

Creating Accessible PDFs from Word Documents

Overview

The basis of an accessible document has two major dependencies:

1. How it was created in the original format
2. How it was turned into a PDF

The way the different page elements and text are defined is of major importance to the accessibility of a document. Assistive technologies (such as screen readers) interpret the tags of a document and renders content to the user accordingly. A well tagged document enhances accessibility whereas a poorly tagged document introduces major accessibility problems.

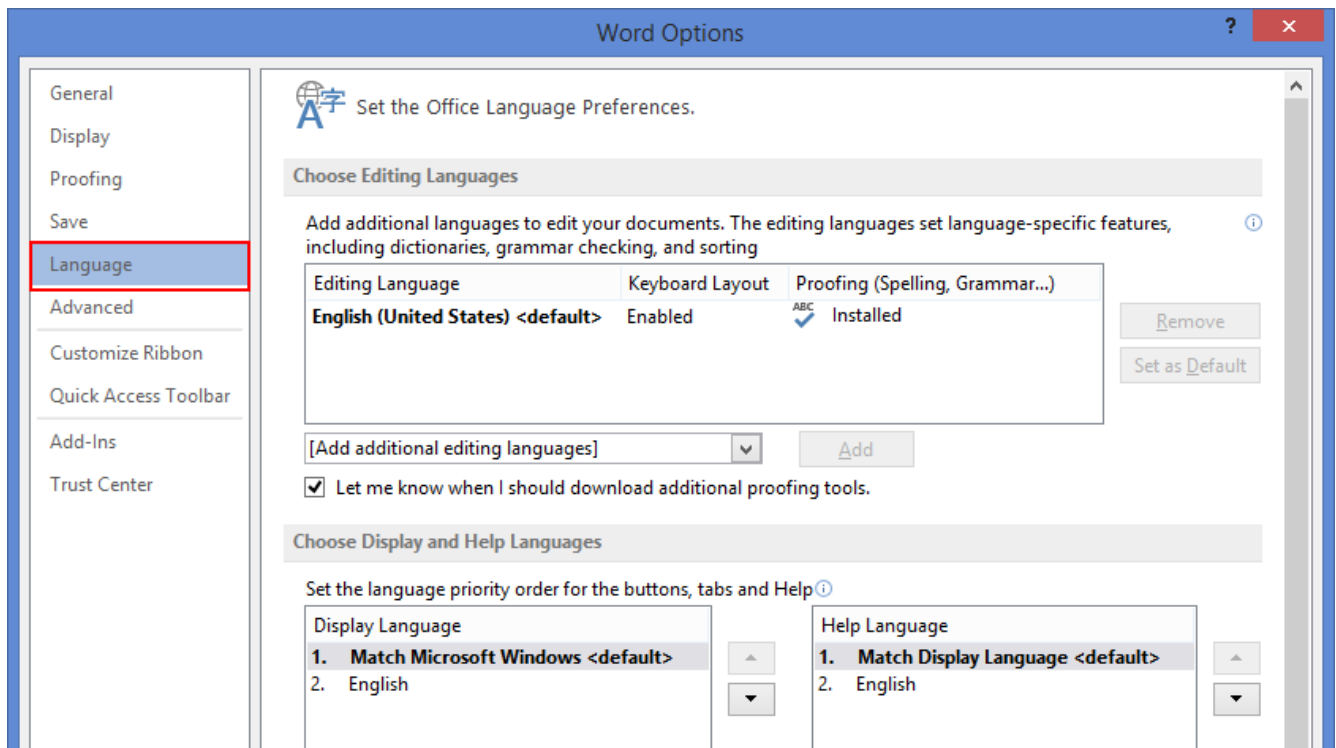
The following can be considered to be of major importance.

Language

In order for screen readers to be able to correctly read the document language there should be an overall definition of the language the document is written in. Check the language once as the setting should be set to English by default.

Instructions for setting the language in MS Word:

On the **FILE** tab on the ribbon, select **OPTIONS**.



