U.S. DEPARTMENT OF LABOR

CREATING SECTION 508 CONFORMANT MICROSOFT 365 WORD DOCUMENTS

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Contents

Introduction 1
Purpose 1
Document Properties 1
Set Title and Author 1
Set Document Language 2
Set Language of Specific Text 2
Add Structure to Documents Using Styles 3
Navigation Pane 3
Headers and Footers of Pages 4
Styles 4
Types of Styles 4
Applying Styles 4
Modifying Existing Styles 5
Creating a New Style 5
Create Lists (Number and Bullet) 6
Table of Contents 6
Create Table of Contents 6
Update Table of Contents 6
Customize Table of Contents 7
Page Numbers 7
Add Page Numbers 7
Format Page Numbers 8
DOL Standards 8
Positioning Content 8
Using Text Boxes 8
Alternative Text (Alt Text) 9
Alt Text Requirements 9
Add Alt Text 9
Decorative Images 10
Making Images Decorative 10
Automatic Alt Text 10
Links 11
Link Text Matters 11
Add Link 11
Link Requirements 12

Tables 12
Create Table 12
Prevent Rows From Breaking Across Pages 12
Define Table Headers 13
Table Titles 14
Table Header Types 14
Column Header Type 14
Row Header Type 14
Add a Footnote/Endnote 14
Footnote 14
Endnote 15
Color 15
Color Contrast 15
Color Conveying Meaning 16
Fonts 16
The Accessibility Checker 17
Accessibility Checker Results 17
Common Issues and Solutions 18
Image not Inline 18
Make Image Inline 18
Creating a PDF 19
Set Preferences 19
Create PDF 20
Adding Acrobat tab 20

Introduction

The benefit of creating accessible documents is to enable people with disabilities to access the information they need in a way comparable to people without a disability. The Department of Labor is committed to providing information that everyone can access. By meeting standards for accessible documents, you achieve this goal.

Purpose

This guide will help DOL employees and contractors create accessible Microsoft Word documents that are conformant with Section 508 requirements and best practices. Accessible Microsoft Word documents can be used to create Adobe PDF document with little additional work required to make it accessible in PDF format.

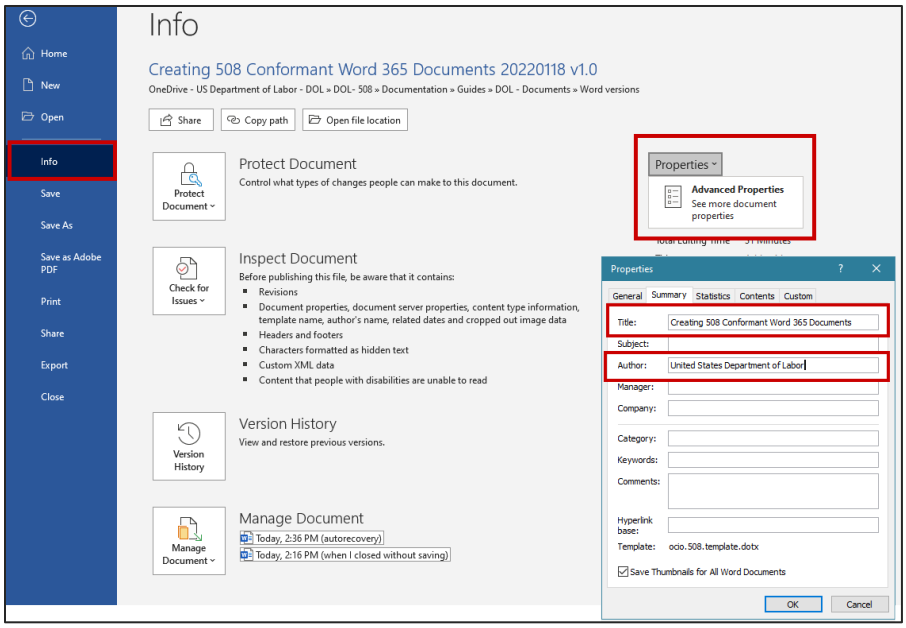
Note: Keyboard commands are in parentheses ().

Document Properties

The document title, author, and language must be set as part of the document properties.

Set Title and Author

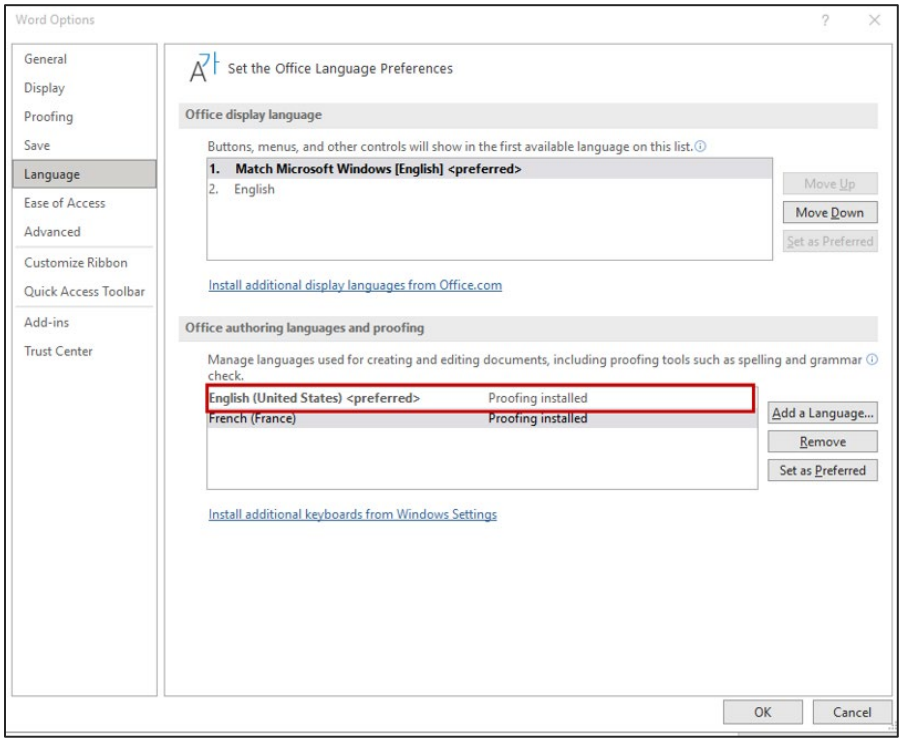
1. Select **File**
2. Select **Info**
3. Select **Properties**
4. Select **Advanced Properties**
5. Enter document **Title** (not the file name)
6. Enter document **Author** as “United States Department of Labor” or “AGENCY NAME, “United States Department of Labor” (without quotes)
7. Select **OK**



Set Document Language

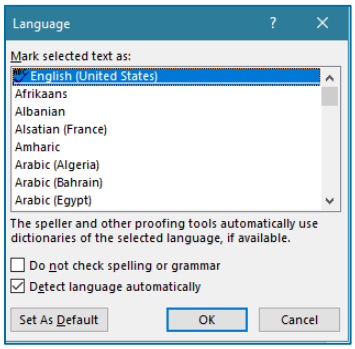
Note: If there is only one language enabled and it is the one you want, you can skip these steps.

