

California State University  
**Northridge**

Universal Design /  
Accessible Technology Initiative

# **Guide To Making Instructional Materials Accessible**

**Accessible Technology Initiative / Universal Design**

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**[www.csun.edu/accessibility](http://www.csun.edu/accessibility)**

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## OVERVIEW

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The goal of this tutorial is to guide individuals in creating accessible text document that can be placed on the web at California State University, Northridge. This online guide will cover the following:

- Creating an Accessible PDF Document
- Converting a Microsoft Word 2007 Document to an Accessible PDF Document

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### ***Learning Objectives***

- After completing the following tutorial, individuals will be able to:
- Identify key concepts regarding document standards.
- Describe the importance of creating document structure.
- Define what a PDF is and how it used.
- Create an accessible and compliant PDF document.
- Perform accessibility checks in Adobe Acrobat Professional 8.
- Convert a Microsoft Office 2007 Word document to an accessible and compliant PDF document.

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### ***Document Standards***

In order for the document to be viewable in the most accessible manner it is advised that the document be saved as a filtered webpage (Microsoft Office 2007 Word for Windows), htm (Microsoft Office 2008 Word for Mac), or PDF. However, if saved using Microsoft Office as htm or a filtered webpage, some erroneous code will be saved with the document. This will cause the document to fail automated tests for accessibility but will still be accessible to the Assistive Technology used by individuals with disabilities. Therefore the document will be accessible, but not compliant. If a more complicated document is to be converted further instruction will be needed for conversion into an accessible document.

Saving in an open standard such as html or PDF will allow individuals to read the file without purchasing or downloading special or particular software, such as Microsoft products or Microsoft Viewers for Word, Excel etc.

If conversion to html or PDF cannot occur, the document may be saved as a word document and posted to the web with a Word Viewer plug-in. To find out more about open standards, please visit the following websites:

- [Digital Standards Organization](#)
- [OpenStandards.net](#)

To begin, go to the first section of this online training entitled Creating an Accessible PDF Document.

## CREATING AN ACCESSIBLE PDF DOCUMENT

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### ***Background***

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Adobe Systems PDF format is widely used online for the distribution of electronic documents. PDF stands for Portable Document Format and it is not the same as an MSWord or WordPerfect document. PDFs are graphical files and are essentially a picture of a document that was originally created by one of the aforementioned word processing programs then converted to the PDF format.

The PDF falls under the open standard (non-proprietary) format. This is different than other formats, such as RTF (Rich Text Format), Microsoft Word, or WordPerfect, which are considered a standard (proprietary) format. The difference is that a standard format will be able to be accessed by specific applications on different operating systems, but depending upon the application, it may add some additional features (i.e. formatting or styling) based upon the operating system and/or application. The open standard format means that the document can be read on by specific applications on different operating systems, but all the features are the same in the document, regardless of the operating system and/or application.

PDF documents can be viewed and/or edited by using various PDF readers/creators. A list of free PDF creators, editors, and viewers can be found at the [Codswallop Technology and Productivity](#) website. Adobe Reader, which is another free viewer program that provides access to the PDF document, can be used to read PDF documents. But the Adobe Reader and the full version of Adobe Acrobat are not one and the same. It is not possible to edit or make PDFs accessible in Adobe Reader. A fully enabled version of Acrobat (7.0 or higher) that allows users to view and enter information into a PDF document as well as enlarge the viewing area of the document is needed.

Additional resources that cover PDFs and Accessibility can be found at the following websites:

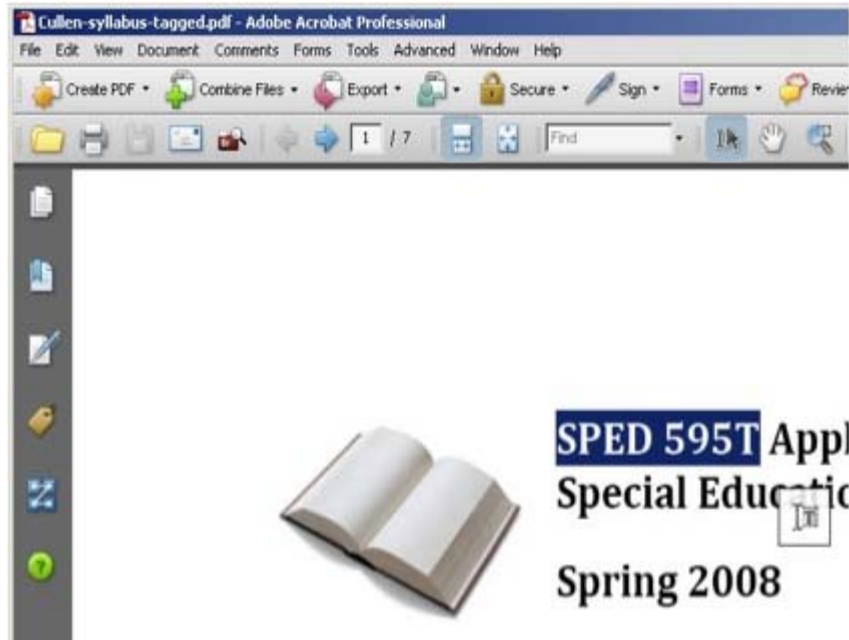
- [Web Usability - PDF and Accessibility](#)
- [Planet PDF - Resources on Adobe Acrobat and PDF Accessibility](#)

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### ***Check To See If Text Is Digital Text (E-Text)***

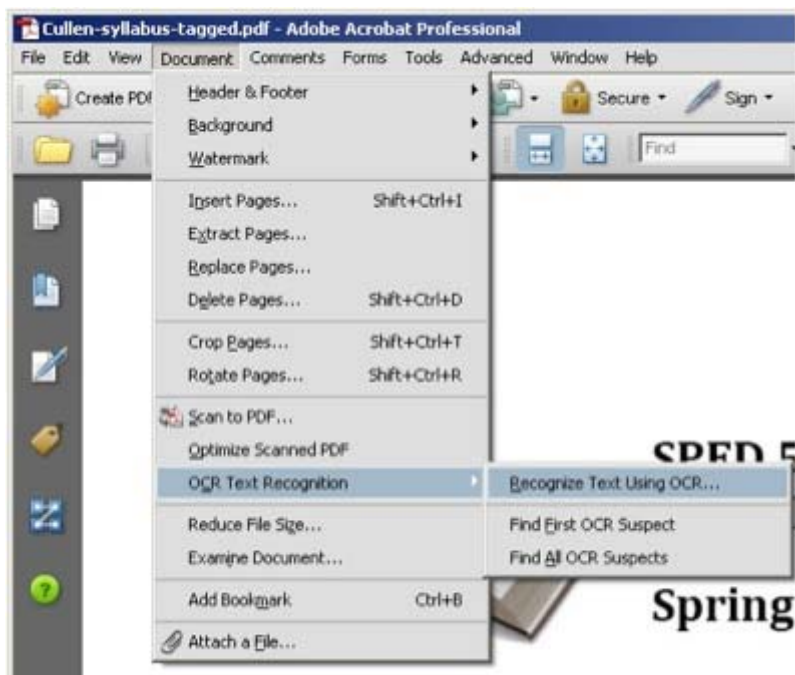
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If a text can be selected, it is Digital Text.



If the text cannot be selected, run **Optical Character Recognition** (OCR) on the document to convert the image into Digital Text.

