

# Developing Accessible PDF Documents

Carolyn Kelley Klinger

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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

# 1

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

# 2

## Setting up the Source Document

# Setting up the source document

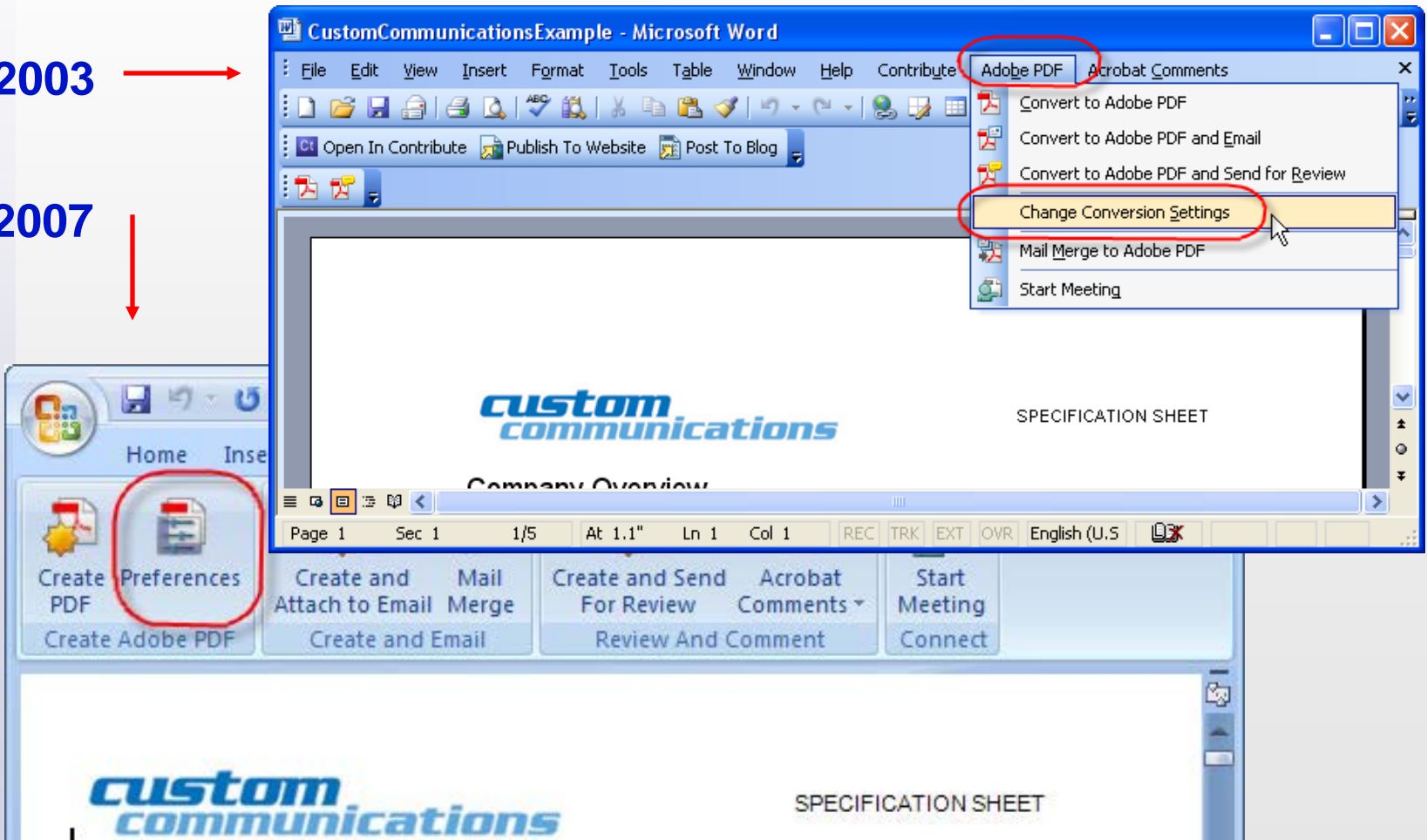
- Use template styles for every heading and paragraph
- Add alternative text for every image
- Use column and/or row headers for tables and add a caption or intro text
- Make sure links make sense out of context (no “click here”)
- Use short URLs; be considerate to screen reader users

