

# How to Create, Test and Remediate Documents for Section 508 Conformance Using MS Word



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### **Background**

The purpose of this document is to assist individuals in creating, testing, and remediating **MS Word Documents**, for Section 508 conformance. The guidance provided is based on the Section 508 Baseline Test Guide for Word Documents, and the Section 508 Word Document Checklist authored by the Accessible Electronic Document Community of Practice (AED COP). For more information on the AED COP, to download the latest AED COP guidance, and to gain access to a detailed test process, visit the Federal Section 508 website.

### How to Read This Document

This document is comprised of two sections:

- 1. The AED COP Word Document Checklist.
- 2. Instructions on how to remediate Word documents for Section 508 compliance.

For more information on how to remediate Emails or to request training, please <u>contact your agency Section 508 Coordinator</u> or email <u>Section 508 COCIO@usda.gov</u>.



### AED COP Word Document Checklist

When creating an accessible **Word Document**, the following conditions must be considered. The response to each criterion should be **Yes** or **Not Applicable** to be considered accessible. If **No** is selected, the issue must be resolved to be considered accessible.

For ease of use, Microsoft's Accessibility Checker is located on Microsoft's main menu under File > Info > Check for Issues > Check Accessibility.

**Note**: Due to the human-centric nature of accessibility and Section 508 conformance, content creators must ensure individuals with disabilities are able to request additional formats and corrections that may not be detected using automated tools, i.e., improper use of color coding.

<u>General</u>			
A. The Word document (.docx) is saved with a descriptive	Yes	No	NA
filename.			
The file type is Word document (.docx) format.			
The filename identifies the document or its purpose.			

<u>Headings</u>			
B. The document uses MS Word heading styles.	Yes	No	NA
Headings in the "Navigation" pane mirror the headings in the			
document.			
Headings in the "Navigation" pane match the document's visual			
outline.			

<u>Lists</u>			
C.Lists are formatted correctly.	Yes	No	NA
The "List" option is visible under "Bullets and Numbering."			

<u>Columns</u>			
D. Columnar content is formatted correctly	Yes	No	NA
"COLUMNS:" shows under "Section" in columnar text options.			

<u>Layout Tables</u>			
E. Layout Tables have the correct format.	Yes	No	NA
Layout tables' tab order match the visual layout.			
"Text Wrapping" is set to "None" in Table Properties.			



<u>Language</u>			
F. Intended languages are formatted in the document text.	Yes	No	NA
Languages are correctly formatted in the document.			

<u>Links</u>			
G. Link names are descriptive.	Yes	No	NA
Link names describe destination, purpose, or context.			
Links have unique names.			

Headers, Footers, and Watermarks			
H.The document uses MS Word heading styles.	Yes	No	NA
Vital information in headers, footers, and watermarks is also shown in			
the content.			

<u>Data Tables</u>			
I. Data tables are created using built-in features.	Yes	No	NA
Tables are not pictures.			
Tables are free of merged or split cells.			
Tables repeat their header row.			
Table Properties > "Text Wrapping" is set to "None."			

Images and Other Objects			
J. Images and other objects have alternative text.	Yes	No	NA
Images/objects have Alt Text or are described in context.			
Decorative images use spaces between quotes as Alt Text (" ").			
Accessibility Checker does not report "Objects not inline for			
meaningful images."			

<u>Text Boxes</u>			
K.Images, objects, and text boxes are in-line with the text.	Yes	No	NA
Text boxes do not have any "Objects not in-line" warnings.			

Colors and Sensory Characteristics			
L. Color and other visual characteristics are also textually	Yes	No	NA
described.			
Meaning of color or other sensory characteristics is duplicated in text.			



Color Contrast			
M. The color contrast between text and background is sufficient.	Yes	No	NA
Text and Large Text (including images of text) pass the Colour			
Contrast Analyzer.			

