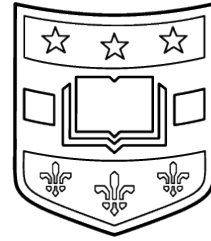


Creating accessible Word documents and their PDFs

Washington University Web Accessibility Users Group

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Page Layout

Use the Page Layout features offered by Word.

- Set margins, columns or indentation instead of using tabs or spaces.
- Use page breaks, not multiple hard returns.

Headings

Use Word Styles (Heading 1, Heading 2, etc.) in a logical order so they're nested properly. (Home > Styles)

- After you establish a heading style on the page, select the text, go up to the Style icon of the heading, right click, and choose "Modify Heading x to Match Selection." This will make all Headings of the same style look the same throughout your document.
- Bonus: Headings enable easy creation of a Table of Contents.
- To check your hierarchy, use View > check the box to show "Navigation Pane".

Paragraphs

Modify paragraph format (or create paragraph styles) to create vertical white space instead of leaving empty paragraphs.

- *Tip:* Show formatting symbols to find empty paragraphs (Home > ¶ [paragraph mark]).

Images and Videos

Create alt-text for images, graphics, shapes, videos, and other visuals to detail their *content* and *function*, if applicable. In Word, right-click on the image.

- Format Picture > Layout & Properties > Alt Text > enter Title and Description if a longer description is needed (or just use Description, not Title for a short description)
- Don't use the word "image" or "graphic" within the alt-text because the screen reader will say it's an image. If it's a decorative image, enter two quotation marks with nothing between them ("") in Description.

Hyperlink Text

Use meaningful hyperlink text (highlight text, then right-click > Hyperlink).

- If linking to a URL, the text should describe the link destination so it makes sense as stand-alone text (e.g., Instead of using "https://wustl.edu/" as the hyperlink text, use "[Washington University in St. Louis](https://wustl.edu/)" with a hyperlink to https://wustl.edu/).
- Don't use "click here" or "see." "Visit" our website is one good option.
- Include the file type in parentheses, if appropriate, within the link text, e.g., "Filename (PDF)" or "Filename (Word)".

To prevent Word from automatically creating hyperlinks from your URLs, go to File > Options > Proofing > AutoCorrect Options > AutoFormat As You Type, and uncheck the box to replace "internet and network paths with hyperlinks."

Numbered and bulleted lists

Use **Word-formatted numbered lists** *if the order of the items matters* (Home > Numbering)

- Don't number the items manually

Use **Word-formatted bullets** *if the order of the items doesn't matter* (Home > Bullets)

- Don't insert the character that looks like a bullet

Tables

Use the Word Table tool, not tabbed or columnar content (Insert > Table).

- Keep it simple. Avoid merged cells, split cells, blank rows, blank columns, and nested tables.
- To set table headers, click inside table
 - Table Tools > Design > check "Header Row" if applicable
- To set table properties, right-click inside the first row of the table; choose "Table Properties"
 - Row > check "Repeat as header row at the top of each page"
 - Row > uncheck "Allow row to break across pages"
 - Alt Text > add table description (and title, if desired)

Header 1	Header 2	Header 3
Text 1	Text 2	Text 3
Text 4	Text 5	Text 6

Color

Don't use color as the only way to convey information. Also, don't rely upon your own eyesight as a guide. On-screen colors are tricky.

- Color contrast guidelines
 - [WCAG 2.1](#) level AA requires a contrast ratio of 4.5:1 for normal text and 3:1 for large text.
 - Large text is defined as 14 point bold (typically 18.66px) or larger, or 18 point non-bold (typically 24px) or larger.

Use a color contrast checker; a good one for Word text is [Contrast Checker](#) By Acart Communications (<https://contrastchecker.com/>)

- Font colors in Word are in RGB (red-green-blue) values; to determine the RGB value, highlight the text, right-click; select Font; use the dropdown next to the font color; choose "More Colors"; the RGB value will display
- In Contrast Checker
 - next to the Foreground field, click the color grid, enter RGB values; click OK
 - the Background field defaults to white (hex FFFFFFFF); change it if necessary
 - the contrast ratio will display below the samples; green and red dots show compliance; we want to pass level AA and AA (18 pt)

Content

Don't use **all caps** (screen readers may read the words one letter at a time, as if it's an acronym).

Underline hyperlinks only (not other text for emphasis).

Use adequate **font size** (10 pt minimum).

Check for Accessibility Issues

Use File > Check for Issues > Check Accessibility

- Click and resolve the issues in the task pane

Save the Word doc

Set the title and author in File > Properties > Show Document Panel.

Save the document as a Word doc. If you're offering this document as a Word doc, you are finished.

Save as a PDF

If you need to create a PDF, save the document as a PDF. (File > Save As Adobe PDF)

- In the Options section, check the boxes to:
 - Convert document information
 - Enable Accessibility and Reflow with tagged Adobe PDF
 - Create Bookmarks
 - Convert Word Headings to Bookmarks

Creating Accessible PDFs from Accessible Word Documents

Open Adobe Acrobat Pro

Open the document in Acrobat Pro or any other Acrobat that allows you to edit.

Use the Accessibility Tool

- Tools > Action Wizard > Make Accessible
 - Step through any relevant items
 - Add Document Description (at least Title, Author)
 - Set Open Options (Display title, not filename upon opening)
- Run Accessibility Full Check. At the bottom of the window, choose Start Checking.
- Review any issues marked in the left window. Some may need to be fixed in the source document. If so, go back to the source document in Word and repeat all necessary steps.

Limitations of the Accessibility Checker

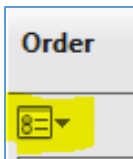
- Some features need to be checked manually.
- Acrobat can't check: reading order, color contrast, *appropriate* alt-text
- Acrobat won't flag: an empty paragraph, a numbered section that isn't structured as an ordered list, etc.

Check Order

- Choose the Order icon in the left window. (If it's not visible, choose View > Show/Hide > Navigation Panes > Order.)



- Use the dropdown to select "Show reading order panel."



- Choose "Show page content groups" and "Page content order." Review the order of items on each page. They are numbered in the order they'll be read by a screen reader.
- If an image is decorative, right-click on it in the left window. Choose "Tag as background."
- If anything needs to be rearranged, it can be done in the left window by dragging and dropping. This will not change the visual look of the page, but it will change the order that the elements are read by a screen reader.

Save the PDF

You are finished creating an accessible PDF. Great job! If your PDF contains elements not addressed in this document, please consult the resources below.

PDF Remediation

If a PDF is too long or complicated for you to remediate yourself, there are companies who provide this service for a fee. As far as we know, WashU hasn't identified preferred vendors yet. Please [contact the Web Accessibility Users Group](#) for help with finding a vendor.

Resources

The National Center on Disability and Access to Education,
“[Creating Accessible Microsoft Word 2013 Documents \(Windows\)\(PDF\)](#),”
<http://ncdae.org/resources/cheatsheets/pdf/word2013.pdf> (one-page cheat sheet)

MS Office, “[Make your Word documents accessible](#),” <https://support.office.com/en-us/article/Make-your-Word-documents-accessible-d9bf3683-87ac-47ea-b91a-78dcacb3c66d>

Adobe, “[Adobe Acrobat XI Pro Accessibility Guide: Best Practices for PDF Accessibility \(PDF\)](#),”
<http://www.adobe.com/content/dam/acom/en/accessibility/products/acrobat/pdfs/acrobat-xi-pro-accessibility-best-practice-guide.pdf>

[Washington University Web Accessibility Users Group website](https://sites.wustl.edu/aug), <https://sites.wustl.edu/aug>