# Creating a tagged PDF

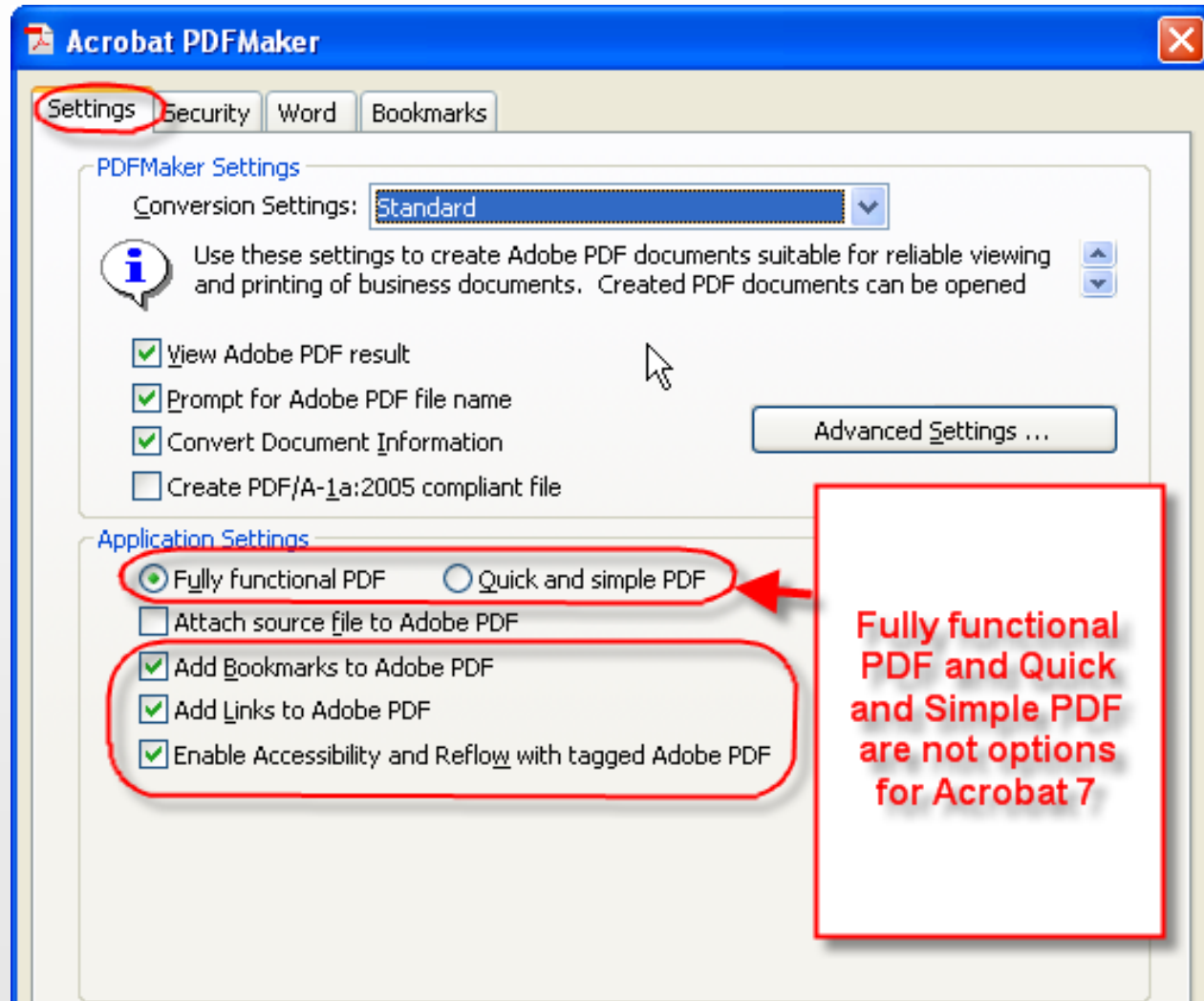
- In Word, configure the PDFMaker

Word 2003

Word 2007

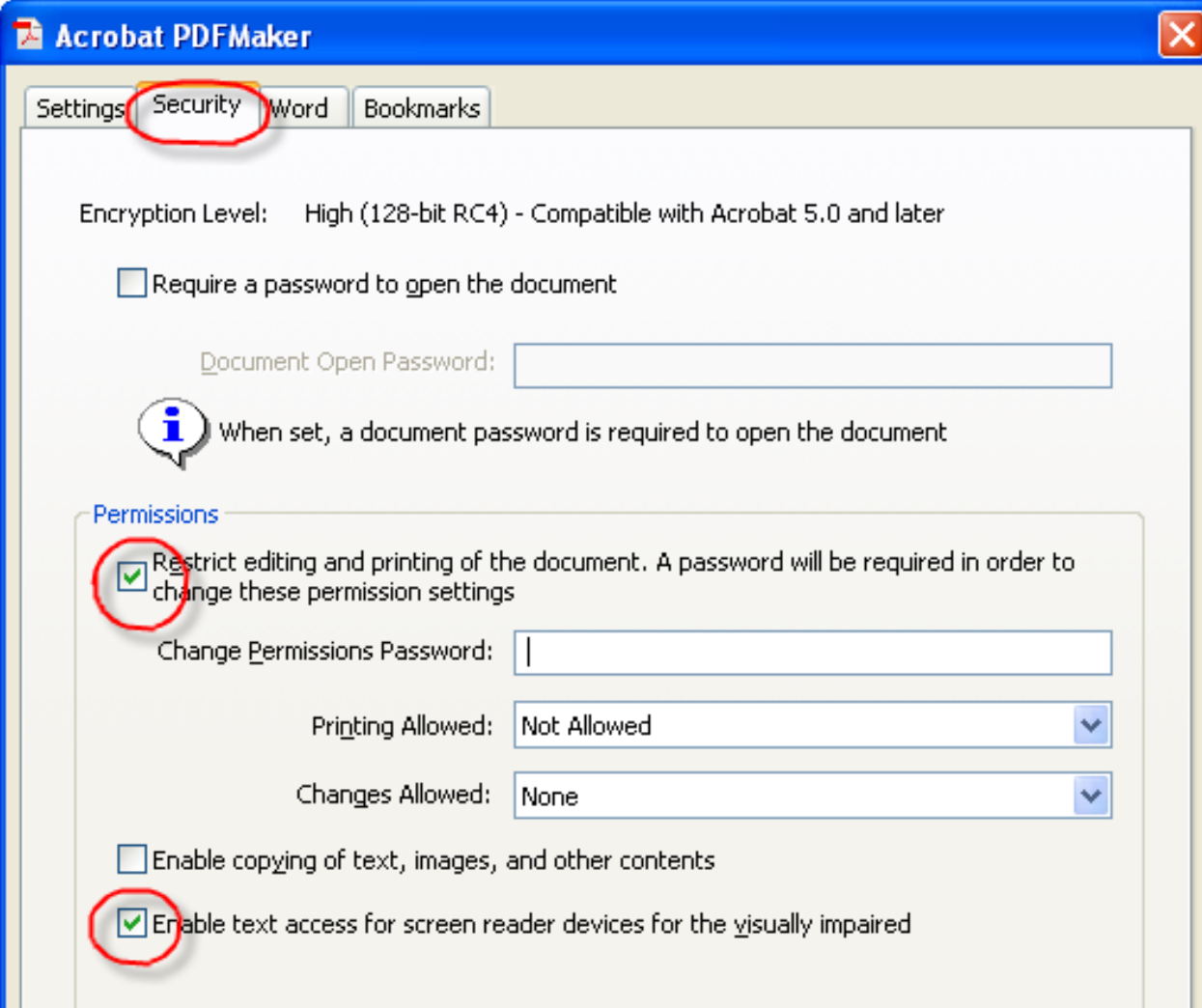


# Acrobat PDFMaker: Settings tab





# Acrobat PDFMaker: Security tab



The screenshot shows the 'Acrobat PDFMaker' application window with the 'Security' tab selected. The 'Security' tab is circled in red. The 'Encryption Level' is set to 'High (128-bit RC4) - Compatible with Acrobat 5.0 and later'. The checkbox 'Require a password to open the document' is unchecked. The 'Document Open Password' field is empty. An information icon with a blue 'i' in a speech bubble is next to the text 'When set, a document password is required to open the document'. The 'Permissions' section is expanded, and the checkbox 'Restrict editing and printing of the document. A password will be required in order to change these permission settings' is checked and circled in red. The 'Change Permissions Password' field is empty. The 'Printing Allowed' dropdown is set to 'Not Allowed'. The 'Changes Allowed' dropdown is set to 'None'. The checkbox 'Enable copying of text, images, and other contents' is unchecked. The checkbox 'Enable text access for screen reader devices for the visually impaired' is checked and circled in red.