Select <Document >, <OCR Text Recognition >, then <Recognize Text Using OCR>



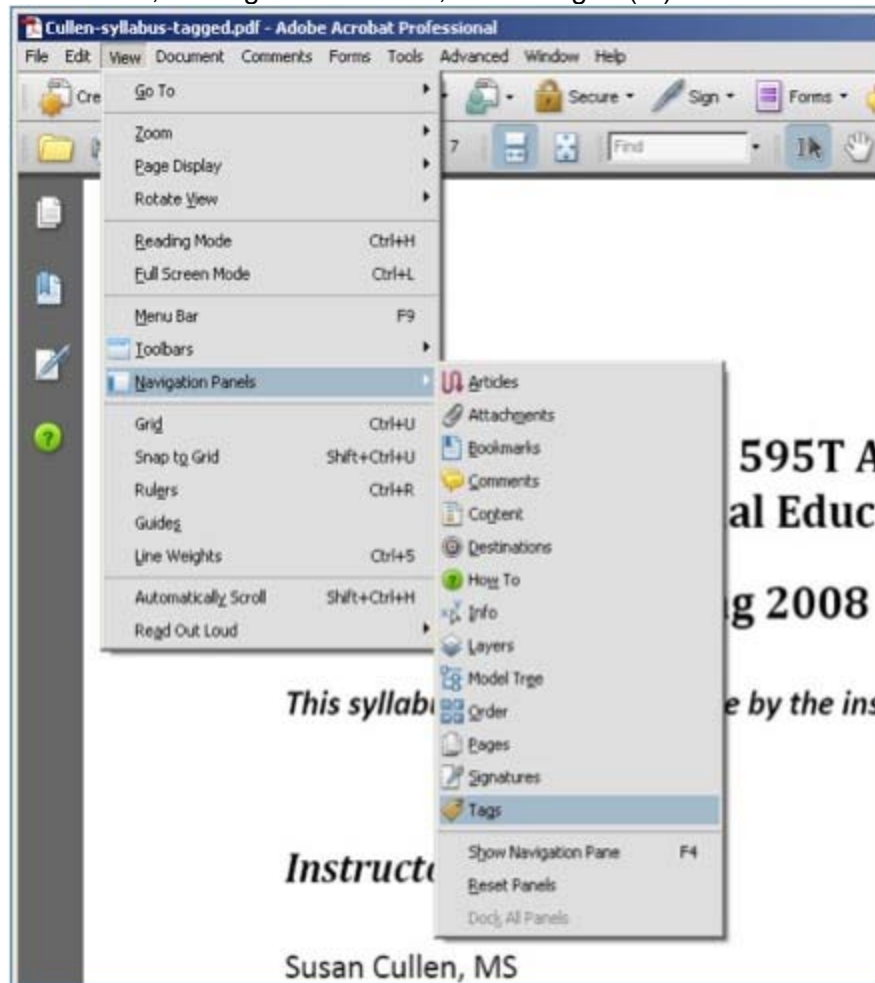
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### **Open Navigation Panels**

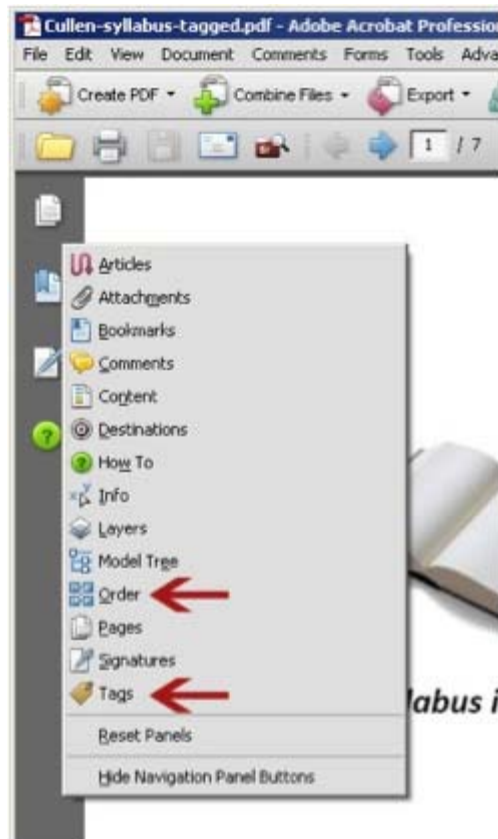
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Two navigation panels (**Tags** and **Order**) will be crucial to the ability to mark-up or check the text in the PDF for headings and correct reading order.

- Select <View>, <Navigation Panels>, then <Tags> (or) <Order>



- There are multiple ways to access and display the Tags and Order panels. By default the panels will open in a tabbed dialog box. The tabbed panels can be selected and dragged to the left margin of the work station for easier viewing.



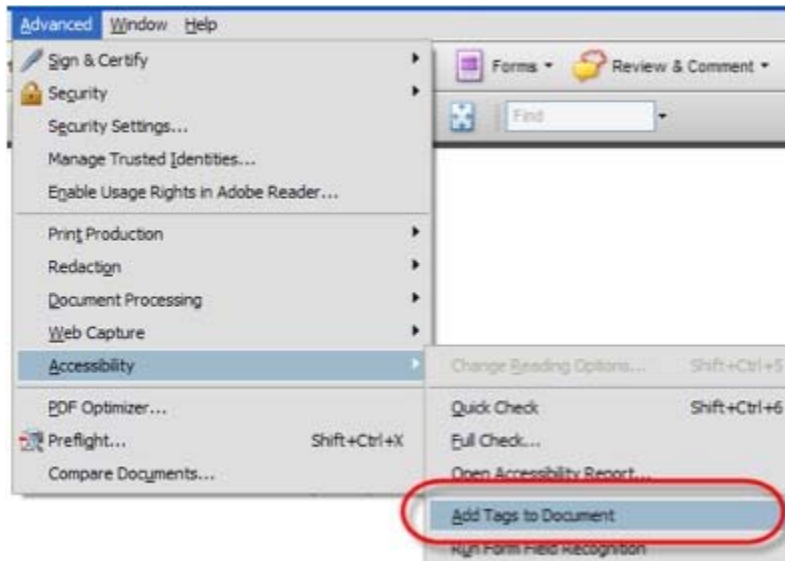
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## ***Adding Tags***

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If there are no tags (structure) in the PDF they will have to be added. Acrobat features an automated “Add Tags to Document” feature that will scan the text and add a rudimentary structure and reading order to it. This may be a useful option for very large documents that have a minimal level of hierarchal complexity. But be aware that utilizing this option will not guarantee that the reading order or structure will be correct.

- Select <Advanced>, <Accessibility>, then <Add Tags to Document>



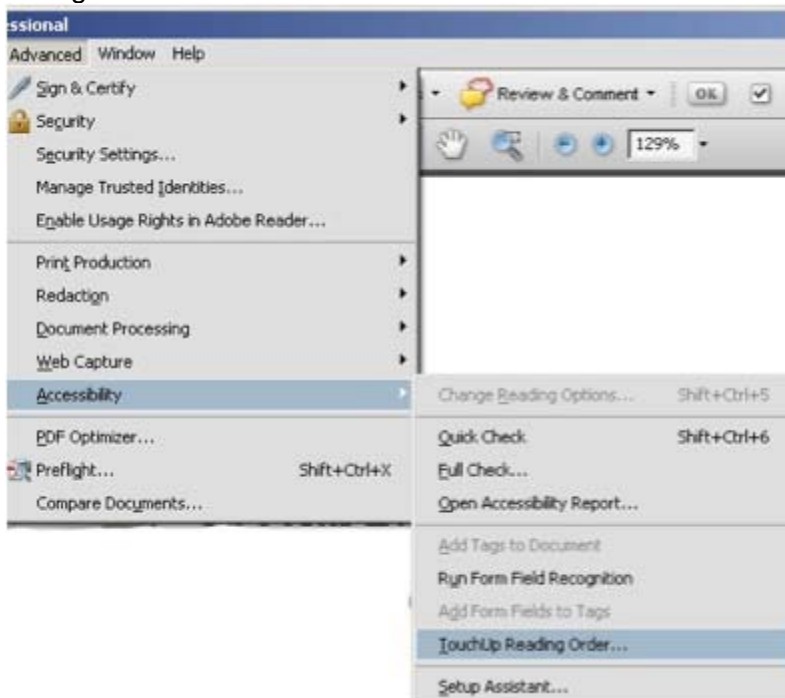
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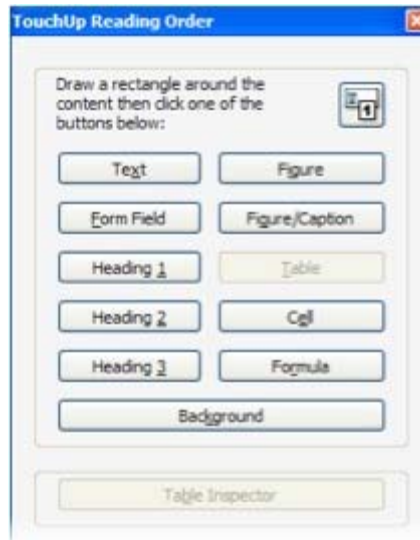
### ***The Touch-Up Reading Order Tool***

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Most of the work making or checking PDFs for Accessibility revolves around use of the **Touchup Reading Order** tool.

- Open the Touchup Reading Order tool by selecting <Advanced>, <Accessibility>, then <Touch-Up Reading Order> in the toolbar.