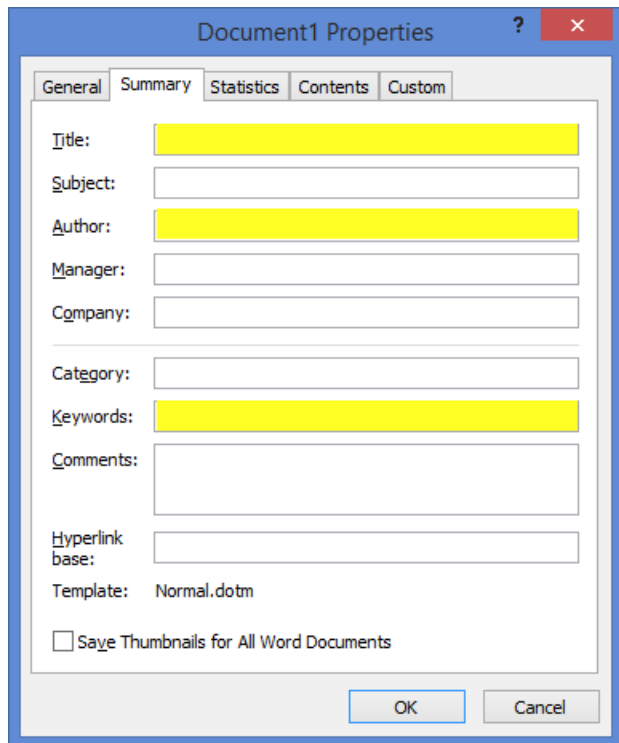
Title

Instructions for adding information to the document properties in MS Word:

On the **FILE** tab on the ribbon, select **INFO**.



As a minimum documents should include basic information such as a document title. Providing the name of the author and keywords is also a good idea.



Headings

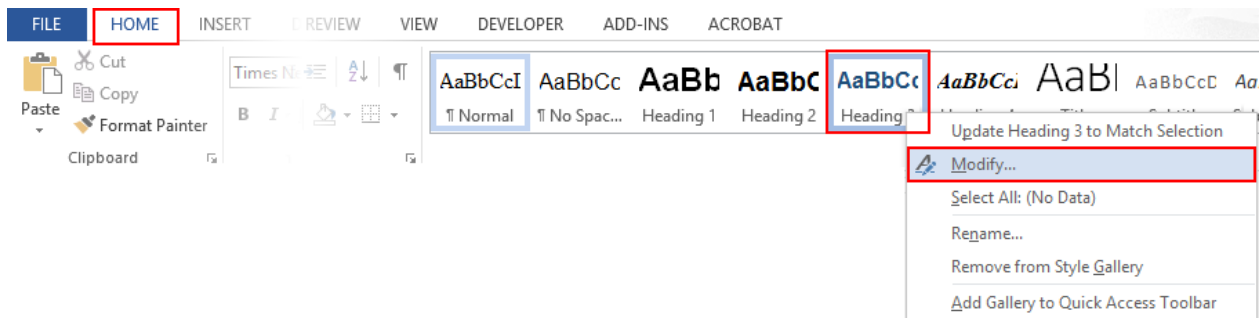
Proper usage of headings is an extremely important accessibility consideration in most Word documents. Headings allow screen reader users to navigate through documents easily. When creating headings, it is not enough to change the font, enlarge the font size, or add other attributes. The correct way to create headings is to use Word styles.

Instructions for using heading styles in MS Word.