Acrobat PDFMaker

Settings **Security** Word Bookmarks

Encryption Level: High (128-bit RC4) - Compatible with Acrobat 5.0 and later

☐ Require a password to open the document

Document Open Password:

 When set, a document password is required to open the document

Permissions

☒ Restrict editing and printing of the document. A password will be required in order to change these permission settings

Change Permissions Password:

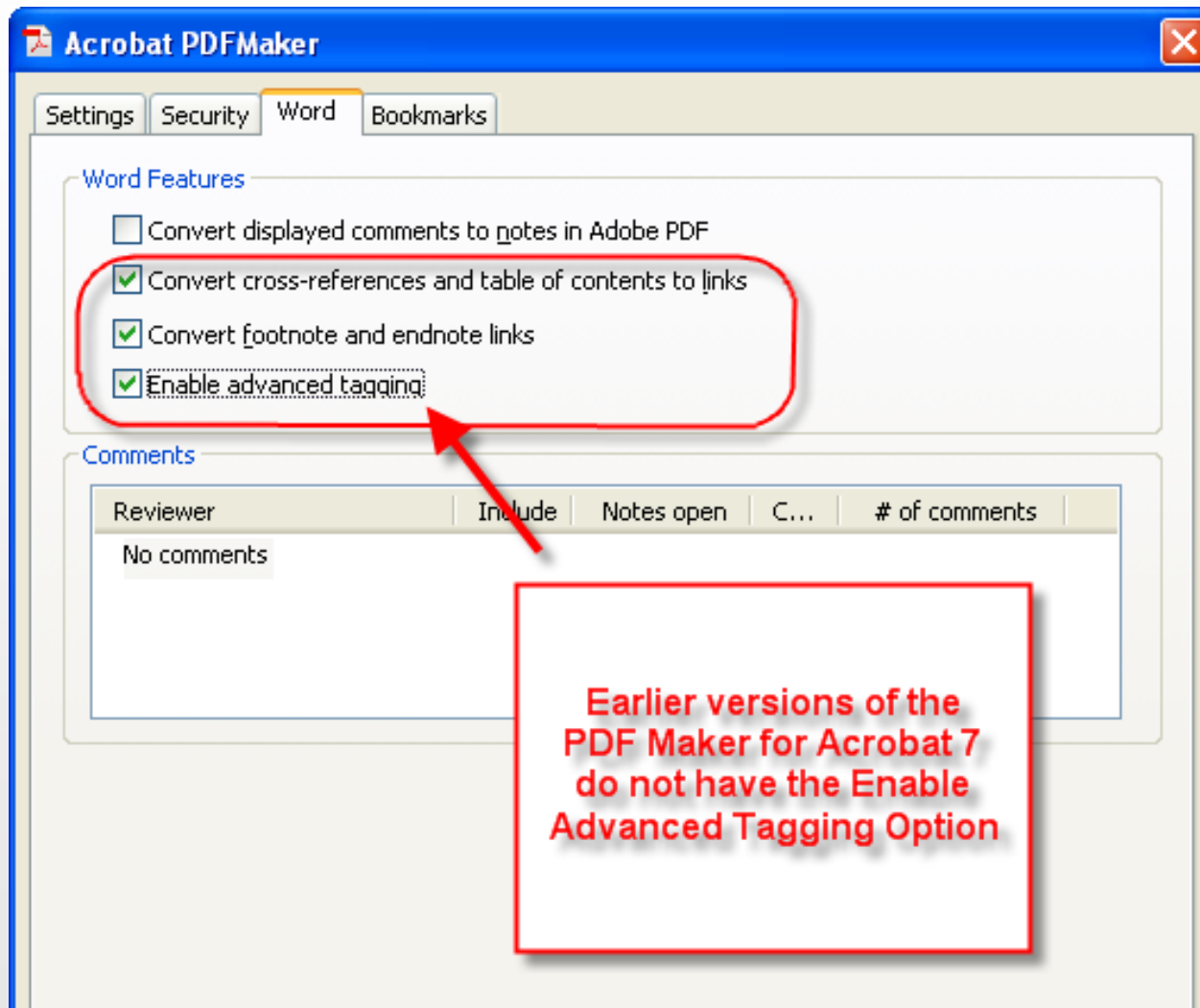
Printing Allowed:

Changes Allowed:

