

February 1st, 2017 - Version 4.0

## PREFACE

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## 1.0 Introduction

The NRC has prepared this "Desk Reference Guide for PDF Document Generation" to help its customers and other Federal agencies generate PDF (Portable File Format) files that comply with NRC's "Guidance for Electronic Submissions to the Commission" (https://www.nrc.gov/docs/ML1303/ML13031A056.pdf). This guide gives the required custom settings for generating PDF files from commonly used applications in Microsoft Office Suite 2013 such as MS-Word, PowerPoint, MS-Excel, etc.. It does not address special applications to include scanning software and graphics enhancement software such as Adobe Photoshop and Corel Draw, or any software that comes with your scanner. It does not address hardware configurations for scanning text or graphic images to generate a PDF file. This document was created and tested using Adobe Acrobat XI Professional, Microsoft Office 2013. Please contact the manufacturers for instructions on software or hardware that is not mentioned in this desk reference guide.

## 2.0 Support and Contact Information

## Feedback

We want to hear from you. If you do not find the information you need in this guide or wish to send comments, find broken link(s) on our Web site, or have problems finding information on our Web site, please contact the NRC Web Team by completing the form at <u>http://www.nrc.gov/site-help/e-submittals/contact-us-eie.html</u>.

# Technical support

If you have technical problems in complying with the "E-Rule" guidance, such as converting documents to PDF files, setting software configurations, fixing problems with deficient submittals, or any questions regarding materials discussed in this guide please contact the Help Desk by telephone (toll free) at 866-672-7640 or by email using the form on the NRC web site at http://www.nrc.gov/site-help/e-submittals/contact-us-eie.html.

# 3.0 System Requirements and Recommendations

## 3.1 Adobe Acrobat XI Professional requirements

## Windows

- Intel® 1.3GHz or faster processor
- Microsoft Windows® XP with Service Pack 3 for 32 bit or Service Pack 2 for 64 bit; Windows Server 2008 or 2008 R2 (32 bit and 64 bit); Windows 7 (32 bit and 64 bit); Windows 8 or 8.1 (32 bit and 64 bit)
- 256MB of RAM (512MB recommended)
- 320MB of available hard-disk space
- 1,024x768 screen resolution
- Internet Explorer 7, 8, 9, 10, or 11; Firefox Extended Support Release; Chrome
- DVD-ROM drive

- scanner (optional)
- Video hardware acceleration (optional)

## Macintosh

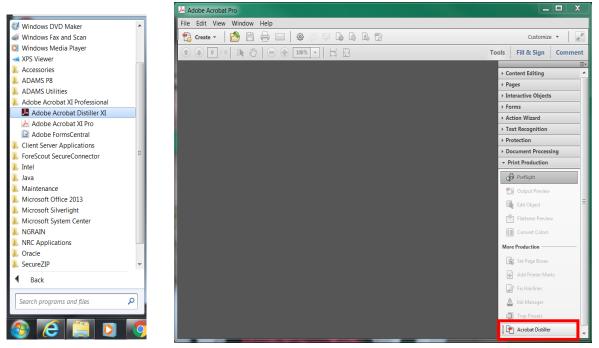
- Intel® processor
- Mac OS X v10.6.4, v10.7.2, or v10.8
- 1GB of RAM
- 320MB of available hard-disk space
- 1,024x768 screen resolution
- Safari 5.1 for Mac OS X v10.6.8 or v10.7.2; Safari 5.2 for Mac OS X v10.8; Safari 6.0 for Mac OS X v10.7.4 or v10.8
- DVD-ROM drive
- scanner (optional)

- 4.0 Software Setup and Configuration
- 4.1 Setting Up and Configuring Adobe Acrobat Distiller/PDFMaker and Setting Preferences

You can download and install a Distiller Job Options file (profile) created by NRC by following instructions in question 4 of the FAQs section.

Launch Adobe Acrobat Distiller by clicking on **Windows Start > Programs > Adobe Acrobat Professional > Adobe Acrobat Distiller XI** or while in Adobe Acrobat Professional, select **Tools > Print Production > Acrobat Distiller**.

#### 4.1.1 Adobe Acrobat XI Professional



The Acrobat Distiller window pops up.

Acrobat Dis	tiller						<b>X</b>
<u>F</u> ile <u>S</u> ettings	<u>H</u> elp						
Adobe PDF S	Settings						
Defa	ult Settings	Standar	d				•
Comp	atibility:	Acrobat	6.0 (PDF 1.5)				
💡 and pr	inting of bu	siness doo	Adobe PDF uments. Crea r 6.0 and later	ated PDF do			
Progress							
Status:	Read	y					
Pause	Can	cel Job					
PDF File	Size	Time	PS File	Size	📑 Se	ttings	PDF Fol
			111				4
•	-						
			0.50				*
Started: Friday	r, April 07, 2	017 at 16:1	2:59				^
	ript softwar	e version:	3018.101				*

Change the settings by going to the pulldown menu and selecting **Settings** > **Edit Adobe PDF Settings**.

Acro	bat Distiller		
File Se	ettings Help		
Ad	Font Locations	Ctrl+L	-
	Watched Folders	Ctrl+F	•
	Edit Adobe PDF Settings	Ctrl+E	
	Add Adobe PDF Settings	Ctrl+Shift+E	e for reliable viewing hts can be opened with
	Remove Adobe PDF Settings	Ctrl+R	
	Security	Ctrl+S	
Progr Status			
Jaiu	s. Ready		
PDF F	Cancel Job           File         Size         Time         PS File	Size 💽	Settings PDF Fo
•			•
Started	l: Friday, April 07, 2017 at 16:12:59		
	PostScript software version: 3018.101		

The **Standard - Adobe PDF Settings** window pops up. On the default **General** folder, change the following settings.

- In the Description section enter: <u>Use these settings to create Adobe</u> <u>PDF documents suitable for</u> <u>compliance with 10CFR1,</u> <u>Appendix A. Created PDF</u> <u>documents can be opened with</u> <u>Adobe Reader 5.0 and later</u>.
- From the dropdown menu, set
   Compatibility to <u>Acrobat 5.0 (PDF</u> <u>1.4)</u>.
- Keep <u>Tags only</u> as the **Object** Level Compression default.
- Set Auto-Rotate Pages to Off.
- Keep Left as the Binding default.
- Set **Resolution** to <u>300</u> dots per inch.
- Verify that **All Pages** is selected.
- Verify that **Optimize for fast web view** is checked.