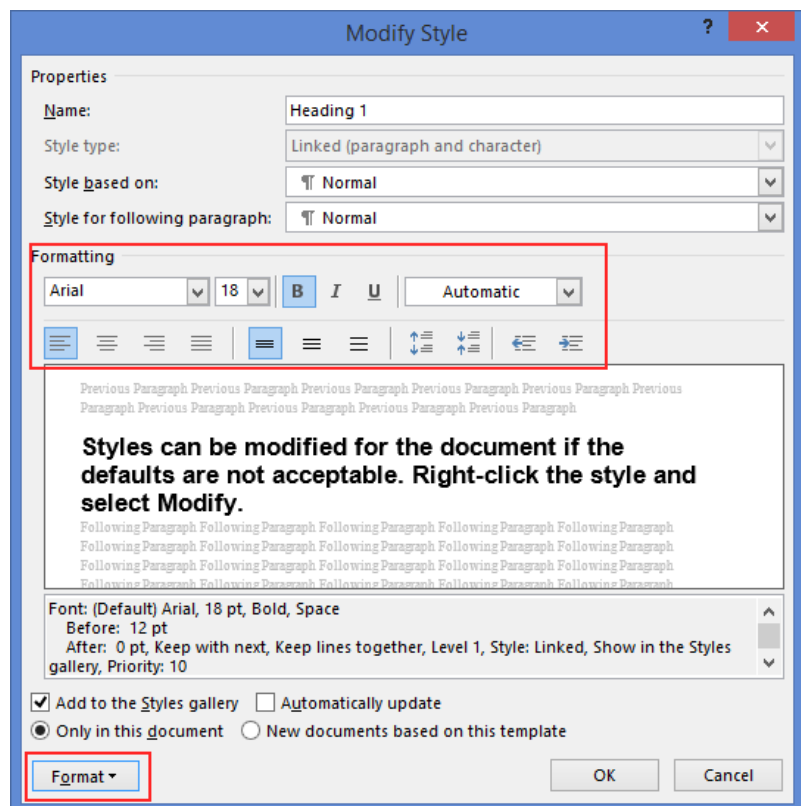
Styles are located on the Home tab on the ribbon. Styles can be set before or after text is keyed.



Styles can be modified for the document if the defaults are not acceptable. Right-click the style and select Modify.



The Formatting section allows for font, color and alignment changes. The options for whether these changes will apply to a single document or all future documents are shown at the bottom. The Format dropdown allows for additional changes such as spacing.

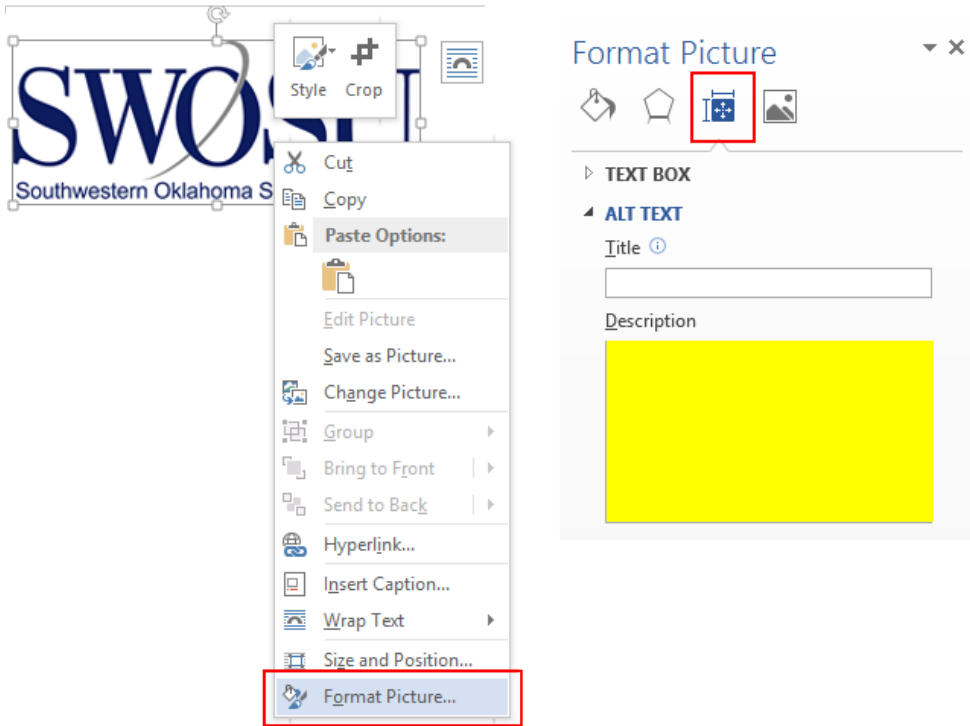


Images

An image can have different purposes depending on how it is used in the document. Many images have a purely decorative purpose and this purpose needs to be conveyed. Other images may have some sort of function or convey important information, and therefore these need an alternative text stating this.