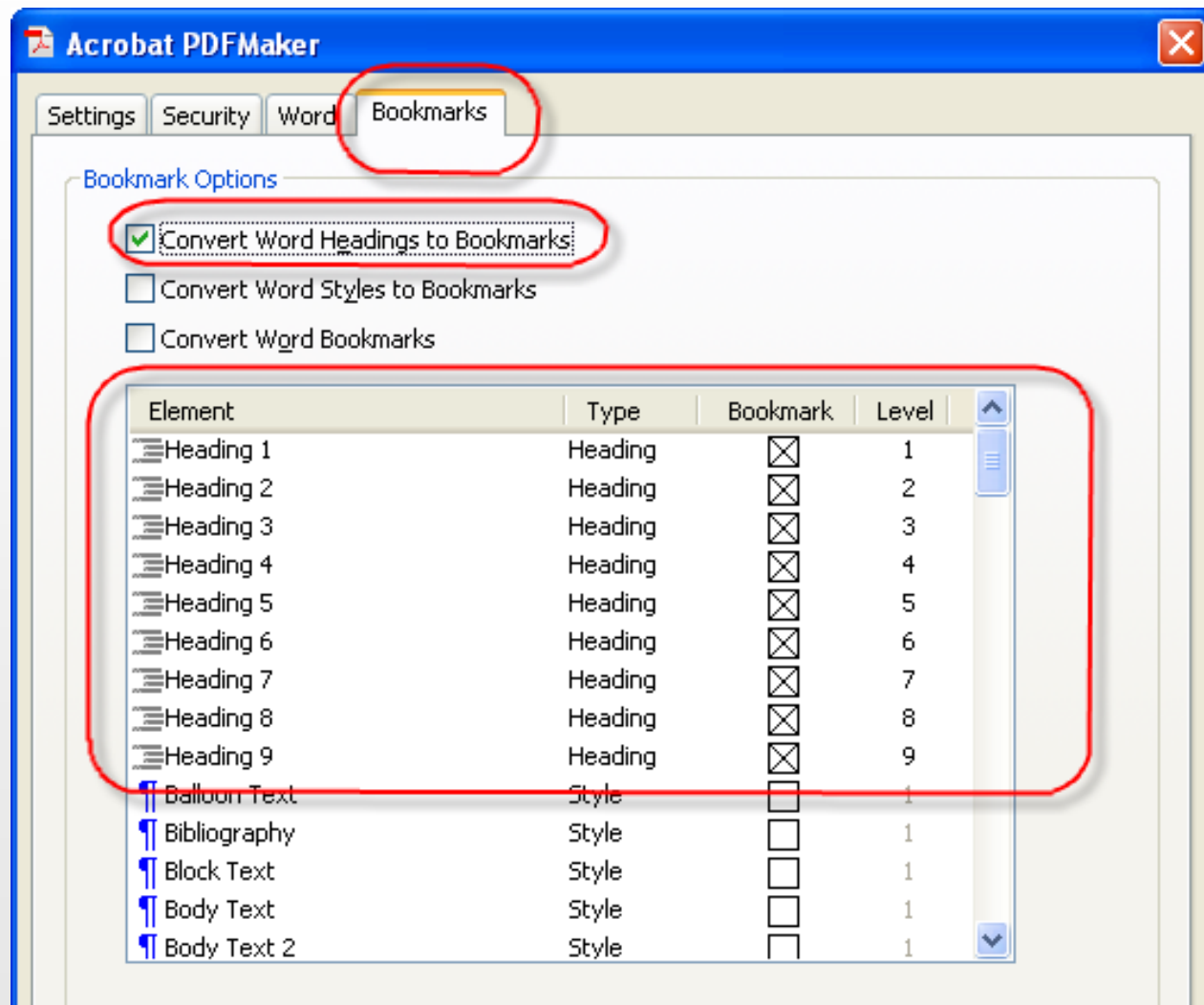
☐ Enable copying of text, images, and other contents

