

Developing Accessible PDF Documents

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Accessibility Camp DC

Agenda

- Scenarios for making PDFs accessible
- Setting up the source document
- Checking for PDF accessibility
- Fixing PDFs for accessibility
- Other accessibility tests



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Scenarios for making
PDFs accessible

Your starting point

- You have created a document in Word, FrameMaker, OpenOffice, PowerPoint, etc. and need to distribute it in accessible Portable Document Format (PDF)
- You are responsible for making sure someone else's PDF is accessible and you cannot edit the source file



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Setting up the source document

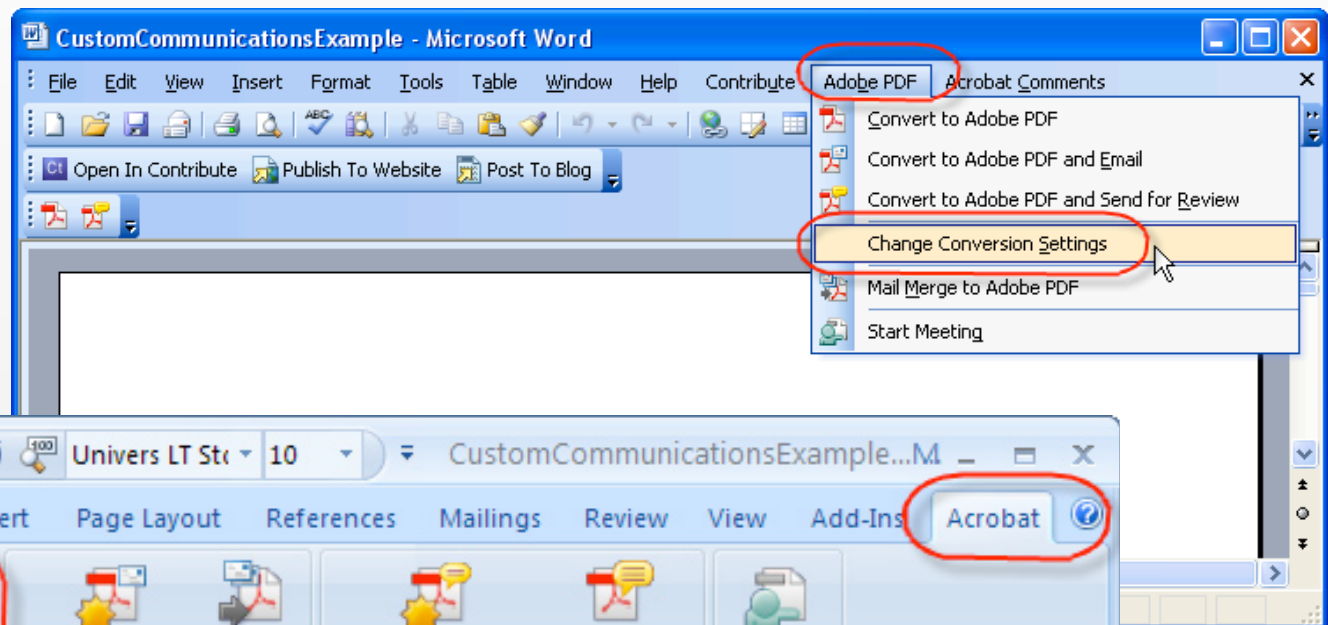
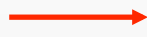
Setting up the source document

- Use template styles for every heading and paragraph
- Add alternative text for every image
- Use column and/or row headers for tables and add a caption or intro text
- Make sure links make sense out of context (no “click here”)
- Use short URLs; be considerate to screen reader users