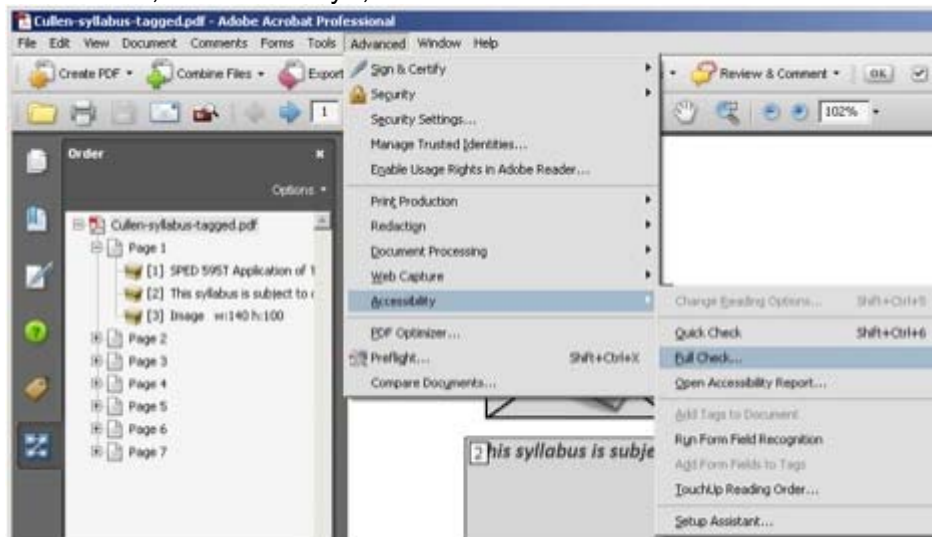


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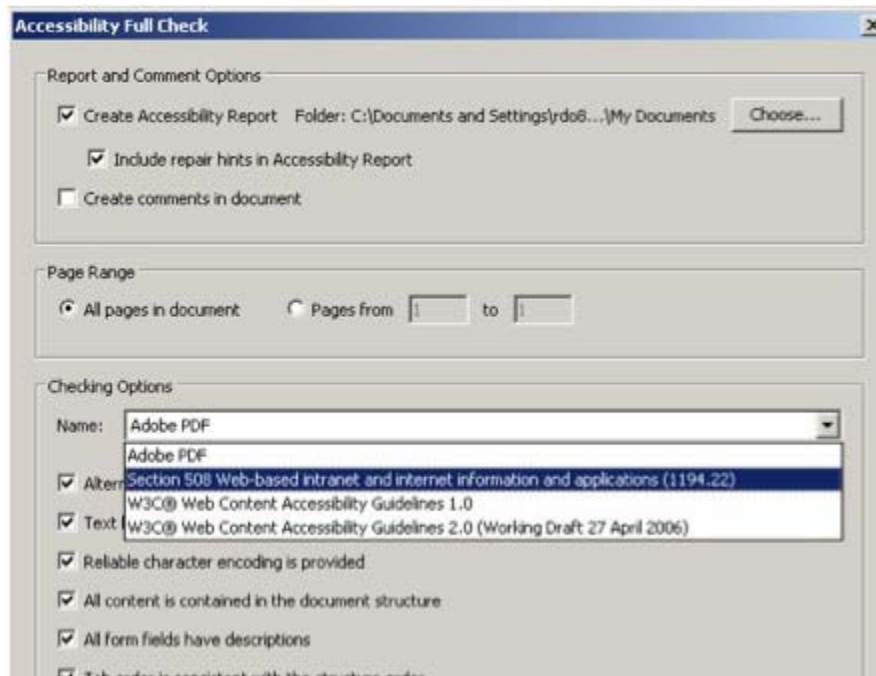
## Automated Accessibility Checking

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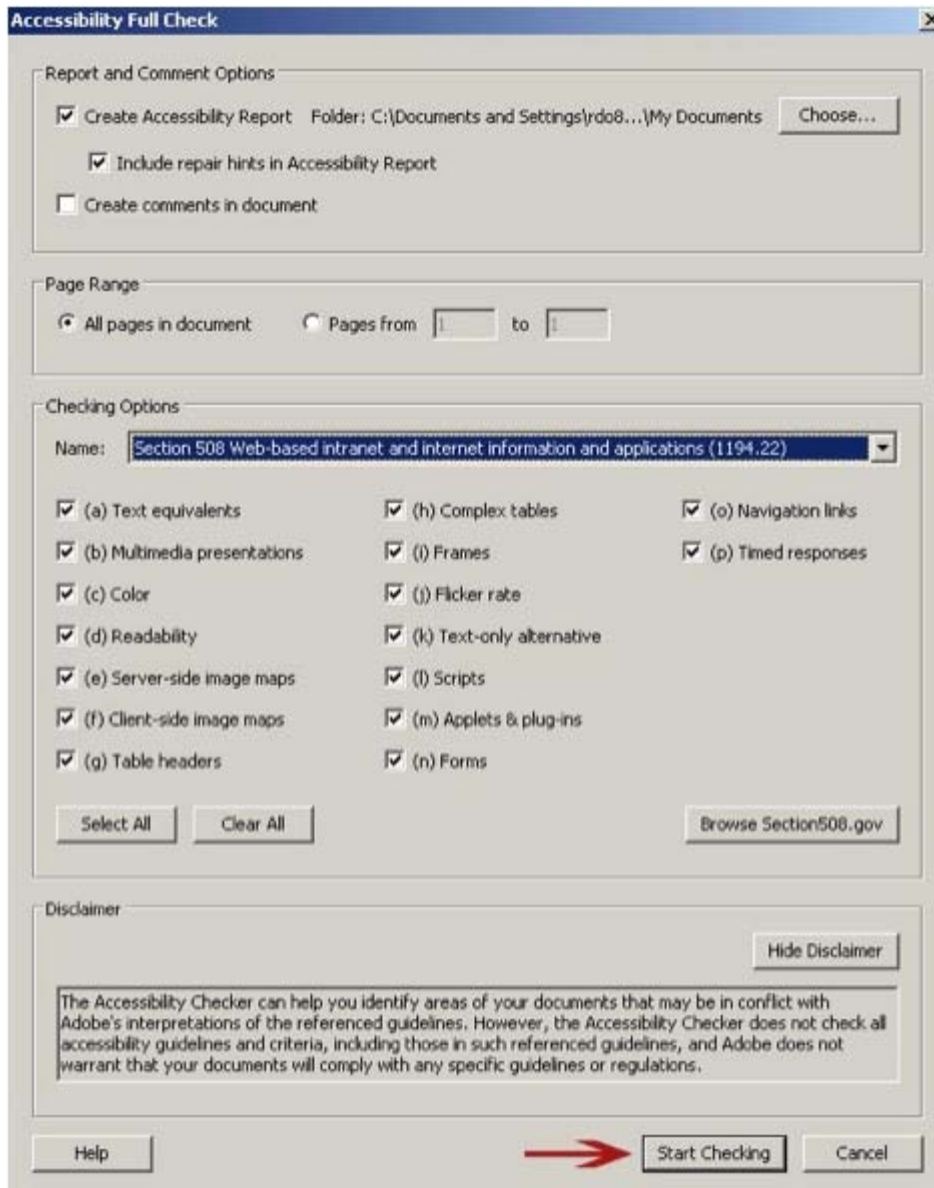
- Select <Advanced>, <Accessibility>, then <Full Check>



On the **Accessibility Full Check** dialog box, use the drop down arrow (as shown below) to select Section 508 checkpoints



Select <Start Checking> at the lower right-hand portion of the screen.



## CONVERTING A MICROSOFT WORD 2007 DOCUMENT TO AN ACCESSIBLE PDF

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### Introduction

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This section of the tutorial covers how to create an accessible PDF document from a Microsoft Office 2007 Word document. If there are more detailed questions on how to work more effectively in Microsoft Office 2007, please refer to the [Microsoft Office 2007 Guide](#) (.pdf) found at the [Central IT - Helpdesk Training Guides](#) website. The [Classroom Training Labs](#) held by Central IT offers courses that cover Microsoft Office 2007 as well. Adobe also provides a downloadable PDF entitled [Quick Reference Card for Preparing Microsoft Word Documents to Create Accessible PDFs](#) (.pdf).

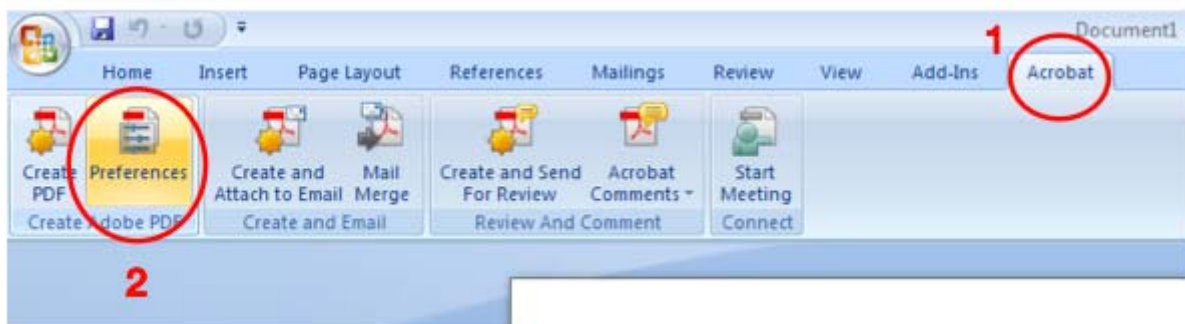
The key to making an accessible PDF document from a Microsoft Office 2007 Word document is making sure that there is structure to the document - meaning there is alternative text for all images and headers aiding in document structure. The following steps will give more insight to creating document structure in Microsoft Office 2007 Word, exporting to PDF, then provide information on how to check the PDF to ensure accessibility.

