Creating Accessible Microsoft Word Documents

Microsoft Word is one of the most commonly used word processing software packages, making it a ubiquitous tool to create documents that may be viewed online in the .doc or .docx format or may be converted into PDF. Users with visual impairments may access these files using a screen reader or Braille devices.

The best way to add accessibility to documents is to use Word’s tools to build accessibility into the document from the start. A document that has been built properly can then be converted into an accessible PDF much more easily.

The following slides will detail how to create documents accessibly. The screenshots of Word menus were developed using Microsoft Word 2016 on a Mac, so some slight differences may exist from the PC version of Word.

Language

Assistive technology, such as screen readers, read aloud a digital document’s text. Defining the language used in the document reduces the likelihood of assistive technology reading errors.

Language definition can be set as a default so that all subsequent documents will be defined as using that language.

From Word’s Tools pull-down menu, select Language.

Select the desired language from the list.

Use the Default button to set the language to be used for all subsequent documents unless the choice is overridden.
Headings

Headings, lists, and other structural elements show relationships between ideas on a webpage or in a document. They also provide shortcuts that can be read by screen readers and allow users with visual disabilities to quickly “scan” or “skim” a webpage or document to find specific information of interest.

Headings should be used to provide and organize information not as a formatting shortcut. Many software applications used to create documents or webpages come with pre-defined formatting characteristics, such as font size, color, and style, that can be applied to text to indicate the heading level. Content creators new to designing accessible materials may be tempted to use these styles as shortcuts to applying formatting purely for visual effects. Instead these styles should be used to highlight how ideas are related on the page.

Every webpage or document should have one Heading One, which is the main idea of the page or document. Ideas that support or clarify some aspect of this main idea should be introduced as a phrase with the Heading Two style applied. A page or document may have many Heading Two ideas. Heading Three phrases introduce ideas that are subordinate to but support Heading Two ideas. Most pages or documents require no more than four levels of headings, although some may require no more than two levels.

A look at a hypothetical document’s structure illustrates how headings provide information about the relationship between ideas:

- Introduction to Digital Accessibility – Heading 1 (H1)
- What is Digital Accessibility? – Heading 2 (H2)
- Key Features of Accessible Design – Heading 2 (H2)
- All Images Have Appropriate Descriptions – Heading 3 (H3)
- Meaning is Not Conveyed by Images Alone – Heading 3 (H3)
- Meaning is Not Conveyed by Color or Shape Alone – Heading 3 (H3)

The main heading of the document, the Heading 1, serves as a title, explaining the topic. The topic is supported by subordinate ideas that provide additional information, the Heading 2 ideas. In turn, Heading 2 ideas can be divided into specific subtopics. If necessary, I could add more Heading 2 sections with their own Heading 3 assigned supporting points.

Properly assigning headings within a Microsoft Word document will allow the document to be converted into a tagged, accessible PDF.
Applying Headings

Use the **Home Ribbon’s Style** area to apply headings.

Select the text to which you wish to apply the style.

Click the desired style on the **Style** area.

Lists

Lists organize related data and, again, provide information about relationships between ideas in context of the larger document structure.

Create lists using Word’s list tools. Do not manually create lists. Creating lists manually causes screen readers to have difficulty correctly reading the material.

Creating a Bulleted List

Select one or more of the elements you would like to display as a list.

Click the **Bulleted List** button on the **Home Ribbon**.

Click the type of bullet you wish to be applied to your list.

Creating a Numbered List

Select one or more of the elements you would like to display as a numbered list.

Click the **Numbered List** button on the **Home Ribbon**.
Click the type of numbering you wish to be applied to your list.

Alternative Text for Images
Accessible design requires that content owners provide text descriptions of images, graphics, charts, etc., that illustrate important information. These descriptions, known as “alternative text tags,” “alt tags,” or simply “alt text,” can be read by screen readers. Screen readers are assistive technology that read online content to users with visual or cognitive disabilities.

Alternative text should be succinct and provide equivalent information for an essential image. You may find it helpful when writing alt text to think of what text you would use to convey the information if you couldn’t use a graphic. Avoid prefacing the text with “an image of …” or similar phrases that provide no detail.

If an image is purely for decoration and does not convey or reinforce information, the alt text for the image can simply indicate that the graphic is decorative and not provide a detailed description. However, omitting a description for decorative images is often confusing to users who rely on screen readers. The screen reader will note the presence of a graphic but give no information about the graphic’s content. The user is left to wonder if the image contained essential information and was not properly tagged or if the illustration was merely decorative.

Below is a screenshot from Microsoft Word for Mac, illustrating adding alt text to an image. As the content creator, you can decide if the image contains critical information that should be succinctly described in the alt text. Or you can simply indicate that the graphic does not contain information essential for understanding the webpage or document.

Adding Alternative Text to Images
Select the image.

From the Format Picture Ribbon, select Format Pane.
In the Format Pane, choose the Layout and Properties button. Then select Alt Text.

Adding Alternative Text to Images Continued

In the Alt Text Title box, add a title that is meaningful, not a cryptic file name. However, this area provides information that is not read by screen readers.

Use the Description box to input a detailed description of the image that will be read by screen reader software.

Tables

Tables are difficult for screen readers to read effectively to convey the informational relationships between columns and rows. Therefore keep tables displayed in Word as simple as possible. If tables are more complex than simple columns and rows, such as those with nested cells, display the
information using HTML, which can provide more tools to define the relationships sufficiently to be relayed through screen readers.

If you have more complex tables but prefer to display them in Word, consider if the information could be separated into simpler tables.

To help screen reader users understand the relationships between data stored in the table’s columns and rows, define the tables header row.

**Defining a Table’s Header Row**

Insert the table and its data.

From the **Table** pulldown menu, select **Table Properties**.

Click the **Row** option.

Click the box labeled, “**Repeat header row at top of each page.**”

![Defining a Table’s Header Row](image)

**Links**

Word automatically creates a hyperlink when a user pastes a URL onto a page. However these links may not give the user enough information to know where the link will take them. To help screen reader users understand where a link will take them, give links names that can be understood out of context of the other content on the page.

Avoid the use of “Click Here” or “More Information” as link names. These names give the user no information about the destination of the link.

**Naming Links**

Paste the desired URL into Word.

Select the URL from the Word document and right click.

Select **Hyperlink**.
Select the **Text to Display** box and type in a description of the link’s destination.

Click **OK**.

**Other Considerations When Building an Accessible Word Document**

Keep font size large enough to be easily readable, at least 12 points. Make sure that the font color provides sufficient contrast to the document background color.

Do not use color or shapes as the only means of conveying information. Text included within a graphic image, such as a .gif, .png, .jpg file or a chart generated by Word’s Chart tool, cannot be read by a screen reader. Important information included in images, charts, or graphs, must be explained and described contextually within a paragraph or in a caption. Such an explanation or description should be in addition to any alternative text tags applied to the image, chart, or graph.

Write clearly. Use a simple, clear writing style that focuses on conveying information and is appropriate to the material and your expected audience.

If your document is long, add a Table of Contents generated by Word using applied headings. This Table of Contents will help users navigate to the exact information needed.