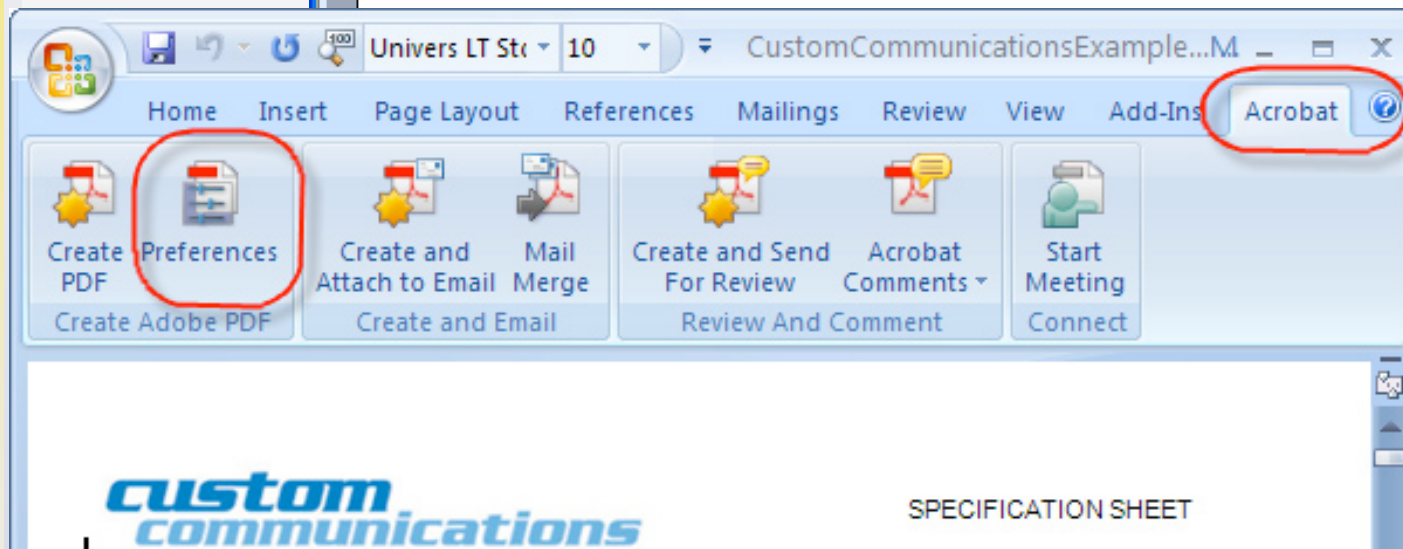
Creating a tagged PDF

- In Word, configure the PDFMaker

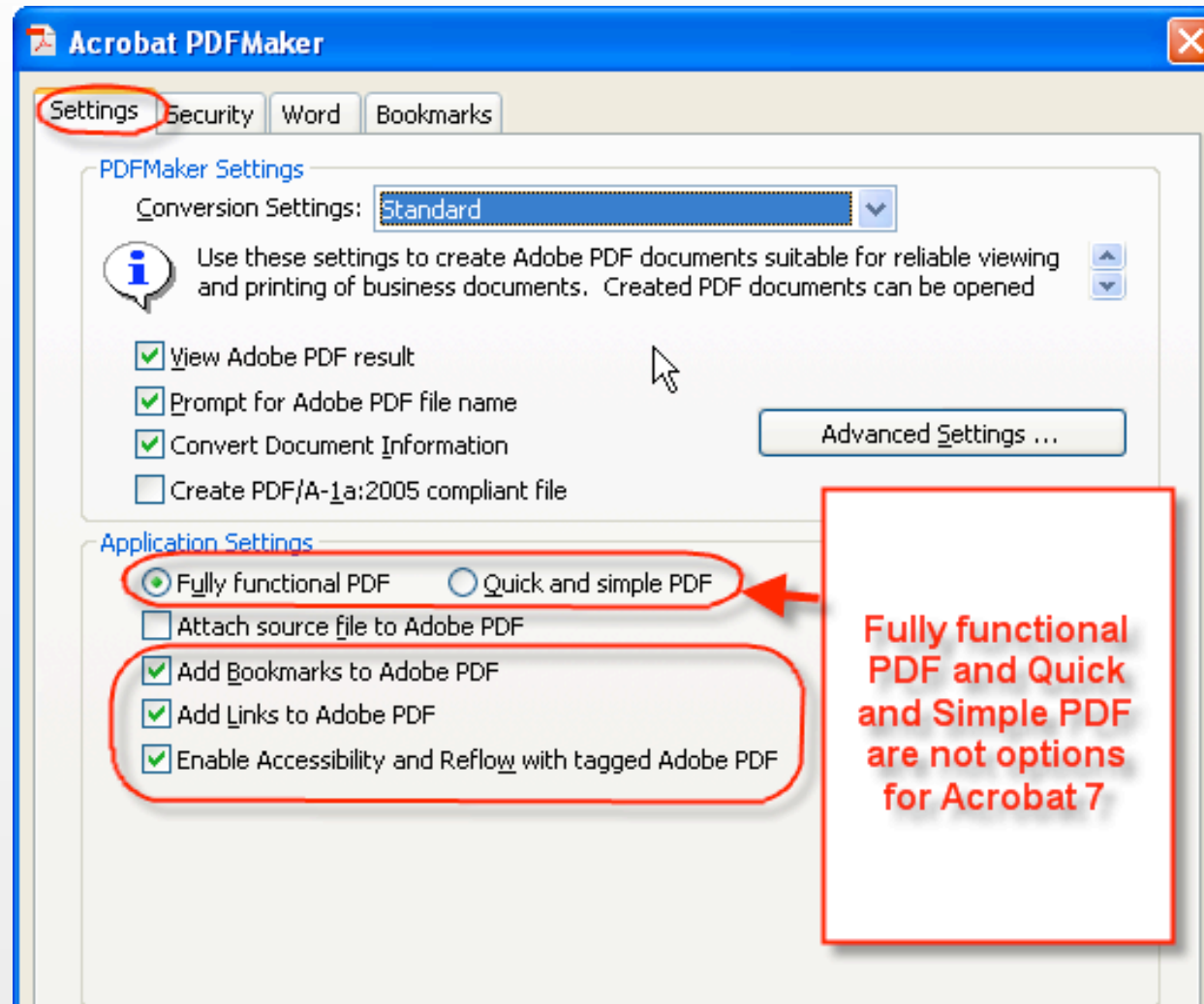
Word 2003



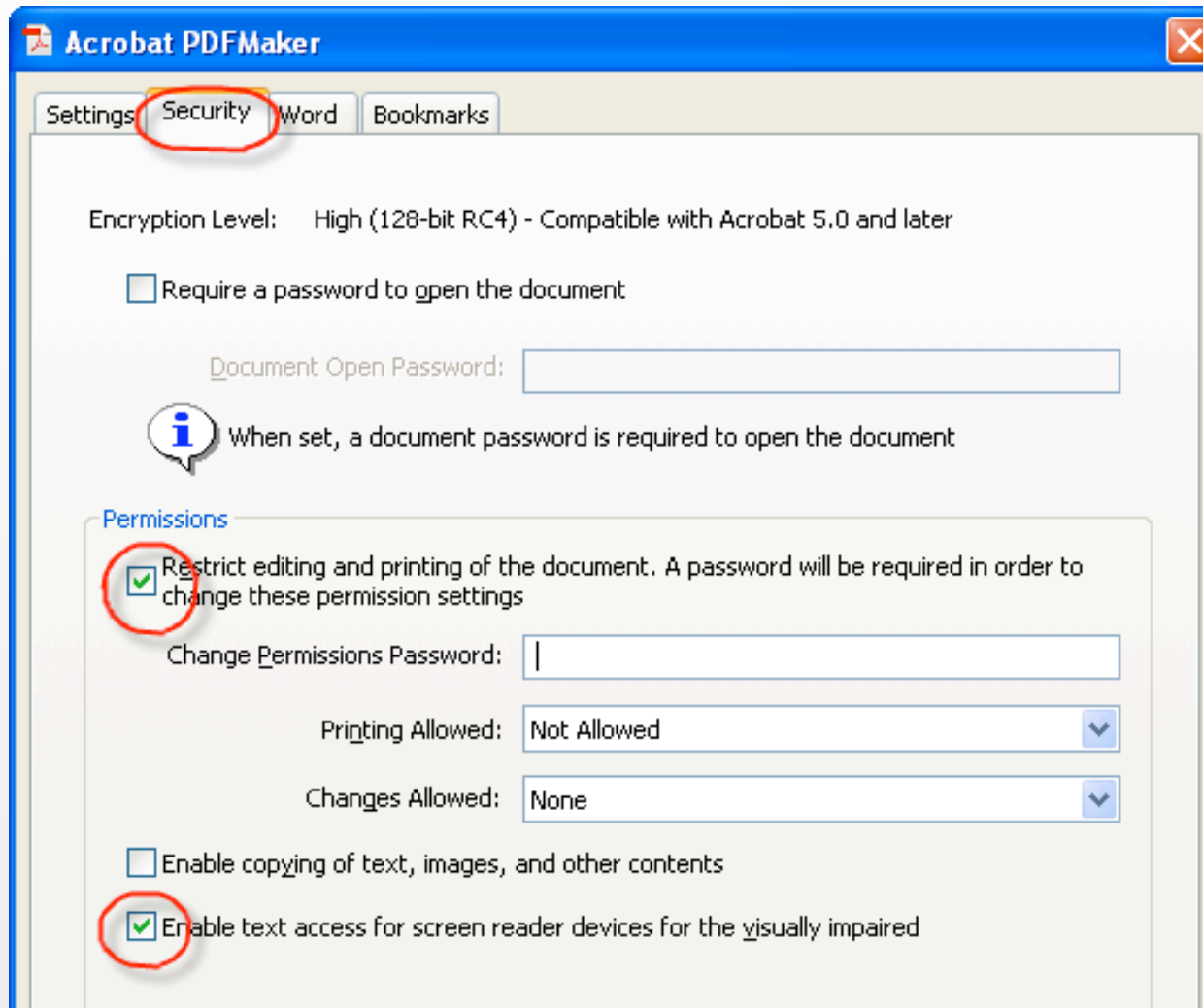
Word 2007