Audio, Video, and Synchronized Media			
N. Embedded files are accessible.	Yes	No	NA
Audio-only content has an accurate and complete transcript.			
Video-only content has an accurate and complete description.			
Synchronized media has accurate and complete synchronized captions.			
Synchronized media has accurate and complete synchronized audio			
descriptions.			

<u>Forms</u>			
O. The document has no forms.	Yes	No	NA
Fillable form fields are excluded from the document.			

Flashing Objects			
P. The document has no flashing objects.	Yes	No	NA
Flashing objects are excluded from the document.			

Alternative Accessible Version			
Q.An alternative accessible version is provided.	Yes	No	NA
Alternate versions are equivalent and up to date.			

## **Notes**



### Formatting for Word Documents

This section details best practices to follow in addition to the checklist to ensure accessibility.

### **Document Formatting**

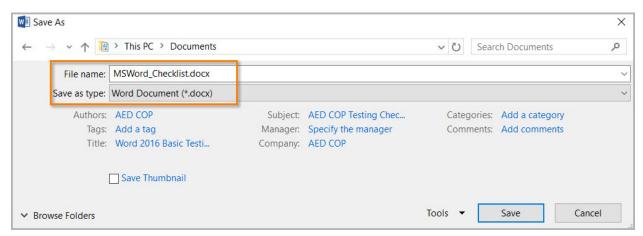
The file must be in .docx format, unprotected, and have a descriptive filename.

Example of non-descriptive filename: Document1.docx

Example of a descriptive filename: USDA Section 508 Reference Manual.docx

If the filename extension is not displayed, open your documents folder in Windows Explorer, select "View" and enable the checkmark for "File name extensions."

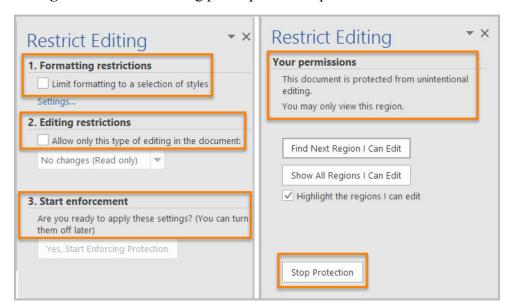
Figure 1: "Save As" Options Window.



To determine whether the file is protected, select the **Review tab > Restrict Editing** and check if the **Stop Protection** button appears at the bottom of the **Restrict Editing** pane. If the Restrict Editing pane shows options 1, 2, and 3, then restricted editing is successfully turned off.



Figure 2: Restrict Editing pane options and protected enabled views.



**Note**: Document protections limit the ability to test for accessibility and can make part or all the document inaccessible.



### **Text Formatting**

#### **Heading Styles**

The MS Word heading styles should be used throughout the document where applicable and in the correct hierarchy. To determine if heading styles were used, open the **Navigation** pane (Ctrl + F) and select the **Headings** tab. All heading styles used in the document will be listed in chronological order.

Figure 3: Matching headings displayed in Navigation Pane and document.

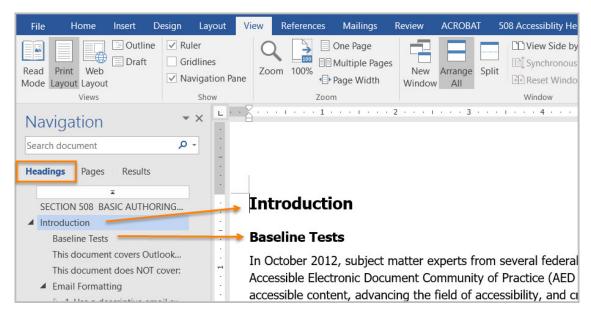
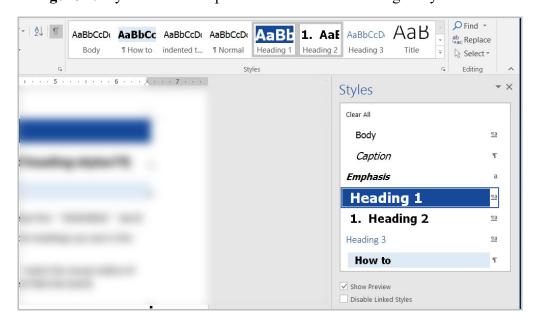