### Enable Tagging in Microsoft Office 2007 Word

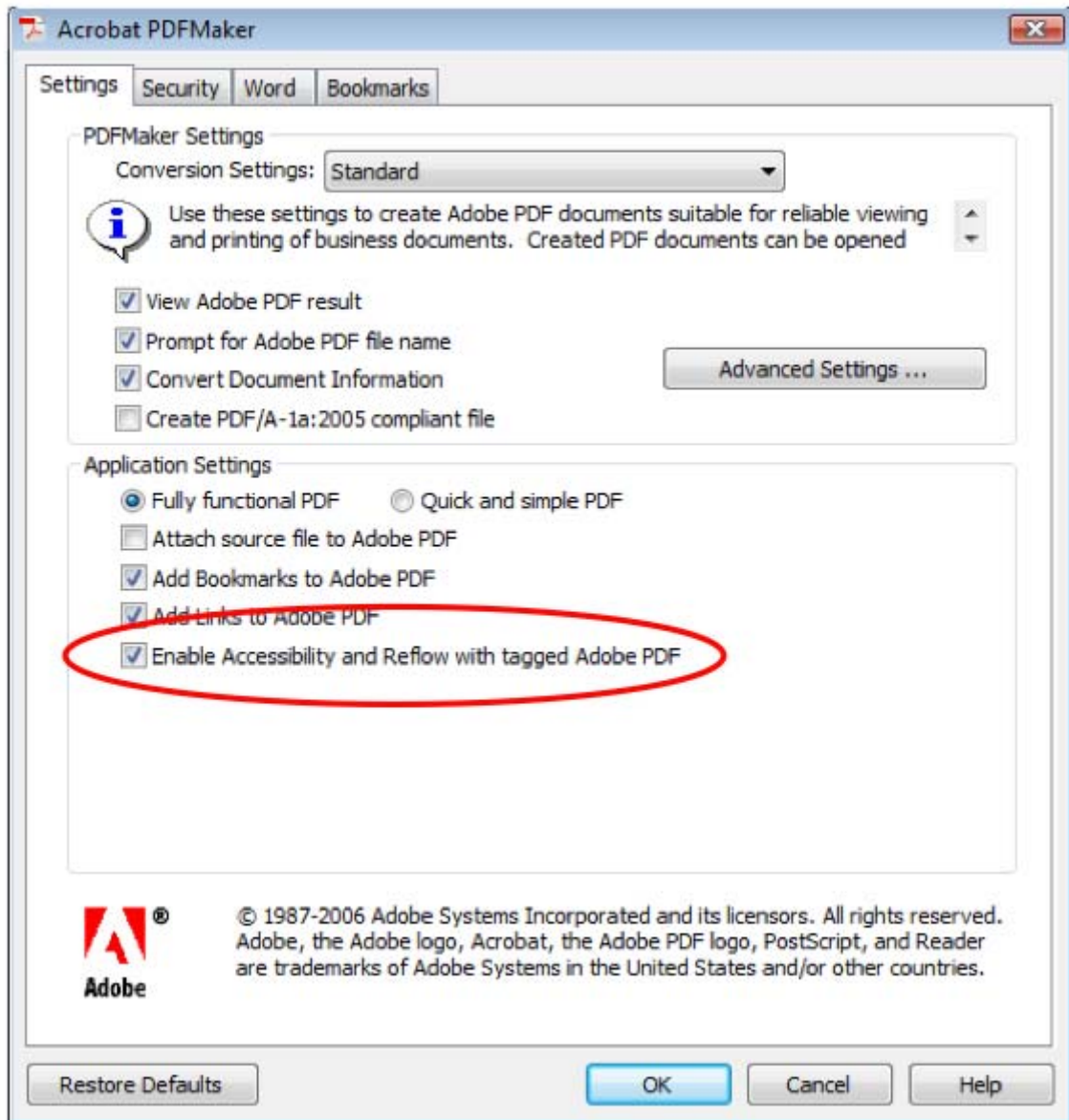
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*Remember, the computer being used must have Adobe Acrobat 7.0 or higher in order to convert documents!*

Open a document in the Microsoft Office 2007 Word application, select the Acrobat tab, then choose the <Preferences> option from the top left-hand side of the menu bar.



Make sure that **Enable Accessibility and reflow with Tagged PDF** is checked. Select <OK>.



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## ***Use Styles in Microsoft Office 2007 To Format Document***

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- Use **Styles** toolbar in Microsoft Office 2007 Word to format all the text in the document.
- Use **H1**, **H2**, and **H3** headers to mark-up the text and add structure to the document. These should be used in the same way as titles and subtitles in the document.
- Use Normal style option for the body of the text.

*Also Note The Following:*

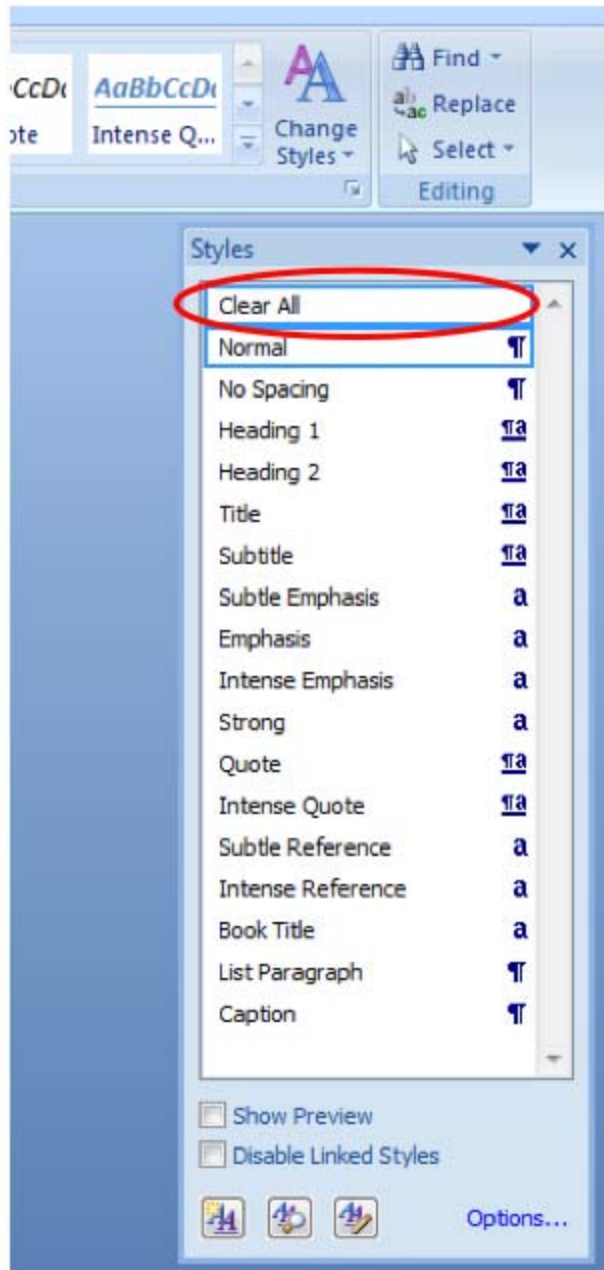
The use of **Styles** is **VERY IMPORTANT**. If the Styles toolbar is not used when creating a Word document that will be export to PDF, it will make it that more difficult to fix the PDF document in order to make it accessible and compliant for the Web.