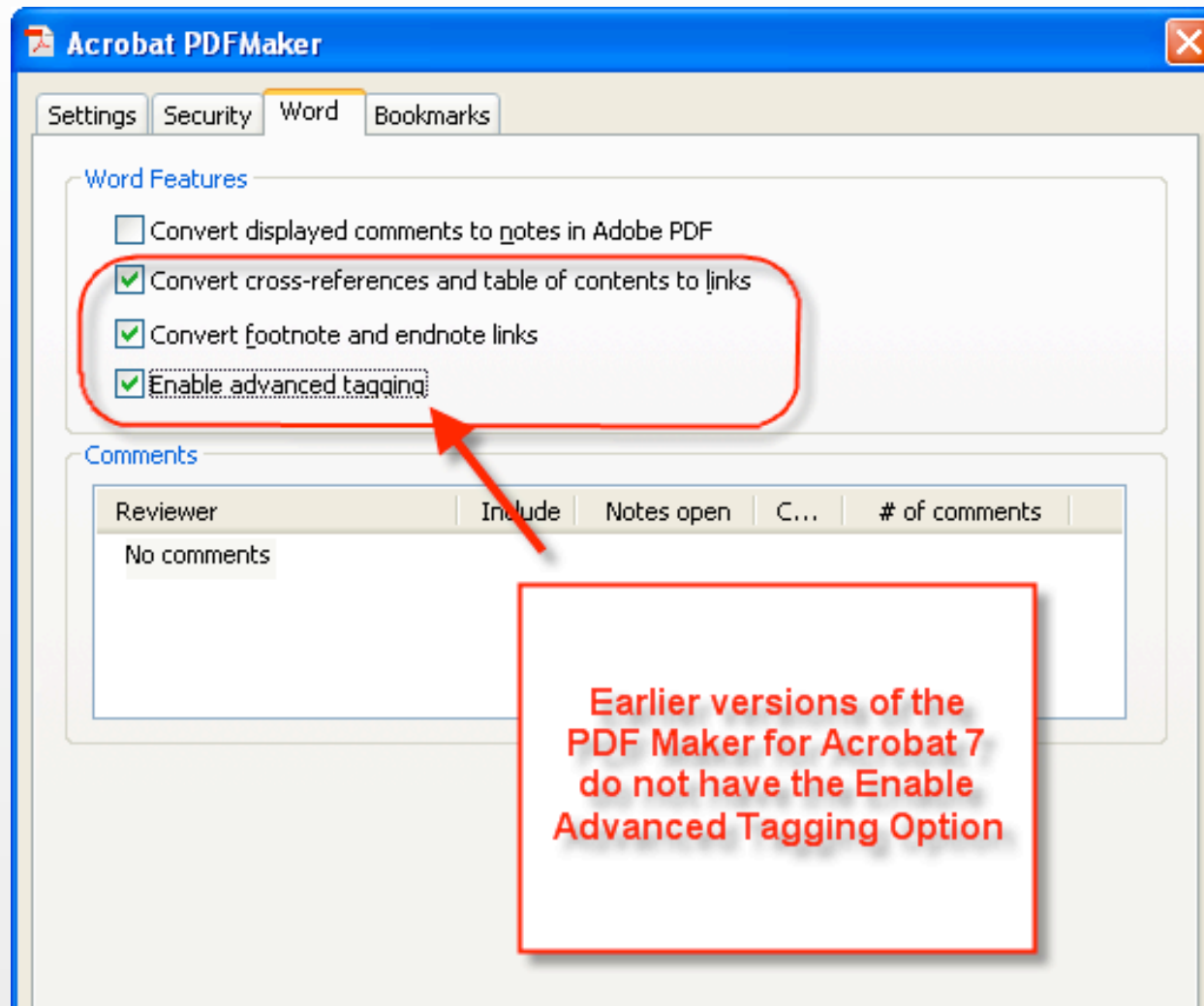
Settings tab



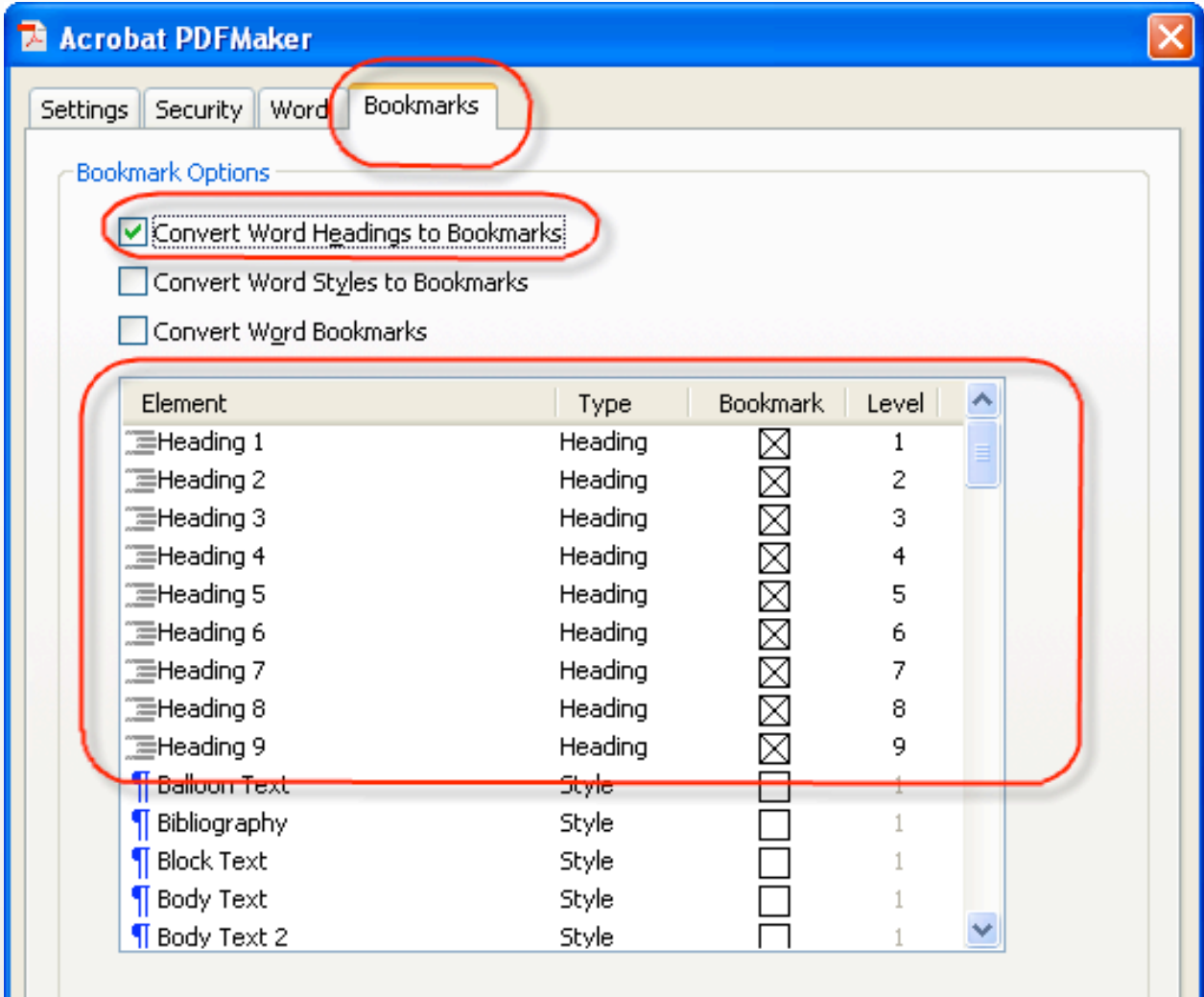
Security tab



Word tab

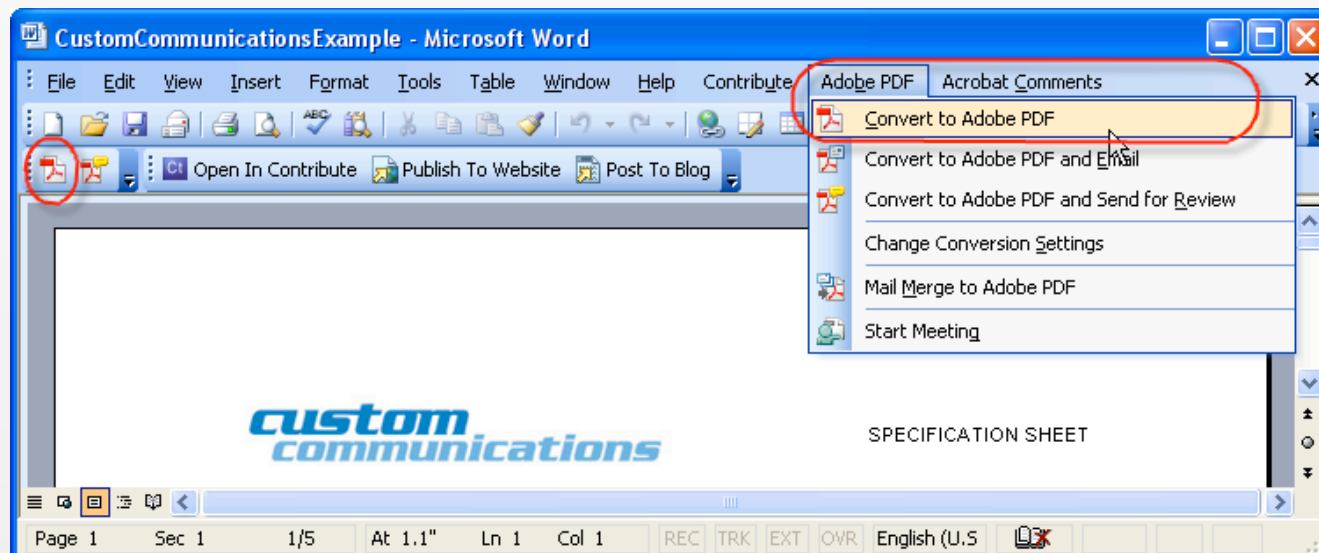


Bookmarks tab



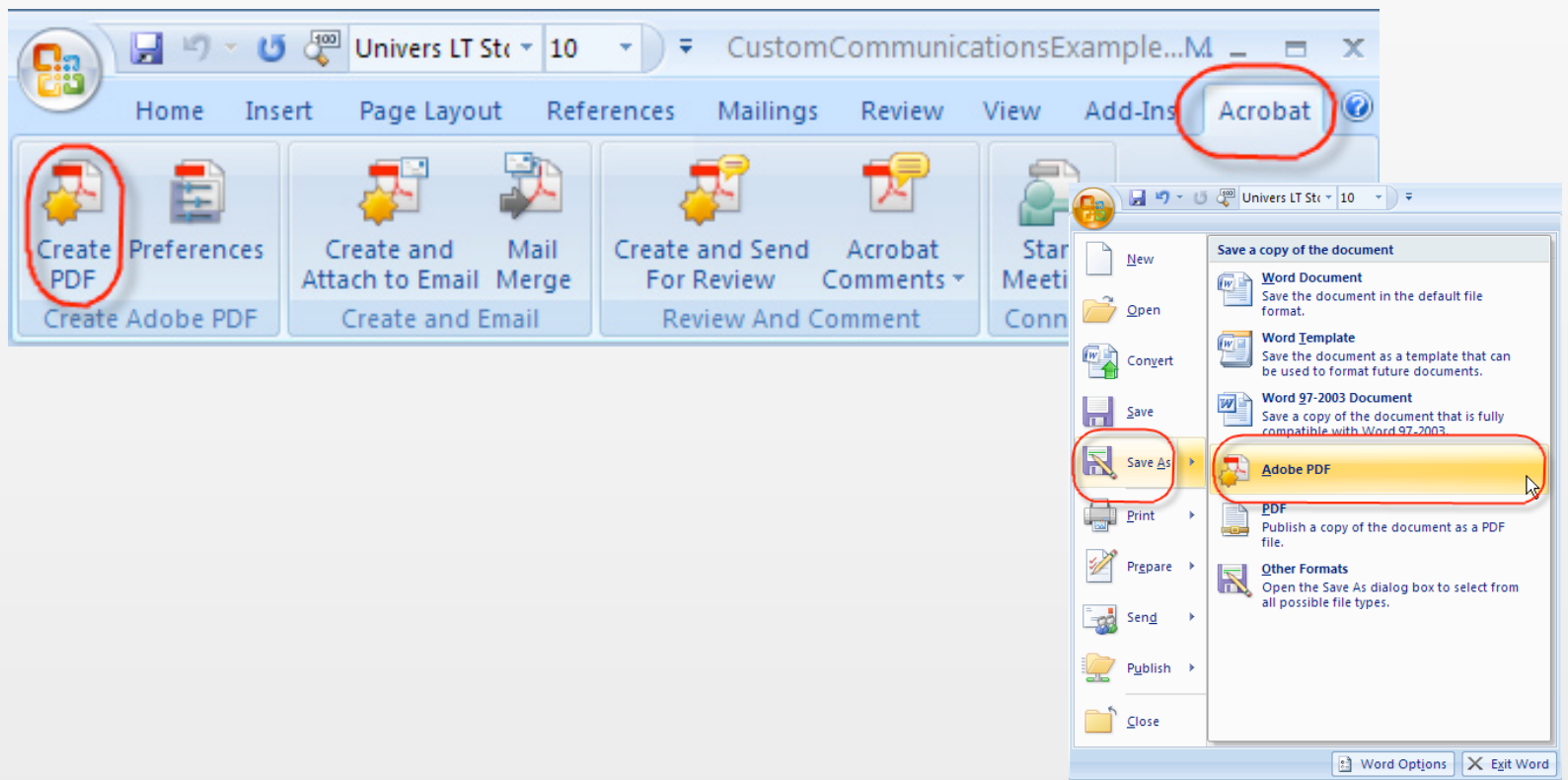