Figure 4: Styles Pane and options window with Heading 1 Style selected

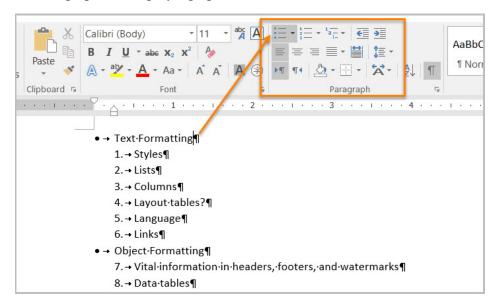




#### Lists

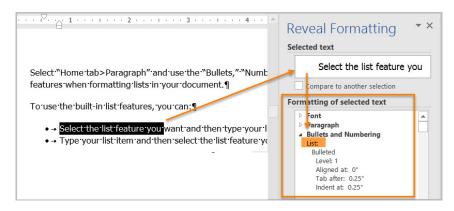
Lists used to organize or structure content must be created using the built-in features found in the **Bullets and Numbering** pane on the **Home tab > Paragraph** pane.

Figure 5: Paragraph tab displaying options for bulleted, numbered, and multilevel lists.



To ensure the appropriate hierarchy is used in a list, place your cursor on a list and open the **Reveal Formatting** pane.

Figure 6: List option displayed under Bullets and Numbering.

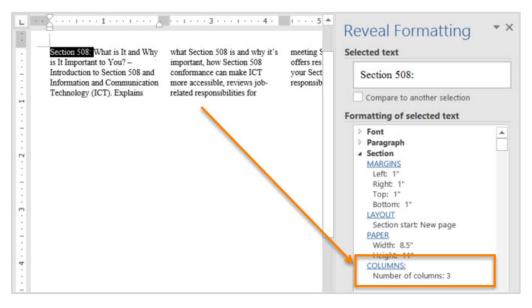




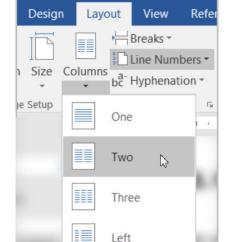
#### **Columnar Content**

Any content that visually appears to be formatted in columns (like newspaper articles), open the **Reveal Formatting** pane (Shift + F1), and select the arrow sign to expand "**Section.**" Under the **Columns** option, ensure the correct number of columns is listed.

**Figure 7:** Number of columns displayed under Section > Columns



Navigate to the **Layout tab > Page Setup > Columns** when creating columns in your document. Select the content to be formatted, then **Columns**, and the number of columns.



Right

More Columns...

Figure 8: Columns menu set to Two Columns option.



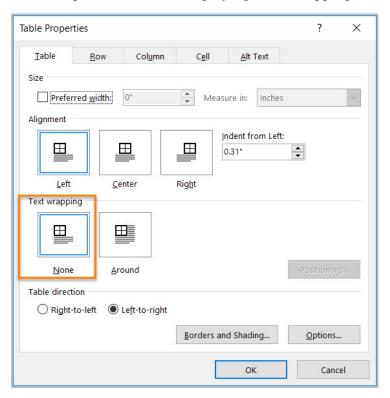
#### **Layout Tables**

Layout tables arrange content on the page.

**Instruction 1:** Place your cursor on the first cell of your layout table. Use the **Tab Key** to navigate through the table. If the tab order does not match the visual layout, the document fails this test.

**Instruction 2:** "Right Click" (Shift + F10) inside a layout table and select **Table Properties > Text Wrapping.** "None" should be selected, else the document fails this test.

Figure 9: Table Properties Table tab displaying Text Wrapping set to "None."