The formatting may need to be cleared on any document whose formatting is in question. (i.e. documents that have been inherited or were not formatted using the above methods). The following explains how to clear the formatting of a Word 2007 Document:

- On the Styles Toolbox in the lower right-hand corner, click the Dialog Box Launcher



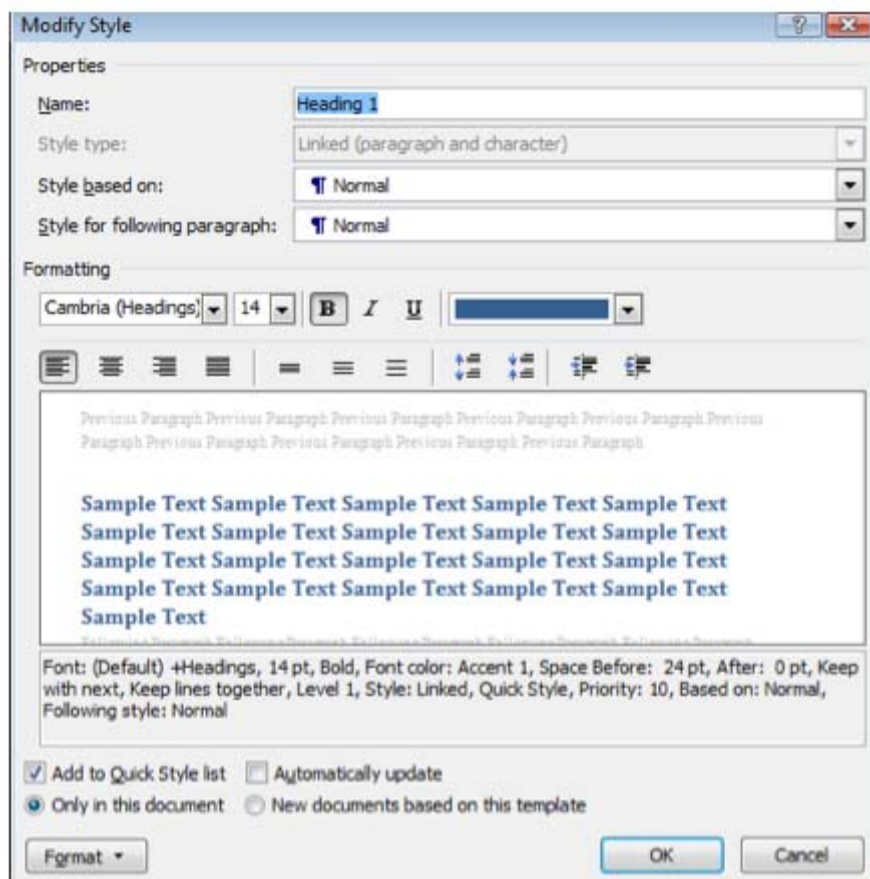
- In the Styles Dialog Window, select "Clear All"



- Avoid using text boxes to format text layouts
- Styles can be modified by right clicking the style name in the styles palate.



In the Modify Style Dialog Window, a particular style can be edited by changing the format of the font, paragraph line spacing, and other options. To learn more about changing styles in Word 2007, documentation can be found at the [Microsoft Office Word 2007 Online Site](#) under the section labeled [Change a Style for Word 2007](#).



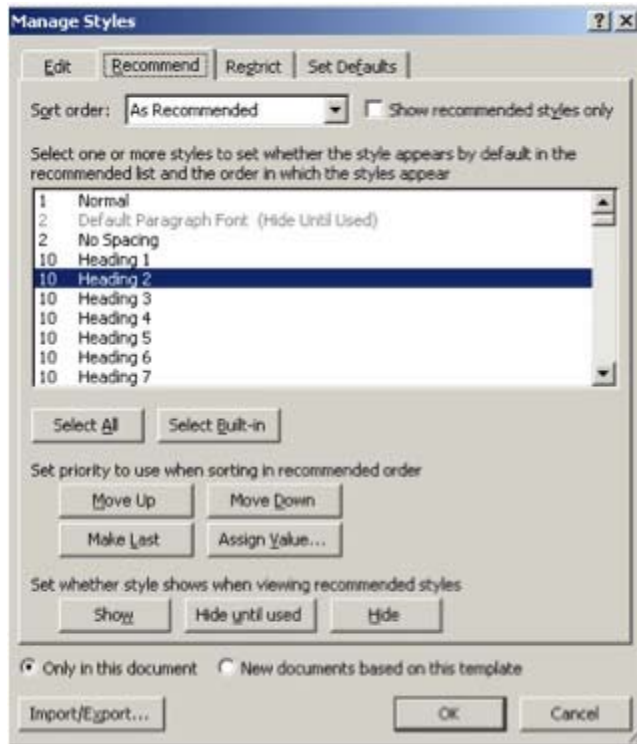
To show a list of styles on the right-hand side of the screen, click the **Dialog Box Launcher** as shown below.



To reveal all the styles available, select the <Manage Styles> option.



- Select the <Recommend> tab on the Manage Styles dialog box.
- Individual styles can be selected to show up in the styles palate by right clicking on the names of the styles then selecting <Show> and <OK>.
- Using the CTRL or Shift keys while right clicking will allow multiple styles or a whole series of styles to be selected.

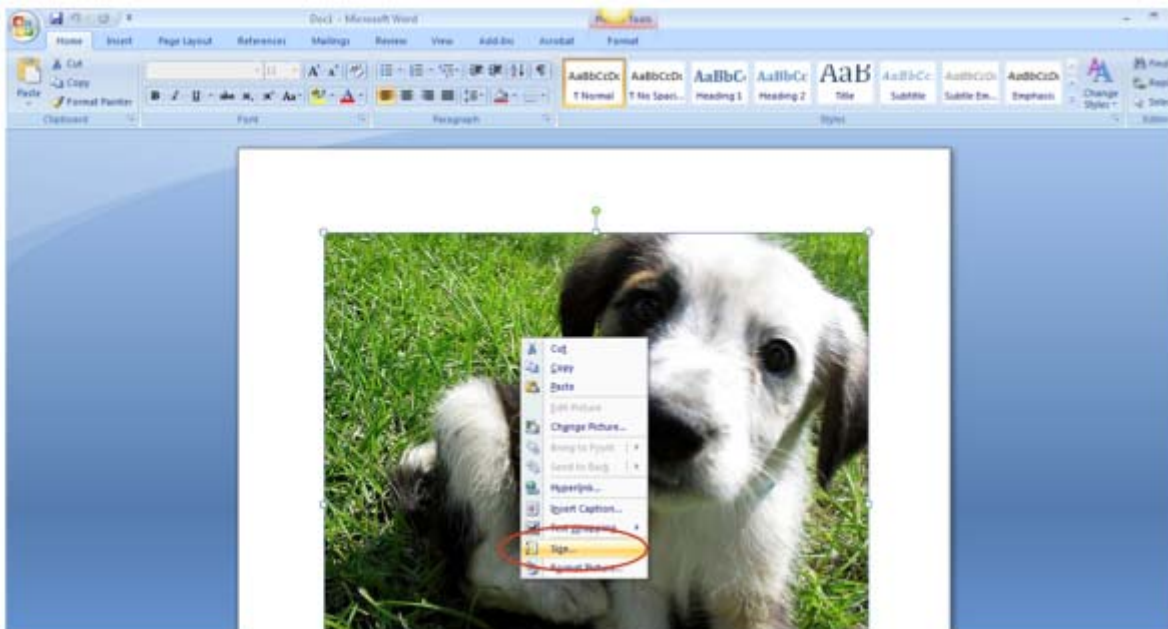


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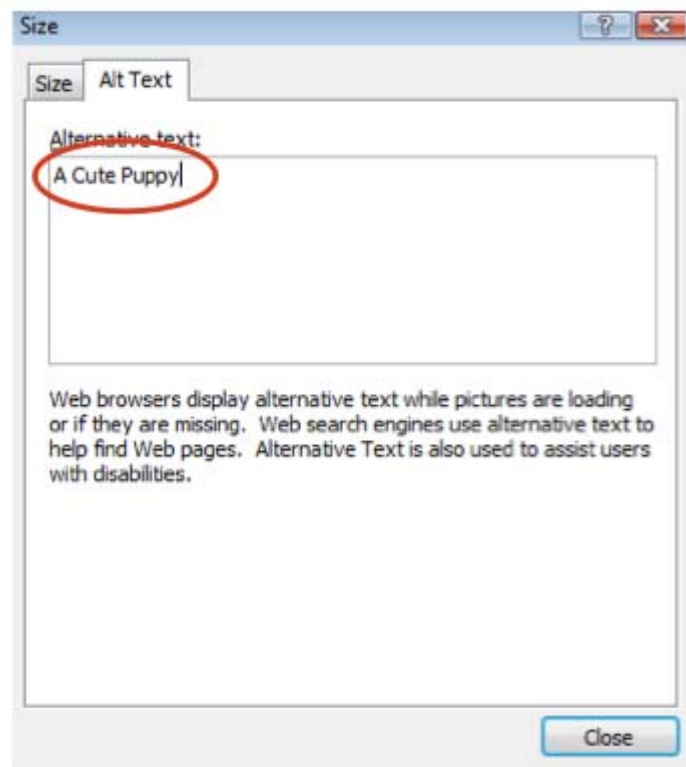
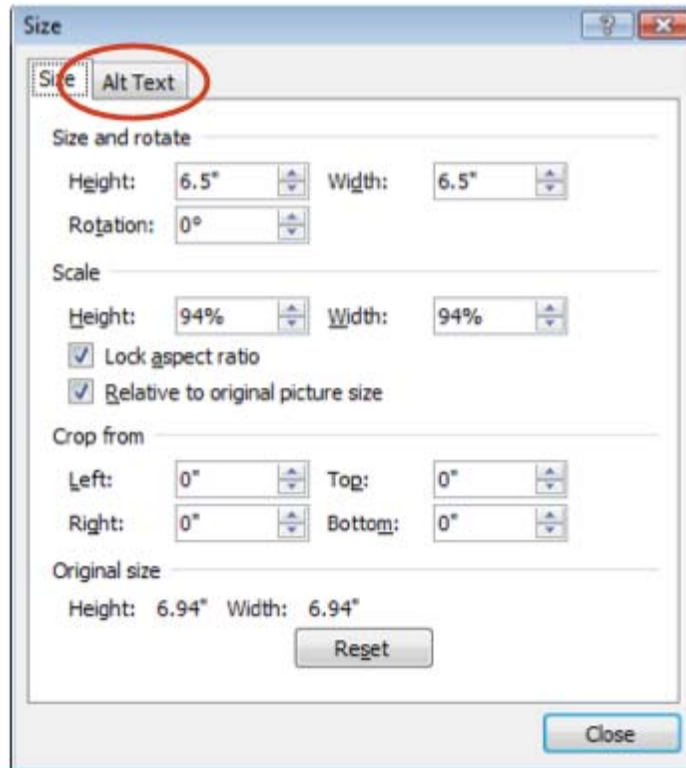
### ***Insert Alternative Text For Images and Graphics (As Needed)***