1. Select **File**
2. Select **Options** (or press the Alt key, then press T)
3. Select **Language** from the list on the Word Options window
4. Under **Office authoring languages and proofing**, verify the correct language is **<preferred>**
5. Select **OK**



Set Language of Specific Text

1. Select the text
2. Select **Review** tab
3. Select **Language**
4. Select **Set Proofing Language…**
5. In the **Mark Selected Text as** box, select the language from the list
6. Select **OK**



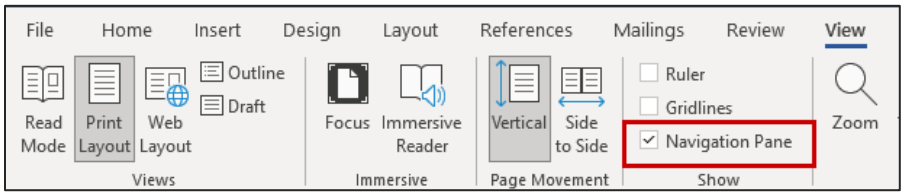
Add Structure to Documents Using Styles

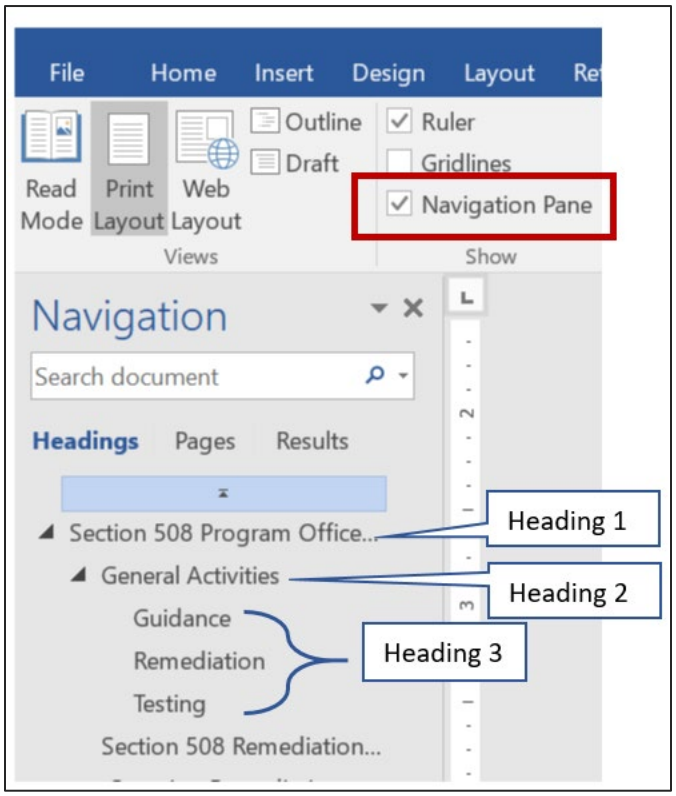
Styles are a set of built-in formatting that can be applied to text, tables, lists, paragraph spacing, etc. in a document. Using Styles for formatting is a critical part of accessibility. Headings are especially important. Headings give the user an indication of where they are in the document when navigating through the content. When using assistive technology, such screen reader software like JAWS, headings are the main method of navigation. It is important to note that every document requires one, and **only one**, Heading 1. The title should be the Heading 1. By using Styles to create headings and subheadings, an individual using a screen reader will better understand the hierarchy of information in the document. Heading levels should not be skipped and should be hierarchal. You can use the built-in Styles, or you can modify them to get the look you want.

Navigation Pane

The **Navigation Pane** is a great tool to use to verify that the headings are descriptive and in the correct hierarchy. It shows an outline view of the document.

1. Select **View** tab
2. Check **Navigation Pane** checkbox (in **Show** section)





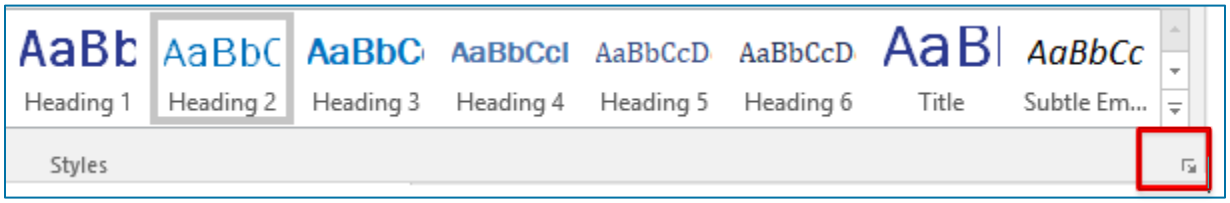
Headers and Footers of Pages

Be aware that screen reader software does not read any information in the header or footer of a page. Therefore, if you have the title of your document in the header, you must also have it in the body of the first page. It does not have to be visible. You can type it in a small size font and make the text the same color as the background if it is necessary to hide it.

Styles

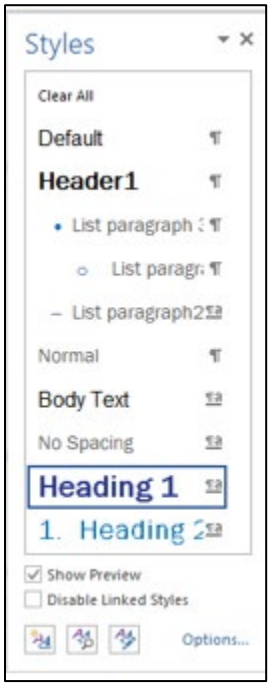
Types of Styles

Quick Styles are displayed on the **Home** tab as shown below. Quick Styles are the ones most often used. You can select additional styles by selecting the down arrow button on the bottom right of the **Styles** section.