☒ Enable text access for screen reader devices for the visually impaired

# Acrobat PDFMaker: Word tab

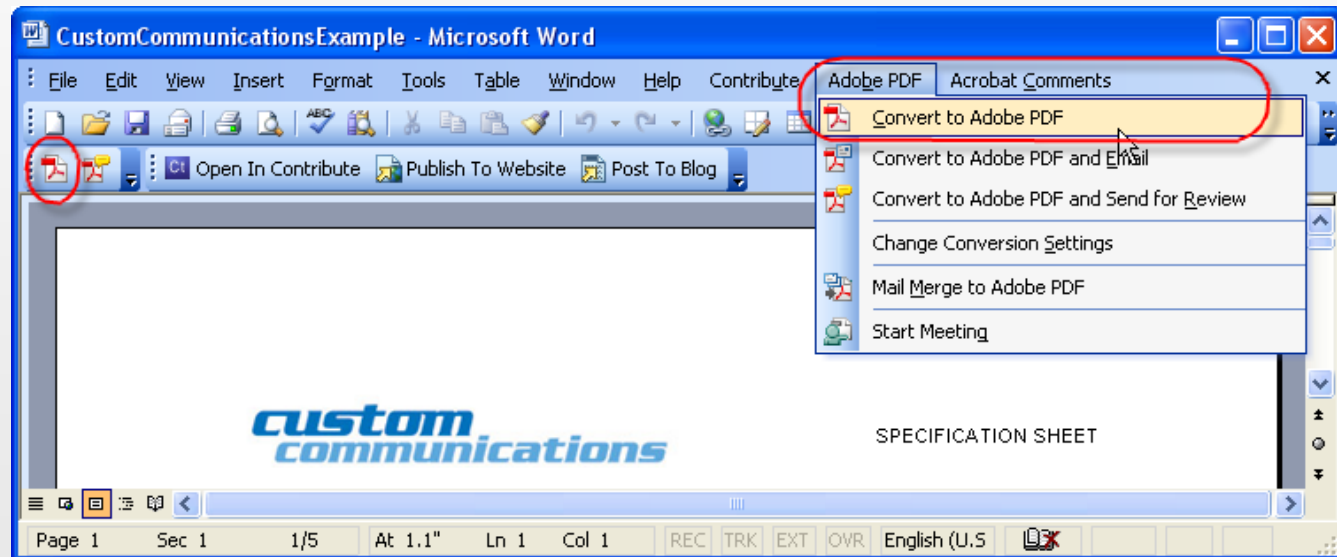


# Acrobat PDFMaker: Bookmarks tab



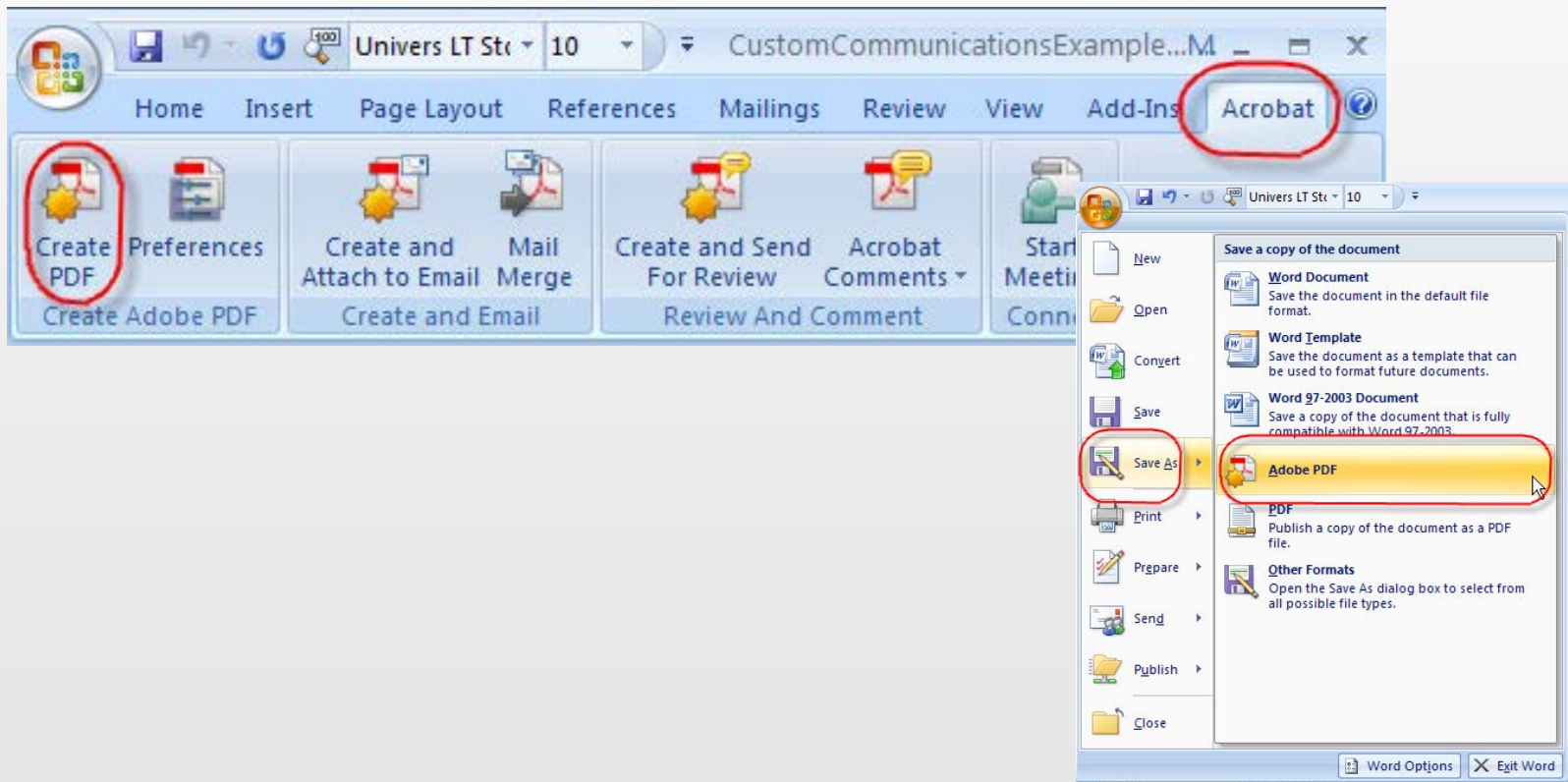
# Save as Accessible PDF (Word 2003)

- Word 2003
  - Select Adobe PDF menu
  - Select Convert to Adobe PDF option



# 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

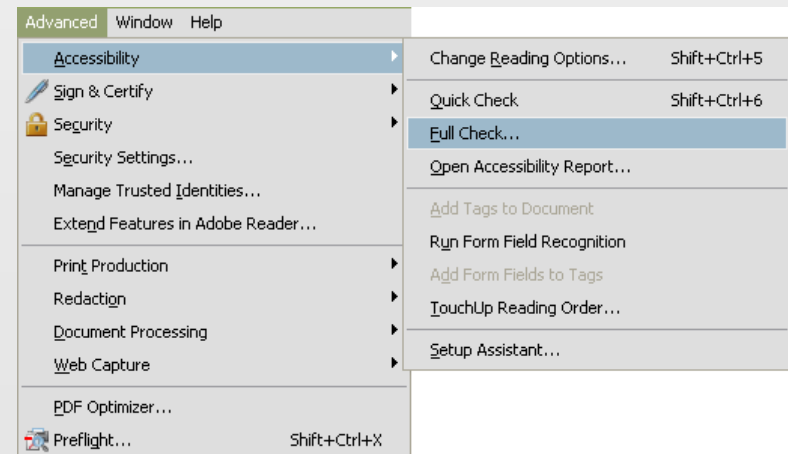


# 3

## Checking for PDF Accessibility

# First Steps in Checking for 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**)



# Options for Checking PDF Accessibility

**Report and Comment Options**

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

☒ 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: Section 508 Web-based intranet and internet information and applications (1194.22)

☒ Text: W3C® Web Content Accessibility Guidelines 1.0

☒ Text: 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

Select All Clear All

**Disclaimer** Hide Disclaimer

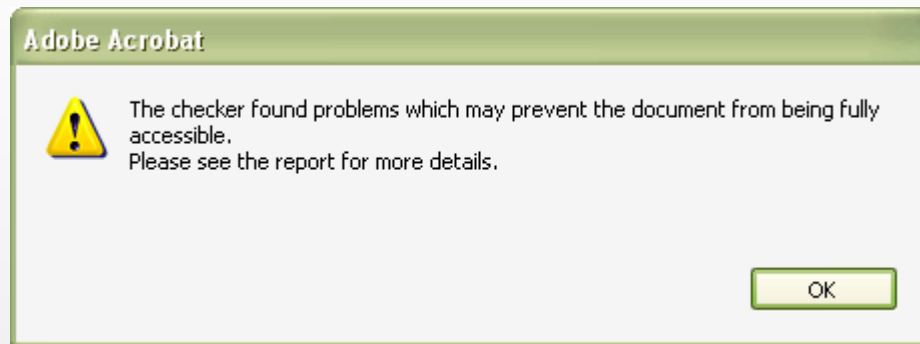
The Accessibility Checker can help you identify areas of your documents that may be in conflict with Adobe's interpretations of the referenced guidelines. However, the Accessibility Checker does not check all accessibility guidelines and criteria, including those in such referenced guidelines, and Adobe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