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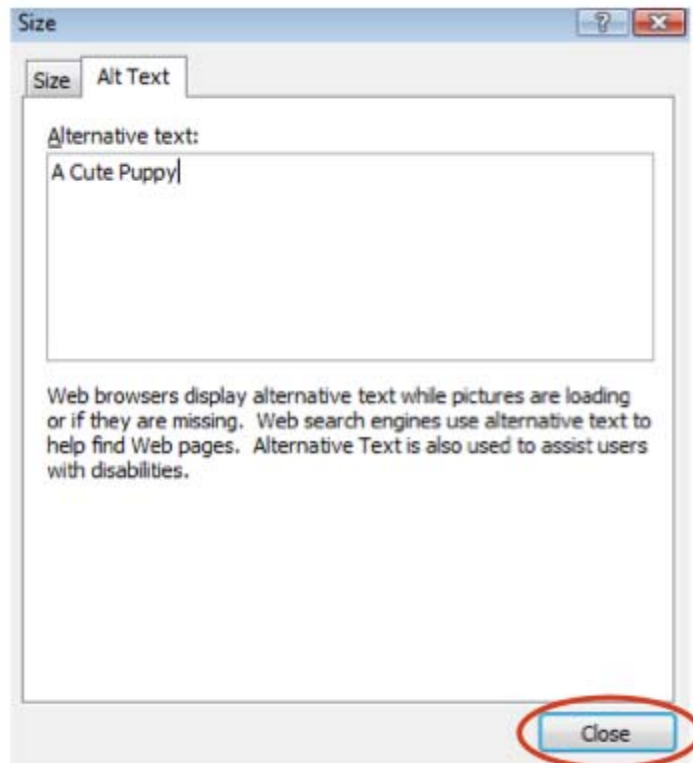
Select the image, right click and select <Size>.



Under the Alt Text tab, enter a short text description of the image.



Select <Close> and continue with the document creation.



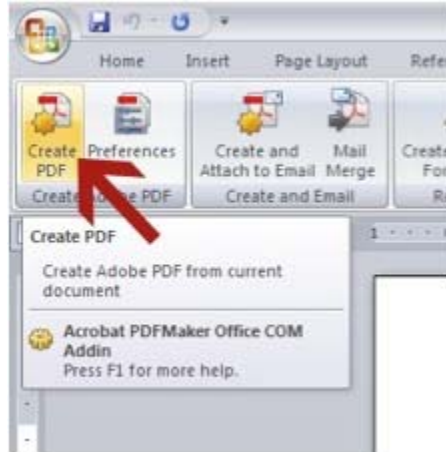
Use discretion in applying ALT tags. ALT tags need to be descriptive and convey the meaning behind why the artwork or illustration has been included in the text. They do not need to be lengthy.

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### ***Convert To PDF***

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- Choose the <Adobe Acrobat> option from the menu bar.
- Select the <Create PDF> option.
- Save the file at the prompt.



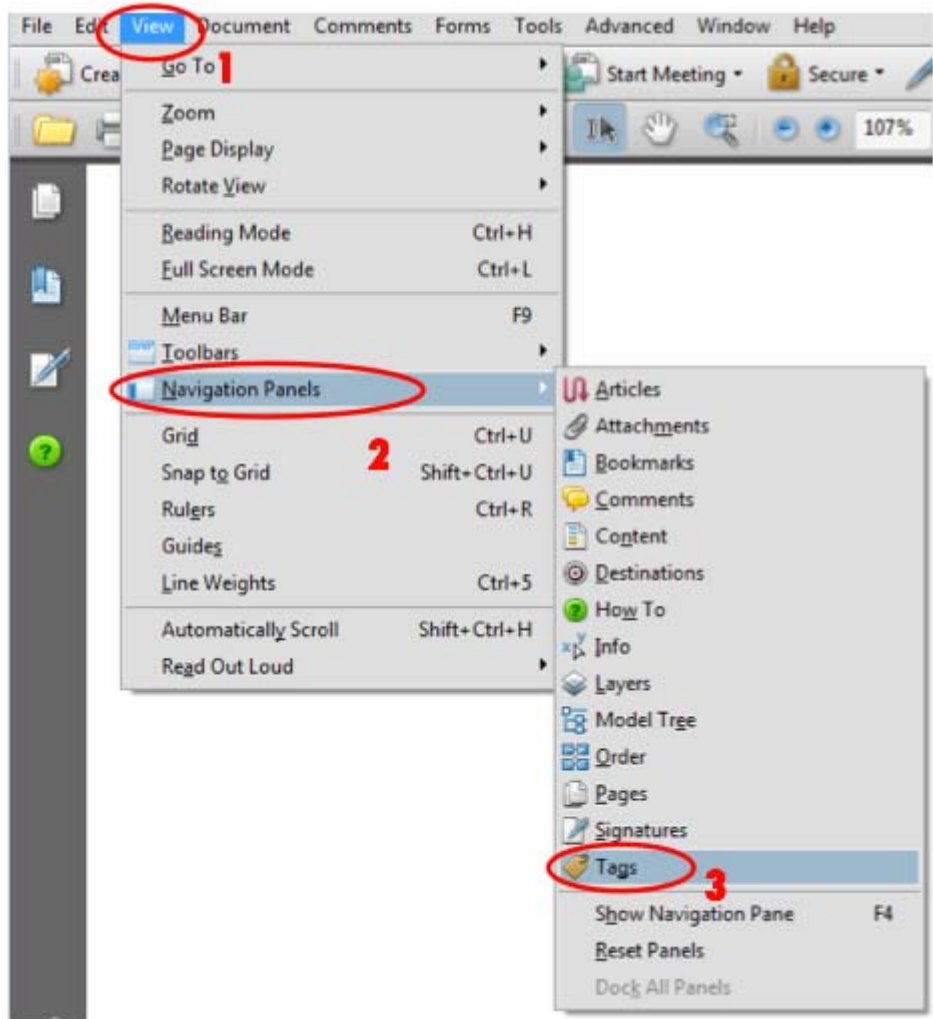
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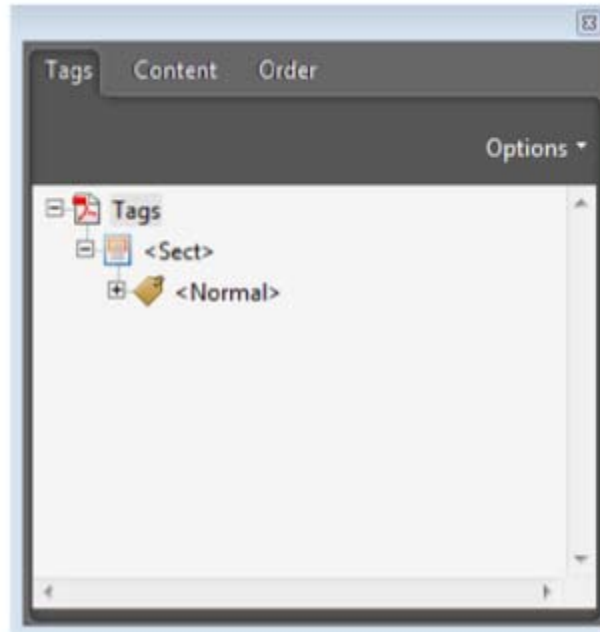
### ***Manual Checking of the PDF***