Applying Styles

1. Highlight or select the text that you want to apply the style
2. Select **Home** tab (or press <Alt + H>)
3. Select one of the **Quick Styles** (or press L)
   OR
4. Select a style from **Styles** by selecting the arrow (or press FY) and selecting a style

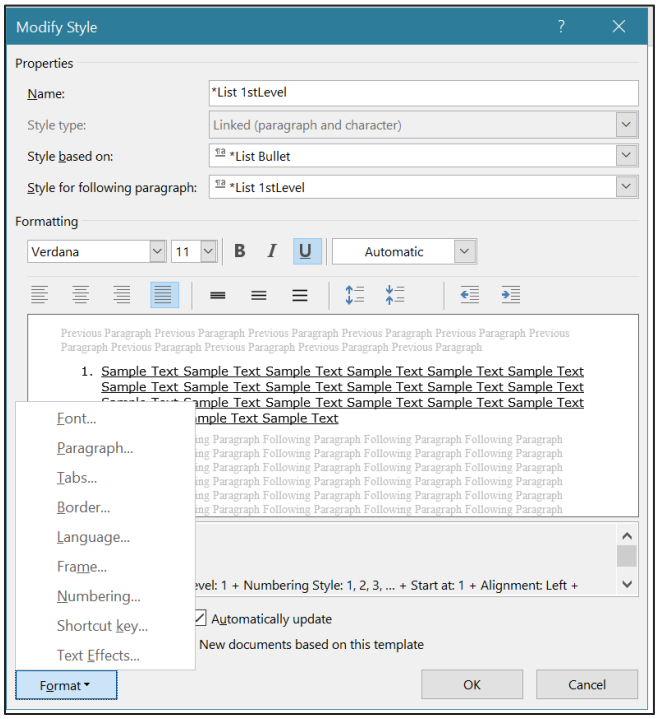


Modifying Existing Styles

If you want formatting choices that are not available from the built-in styles and themes available in Word, you can modify an existing style and customize it to suit your needs. You can change the formatting (such as font size, color, and text indentation) in styles applied to titles, headings, paragraphs, lists, and so on.

1. Select **Home** tab (or press <ALT + H>)
2. Select the specific style you want to modify (or press L)
3. Right-click (or press context menu key) on the style you selected
4. Select **Modify** from the drop-down menu
5. In the **Modify Styles** window, make changes to font
6. Select the **Format** button to display additional options
7. Select the formatting changes you'd like to make. You can:
    - Change type, color, and size of the fonts used in the document
    - Change the amount of space between paragraphs
    - Change borders and shading
    - Change/Add numbering or bullets

DO NOT change the name of style that you are modifying.

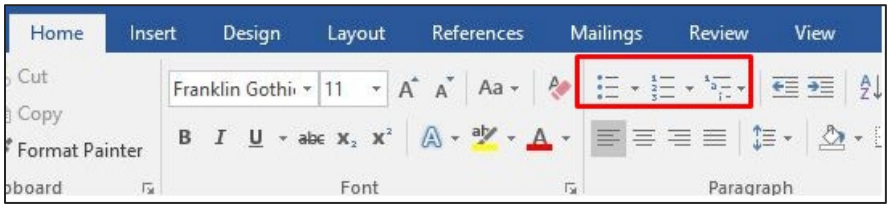


Creating a New Style

Note: If you create a new style, it will not be accessible to screen readers and will not be accessible when converted to PDF files. However, this doesn't mean that you can't create a unique style. Simply select a Default style then modify it to make your document look the way you want. Styles not only help Assistive Technology (AT) users identify the difference between a header and body text, but other features also rely on Styles, like, the Table of Contents tool, to automatically generate correct and accessible information.

Create Lists (Number and Bullet)

The Bullet or List style must be used instead of manually typed characters (e.g., Hyphens) or inserting icons.

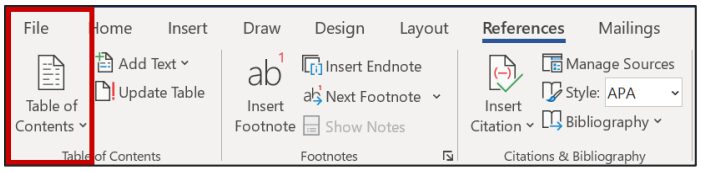


1. Select **Home** tab (or press <Alt + H>)
2. In the **Paragraph** section, select the **Bullets** icon for unordered lists or select the **Numbering** icon for ordered lists (or press U or N)
3. To choose a different list format, select the arrow beside the icon (or press Enter)
4. Select the format from the library or define a new format

Note: You should attempt to make use of the named styles that are included with the office application (e.g., “strong” (bold), “caption,” etc.) before creating your own styles or using the character formatting tools directly. Named styles help Assistive Technology (AT) users understand why something was formatted in a certain way.

Table of Contents

If your Microsoft Word document needs a Table of Contents, do not create it manually. The **Table of Contents** tool uses the heading made using the document’s **Styles**. It creates links to jump straight to different topics and is easily be updated when content shifts or changes. If you create a Table of Contents and the information is wrong or missing, check that the styles you’ve used throughout the document are accurate and consistent.



Create Table of Contents

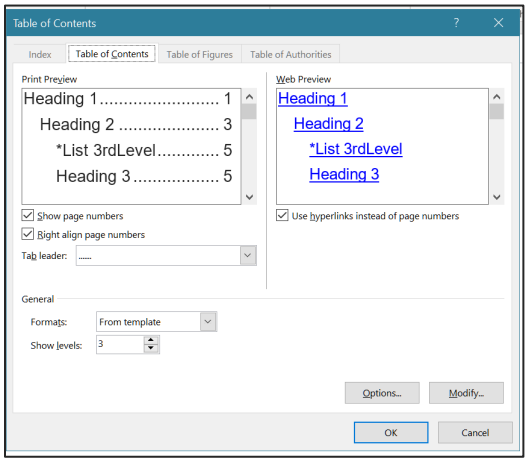
1. Place the cursor where **Table of Contents** will be inserted
2. Select **References** tab
3. Select **Table of Contents**
4. Select the desired format
5. Select **OK**

Update Table of Contents

1. Select Table of Contents
2. Right-click (or press Context menu key)
3. Select **Update Field**
4. Select **Update Entire Table** radio button
5. Select **OK**

Customize Table of Contents

1. Place the cursor where **Table of Contents** will be inserted
2. Select **References** tab
3. Select **Table of Contents**
4. Select **Custom Table of Contents**…

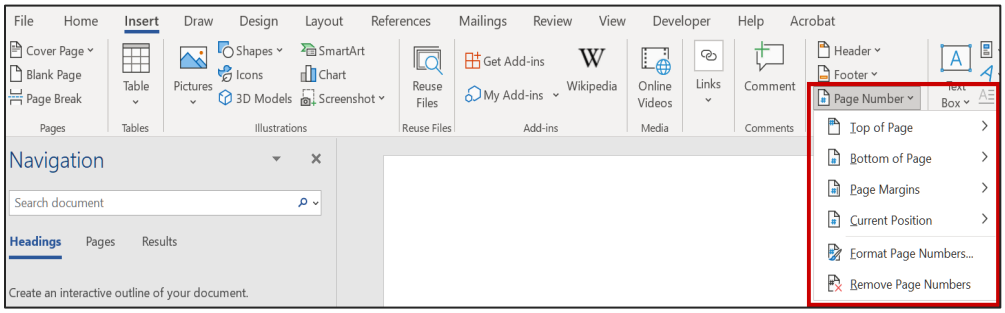


Options

- Tab leaders
- Formats
- Heading levels
- Styles to use for TOC

Page Numbers

Use the **Page Number** function instead of manually typing page numbers.