Save as accessible PDF (Word 2003)

- Word 2003
 - Convert to Adobe PDF from Adobe PDF Menu
 - Select Convert to Adobe PDF toolbar



Save as accessible PDF (Word 2007)

- Word 2007
 - Select Create PDF from the Create Adobe PDF Group
 - Save as Adobe PDF from the Office button



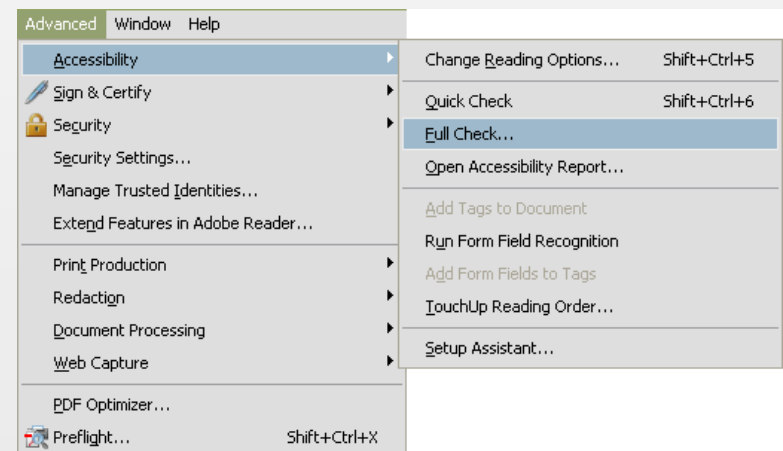


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Checking for PDF Accessibility