Instructions for add alt text for an image in MS Word:

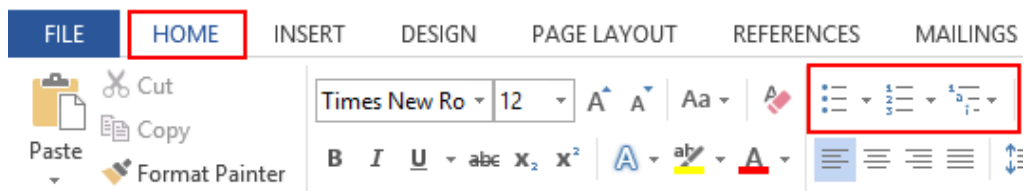
Right click image



NOTE: If the image is purely decorative, leave the alt text blank. Steps will be taken using a remediation tool after converting to PDF (Acrobat Professional).

Lists

If part of the text is a list it is also important to use the intended feature for this, and not just create dots or something similar that looks like a list. MS Word supports bullet lists, numbered lists and multilevel lists.



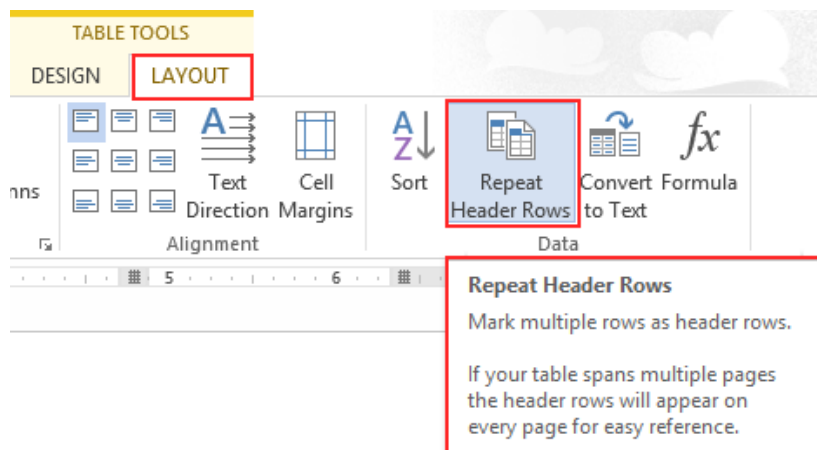
Tables

When data tables are used it is important to tag the structure of these. As a minimum defining which are the column/row headings. Column headings can be designated in MS Word. In table properties for rows the setting 'Repeat as header row at the top of each page' has a dual function. Besides repeating headings across pages it also tags these table headings as <th> which is code recognizable for screen readers and other user agents.

Instructions to designate column headings in MS Word:

Click anywhere inside the row containing the headings in the data table.

NOTE: There is no way to add row headers (headers across the side of a table) in Word. These can be set using the table inspector in Acrobat Professional.



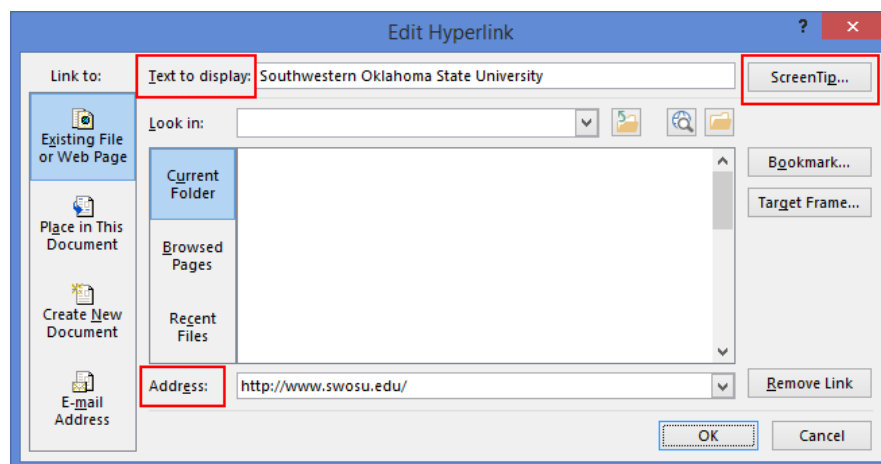
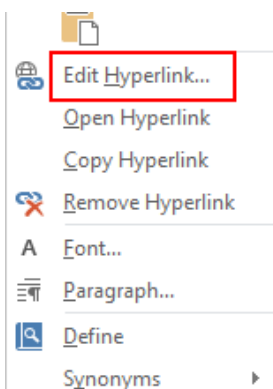
Links