Standard - Adobe PDF Settings				
Standard				
Fonts	Description			
Color Advanced Standards	Use these settings to create Adobe PDF documents suitable for reliable viewing and printing of business documents. Created PDF documents can be opened with Acrobat and Adobe Reader 5.0 and later.			
	File Options			
	Compatibility: Acrobat 5.0 (PDF 1.4) ▼			
	ObjectLevel Compression: Tags only			
	Auto-Rotate Pages: Off ▼			
	Binding: Left			
	Resolution: 300 dots per inch			
	Pages From: To:			
	Embed thumbnails			
	✓ Optimize for fast web view			
	Default Page Size			
	<u>W</u> idth: 8.5 U <u>n</u> its: Inches ▼			
Show All Settings	Height 11.0			
	Save <u>A</u> s OK Cancel <u>H</u> elp			

Select the **Images** folder and change the fields for all sections as follows:

- Color Images
   Downsample: Off
   Compression: ZIP
   <u>300</u> ppi
- Grayscale Images
   Downsample: Off
   Compression: ZIP
   <u>300</u> ppi
- Monochrome Images
   Downsample: Off
   Compression: CCITT Group 4
   Anti-alias to gray: Off
   <u>450</u> ppi

Standard	Color Images		
General	Downsample: Off	▼ 300	pixels per inch
Fonts Color Advanced Standards	Compr <u>e</u> ssion: ZIP	T	
	Grayscale Images		
	Downsample: Off	▼ 300	pixels per inch
	Compression: ZIP	•	
	Monochrome Images		
	Downsamp <u>l</u> e: Off	▼ 450	pixels per in <u>c</u> h
	Compression: CCITT Group 4	•	
	Anti-alias to gray: Off	•	
Show All Settings	Policy		

Click on the Fonts folder and—

- Verify that the **Embed all fonts** box is checked.
- Verify that Subset embedded fonts when percent of characters used is less than is checked and set at <u>100%</u>.
- Keep <u>Warn and continue</u> as the default for When embedding fails.
- In the Embedding section, verify that Font Source is set to <u>C:\WINDOWS\Fonts\</u> and remove everything in Never Embed (if there is anything) by selecting everything in the Never Embed field and clicking on Remove.

Standard General Images Fonts Color Advanced Standards	Embed all fonts     Embed Open_jype fonts     Sugset embedded fonts when     Only fonts with appropriate     When embedding fails: Warn as Embedding		ion bits will		100 %
	Font Source:			Always Embed:	
	C:\Windows\Fonts\	-			*
	AgencyFB-Bold     AgencyFB-Reg     Anaroni-Bold     AgencyFB-Reg     Anaroni-Bold     Agerian     Andalus     AngsanNew     AngsanNewBold     AngsanNewBold     AngsanaNewBoldItalic     AngsanaNewBoldItalic     AngsanaUPC     Bold     AngsanaUPC-Bold     AngsanaUPC-Bold     AngsanaUPC-Bold     Aparajita-Bold     Aparajita-Bold     Aparajita-Bold     Aparajita-Bold     Aparajita-Bold	•	Add ->	Never Embed: T Arial-Black Arial-BlackAlaic T Arial-BoldItaicMT T Arial-BoldMT T Arial-ItaicMT T Arial-ItaicMT T ArialNarrow T ArialNarrow-Bold	*
Show All Settings				Add <u>N</u> ame	Remove

Click on the Color folder. In the Adobe Color Settings section-

- Make sure Settings File is set to None.
- Change Color Management Policies to Convert All Colors to sRGB.
- Keep **Document Rendering Intent** set to <u>Preserve</u>.

For the Working Spaces subsection—

- Set **Gray** to <u>None</u>.
- ▶ Keep **RGB** set to <u>sRGB IEC61966-2.1</u>.
- ► Keep **CMYK** set to <u>U.S Web Coated (SWOP) v2</u>.

In the Device-Dependent Data section—

- > Check the **Preserve under color removal and black generation option**.
- > Set When transfer functions are found to <u>Preserve</u>.

Standard - Adobe PDF Settings		X
Standard General Images Fonts	Adobe Color Settings Settings File: None	•
Advanced Standards	Color Management Policies Convert All Colors to sRGB Document Rendering Intent Preserve	•
	Working Spaces	<ul> <li>▼</li> <li>▼</li> </ul>
	CMYK: U.S. Web Coated (SWOP) v2	•
	Device-Dependent Data  Preserve under color removal and black generation  When transfer functions are found: Apply  Preserve halftone information	
Show All Settings		
	Save <u>A</u> s OK Cancel <u>H</u> elp	

Click on the **Advanced** folder and make sure the following items in the **Options** section are selected and checked:

- Allow PostScript file to override Adobe PDF settings.
- Convert gradients to smooth shades.
- Convert smooth lines to curves.
- Preserve Level 2 copypage semantics.
- Preserve overprint settings.
- Overprinting default is nonzero overprinting.
- Save original JPEG images in PDF if possible.
- Save Portable Job Ticket inside PDF file.

The following items should be checked and enabled in the **Document Structuring Conventions** section:

tandard - Adobe PDF Settings	
Standard General Images Fonts Color Advanced Standards	Options         Ilow PostScript XObjects         Convert gradients to smooth shades         Convert gradients to smooth shades         Convert gradients to smooth shades         Preserve Level 2 copypage semantics         Preserve Level 2 copypage semantics         Voerprinting default is nonzero overprinting         Save Adobe PDF settings inside PDF file         Save Portable Job Ticket inside PDF file         Lyse Prologue ps and Epilogue ps
	Document Structuring Conventions (DSC)  Process DSC comments  Log DSC warnings  Preserve EPS information from DSC  Preserve OPI comments  Preserve document information from DSC  Resize page and center artwork for EPS files
Show All Settings	

- Process DSC comments.
- Preserve EPS information from DSC.
- Preserve OPI comments.
- Preserve document information from DSC.
- Resize page and center artwork for EPS files.