Checking for PDF Accessibility

- Specify document language (**File** > **Document Properties** > Advanced tab)
- Use document structure (On Pages panel, select all pages, right-click and select **Use Document Structure**)
- Run the Adobe Full Check (**Advanced** > **Accessibility** > **Full Check**)



Checking for PDF Accessibility

Report and Comment Options

Create Accessibility Report Folder: C:\Documents and Settings\Car... \My Documents

Include repair hints in Accessibility Report

Create comments in document

Page Range

All pages in document Pages from to

Checking Options

Name: Adobe PDF

Alternative text for images is provided
Section 508 Web-based intranet and internet information and applications (1194.22)
W3C@ Web Content Accessibility Guidelines 1.0

Text alternatives for images are provided
W3C@ Web Content Accessibility Guidelines 2.0 (Working Draft 27 April 2006)

Reliable character encoding is provided

All content is contained in the document structure

All form fields have descriptions

Tab order is consistent with the structure order

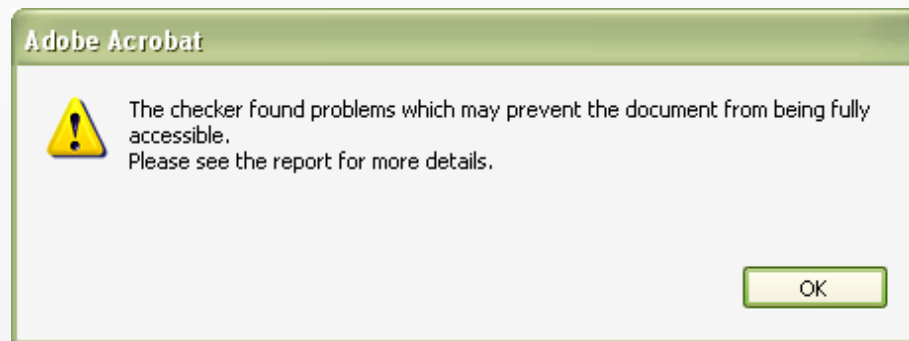
List and table structure is correct

Disclaimer

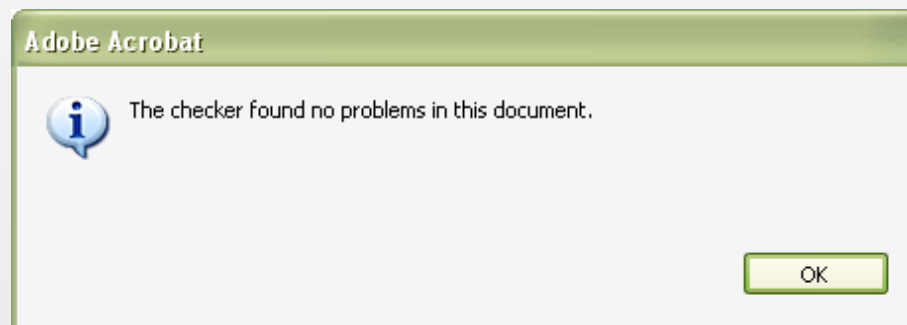
The Accessibility Checker can help you identify areas of your documents that may be in conflict with Adobe's interpretations of the referenced guidelines. However, the Accessibility Checker does not check all accessibility guidelines and criteria, including those in such referenced guidelines, and Adobe does not warrant that your documents will comply with any specific guidelines or regulations.

Checking for PDF Accessibility

Reality



Goal



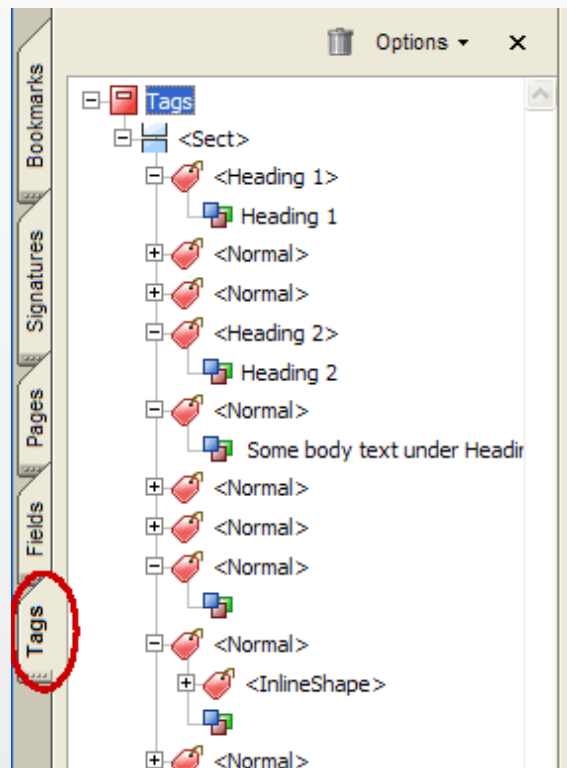


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Fixing PDFs for Accessibility

Fixing PDFs for Accessibility

- PDF tags express the structure of the document.