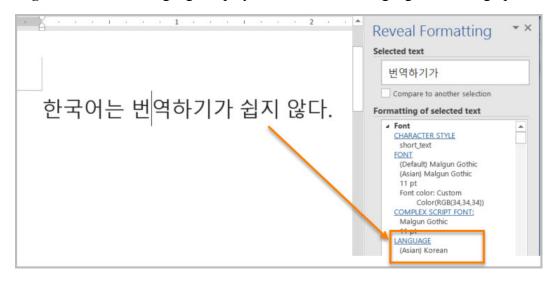


### Languages

**Note**: Documents that only use one language do not need to be tested.

If the document contains words/phrases in a language other than the predominant language, place your cursor on the text and open the **Reveal Formatting** pane (Shift + F1) > **Language** and ensure the correct language is applied.

**Figure 10:** Korean language displayed under Font > Language formatting option.



To set a different language, select **Set Proofing Language** in the same pane, and select the appropriate language from the list.



#### **Descriptive Links**

Links must have meaningful names that describe their destination, function, and/or purpose **OR** the name must be easily determinable within context.

Example of a uniquely named link: <a href="https://www.section508.gov/">https://www.section508.gov/</a>

**Example of a link whose name is determinable within context**: <u>Get My Section 508 Questions Answered</u>

Example of an unclear link name without context: *click here* 

To edit the name of a link, right click the link and select **Hyperlink**. In the "Text to display" field, ensure the appropriate name is entered. Additionally, in the "Address" field, ensure the appropriate URL is displayed. Select **OK**.

Insert Hyperlink X Link to: Text to display: www.section508.gov & Cut ScreenTip... Copy @ <u>=</u> Look in: 📜 Libraries Existing File or Paste Options: Web Page Libraries\Camera Roll Bookmark... 🕏 🗓 🛱 Current Folder Libraries\Documents 4 ▲ Libraries\Music Target Frame... A Font... Place in This Libraries\Pictures Document Paragraph... Libraries\Saved Pictures Browsed Pages No. Libraries\Videos Smart Lookup Create New Document Synonyms Recent Files Translate Hyperlink... Address: https://www.section508.gov New Comment OK Cancel

Figure 11: Insert Hyperlink configuration window.



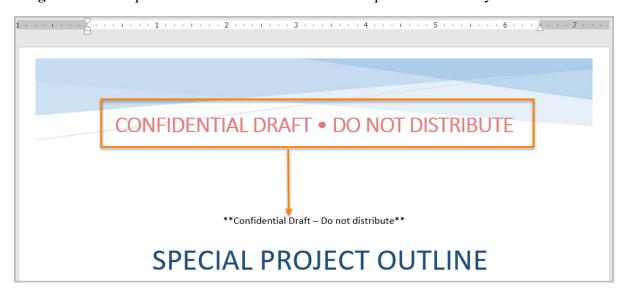
### **Object Formatting**

### **Headers, Footers, and Watermarks**

Assistive technology does not automatically read information in headers, footers, and watermarks.

Vital information found in headers, footers, and watermarks must be duplicated within the body of the document near the beginning (e.g., Respond by X date, Confidential, or Do Not Distribute).

Figure 12: Example of vital information in a header repeated in the body of the document.





#### **Data Tables**

Data tables must be created using the built-in table feature and cannot be an image. To determine if a table is an image, select the table and check if the **Picture Tools** tab appears in the Ribbon. If the **Table Tools** tab appears instead, the document passes this test.

Additionally, data tables cannot contain merged/split cells. Select the table and navigate to the **Table Tools** tab. Under the **Layout** tab, select **Table Group > View Gridlines** button and search for table cells that are merged or split.

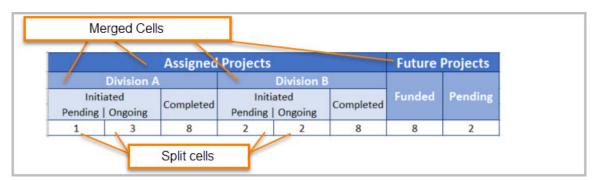


Figure 13: Complex table with merged and split cells.