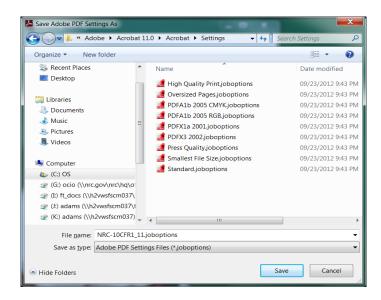
Click on the **Standards** folder. Leave everything as is in the **Standards Reporting** and **Compliance** section and verify that **Compliance Standard** is set to <u>None</u>.

Standard - Adobe PDF Settings		x
Standard	Standards Reporting and Compliance	_
General Images	Compliance Standard: None	
Fonts	When not compliant: Continue	
Advanced		
Standards		
	Default Values if Not Specified in the Document	
	Output Intent Profile Name: None	
	Output Condition:	
Show All Settings		
	Save As OK Cancel Help	

Click on

Save As... in the bottom left corner of the window to save the changes.

In the **File Name** field, enter <u>NRC-10CFR1</u> <u>11.joboptions</u> as a new profile name (or whatever name you want to call it). Click on <u>Save</u>. Then <u>OK</u>.

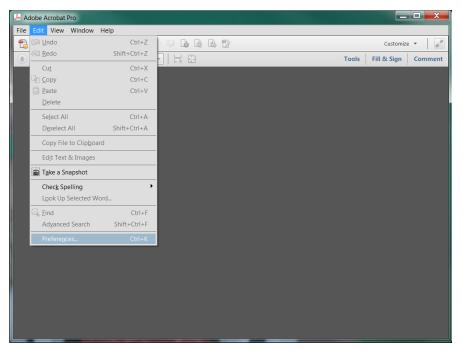


The **Acrobat Distiller** window now pops up. Verify that **Default Settings** is set to your newly created profile (for example, "NRC-10CFR1\_11"), as in the screen below.

📕 Acrobat Dist	tiller				
<u>File</u> <u>Settings</u>	<u>H</u> elp				
Adobe PDF Settings Default Settings: NRC-10CFR1_11  Compatibility: Acrobat 5.0 (PDF 1.4) Use these settings to create Adobe PDF documents suitable for compliacne with 10 CFR1, Apendix A. Created PDF documents can be opened with Acrobat and Adobe Reader 5.0 and later.					
Progress Status:					
	<u>C</u> ancel Jol				
PDF File	Size Time	e PS File	Size	🭯 Settings	PDF Fold
•					•
Started: Friday, April 07, 2017 at 16:12:59 Adobe PostScript software version: 3018.101 CID support library initialization completed.					
1					·

Select **File** > **Exit** or click on **Exit** to close Acrobat Distiller.

It is important to set the preferences in Adobe Acrobat so you can convert different types of documents to PDF while in Adobe Acrobat.



From the main menu, click on **Edit** > **Preferences** to set the preferences.

In the **Preferences** window, select **Convert To PDF** option from the **Categories** subwindow. You will see a list of application in the **Convert to PDF** subwindow. One of these applications may be the application used to create your document. The screen below gives configuration instructions for Microsoft Office, Project, and Publisher documents and TIFF images. Select and change the configurations for your application.

## Microsoft Office Word

eferences	
Categories:	Converting To PDF
Commenting Comments Documents Full Screen General Page Display 3D & Multimedia Accessibility Action Wizard Catalog Colort Eding Convert To PDF Email Accounts Forms Identity Internet JavaScript Language Measuring (3D) Measuring (3D) Measuring (3D) Measuring (3D) Measuring (3D) Measuring (3D) Measuring (3D) Multimedia Trust (legacy) Reading Reviewing Search Search	30 Files Autocate AutoCAD BMP Computered GF EMF HTML JPEG JPEG2000 Microsoft Office Road Microsoft Office Vorce PNG PvfScrint/EPS PvfScrint/EPS Edit Settings

Select Microsoft Office Word and click on
 Edit Settings...

In the **Adobe PDF Settings for supported documents** window, click on the dropdown menu and select the newly created profile (for example, "NRC-10CFR1\_11"). Then click

Adobe PDF Setting	s for supported documents	X				
Adobe PDF <u>S</u> ettings:	NRC-10CFR1_11	E <u>d</u> it				
Adobe PDF Se <u>c</u> urity:	None	Edit				
Add <u>b</u> ookmarks to	Adobe PDF file					
Add links to Adob	Add links to Adobe PDF file					
Enable <u>a</u> ccessibilit	y and reflow					
ОК	Cancel					

## Microsoft Office Excel

Select Microsoft Office Exel and click on
 Edit Settings...

In the **Adobe PDF Settings for supported documents** window, click on the dropdown menu and select the newly created profile (for example, "NRC-10CFR1\_11").

Click on <b>Convert entire Excel</b>	Adobe PDF Settings for supported documents
workbook to ensure that the conversion of the whole Excel	Adobe PDF <u>S</u> ettings: NRC-10CFR1_11
workbook is supported. Then click on	Adobe PDF Security: None Edit
ОК	Add bookmarks to Adobe PDF file
	Add links to Adobe PDF file
	Enable accessibility and reflow
	Convert entire Excel workbook
	OK Cancel

#### Microsoft Office PowerPoint

Select Microsoft Office PowerPoint and click on
 Edit Settings...