Add Page Numbers

1. Select **Insert** Tab
2. Select **Page Number** (In the **Header and Footer** section)
3. Select the style page number format you would like to use
4. Select **OK**

Format Page Numbers

1. Select **Insert** Tab
2. Select **Page Number** (In the **Header and Footer** section)
3. Select **Format Page Number**
4. In the **Page Number Format** window, select the page number format you would like to use
5. Select **OK**

DOL Standards

The following DOL standards are required to increase accessibility, usability, and readability of the information. Italics are hard for some people to read, and so is text that is smaller than 12 points. Left-aligning headings and text is easier for people with limited vision to read.

1. Do not use italics for emphasis. Make regular text bold instead using the **Strong** style
2. Do not use underlines for emphasis. Make regular text bold instead using the **Strong** style
3. Left-align headings and text
4. Use only **one** heading 1 (it should be the title of the document)
5. Do not use more than 2 fonts
6. For body text, use a minimum font size of 12 points
7. In tables, left-align text, right-align numbers and dates

Positioning Content

Tables should NOT be used to position content. Position content using the features on the **Layout** tab such as:

- Alignment
- Spacing
- Indentation
- Creating columns

Using Text Boxes

Text boxes are not actually text. They are **images** of text. Screen reader software reads text to a user, but it can't read images. You can create your text box that is accessible. Simply follow the steps below:

1. Enter content and position where desired (See Positioning Content)
2. Select **Insert** tab
3. Select **Shapes**
4. Select a rectangle
5. Position rectangle around content
6. Right-click (or Shift + F10)
7. Select **Fill**
8. Select **No Fill**
9. Select **Outline**
10. Select outline color
11. Select outline **Weight** (width)

Alternative Text (Alt Text)

Adding alternative text (alt text) is critical for people with disabilities to understand any information contained in images within the document. Screen reader software reads text to a user, but it can't read images. Alt text is a "text alternative" to the image. The software will tell the user that it is an image and then read the alt text. Alt text needs to be manually entered, and the amount of information and detail given depends on the role and context of the image.

Before you can write a text alternative you need to consider:

- **Role**: What are you using the image for? What is it meant to do, say or mean?
- **Context**: What else is on the page that might affect what you should use as a text alternative for the image?

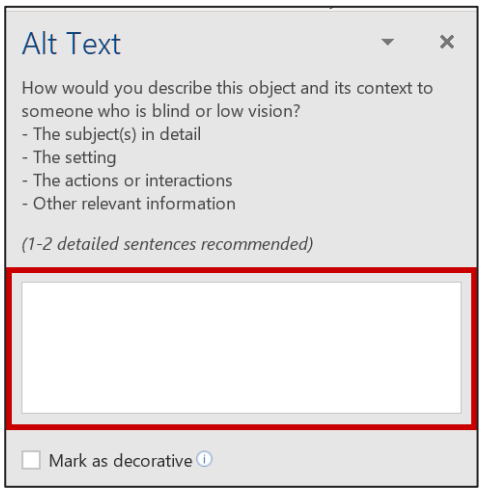
For example, you are trying to demonstrate a technique to use during a storm, and you have an image of a single-family home with plywood over the windows. In your alt text, the words "Boarded up house before coming storm" conveys the intended purpose of the image more than just having the word "House."

Alt Text Requirements

- **All** images require it (or be marked decorative)
- Text should be short, like a tweet. There is a **limit of 250 characters**, including spaces
- Text should provide the meaning or purpose, not necessarily the description of the image
- Don't use the terms "photo of,", "image of,", "picture of,", etc., in the alt text because AT users are told it's an image
- Alt text for the **Department of Labor** seal should be: "**United States Department of Labor seal**" (without quotes)

Add Alt Text

1. Select the image
2. Right-click (or press Context menu key)
3. Select **Edit Alt Text**
4. Enter text in the field



Decorative Images

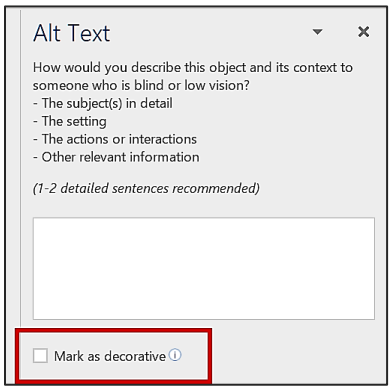
People using screen reader software do not need to have images that convey no meaning announced. When images are decorative, the screen reader software does not announce them to the user. Examples of decorative images are:

- Rectangles, circles, anything used for formatting or layout
- Images or icons that do not provide meaning of information
- Images described in text on the page

Making Images Decorative

It's easy to make images decorative. Just check the checkbox.

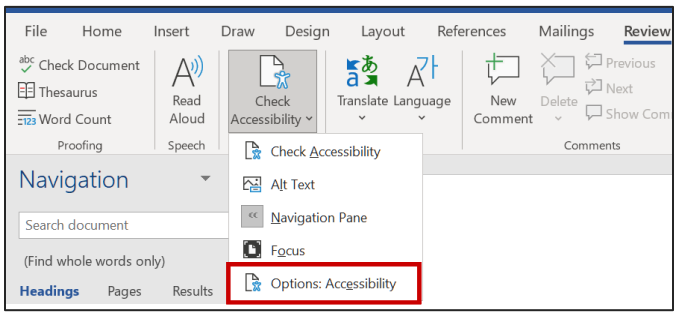
1. Select the image
2. Right-click (or press Context menu key)
3. Select **Edit Alt Text**
4. Check **Mark as decorative** check box