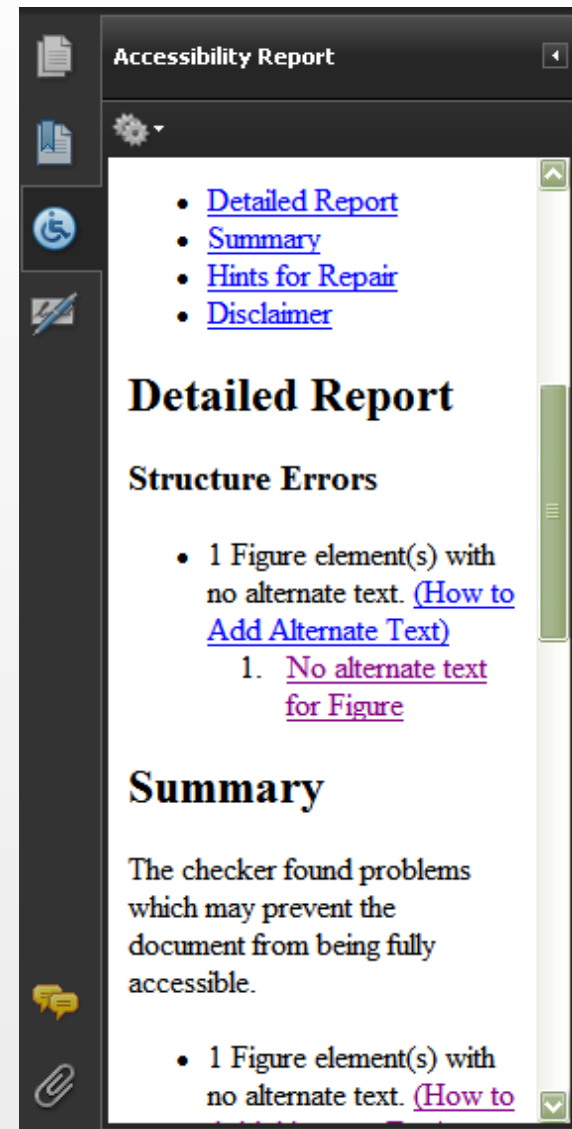


Fixing PDFs for Accessibility

- Characteristics of a properly tagged PDF
 - The PDF file includes a logical reading order for its content Images are given correct alternate descriptions
 - Tables are correctly tagged to represent the table structure
 - Form-fields are authored to promote their utility to screen-readers
 - Represents text as Unicode to clear up composition irregularities such as soft and hard hyphens (use Acrobat 9 for full Unicode support)

Fixing PDFs for Accessibility

- Acrobat provides a detailed error report
- Click an error to go to it in the document
- Once there, use Acrobat tools to fix the problem



Fixing PDFs for Accessibility

- Touch up the reading order (**Advanced > Accessibility > Touchup Reading Order**)

The image shows a screenshot of the Adobe Reader interface. On the left, the 'Advanced' menu is open, with 'TouchUp Reading Order...' selected. A red arrow points from this menu item to the 'TouchUp Reading Order' dialog box on the right. The dialog box contains instructions: 'Draw a rectangle around the content then click one of the buttons below:'. Below the instructions are several buttons for selecting content types: Text, Figure, Form Field, Figure/Caption, Heading 1, Table, Heading 2, Cell, Heading 3, Formula, and Background. There is also a 'Table Editor' button. At the bottom of the dialog, there are three checked checkboxes: 'Show page content order', 'Show table cells', and 'Show tables and figures'. At the very bottom, there are buttons for 'Clear Page Structure...', 'Show Order Panel', 'Help', and 'Close'. A red arrow points from the text 'Click Show Order Panel' to the 'Show Order Panel' button.

Click Show Order Panel

Fixing PDFs for Accessibility

1 Verifying the Installation
Perform the appropriate processes for your distribution to ensure caAdapter was successful.

Verifying the Binary Installation
Perform the following steps to launch the caAdapter mapping tool.

Step	Action
1.	In a command prompt window, enter <code>cd {home_dir}</code> to change to the home directory (for example, in Windows C:\caadapter).
2.	Enter <code>run.bat</code> .

The caAdapter Mapping Tool appears.

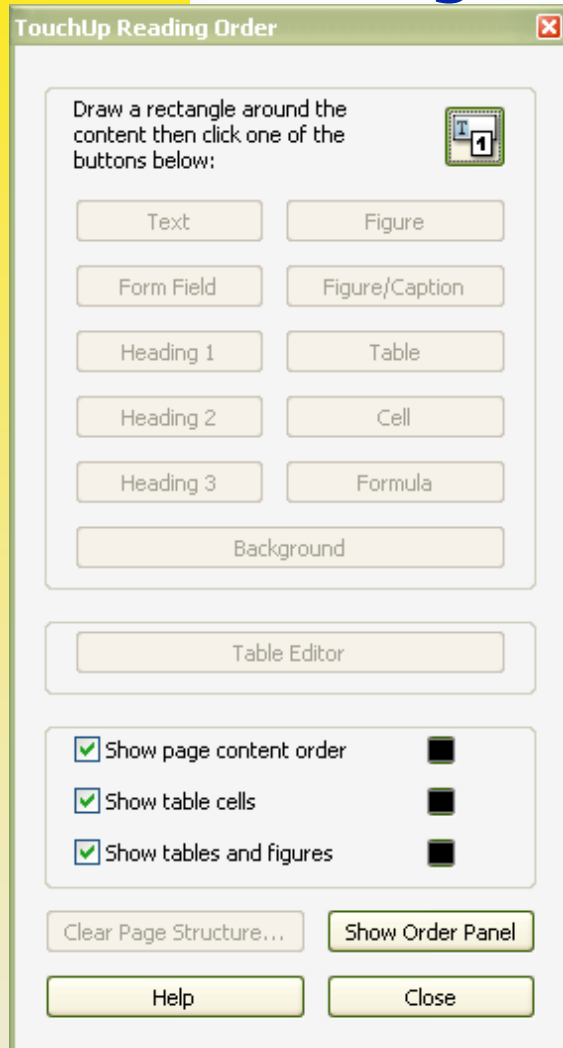
3 Verifying the Source Installation
Perform the following steps to launch the caAdapter mapping tool.

Step	Action
1.	In a Command Prompt window, enter <code>cd {home_dir}</code> to change to the home directory (for example, in Windows C:\caadapter).
2.	Enter <code>ant</code> .
3.	Change to dist directory, enter <code>cd dist</code> .