In the Adobe PDF Settings for supported documents window, click on the dropdown menu and select the newly created profile (for example, "NRC-

10CFR1_11"). Then click on $^{\circ\kappa}$ .	Adobe PDF Settings for supported documents
	Adobe PDF <u>Settings</u> : NRC-10CFR1_11   Edit
	Adobe PDF Se <u>c</u> urity: None   Edit
	Add <u>b</u> ookmarks to Adobe PDF file
	Add links to Adobe PDF file
	Enable accessibility and reflow
	OK Cancel

<u>TIFF</u>

Select TIFF then click on <u>Edit Settings...</u>

eferences		le contra de la contra de
Categories:	Converting To PDF	
Commenting Decuments Full Screen Page Display Page Display Page Display Page Display Page Display Action Witand Catlong Convert To PDF Email Accounts Forms Lidentty Internet Janscopp Linguistics Linguage	EMF + HTML + HTML + PEG300 - PEG300 - Microsoft Office Excel Microsoft Office Powy Microsoft Office Powy Powy Microsoft Office Powy Microsoft Office Powy Powy Microsoft Office Powy Microsoft Office Powy Powy Microsoft Office Powy	Sant Competition: HB32 (Lostes)           Monochrome: Compession: HB32 (Lostes)           Grayscale: Compression: HB52 (Quality: Medium)           Color: Competition: HB52 (Medium)           RGB Policy: Preserve embedded profiles           CMYR Policy: Off           Other Policy: Preserve embedded profiles           E68 Settings::::::::::::::::::::::::::::::::::::
Measuring (2D) Measuring (3D) Measuring (Geo) Multimedia (legacy) Multimedia Trust (legacy) Reading Reviewing Search Security		

In the **Adobe PDF Settings** window, select Scan Optimization and OCR. Click on Edit Settings...

. ,	Adobe PDF Settings	<u> </u>
	Compression	
	Monochrome: Not applicable	-
	Grayscale: Not applicable	-
	Color: Not applicable	-
	Color Management	
	RGB: Preserve embedded profiles	1
	CMVK: Off	í l
	Grayscale: Off	,
	Other: Preserve embedded profiles	)
		J
	OK <u>D</u> efaults Car	ncel

Change the settings in the **Optimization Options** section as follows:

- Set Color/Grayscale to <u>ZIP</u>
- Set Monochrome to <u>CCITT Group 4</u>
- Move Slider to <u>High Quality</u>

Click on

Click on again to close the **Preferences** window.

Optimize Scanned PDF
Optimization Options
Apply Adaptive Compression
Color/ <u>G</u> rayscale: ZIP
Monochrome: CCITT Group 4
Small Size High Quality
Filters
Deskew (On), Background Removal (Off), Descreen (On), Text Sharpening (Low)
Edit
OCR Options
Wake Searchable (Apply OCR)
Primary Language (English (US)), PDF Output Style (Searchable Image)
Edjt
Defaults OK Cancel

## 4.2 Setting Up and Configuring Adobe Preflight for-4.2.1 Adobe Acrobat XI Professional

You can download and install a NRC created Adobe Preflight profile by following instructions in question 4 of the FAQs section.

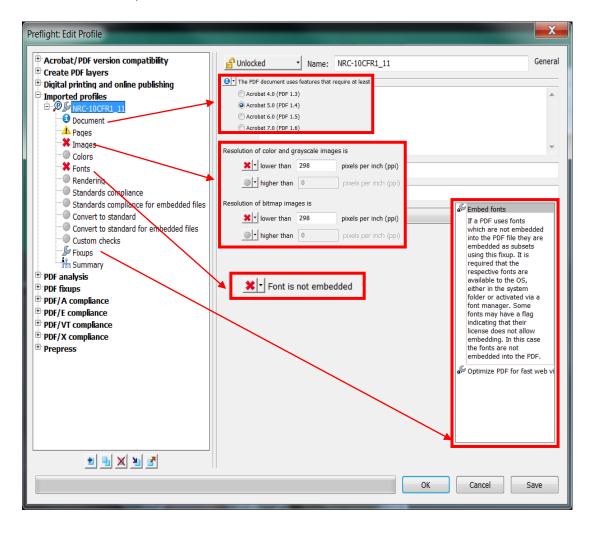
Launch Adobe Acrobat XI Professional. From the main menu, click on **Tools>Print Production** and select **Preflight**.

Adobe Acrobat Pro	_ <b>D</b> X
File Edit View Window Help	
🔁 Create 🗸 📑 🚔 🖾 🛛 🏟 🖓 🖗 🕼 🕼 🖄	Customize 👻
	Tools Fill & Sign Comment
	Content Editing
	▶ Pages
Preflight Reflight	Interactive Objects
	▶ Forms
Profiles 🛶 Results 💮 Standards Options -	▶ Action Wizard
Show all • 🖉 🔎 🖉 Find	Text Recognition
	▶ Protection
Acrobat/PDF version compatibility	Document Processing
P S Compatible with Acrobat 4	✓ Print Production
B Compatible with Acrobat 5 Makes the current PDF compatible with Acrobat 5 and saves it as a PDF 1.4 document. Among other things	Preflight
flattens layers and reduces image bit depth from 16 to 8 bit if necessary.	~
Description of the second seco	🕤 🖡 Output Preview
	Edit Object
Digital printing and online publishing	Flattener Preview
Imported profiles	
PDF analysis     PDF fixups	Convert Colors
PDF/A compliance	More Production
PDF/E compliance     PDF/VT compliance	🔠 Set Page Boxes
Further Options     Def Analyze and fix	
a construction of the cons	Add Printer Marks
	Fix Hairlines
	🖄 Ink Manager
	Trap Presets
	Acrobat Distiller 👻

- From the **Preflight** window, select a profile and click on **Edit** from the menu bar.
- In the Preflight: Edit Profiles window, click on 1 to create a new profile designate to NRC.

Acrobat/PDF version compatibility	🔒 Locke	d   Name: Compatible with Acrobat 5 Generation
Compatible with Acrobat 4		Makes the current PDF compatible with Acrobat 5 and saves it as a PDF 1.4 document.
Compatible with Acrobat 5	Purpose:	Among other things flattens layers and reduces image bit depth from 16 to 8 bit if necessary.
* Document		nineng outer uninge natione lafere und reducee intege eit depart fom 16 to 6 eit in freeeboar fr
Pages		
Colors		
P Fonts		
Rendering	A stable man	Acrobat 11
Standards compliance	Author:	Acrobat 11
Standards compliance for embedded files	Email:	
Convert to standard		
Convert to standard for embedded files	Group:	Acrobat/PDF version compatibility
Custom checks		
Fixups		
Summary		
Description: Provide the second		
🗄 🕮 🖉 Compatible with Acrobat 7		
Create PDF layers		
Digital printing and online publishing		
Imported profiles		
PDF analysis		
PDF fixups		
PDF/A compliance		
PDF/E compliance		
PDF/VT compliance		
PDF/X compliance Prepress		
Prepress		
1 × 1 Z		

- Give the new profile a name (e.g., "NRC-10CFR1\_11").
- Edit the subcomponents as follows:



• Then click on or

The new Preflight profile is created and can be used later for testing. See section 6.4.

