Floor 7B 🔽 💌 Print to file
- Print Range	Copies
	Annotations Number of copies: 1
C C <u>u</u> rrent	
O Pages <u>f</u>	rom: 1 to: 4 1 2 3 3
C Selecte	d pages/graphic
PostScript 0	) ptions
Print <u>M</u> etho	d: PostScript Level 2
🔽 Use Prir	nter <u>H</u> alftone Screens 🔽 Do <u>w</u> nload Asian Fonts
P <u>r</u> int: Eve	n and Odd Pages 💌 OK Cancel

This will cause Acrobat to try to assign fonts to all of the fonts in the document.

3) Click "OK". Another pop-up window will appear:

Print to File	x
<u>O</u> utput File Name:	ОК
test	Cancel
	<u>H</u> elp

Give it a name and press "OK".

4) On the Acrobat screen, click on "File" > "Document Properties" (or "Document Info") > "Fonts". A "Font Info" window will appear.

5) Click on the "List all fonts" button, and give it a moment to update itself.

- In the "Font Info" panel, the first column gives the Original Font name.
- The second column ("Type") gives the font type (i.e., Type 1 or TrueType).
- The third column ("Encoding") can be ignored.
- The fourth column ("Used Font"), **must** read "Embedded Subset". It should **not** be blank. It is a failure if it reads "Embedded" rather than "Embedded Subset"!
- The fifth column ("Type") **must** match the second column ("Type").

		Sample S	creen: For	nts are NOT O	K	
	Font Info Fonts in: example Diginal Font ①	pdi Type ②	Encoding (G)	Used Fant @	Type 🕥	× Reason: Fonts are
Fonts are NOT OK	AsiaBlack Helvetica Tahona Times-Ronan	TitleType Type 1 TitleType Type 1	Windows Windows Windows Windows	Enbedded Enbedded Enbedded Enbedded	TrueType Type 1 TrueType Type 1	embedded but not subsetted.
Fonts are NOT OK	Araillack Halvetica Tahona Tines-Floman	ToueType Type 1 ToueType Type 1	Windows Windows Windows Windows	Adube Sans MM AsiaMT Adube Sans MM TimesNewRomanPSMT	Туре 1 Туре 1 Туре 1 Туре 1 Туре 1	Reason: Fonts are not embedded and
	List All Fo	ols	OK.			subsetted.

#### Example Screen for an IEEE Xplore Compliant PDF:

Fonts In: 00021110	pdt				
Original Font	Туре	Encoding	Used Font	Туре	
AdvP4AA59C	Type 1	Custam	Embedded Subset	Type 1	k
AdvP4B4B8A	Type 1	Custam	Embedded Subset	Type 1	- 1
AdvP4C44F4	Type 1	Custam	Embedded Subset	Type 1	
AdvP4C4E40	Type 1	Custam	Embedded Subset	Type 1	1
AdvP4C4E46	Type 1	Custom	Embedded Subset	Type 1	
AdvP4C4E51	Type 1	Custam	Embedded Subset	Type 1	
AdvP4C4E59	Type 1	Custam	Embedded Subset	Type 1	
AdvP4C4E74	Type 1	Custom	Embedded Subset	Type 1	
AdvP4C4E80	Type 1	Custam	Embedded Subset	Type 1	
AdvP6EC0	Type 1	Custam	Embedded Subset	Type 1	
AdvP6EC5	Type 1	Custam	Embedded Subset	Type 1	

(continued on next page)

	Туре	Encoding	Used Font	Туре
Arial,Bold Arial,Italic Symbol TimesNewRoman TimesNewRoman,Bold TimesNewRoman,BoldIt TimesNewRoman,Italic	TrueType TrueType TrueType Type 1 TrueType TrueType TrueType TrueType Type 1 Type 1	Windows Windows Custom Windows Windows Windows Windows Custom Custom	TimesNewRomanPSMT TimesNewRomanPS-Bol TimesNewRomanPS-Bol	

Example Screen for a NON-Compliant PDF:

Notice that the second and fifth columns do not match each other. The "Used Font" column does not read "Embedded Subset" and cannot be blank.

Finally, as a test of your computer, you can convert the RAWCON2004 Word template into an IEEE Compatible PDF using your current settings. The "Font Info" test should give a result similar or identical to what you see below:

E	Example Sc	reen for a	<u>Compliant</u> PDF:	
Font Info				×
Fonts In: Microsoft Wor	d - mso158(1).j	odf		
Original Font	Туре	Encoding	Used Font	Туре
Arial Arial,Bold Arial,Italic Symbol TimesNewRoman,Bold TimesNewRoman,Bold TimesNewRoman,Italic TT6F2o00 TT6F4o00	TrueType TrueType TrueType Type 1 TrueType TrueType TrueType TrueType Type 1 Type 1	Windows Windows Custom Windows Windows Windows Windows Custom Custom	Embedded Subset Embedded Subset Embedded Subset Embedded Subset Embedded Subset Embedded Subset Embedded Subset Embedded Subset Embedded Subset	TrueType TrueType TrueType Type 1 TrueType TrueType TrueType TrueType Type 1 Type 1
List All Fonts	]	OK.		

c 

If your screen displays the font information shown above, you should have a compatible PDF for submission to the RAWCON 2004 Proceedings & CD-ROM. If any of the fields show errors, please go to the detailed <u>Author Instructions</u> to modify your settings.

Thank you very much for your cooperation to produce a quality document.

The RAWCON 2004 Publication Team.