Next, header rows must be identified and repeated across page breaks. Select any cell in the header row, open the **Reveal Formatting** pane (Shift + F1), and look under **Table**. If the header row is not set, the option to repeat the header across page breaks will not be available. Identify the header row and make sure the "Repeat as header row" option is checked.

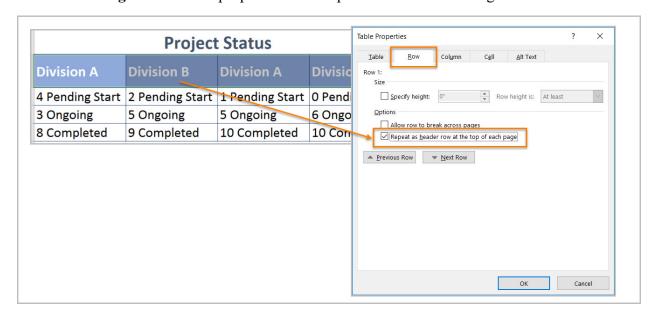
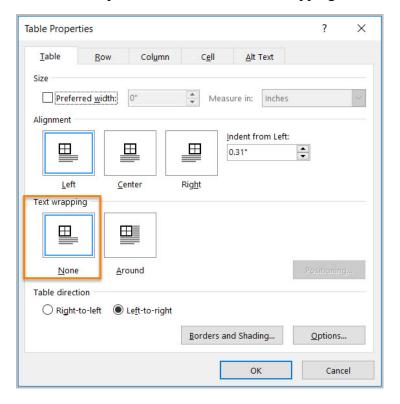


Figure 14: Table properties with Repeat Header Row setting selected.



Lastly, under **Table Properties > Table tab > Text Wrapping**, ensure the "Text Wrapping" option is set to **None.** 

Figure 15: Table Properties window with Text wrapping set to "None."



**Note:** Complex data tables that require multiple header rows, a header column, and/or merged/split cells require the document to be converted into an accessible format (i.e., an PDF document remediated for accessibility). **Complex data tables cannot be made accessible in MS Word.** 



#### **Alternative Text**

Meaningful images, objects, and shapes are required to have descriptive text detailing all vital information. This can be achieved either by using alt text, captions, or by describing the image in the surrounding text.

To enter/edit alt text for an image/object/shape:

- 1) Right click (Shift + F10) the image and select **Format Picture/Object/Shape**.
- 2) Navigate to the Layout & Properties icon and select "Alt Text"
- 3) In the **Description** field, enter the descriptive text.
- 4) If the image is meant to be decorative, enter at least two blank spaces between quotation marks in the **Description** field.

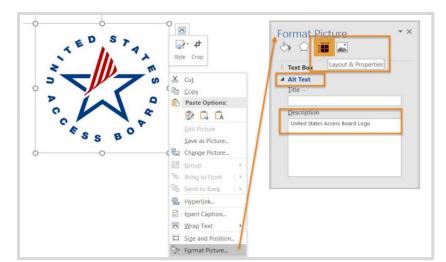


Figure 16: Format Picture -- Alt Text Options

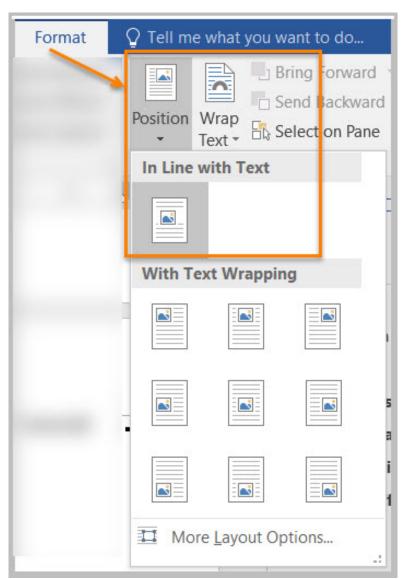


#### **Inline Objects**

Images, objects, and text boxes must be configured to be "inline with text." To determine if any images throw an "object not inline" warning, run the **Accessibility Checker** by following these steps:

- 1) On the File tab, under Info, select Check for Issues > Check Accessibility
- 2) If any "object not inline" warnings appear, continue to the next step.
- 3) Select the image, object, or text box.
- 4) Select Picture/Object/Shape Tools > Format > Position > In Line with Text.

Figure 17: Format tab Position menu option with "in line with text" selected.





### **Color Formatting**

### **Visual Cues and Color Coding**

The use of color cannot be the sole method to convey significance or meaning. To provide comparable access to people who are blind/colorblind or have low vision, a combination of visual and non-visual characteristics should be used.

Example: The following layout tables describe the progress for three projects using colors to symbolize the current project status. The first table fully relies on color, while the second uses a combination of color and text to convey meaning:

**Table 1: Improper Use of Color** 

Project	Status
Project A	
Project B	
Project C	

**Table 2: Proper Use of Color** 

Project	Status
Project A	On Time
Project B	At Risk
Project C	Late

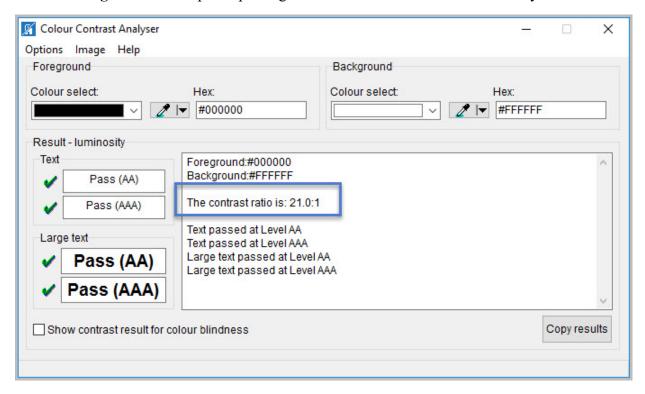


#### **Color Contrast**

**Note**: Documents where the text/background are black/white do not need to perform this test. This test requires the use of the <u>Colour Contrast Analyzer</u> (an external application).

Execute the **Colour Contrast Analyzer** and select "Download." Open the application, drag the foreground eyedropper icon over a sample of text, and drag the background eyedropper icon over a sample of the background. The required color contrast ratio for standard text is 4.5:1, and 3:1 for large text. Incidental text, text overlaid on images, and logotypes are excluded from this requirement.

**Figure 18:** Example of passing results with the Colour Contrast Analyzer.





**Table 3:** Examples of good and insufficient color contrast ratios.

Good Color Contrast	Insufficient Color Contrast
White text on black background	Dark gray text on black background
ratio 21:0:1	ratio 3.0:1
Dark green text on yellow background	Orange text on yellow background
ratio 7.6:1	ratio: 2.1:1
Light blue text on dark blue background	Red text on dark blue background
ratio: 10.5:1	ratio: 1.1:1
white text on red background	Dark green text on red background
ratio: 6.5:1	ratio: 1.3:1

### Miscellaneous

### Transcripts, Text Descriptions, and Synchronized Captions

Documents that contain audio, video, or multimedia files must have accurate and complete alternate methods of interpreting the information.

Multimedia files require a text transcript, audio files require text descriptions, and video files require synchronized captions and/or audio descriptions.

#### **Forms**

Interactive form fields created from built-in form features are used to collect data, however they cannot be made accessible. Ensure that the document is free of all MS Word form fields. This does not include blank table fields/spaces that users fill in with text.

#### **Flashing Objects**

Flashing objects can cause seizures and should never be used. Ensure the document is free of all flashing objects.



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