Help Start Checking Cancel

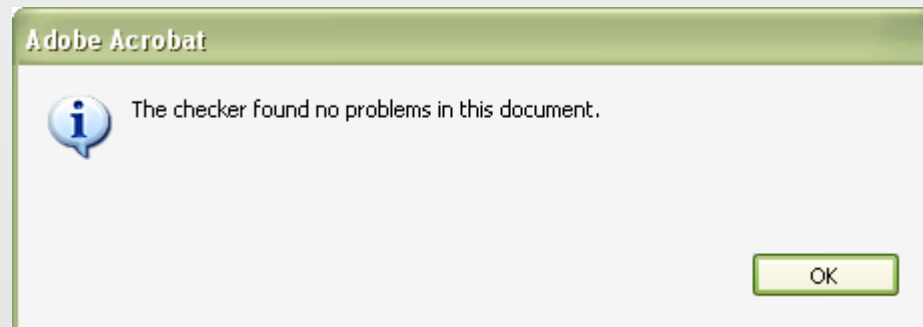


# Accessibility Checker Result Message

**Reality**



**Goal**

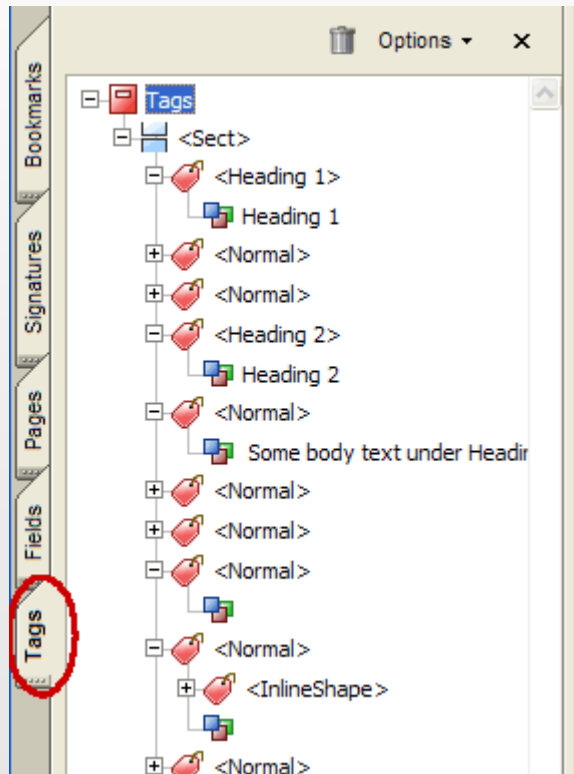


# 4

## Fixing PDFs for Accessibility

# Checking Adobe PDF Tags

- PDF tags express the structure of the document.

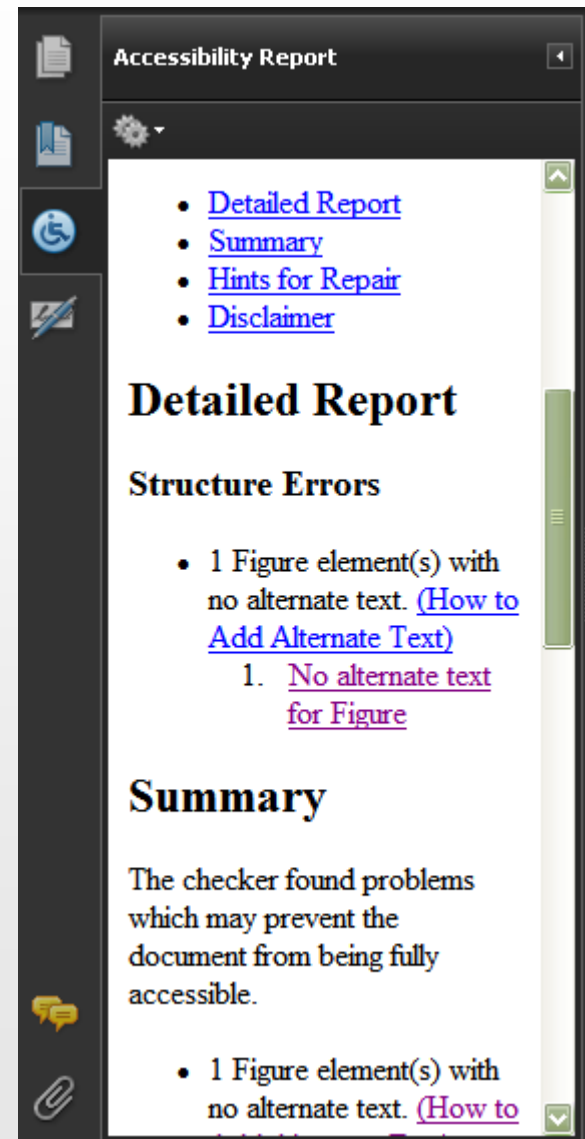


# Confirming the Tags are Correct

- 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)