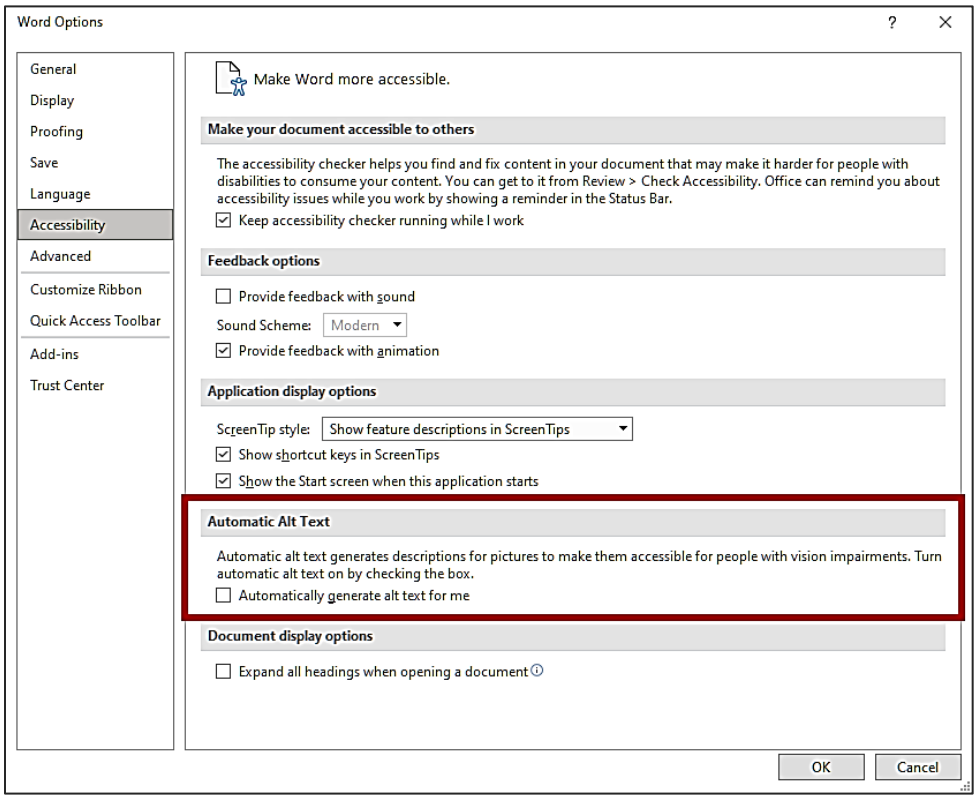
Automatic Alt Text

Having Alt text automatically generated sounds great, but it's not. Alt test needs a person to decide what is meaningful and takes into consideration the role of the image and the context of surrounding text. To prevent Alt text from being automatically generated, turn off the option on the Word Option window. This only needs to be done once.

1. Select **Review** tab
2. Select **Check Accessibility**
3. Select **Options: Accessibility**



4. Uncheck **Automatically generate alt text for me** check box



Links

Hyperlinks must have meaningful names that describe their destination, function, and/or purpose, not the URL or address. For example, if you write, “Want to get an Enterprise Service Desk form, use this URL: https://labornet.dol.gov/itc/it/esd/ITC-Forms.htm.”, the screen reader will read this as “https://labornet.dol.gov/itc/it/esd/ITC-Forms.htm.” Hearing that read aloud is hard to understand and visually it can be hard for those cognitive issues to understand.

Link Text Matters

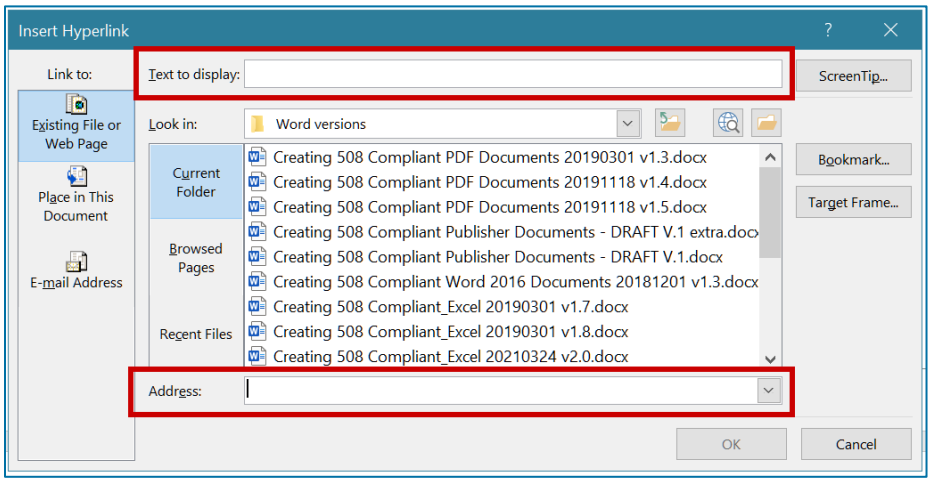
Screen reader software can give a user a list of all the links in a document. However, the list uses the link text, so your link text must make sense if it’s out of context. That’s why “click here” is not good link text. If the user isn’t reading the sentence, they have no idea what the link is referring to.

As a general rule, if a link goes to a web page, use the name of the web page for the link text. If it opens a document, use the name of the document.

Add Link

To create a link, follow these steps:

1. Put your cursor where you want to create it
2. Right-click (or press Context menu key)
3. Select L**ink**
4. Enter text that indicates where the link goes in **Text to Display**
5. Enter the URL (or address) in **Address**
6. Select **OK**



Link Requirements

Links must be visible and recognizable. All links should be:

- A different color than the surrounding text
- Underlined
- Indicate where the link goes
- Not be a URL (the URL can be in text in parentheses)

Tables

Tables are meant to be used to display data, not position content. Data is meaningless without a header to give it context. Image a table of dates without headers. It would be impossible to know what the dates are.

To create an accessible table for those using screen reader software, it is necessary to define the headers. When the headers are defined, the screen reader software will read the header and then the data in the cell the user is in.

Create Table

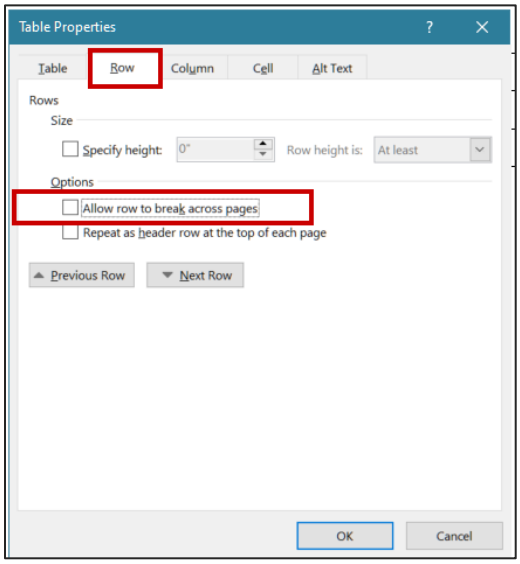
Start by creating the table using the built-in **Insert Table** function.

1. Select where you want to insert the Table
2. Select **Insert** tab
3. Select **Table**
4. Select **Insert Table** and choose the number of columns and rows you want in the table
5. Select **OK**

Prevent Rows From Breaking Across Pages

This must be done for every table regardless of the type of headers. If a table **row** is split from one page to the next page, a screen reader will not read it properly and it is visually difficult to understand. This option is always checked and must be unchecked for all the rows. That is why the entire table must be selected.

1. Select the entire table
2. Right-click (or press Context menu key)
3. Select **Table Properties**
4. Select **Row** tab
5. Uncheck **Allow row to break across pages** check box



Define Table Headers

Headers must be defined for screen reader software to read the header with the data. Without a header, a user cannot determine what the data means. Only the first row, row 1, should be made the header row. Make sure **Row:1** before the repeat as header row at top of each page check box is checked.