#### 5.0 Conversion Information

5.1 Converting Microsoft (MS) Office Suite 2013 to PDF

### 5.1.1 MS-Word

<u>Please follow these steps for all of the MS-Office Suite including PowerPoint, Excel, Publisher,</u> <u>Access and Project.</u>

*Important*: If you haven't done so, follow the instructions in Section 4.1, "Setting up and configuring Adobe Acrobat Distiller/PDFMaker and setting preferences", to create an Acrobat Distiller/PDFMaker profile.

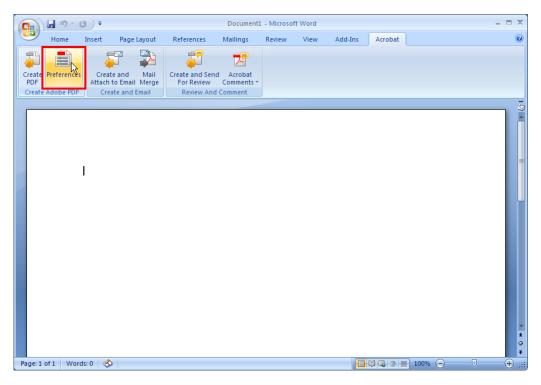
\*\*\*\* Please make sure all the sensitive/unwanted text or images are completely removed before proceeding any further. Instructions to remove/delete sensitive/unwanted text can be found at

http://adamswebsearch.nrc.gov/idmws/ViewDocByAccession.asp?AccessionNumber=ML060760600.

Launch Microsoft Word (either on the desktop or from Start > Programs > Microsoft Office 2013 > Word 2013).

Verify that the Microsoft Word conversion settings match the profile you created in Section 4.1 by going to the main menu and clicking on **Acrobat**, then click on **Preferences**.

Do so once and then leave the settings alone unless you want to use other settings. When you have configured and saved the Acrobat PDFMaker settings, start the conversion process on page  $\underline{19}$  of this section.



The Acrobat PDFMaker window pops up.

	Word Bookmarks		
PDFMaker Set	tinas		
	on Settings: NRC-10CFR1_11	•	
		F documents suitable for compliacne w nents can be opened with Acrobat and A	
View Ac	lobe PDF result		
Prompt	for Adobe PDF file name		
Convert	Document Information	Advanced Set	tings
PDF/A Cor	npljance: None	•	
	Accessibility and Reflow with tagg nable advanced tagging	jed Adobe PDF	
		corporated and its licensors. All rights re dobe PDF logo, PostScript, and Reader marks of Adobe Systems Incorporated i	

Click on the **Settings** tab then in the **Conversion Settings** field of the **PDFMaker Settings** section. Click on the dropdown arrow and select the profile you have created (e.g., "NRC-10CFR1\_11"). Uncheck **Convert Document Information**.

🔀 Acrobat PDFMaker	X
Settings Security Word Bookmarks	
PDFMaker Settings Conversion Settings: NRC-10CFR1_11 Use these settings to create Adobe PDF documents suitable for compliacne with 10 CFR1.Apendix A. Created PDF documents can be opened with Acrobat and Adobe View Adobe PDF result Pompt for Adobe PDF file name Convert Document Information PDF/ACCompliance None Advanced Settings Attach source file Create Bookmarks Add Links Enable Accessibility and Reflow with tagged Adobe PDF Enable advanced tagging	:
<ul> <li>© 1987-2012 Adobe Systems Incorporated and its licensors. All rights reserved. J the Adobe logo. Acrobat the Adobe PDF logo. PostScript and Reader are eithe registered trademarks or trademarks of Adobe Systems Incorporated in the Unit States and/or other countries.</li> </ul>	er
Restore Defaults OK Cancel	Help

Leave the settings on the other tabs as they are. Click on  $\bigcirc$ .

♣ Follow the steps below to convert a Microsoft Office Word 2013 document to PDF.

Launch Microsoft Word (either on the desktop or from **Start > Programs > Microsoft Office 13 > Word 2013**).

> Open or CrtI+O. The Open window Open a Word document by clicking on appears. Open 😋 💭 🖉 🖡 🕨 Nguyen, Kenny 🕨 Downloads 🕨 Training ▼ 4 Search Training ρ 0 -Organize • New folder 👟 (C:) OS Name Date modified (G:) ocio (\\nrc.gov\nrc\hq\office\twfn) Records Amend SOP.doc 09/12/2016 9:29 A. (I:) ft\_docs (\\h2vwsfscm037\fulltext) (J:) adams (\\h2vwsfscm037\fulltext) (K:) adams (\\h2vwsfscm037)

Select the Microsoft Word document you want to convert to PDF and click on open .

Remove all hyperlinks to other electronic files or Web sites unless the document includes a disclaimer that the hyperlinks are either inoperable or are not essential to the filing.

✓ All Word Documents (\*.doc) ▼
Too<u>ls</u> ▼ Open ▼ Cancel

There are 2 ways/methods to convert a Microsoft Office Word 20013 to PDF file, "Create PDF" and "Print to PDF".

5.1.1a "<u>Create PDF</u>" method:

 (L) adams (\\h2vwsfscm037)

 (M) fulltext (\\h2vwsfscm037)

 (P) KDN (\\nrc.gov\NRC\HQ\Users\HQ()

 (R) readonly (\\nrc.gov\nrc\hq)

 (S) shared (\\nrc.gov\nrc\hq)

 (Y) apps (\\nrc.gov\nrc\hq)

File name: Records Amend SOP.doc

If you are using an older version of Microsoft Word or Adobe Acrobat 5.0 or older, please follow the instructions on page <u>21</u>, "<u>Print to PDF</u>".