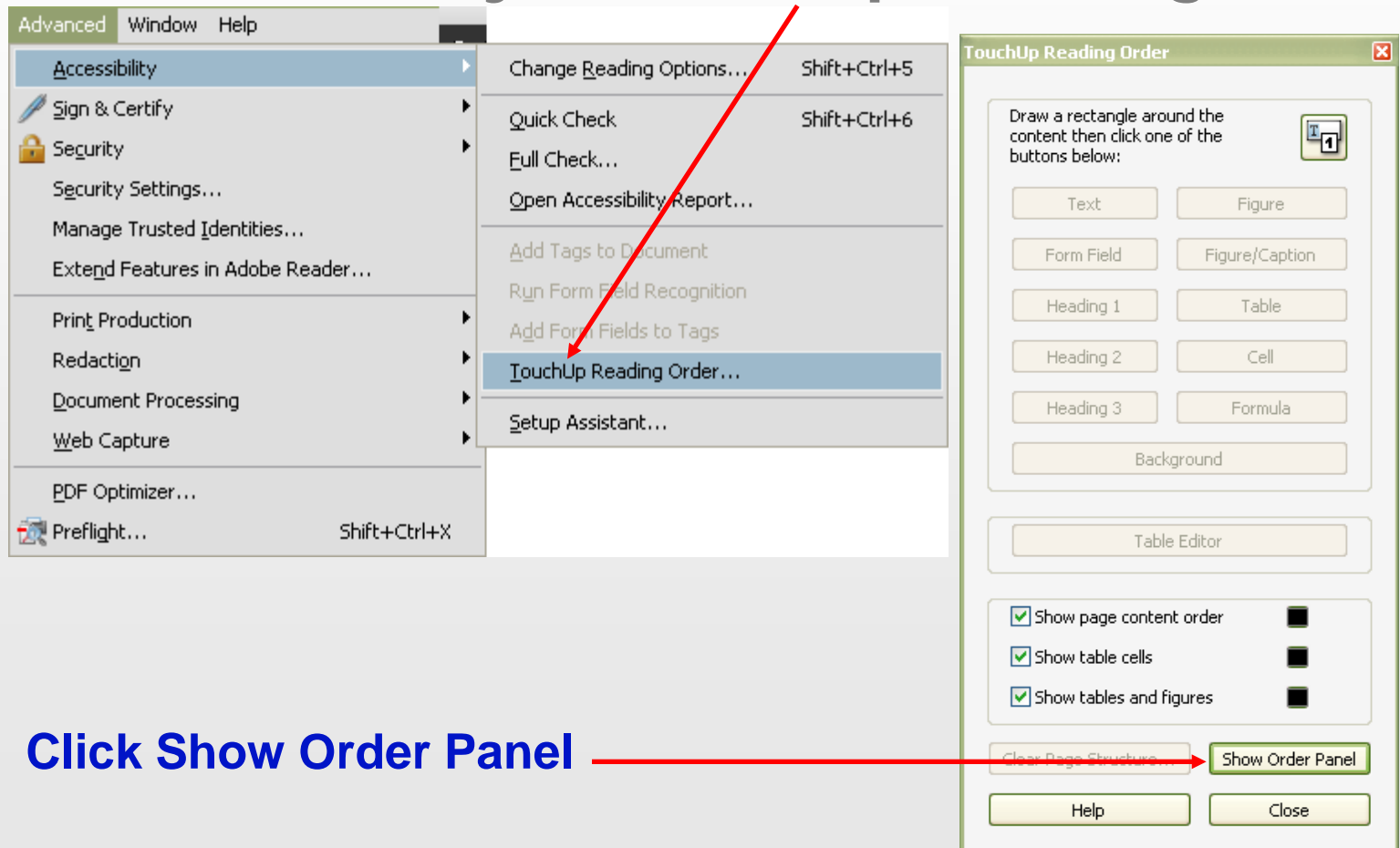
# Using the Detailed Error Report

- 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

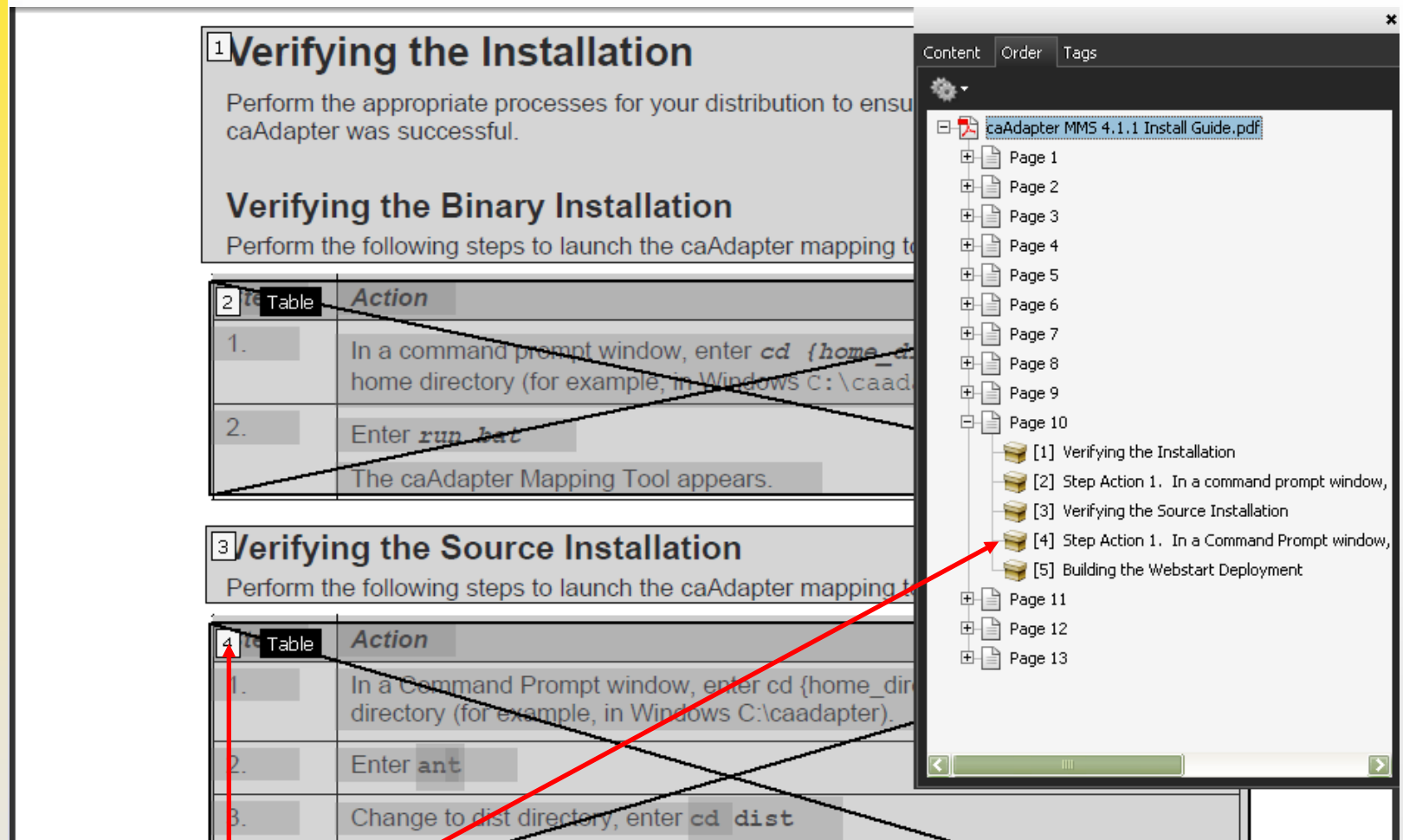


# Touching Up the Reading Order

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

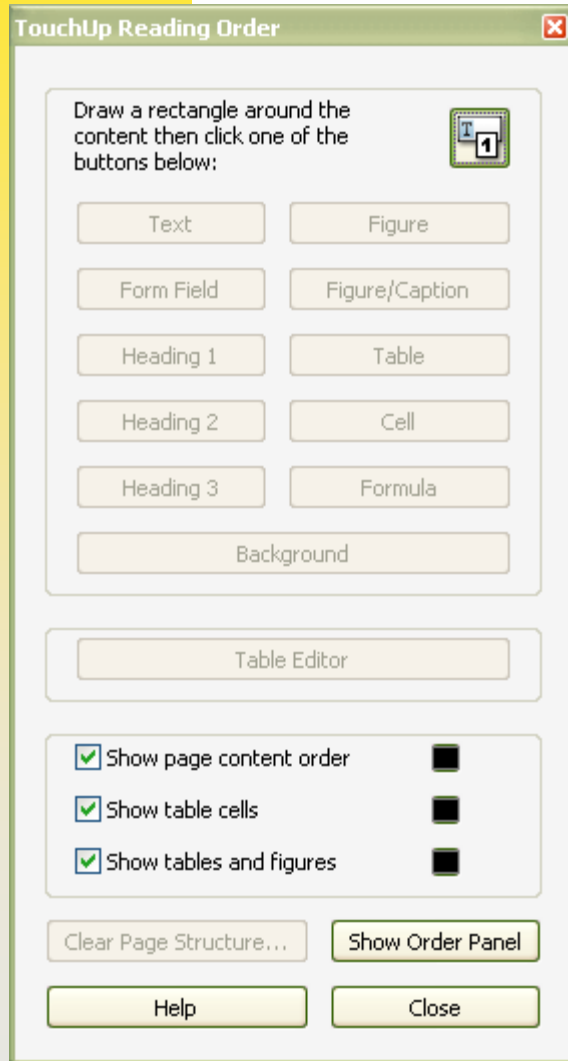


# Using the TouchUp Reading Order Panel



Reading order of a PDF document

# Understanding Reading Order Options



TouchUp Reading Order Options

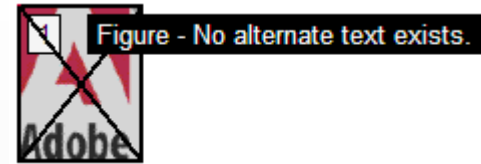
Button	Adobe Tag	Additional information
Text	<P>	
Form Field	<Form>	
Heading 1	<H1>	
Heading 2	<H2>	
Heading 3	<H3>	
Figure	<Figure>	
Figure/Caption	<Figure> <Caption>	If you select the image and the nearby caption image will be tagged as a figure and the text will be tagged as its caption.
Table	<Table> <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.



# Adding Tags to an Untagged PDF

- 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.