With the **Table Properties** window still displayed:

1. Select **Next Row**
2. **Verify Row:1**
3. Check **Repeat as header row at top of each page** check box
4. Select **OK**

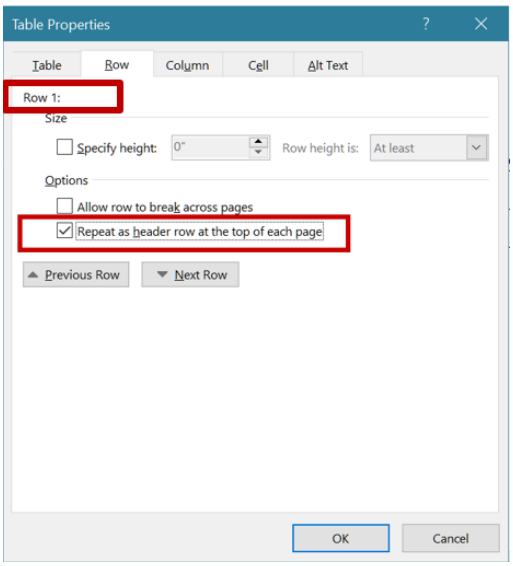


Table Titles

Table title should **NOT** be part of the table! If you make the title the first row, you will not be able to define the headers so the screen reader software can read them with the relevant data. Put the table title on the line above the table. You can style it to look like it's part of the table if you wish.

Table Header Types

Word 365 supports tables with column headers and row headers.

Column Header Type

Tables with **column** headers have the headers in the first row of the table. This type of header is called a "column" header because the header applies to the **column** of data underneath it.

Date	Event	Venue
2/21/2022	Waltz with Strauss	Opera House
3/1/2022	Devo	Capital Center
3/25/2022	Sparkle Pony	MCI Center

Column headers

Row Header Type

Tables with **row** headers have the headers in the first column of the table. This type of header is called a "row" header because the header applies to the **row** of data to the right of it.

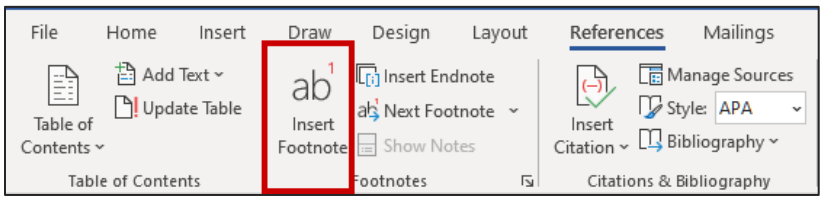
Row Headers

Date	2/21/2022	3/1/2022	3/25/2022
Event	Waltz with Strauss	Devo	Sparkle Pony
Venue	Opera House	Capital Center	MCI Center

Add a Footnote/Endnote

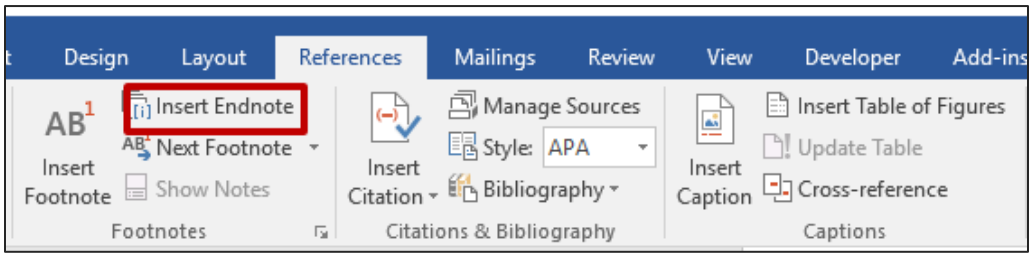
Footnote

1. Place cursor where superscript (number) of footnote should placed
2. Select **References** tab
3. Select **Insert Footnote** (OR press <CTRL+ALT+F>)
4. Enter the footnote text



Endnote

1. Place your cursor where you would like to add the endnote
2. Select **References** tab
3. Select **Insert Endnote** (OR press <CTRL+ALT+D>)
4. Enter the endnote text



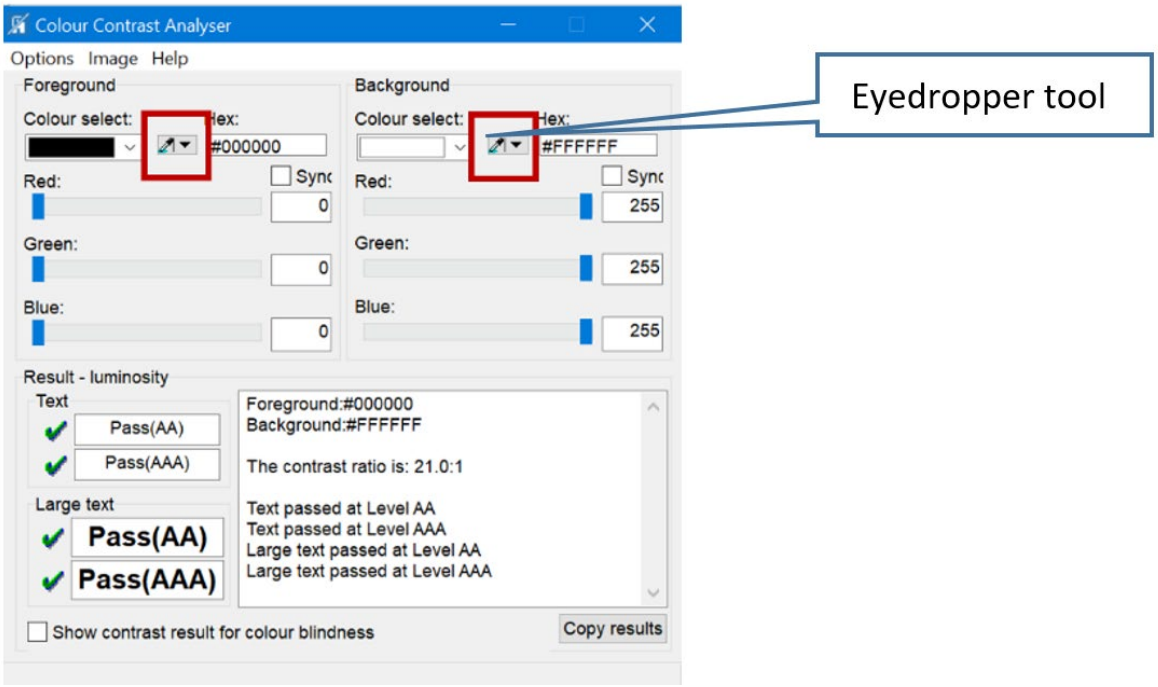
Color

Color Contrast

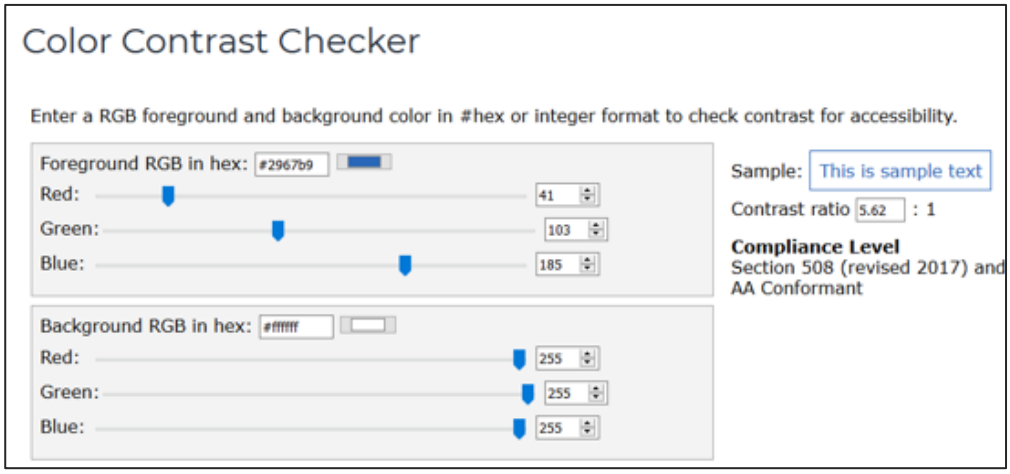
Color contrast ratio between the text and the background is important. If it is too low, some people will not be able to read the text. The Section 508 color contrast standards require a **minimum** ratio of 4.5:1.