Hyperlinks are created in MS Word automatically after a link is keyed or pasted and hitting space, Enter, or some other key. Example: www.swosu.edu

The URL alone may not make sense to a screen ready so when possible it is best to use text that is more descriptive.

Example: [Southwestern Oklahoma State University](http://www.swosu.edu)

To change the text to display, right-click on the hyperlink.



A screen tip can be added and will be visible on mouse hover.

Columns

If content needs to appear in more than one column in the document, use the feature in Word properly. Screen readers will read each line fully left to right. If a line is broken up by a tab or spaces to visually appear to be in more than one column, the screen reader doesn't recognize that.

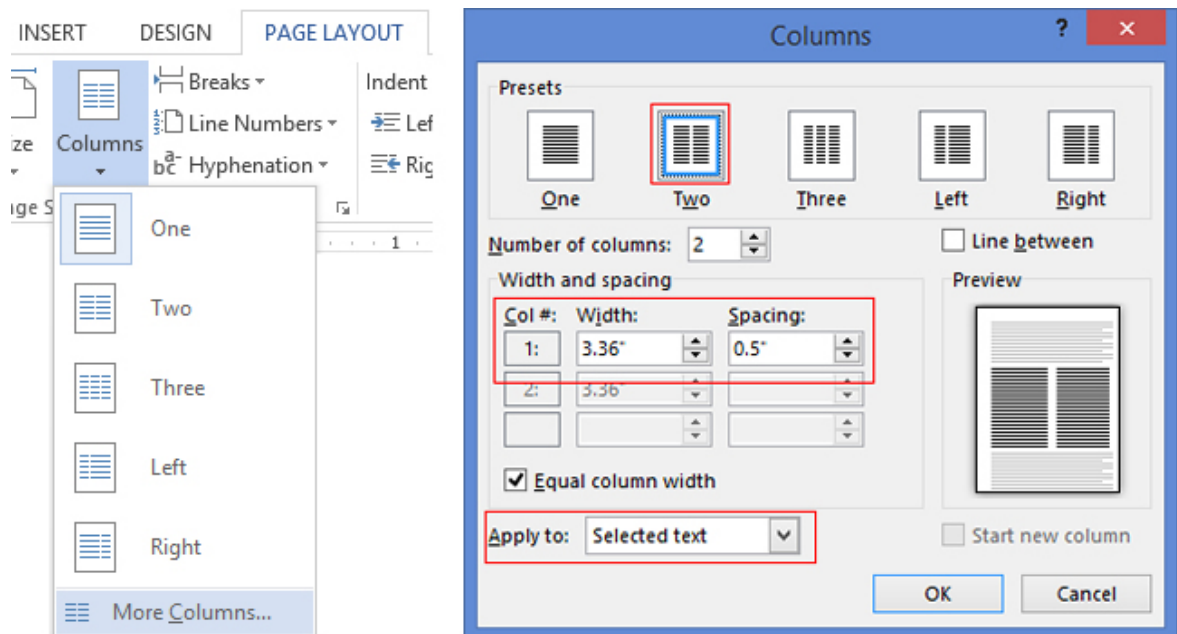
Incorrect Formatting Example

- This example shows the tab key was pressed in the middle of each line to make the content appear to be in two columns
- Screen readers will read the content as follows:
 - Weatherford Campus Sayre Campus
 - 100 Campus Drive 409 E. Mississippi
 - Weatherford OK 73096 Sayre OK 73662