Table of Contents:
caAdapter MMS 4.1.1 Install Guide.pdf
Page 1
Page 2
Page 3
Page 4
Page 5
Page 6
Page 7
Page 8
Page 9
Page 10
[1] Verifying the Installation
[2] Step Action 1. In a command prompt window,
[3] Verifying the Source Installation
[4] Step Action 1. In a Command Prompt window,
[5] Building the Webstart Deployment
Page 11
Page 12
Page 13

Reading order of a PDF document

Fixing PDFs for Accessibility



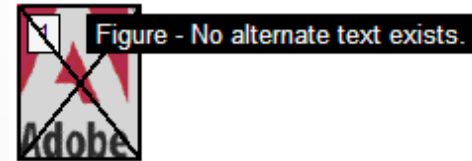
TouchUp Reading Order Options

Button	Adobe Tag	Additional information
Text	<P>	
Form Field	<Form>	
Heading 1	<H1>	
Heading 2	<H2>	
Heading 3	<H3>	
Figure	<Figure>	
Figure/Caption	<Figure> <Caption>	If you select the image and the nearby caption image will be tagged as a figure and the text will be tagged as its caption.
Table	<Table> <TR> <TH> <TD>	Acrobat attempts to assign rows, columns, and headings. Sometimes it does this correctly, but this should still be checked with the table inspector.
Cell	<TD>	Can be used to merge cells if they are incorrectly split
Formula	<Formula>	
Background	none	Also called an artifact, this will hide an item completely from a screen reader.

Fixing PDFs for Accessibility

- Adding tags
 - If you don't see the numbered boxes in the reading order view, the document is probably not tagged.
 - To add tags, select **Advanced > Accessibility > Add Tags to Document**.
 - This is the quickest way to add tags but the result will not be perfect. You will need to check the tags.

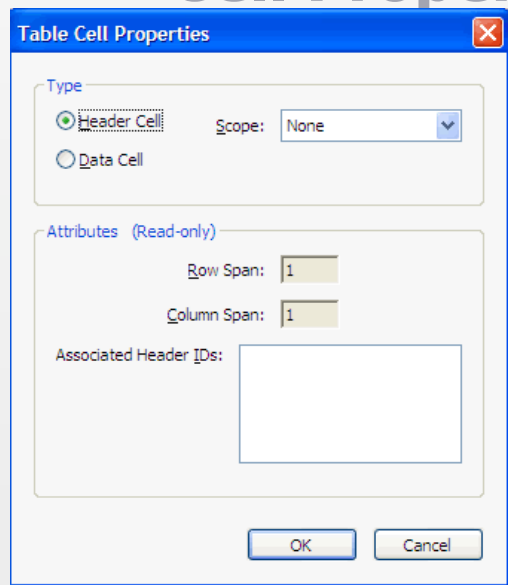
Fixing PDFs for Accessibility



- Tips for fixing tags
 - Confirm that each numbered box in the document is properly tagged.
 - Add alternate text as needed to figures as needed.
 - Remove nonessential content, such as ornamental page borders, from the logical structure tree as needed.
 - Note that when you remove the tags (such as by using the Delete Item Structure or Clear Page Structure commands), you cannot undo that action. Save your file often.

Fixing PDFs for Accessibility

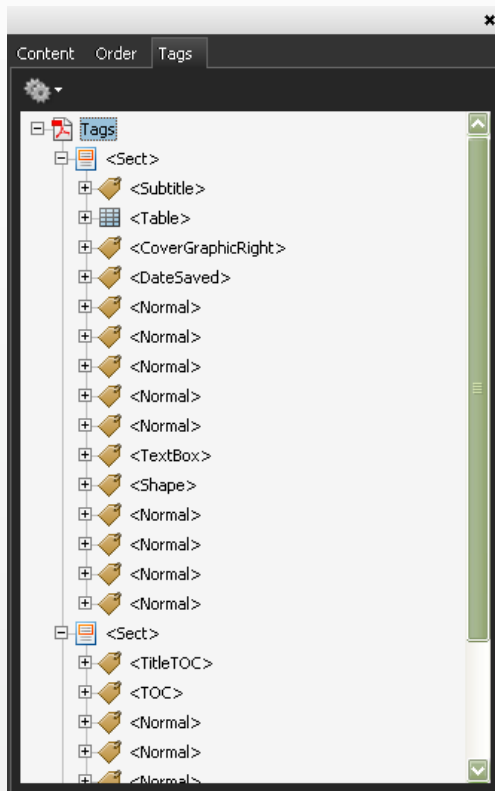
- Add scope to table headers
 - With the TouchUp Reading Order tool open, select a table and then select **Table Inspector**. Select table cells that should be headers, right-click on a selected cell or cells, and choose **Table Cell Properties**.



Header		Header		Header
Data		Data		Data
Data		Data		Data
Data		Data		Data

After tagging the header cells, header cells are highlighted in red and data cells in gray.

Fixing PDFs for Accessibility



Tags Panel

- Tagging artifacts
 - Artifacts are items that screen readers should ignore.
 - Identify an artifact in the Order or Tags panels.
 - In the Order panel, select the element and click the **Background** button.
 - On the Tags panel, right-click and select **Change Tag to Artifact**.



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Other Accessibility Tests

Other Accessibility Tests

- Tab through the output to make sure that the reading order is logical.
- Refer to the Dept of Health and Human Services accessibility checklists.
- (Web pages only) Download the WAVE Firefox toolbar and view the web page in Text-only view (<http://wave.webaim.org/toolbar>).
- Download an evaluation copy of JAWS and read the document out loud (<http://www.freedomscientific.com/products/fs/jaws-product-page.asp>).
- Use the Adobe Read Out Loud feature to simulate what it would be like for other assistive technology (such as JAWS) to read your PDFs out loud.
- Turn off your monitor when you use either JAWS or Adobe Read Out Loud (this takes some practice with each tool) to simulate what it is like not to see what you are doing.

Other Resources

- HHS Checklists: <http://www.hhs.gov/web/policies/checklistword.html> and <http://www.hhs.gov/web/policies/checklistpdf.html>
- Adobe Reference Card: http://blogs.adobe.com/accessibility/2008/03/reference_card_for_accessible.html
- <http://www.planetpdf.com>
- <http://www.webaim.org>

Thank you!

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