To test color contrast, you can use the **Colour Contrast Analyzer**. Choose a color using the eye dropper tool to select the foreground and background or enter a foreground (text) and background color in RGB or hexadecimal format (e.g., #FD3 or #F7DA39).

Note: This tool needs to be requested from and installed by ESD. It is listed as "CCA".



You can also use an on-line tool, such as the Color Contrast Checker. Just enter the foreground (text) and background colors in either hexadecimal or RGB format. The contrast ratio is displayed. To change the ratio, click on the slider bar.



Color Conveying Meaning

Section 508 requires that when color is used to indicate meaning, direction or other information, that same meaning must be provided in a way that does not use color. The status below uses both color AND text to indicate a project's status.

Project Status

Key:
On-time = green
Late = red

Project Name	Status
Project A	On-time
Project B	Late
Project C	Late
Project D	On-time

Fonts

Currently, Section 508 does not specify the requirements for choosing an accessible typeface. However, the following fonts are unofficially recommended:

- Helvetica (Microsoft Sans Serif)
- Verdana
- Arial
- Calibri
- Franklin Gothic Book

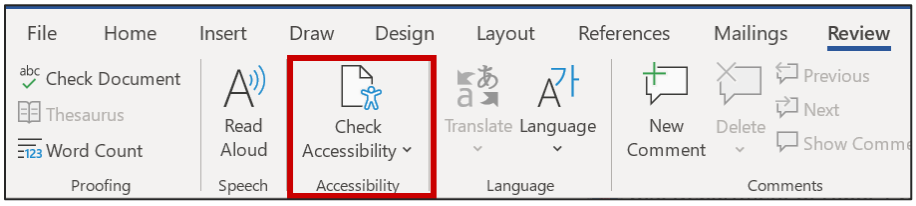
Using these fonts will promote ease of reading for most users. Sans-serif fonts are especially easy to read because they are generally more legible.

The Accessibility Checker

Use the built-in **Accessibility Checker** in Microsoft Word as the first way to check accessibility. The **Accessibility Checker** helps you find and fix accessibility issues, just like **Spell Check** reports potential spelling errors. It displays a report of the issues it finds, explains why each issue might create a problem for someone with a disability, and recommends how to fix the issue.

Note: If your document has an extension of ".doc" (filename.doc), you will get an error, "Unable to run the Accessibility Checker." To fix this, save your document as type: Word Document (*.docx)

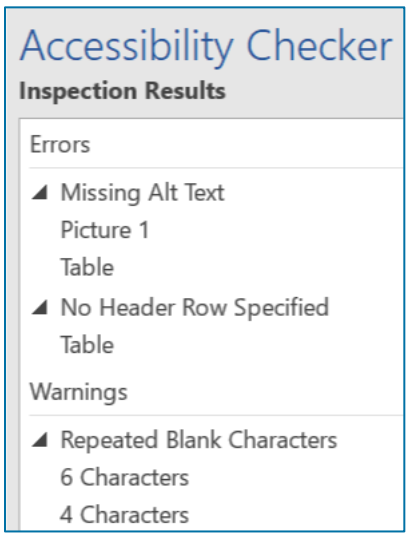
1. Select **Review** tab
2. Select **Check Accessibility**



Accessibility Checker Results

Even if the checker finds no errors, it does **not** mean the document is fully accessible. The **Accessibility Checker** cannot find all the issues. Some issues can only be found by a person. For instance, it can tell if there is no alternative text (alt text), but it cannot tell if the alternative text (alt text) makes sense.

Be aware that what Microsoft considers to be errors, warnings, and tips doesn't always match Section 508. For instance, tables do NOT need alt text. You can add it, but it's not required. Blank table rows are just a warning, but Section 508 requires that you don't have blank rows. Hyperlink text should be meaningful.



Common Issues and Solutions

Error/Warning/Tip	Solution
Image - Missing Alt Text	Add Alt text (See: Add Alt Text)
Table - No Header Row Specified	Define header row (See: Define Table Headers)
Skipped heading levels	Correct heading level (See: Navigation Pane)
Unclear Hyperlink text	Make hyperlink text meaningful (See: Link Requirements)
Table - Blank Table Rows or Columns	Delete blank rows/columns
Check Reading Order - Table	Place cursor in top left cell. Press TAB key to move from cell to cell. The order should go from left to right, top to bottom.
Image or object not inline	Change layout to In line with text (See: Make Image Inline)
Hard-to-read text contrast	Check the text and background color (See: Color Contrast)

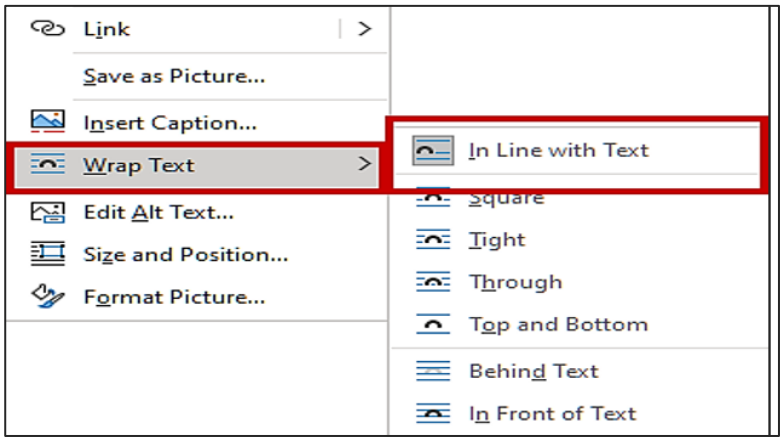
Image not Inline

Images and objects must be in line with the surrounding text. If an image has text wrapped around it, behind, or in front of it, screen reader software may not be able to find it and announce it to the user. If the image is decorative or in the header or footer, this is not an issue.