From the main menu, click on Acrobat tab and click on Create PDF.

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Page: 1 of 1 Words: 4 🥩					6 2 2 :	100% 😑 ——	

The **Save Adobe PDF File As** window pops up. Enter the name you want in the **File Name** field, then click on

Save Adobe PDF File As	
🕞 💭 📕 🕨 Nguyen, Kenny 🕨 Downloads 🕨 Training	▼ 🍫 Cearch Training
Organize   New folder	)iii • 🔞
🛓 Favorites 📩 Name	Date modified Type
Image: Image of the second	No items match your search.
☐ Libraries 3 Documents 3 Music 3 Pictures	
📕 Videos 👻 🖌	11
File name: This is a test.pdf	
Save as type: PDF files (*.pdf)	
I View Result	Protect PDF
Hide Folders	Qptions Save Cancel

A series of popup windows show the conversion status.

Acrobat PDFMaker	X
Converting to Adobe PDF	Cancel Show Details
Acrobat PDFMaker	<b>X</b>
Updating Tags	Cancel Show Details
🔁 Acrobat PDFMaker	X
Updating Tags	Cancel Show Details

When the conversion process is completed, the Microsoft Office Word 2013 document is converted into a PDF document and Adobe Acrobat Professional (or Adobe Acrobat Reader) may launch automatically with the new PDF document.

5.1.1b "<u>Print to PDF</u>" method:

Remove all hyperlinks to other electronic files or Web sites unless the document includes a disclaimer that the hyperlinks are either inoperable or are not essential to the filing.

From the main menu, click on **File > Print**.

Change the Printer to Adobe PDF. Click on Printer Properties.

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🍻 Open ZIP File	Portrait Orientation 👻	
😻 Save Copy as ZIP File	Letter •	
👸 Save Copy as	Normal Margins	<b>v</b>

On the Adobe PDF Document Properties screen.

- Click on the Adobe PDF Settings tab and change the following settings:
- Change the Default Settings to <u>NRC-</u> <u>10CFR1\_11</u> (the default profile created in Section 4.1).
- Uncheck Add document Information (optional)
- Uncheck *Rely on system* fonts only; do not use document fonts

(This will ensure that the fonts are embedded and exclude document's Properties information.)

ayout Paper/Quality 📐 Adobe PDF Settings	
Adobe PDF Conversion Settings	
Use these settings to create Adobe PDF documents suitable for compliacne wi A. Created PDF documents can be opened with Acrobat and Adobe Reader 5	
Default Settings. NRC-10CFR1_11	<u> </u>
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✓ View Adobe PDF results	
Add document information	
Rely on system fonts only; do not use document fonts	
Delete log files for successful jobs	
Ask to replace existing PDF file	

Click on Click on Click on to start the conversion process.

When the conversion is completed, the Microsoft Office Word 2013 document is converted to a PDF document and Adobe Acrobat Professional (or Adobe Acrobat Reader) may launch automatically with the new PDF document.

# 6.0 Verifications and Document Testing Before Submission6.1 Searchable Text (Hidden Text Error)

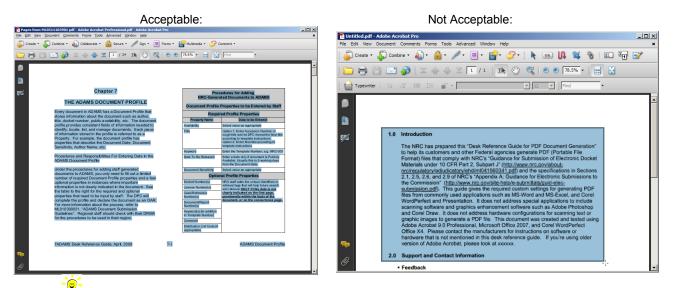
Follow these steps to verify that Optical Character Recognition (OCR) has been applied correctly to the image-only scanned pages.

• Open the PDF document in Adobe Acrobat Professional.

```
<sup>r</sup> Make sure you're in the "Scrolling pages" view 🔤 and <u>not</u> the "One full page" 🗳 view.
```

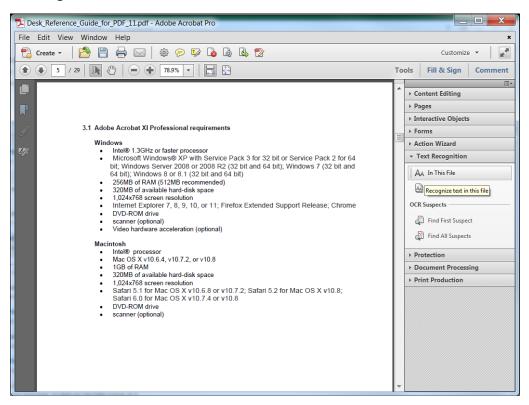
• From the main menu, select Edit > Select All (Ctrl+A) to select all the text on all pages. Another way is to click the Select button on the Tools menu and place the mouse cursor on the first character of the very first page. With the left-mouse button pressed, drag downward through the pages until you get the last character.

If the text is highlighted, it means that Optical Character Recognition (OCR) process ran correctly and that there is searchable text (hidden text). If, however, the **whole** page has a blue box, this means the OCR process has not been run (no searchable/hidden text), hence the OCR process needs to be run.



A warning message will appear if OCR process has never been run. At this time, you have the option of running the OCR process. Click the **OK** button to start the OCR process. In the **Recognize Text** window, choose one of the options, i.e. **All pages/Current pages/From page x-x**.

 The OCR process may also be started manually by going to Tools > Text Recognition > Aa In This File



 In the Recognize Text window, verify that <u>PDF Output Style</u> is set for <u>"Searchable Image (Exact)</u>" and <u>Downsample</u> is set to <u>"No Dawnsampling"</u>

R	ecognize Text
	Pages
	All pages
	Current page
	Erom page     1     to     10
	Settings
	Primary OCR Language: English (US)
	PDF Output Style: Searchable Image (Exa Downsample To: No Downsampling
	Edit
	OK Cancel

• Click ok to start the OCR process.

After running OCR, Preflight will introduce an error of "Fonts Not Embedded". This is normal and can be ignore since the error is on the scanned source image(s).