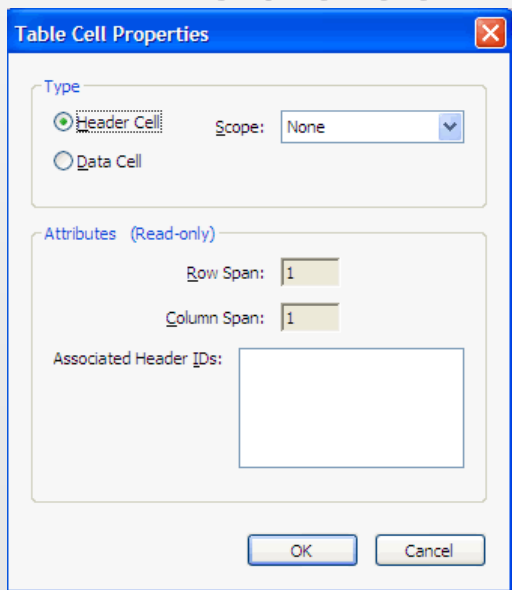
# Fixing PDF Tags



- 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.

# Adding Scope to Table Headers

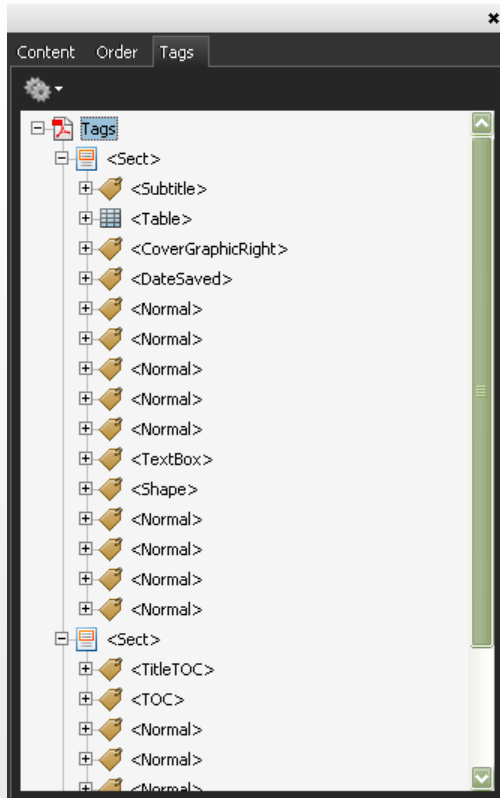
- Add scope to table headers
  - With the TouchUp Reading Order tool open, select a table and then select **Table Inspector**. Select table cells that should be headers, right-click on a selected cell or cells, and choose **Table Cell Properties**.



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.

# Tagging Artifacts



## 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**.

# 5

## 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://blogs.adobe.com/accessibility/2008/03/reference_card_for_accessible.html)
- <http://www.planetpdf.com>
- <http://www.webaim.org>
- <http://accessdp.wordpress.com/>

# Thank you!

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  - @cklinger
  - <http://www.linkedin.com/in/carolynklinger>