Weatherford Campus	→	Sayre Campus
100 Campus Drive	→	409 E. Mississippi
Weatherford, OK 73096	→	Sayre, OK 73662

Correct Formatting

- Begin by typing the content in a single column
- Highlight the content you wish to place in multiple columns
- Click **Page Layout/Columns/More Columns**
 - This allows you to customize settings



- Make sure to select "Apply to: Selected Text" so that the rest of the document will be unaffected.
- Margins can be adjusted to change the placement of the columns (Click each column below and look at the ruler to see the margin markers)

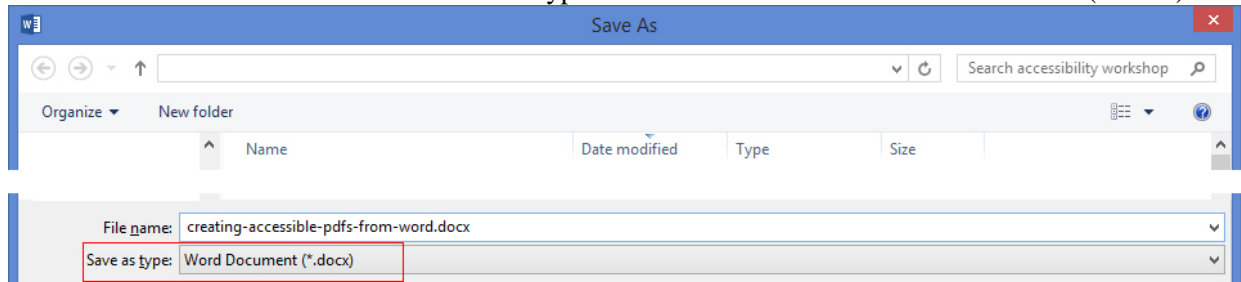
Weatherford Campus
100 Campus Drive
Weatherford, OK 73096

Sayre Campus
409 E. Mississippi
Sayre, OK 73662

Accessibility Checker

To perform an accessibility check of the document, it needs to be saved as the latest version of word (must have a .docx extension not .doc).

- Click **File/Save As** and check the “Save as type” to make sure it shows “Word Document (*.docx)”



- Click **File/Info/Inspect Document (Check for Issues)/Check Accessibility**
- The Accessibility Checker will appear at the right side of the document with any detected ERRORS and WARNINGS
 - ERRORS must be fixed. If you click on the error item, information will appear at the bottom of that panel explaining why fix and how to fix information
 - WARNINGS should be fixed if possible. Sometimes warning items need to be left in the document.

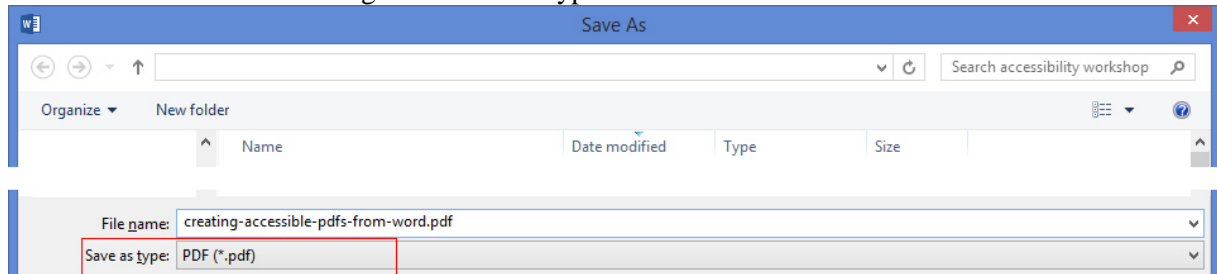
Other Principles

- Provide sufficient color contrast
 - The standard for text less than 18 point or less than 14 point if bolded must have a contrast ratio of 4.5:1 or more. For text 18 point or larger or 14 point if bolded, the contrast ratio must be 3.0:1 or higher.
 - Contrast checkers use hexadecimal color codes and Word uses RGB so multiple steps are needed to test the contrast ([See additional documentation](#))
- Don't use color as the only way to convey content