## 6.2 Embedded Fonts Verification

The "Fonts Not Embedded" error in Preflight is acceptable for scanned images that have been OCRed.

Verify that all Fonts are embedded in the document by taking the following steps:

- From the main menu, select File
   > Properties or press Ctrl+D to bring up the Document
   Properties window.
- Click the Fonts tab and verify that all fonts in the 'Fonts Used in this Document section' include <u>"Embedded Subset"</u> at the end. You can also run Preflight function and see if Preflight reports any errors relating to Embedded Fonts.
- Click or to close the **Document Properties** window.

	X
Document Properties	
Description Security Fonts Initial View Custom Advanced	
Fonts Used in this Document	
🖃 🙀 Arial-BoldMT (Embedded Subset)	
Type: TrueType	
Encoding: Ansi	
☐ ArialMT (Embedded Subset) Type: TrueType	
Encoding: Ansi	
Help	OK Cancel

If the fonts are not embedded, verify the Distiller Job Options used to generate the file has the correct settings. To correct the fonts not embedded issue, use one of the following three options...

- Open the document in its native application and re-PDF the document by following examples in the *"Desk Reference Guide for PDF Document Generations,"* i.e. "Create PDF" or "Print to PDF" method.
- 2. Print to PDF inside Acrobat XI Professional following the "Print to PDF" examples in the **"Desk Reference Guide for PDF Document Generations."**
- In Adobe Acrobat XI Pro, launch Preflight by going to Tools > Print Production > Preflight.
  - a) Select the NRC's recommended Preflight Profile, NRC-10CFR1\_11
  - b) Click on Analyze and fix to embed all the Fonts (will also Optimize Fast Web View at the same time).

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PDF fixups				
PDF/A con	npliance			
<ul> <li>Further Optic</li> </ul>	ons		🔎 Analyze	Analyze and fix

#### 6.3 Fast Web View.

Verify that Fast Web View is enabled by taking the following steps:

- 1. From the main menu, select **File > Document Properties** or press **Ctrl+D** to bring up the **Document Properties** window.
- Under the Description tab, on the lower right corner, verify Fast Web View is set to <u>'Yes</u>'. If not, enable it by selecting File > SaveAs, or by running one of the batch sequences from Advance > Batch Processing (Advance > Document processing > Batch Processing, or just re-PDF the document.
- 3. Click **OK** to close **Document Properties** window.

Document Prop	erties X
Description Se	curity Fonts Initial View Custom Advanced
Description	
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<u>T</u> itle:	Instructions for Maintaining Operating Reactor Licenses
<u>A</u> uthor:	John Boska
Subject:	
<u>K</u> eywords:	
Created:	04/10/2017 1:50:44 PM Additional Metadata
Modified:	04/10/2017 1:50:45 PM
Application:	Acrobat PDFMaker 11 for Word
Advanced	
PDF Produ	ucer: Adobe PDF Library 11.0
PDF Vers	sion: 1.4 (Acrobat 5.x)
Locat	tion: C:\Users\KDN\Downloads\Training\
File	Size: 1.48 MB (1,553,293 Bytes)
Page	Size: 8.50 x 11.00 in Number of Pages: 10
Tagged	PDF: Yes Fast Web View: Yes
Help	OK Cancel

Y Remember to perform **File > SaveAs** if changes are made to the document, because a typical **File >Save** will revert Fast Web View to "<u>No</u>".

## 6.4 Preflight Error Tests on Adobe Acrobat XI Professional

Do a Preflight test for any errors before submitting the document to the NRC.

- Launch Adobe Acrobat XI Professional.
- Open a PDF document that you want to test for errors.
- From the main menu, click on **Tools** and select **Preflight**.

Desk_Reference_Guide_for_PDF_11.pdf - Adobe Acrobat Pro	
File Edit View Window Help	×
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• 5 / 29          • • • 783% •          • • • • • • • • • • • • • •	Tools Fill & Sign Comment
<ul> <li>Adobe Acrobat XI Professional requirements</li> <li>Suman</li> <li>Hidrosoft Windows Si XY with Service Pack 3 for 32 bit or Service Pack 2 for 54 bit (Windows 5 or 61 (32 bit and 64 bit); Windows 7 (32 bit a</li></ul>	Content Editing     Pages     Intractive Objects     Forms     Pages     Action Wizard     Text Recognition     Protection     Protection     Protection     Print Production     Convert Colors     More Production     Set Page Boxes     Add Printer Marks     For Halfines     Add Printer Marks     For Halfines     Add Printer Marks     For Acrobat Distiller     V

• In the Preflight window, select the correct profile for testing, i.e., <u>NRC-10CFR1 11</u>, under **Custom profiles** or **Imported profiles** if it was downloaded from <u>http://www.nrc.gov/site-help/electronic-sub-ref-mat.html</u>.

Preflight				E	3
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Acrobat/I	PDF version co	mpatibility		*	
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🔊 🔊 Magazir	ne Ads			· ·	
Further Option	ons	·	🔎 Analyze	Analyze and fix	

• Click on the Analyze button to start checking the document for errors.

In Adobe Acrobat XI Pro, when using the NRC's Preflight Profile, click on the Analyze and fix button will 1) embed the Fonts, and 2) Optimize PDF for Fast Web View.