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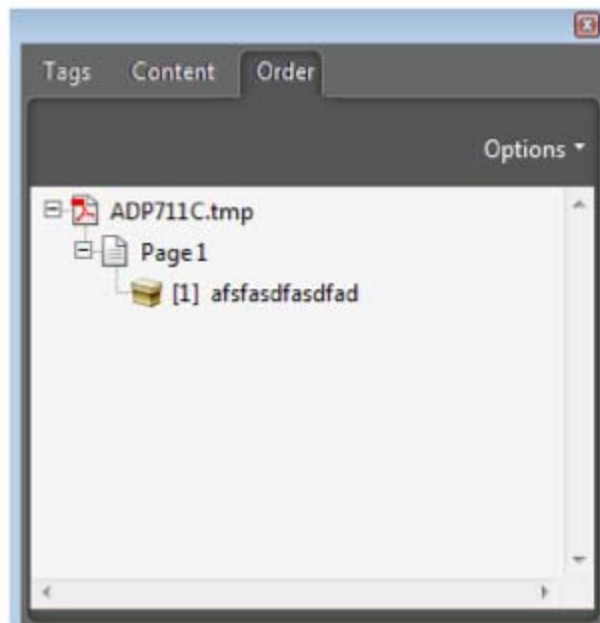
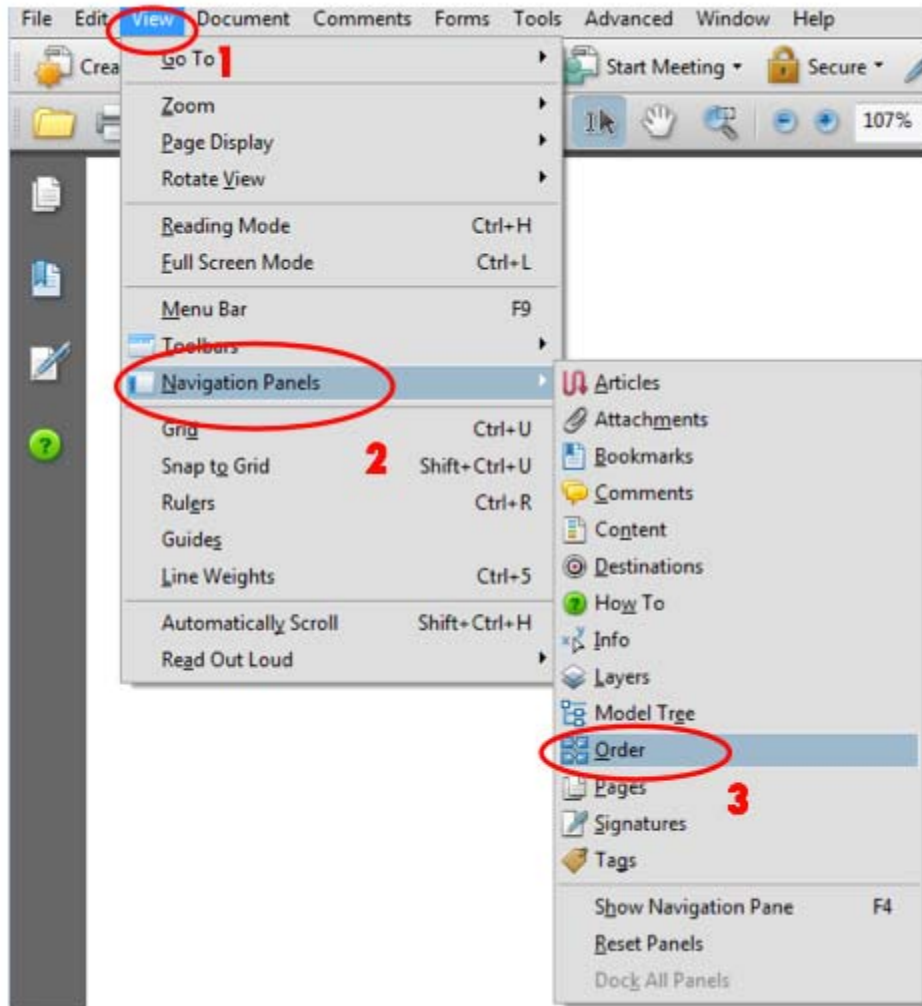
Open the resulting PDF file.

Navigate through the Tags tab to ensure the document has the proper structure (H1, H2, H3 etc.) To get the Tags tab to display, from the menu bar, select <View>, <Navigation Panels>, then <Tags>. The Tags Dialog Window will be displayed.

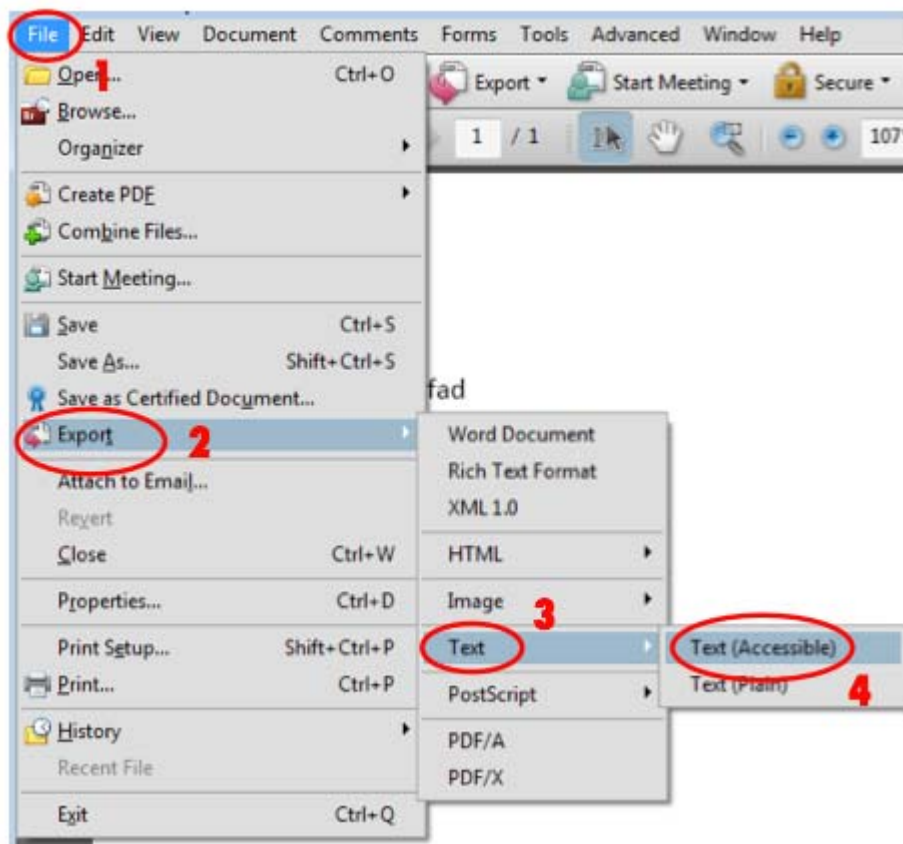




Navigate through the Order tab to ensure the reading order flows logically and that the images and graphics have been properly tagged with ALT text. To get the Order tab to display, from the menu bar, select <View>, <Navigation Panels>, then <Order>. The Order Dialog Window will be displayed.



As a second check, export the documents as <File>, <Export>, <Text>, then <Text Accessible> and manually look over the reading order.