Make Image Inline

To make an image inline:

1. Select image
2. Right-click (or use Context menu key)
3. Select **Wrap Text**
4. Select **In line with text**



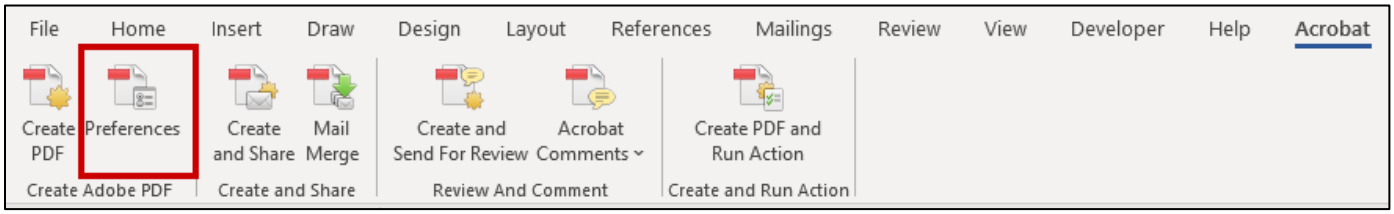
Creating a PDF

Most PDF documents are created from a Microsoft Word document. If you have created your Microsoft Word document accessibly, you will not have to do a lot of additional work to make the PDF version accessible. If the Acrobat tab is not displayed either you do not have the full version of Acrobat, or you need to add the Acrobat option. (See: Adding the Acrobat tab)

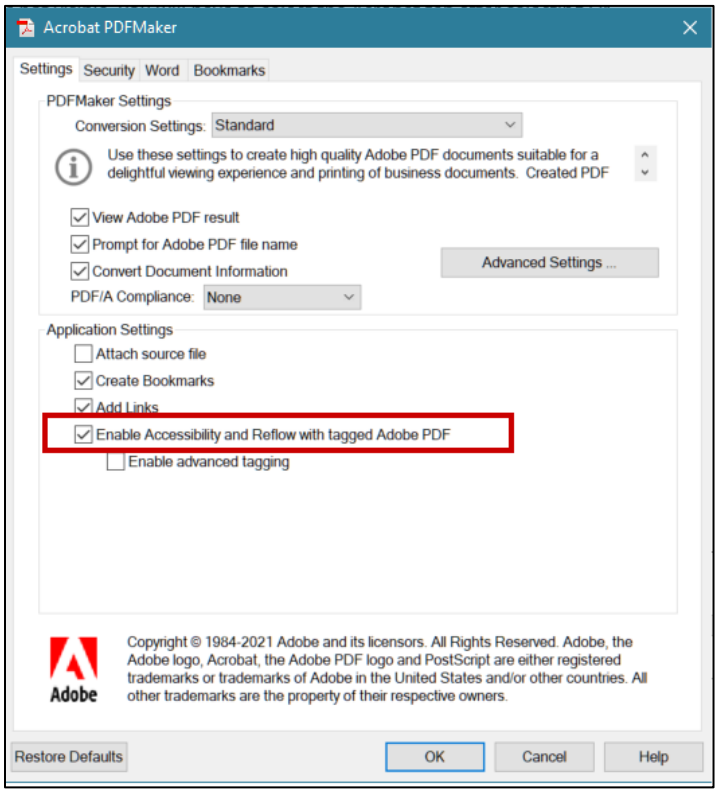
Set Preferences

You only need to set the **Preferences** once.

1. Select **Acrobat** tab
2. Select **Preferences**



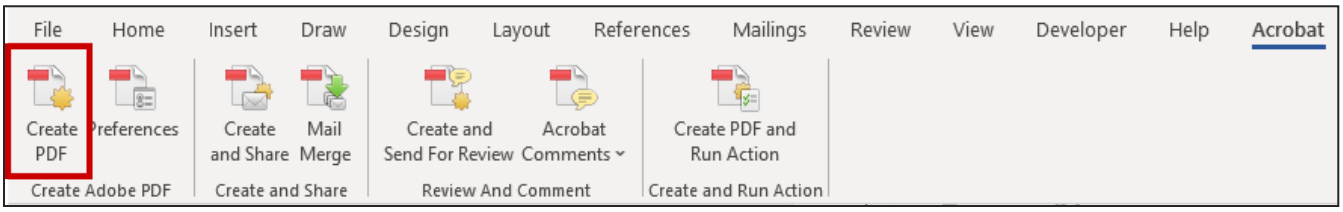
3. Select **Settings** tab
4. Check **Enable Accessibility and Reflow with Tagged PDF** checkbox if it is not checked
5. Select **OK**



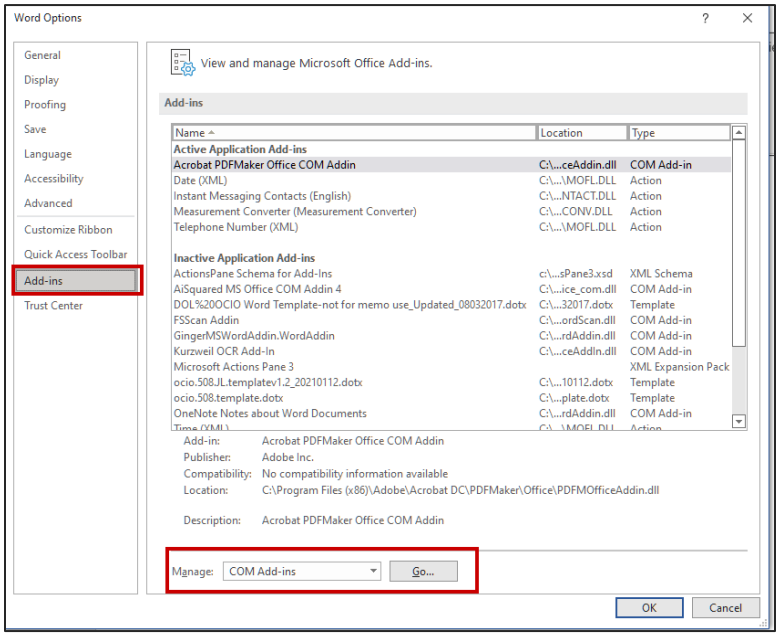
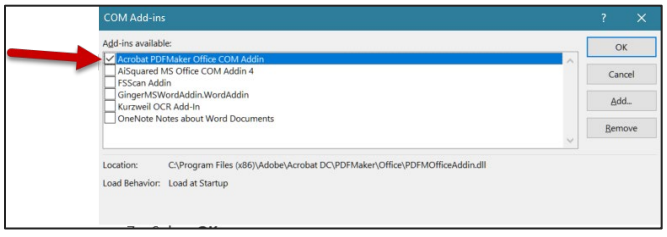
Note: If the ribbon is not visible, you will need to select the Acrobat tab again to create the PDF.

Create PDF

Use the Create PDF button on the Acrobat tab. Do **NOT** use Save as Adobe PDF!
The alt text and table modification for accessibility and other additional accessibility will be lost.



Adding Acrobat tab

If the Acrobat tab is not displayed:

1. Select **File**
2. Select **Options**
3. Select **Add-ins**
4. Select **Manage: COM Add-ins**
5. Select **Go**
6. If the check box for **Acrobat PDFMaker Office Com Addin** is unchecked, check it
7. Select **OK**