Below are some examples of Preflight errors:

• Fonts not Embedded

Desk Reference Guide for PDF 9.pdf - Adobe Acrobat Pro File Edit View Document Comments Forms Tools Advanced Window Help	×
🛛 💭 Create + 💭 Combine + 🔬 + 🍰 + 🥒 + 📑 + 🚔 + 🄗 + 🗮 🗞 🚳 🛛	I 🗗 📝
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Typewriter Tr aT := := : I12 . Find -	
Preflight           1.0         Introduction	×I Options ▼
Preflight profile 'NRC-10CFR1' found the following errors: The NRC has prime to help ifs customer Format) files that is customer Format) files that is customer Format) files that is no recent and Corel Draw. It graphic images to gAdobe Arcobal 9.0 The Commission (1) The Page 1: Arial-BoldMT 10.98 pt TrueType not embedded Black (1.0) overprimer to the file for the table of the Commission (1) The Page 1: Arial-MoldMT 10.98 pt TrueType not embedded Black (1.0) overprimer to the file for the table of the Commission (1) The Page 1: Arial-MoldMT 10.98 pt TrueType not embedded Black (1.0) overprimer to the file for the table of the Commission (1) The Page 1: Arial-MoldMT 10.98 pt TrueType not embedded Black (10) overprimer to the table of the Common table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (10) overprimer to the table of the Common table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (10) overprimer to the table of the Common table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (10) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (10) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (10) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table of the Page 1: Arial-MI 10.98 pt TrueType not embedded Black (1.0) overprimer to the table table table (1.0) overp	nt: off /1.0) overpr nt: off /1.0) overpr /1.0) overpr nt: off erprint: off
• Feedback	-

• Less than 300dpi and NOT Fast Web View

Preflight 🗶	Description Security Fonts Initial View Custom Advanced
The Profiles Results Options -	Description File: Untitled.pdf
Preflight profile "NRC-10CFR1" found the following errors:	Title:
	Author:
Page 1 from "Untitled.pdf"	Subject:
문 및 Summary 표 에 Page 1: Bitmap image 472.322x587.522 p 199.999 pp Black overprint: off 문 : 중3 Overview	Keywords:
E. Preflight information	Created: 5/4/2010 3:52:51 PM Additional Metadata
	Created: 5/4/2010 3:52:51 PMAdditional Metadata
	Application: FUJITSU fi-4750Cdm #2
	Advanced
	PDF Producer: PDFScanLib v1.2.2 in Adobe Acrobat 8.0
🔍 Show in Snap	PDF Version: 1.4 (Acrobat 5.x)
	Location: P:\
	File Size: 38.22 KB (39, 142 Bytes)
	Page Size: 8.64 x 11.00 in Number of Pages: 1
	Tagged PDF: No Fast Web View No
	Help OK Cancel

Click on Greate Report... button if you want a PDF version of the results, or click on 🗷 to exit.

# 7.0 Miscellaneous

# 7.1 FAQ

1. "I just scanned several images and converted into PDF. I ran Preflight and I received errors that my images were scanned at 299.99dpi, is this acceptable?"

Yes 299.99dpi is acceptable due to round off.

2. "Your guide has no information about scanners and the preferred method of scanning. Will you be adding instructions to support scanning?"

No. There are too many different scanners with proprietary software. Submitters may use any scanners and scanning software with the resolution set to scan no less than 300dpi.

3. "Where can I download a pre-configured Adobe Distiller PDF Settings (profile)? And how do I install it?"

You can download a Adobe Distiller PDF Settings (profile) for your version of Adobe at <u>http://www.nrc.gov/site-help/electronic-sub-ref-mat.html</u> and place it in <u>C:\Program Files\Adobe\Acrobat</u>
<a href="http://www.nrc.gov/site-help/electronic-sub-ref-mat.html"></a> Adobe at <a href="http://www.nrc.gov/site-help/electronic-sub-ref-mat.html">http://www.nrc.gov/site-help/electronic-sub-ref-mat.html</a> and place it in <a href="http://www.nrc.gov/site-help/electronic-sub-ref-mat.html">C:\Program Files\Adobe\Acrobat</a> <a href="http://www.nrc.gov/site-help/electronic-sub-ref-mat.html"></a> Adobe at <a href="http://www.nrc.gov/site-help/electronic-sub-ref-mat.html">http://www.nrc.gov/site-help/electronic-sub-ref-mat.html</a> and place it in <a href="http://www.nrc.gov/site-help/electronic-sub-ref-mat.html">C:\Program Files\Adobe\Acrobat</a> <a href="http://www.nrc.gov/site-help/electronic-sub-ref-mat.html">http://www.nrc.gov/site-help/electronic-sub-ref-mat.html</a> and place it in <a href="http://www.nrc.gov/site-help/electronic-sub-ref-sub-ref-sub-ref-mat.html">http://www.nrc.gov/site-help/electronic-sub-ref-mat.html</a> <a href="http://www.nrc.gov/site-help/electronic-sub-ref-

Follow these steps to add this new profile:

- Launch Acrobat Distiller (either from Start/Program/Acrobat Distiller XI or select Tools/Print Production/Acrobat Distiller inside Adobe Acrobat XI Professional).
- The Acrobat Distiller window pops up. From the main menu, click on Settings and select Add Adobe PDF Settings.
- An Add Adobe PDF Settings window pops up. Select the new profile you have downloaded (e.g. <u>NRC-10CFR1 11.joboptions</u>) and click on **Open**.
- The Acrobat Distiller window reappears with the newly loaded profile as the Default Settings.
- 4. "Do you have a pre-configured Adobe Preflight profile? If so, where can I download it and how do I install it?"

You can download a pre-configured Adobe Preflight profile for your version of Adobe at <u>http://www.nrc.gov/site-help/electronic-sub-ref-mat.html</u> and place it in <u>C:\Program Files\Adobe\Acrobat</u> <x.0>\Distiller\Settings. Follow these steps to install this new profile:

- o Launch Adobe Acrobat XI Professional, and select Tools/Preflight.
- Preflight window pops up. click on Options and select Import Preflight Profile....
- In the **Import Preflight Profile** window, browse and select the downloaded Preflight profile (e.g. <u>NRC-10CFR1\_11.kfp</u>), then click on **Open**.
- The imported profile will be listed under the **Imported profiles** section.
- 5. "Is JPEG compression an acceptable alternative to ZIP compression?"

At this time JPEG compression is an <u>unacceptable</u> alternative to ZIP compression because it is a lossy compression method.

## 7.2 Quick Links

<u>http://www.nrc.gov</u> - U.S. Nuclear Regulatory Commission home page. <u>http://www.nrc.gov/site-help/e-submittals.html</u> - Electronic Submittals homepage. <u>https://www.nrc.gov/docs/ML1303/ML13031A056.pdf</u> - Guidance for Electronic Submissions to the Commission.

<u>https://www.nrc.gov/docs/ML1014/ML101440354.pdf</u> - PDF Document Submittal Checklist