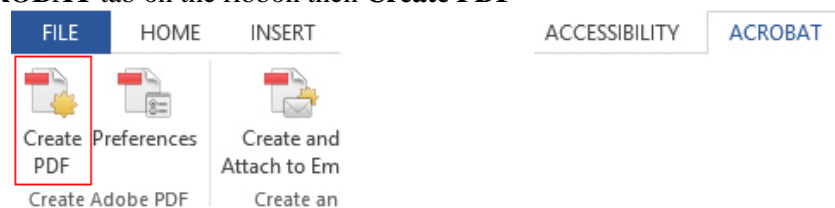
Converting to PDF

There are multiple ways to convert a Word document to Adobe PDF.

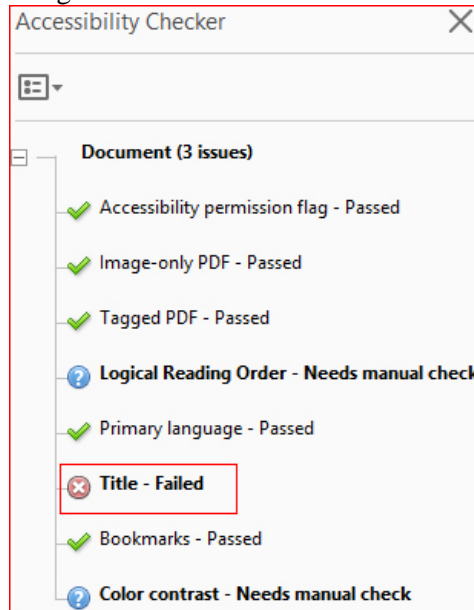
- Click **File/ Save As** and change the “Save as type” to PDF



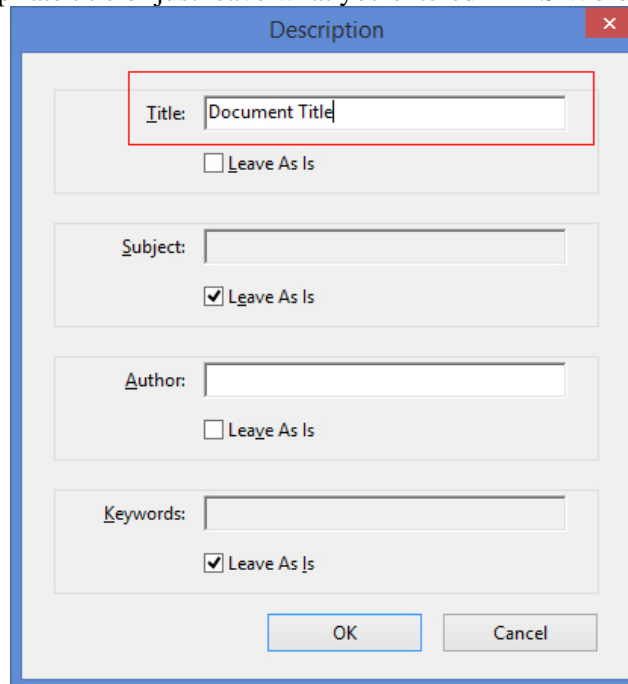
- Click **File/Save As Adobe PDF**
- Click the **ACROBAT** tab on the ribbon then **Create PDF**



- Once converted to PDF, other steps need to be taken to check for accessibility. Most generally if the proper steps are taken in creating the document in Word, the only item that doesn't transfer over properly is the document title.
 - Run a full check with the accessibility checker in Acrobat Professional
 - Results will show the following



- Logical Reading Order is a manual check so you will need to verify that
- Color Contrast is another manual check so use online [color contrast tools](#)
- For Title-Failed, right-click on that item in the list and select Fix. In the Description window Title field, add an appropriate title or just leave what you entered in MS Word. Click OK.



- Other accessibility resources can be found on the [Web & Creative Services website](#)