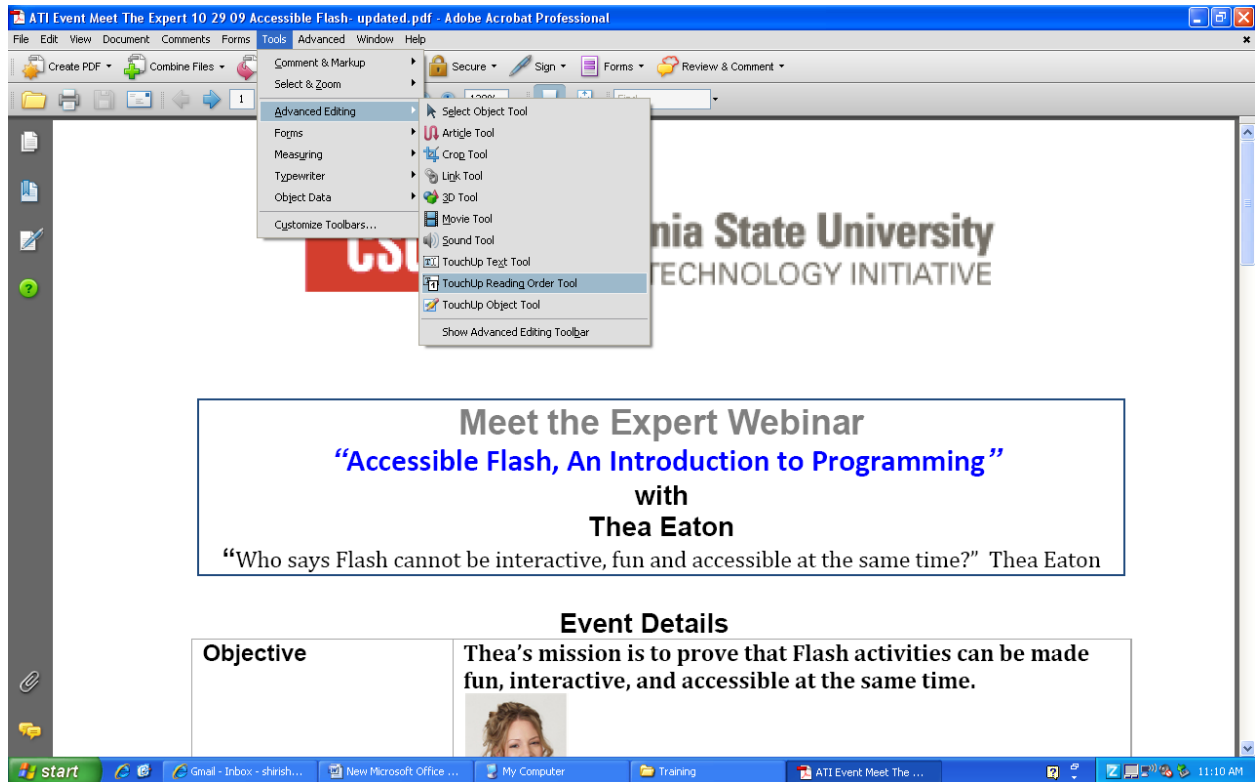


## HOW TO ADD ALTERNATE TEXT TO LOCKED IMAGES IN ADOBE PROFESSIONAL

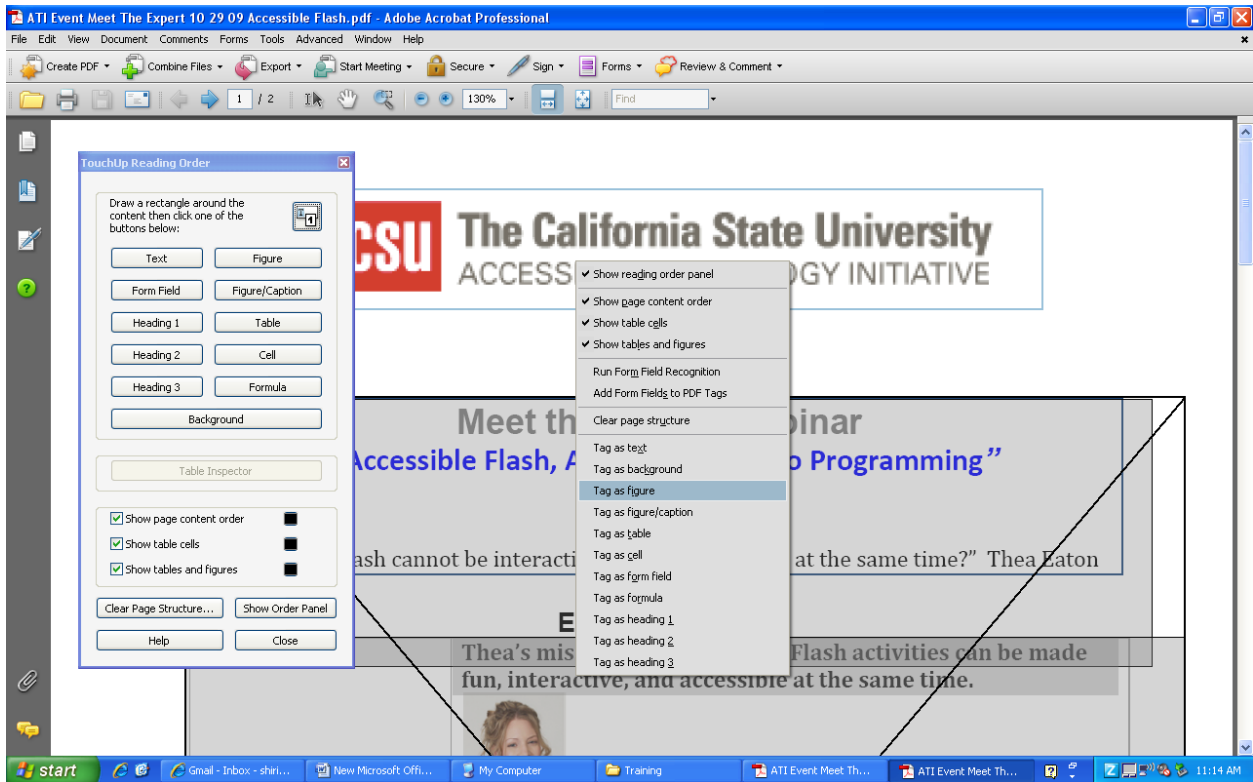
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If the images are locked in any word document, then the alternate text in those images are not carried forward to the PDF file that is created from it. In case of such issues, there is a different approach to add alternate text to them.

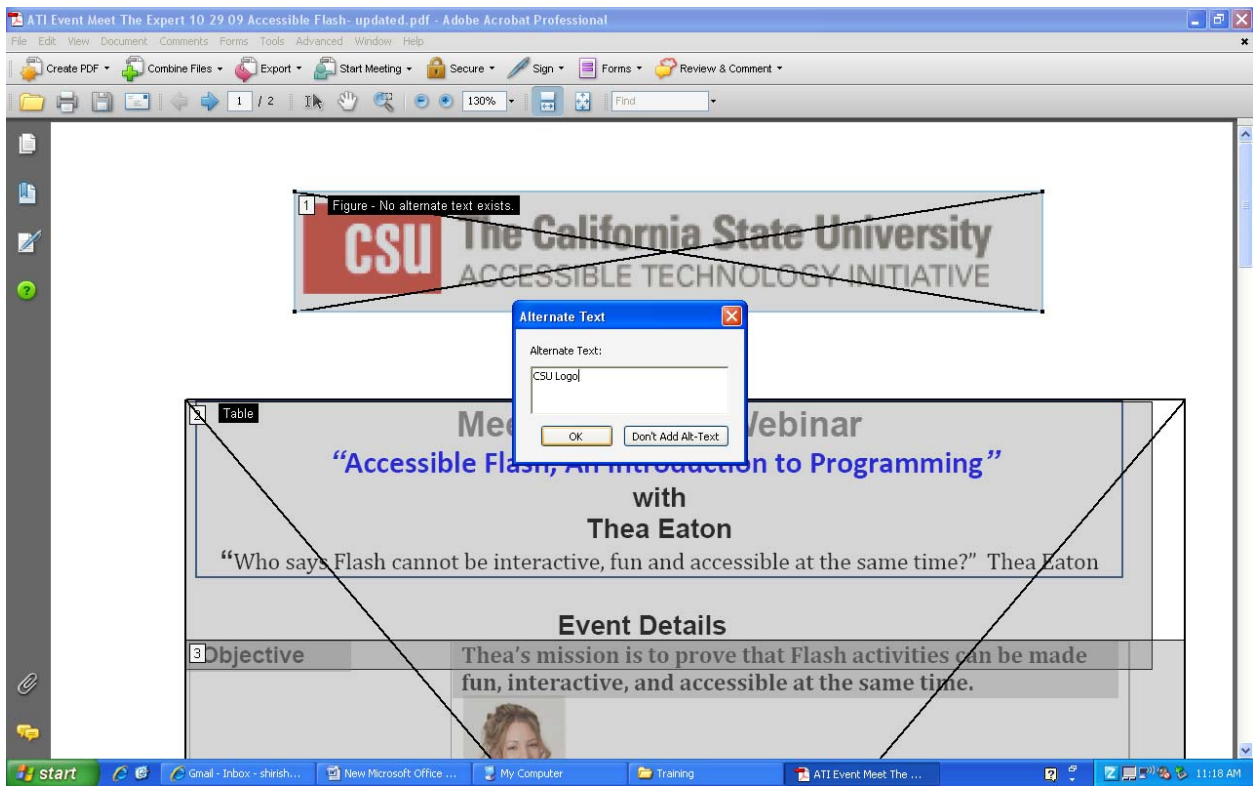
Open the PDF file in Adobe Acrobat Pro. Then go to Tools->Advanced editing->touch up reading order tool.



Select the image whose alternate text you want to edit. Then right click on that image and select "Tag as figure", or just simple double click on image and select Figure from the TouchUp Reading Order Pop-up menu.



Put a new Alternate Text for the image and click OK.



The locked image is now completely accessible with its alternate text.

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