



Creating Accessible Documents Tips and Guidelines

Accessibility

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Accessibility for Ontarians with Disabilities (AODA)

See where
experience takes
you.

Creating Accessible Documents

Accessible documents ensure that all learners can follow and understand the information presented. They make your text or presentation clear, readable, and engaging. This helps everyone, not just those who are disabled or who use assistive technology such as screen readers. Making your course outlines, handouts, assignments, PowerPoint presentations, and other documents accessible from the outset reduces the need to translate them into accessible formats later on and saves you time as well.

This paper offers tips on how to create accessible Microsoft Word, Excel, and PowerPoint documents, and PDFs. These are basic guidelines and not meant to be comprehensive instructions. If you would like to learn more about how to create accessible documents by using a specific software version, or by open source office suit (OpenOffice.org), you can refer to the links provided at the end of each section.

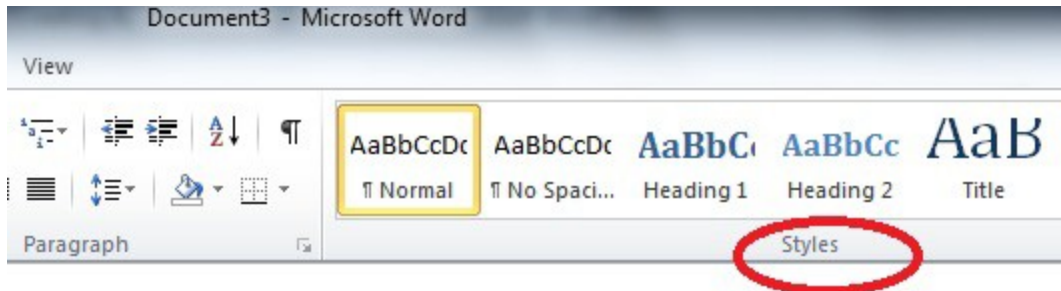
The information provided in this paper is compiled from:

- Council of Ontario Universities (COU) Accessibility Resources Website [Accessible Campus](#),
- WebAim (Web Accessibility in Mind) [Rich Media Accessibility Articles](#),
- Inclusive Design Research Centre at the Ontario College of Art & Design University (OCAD), [The Accessible Digital Office Project Website](#), and
- The Canadian National Institute for the Blind (CNIB) [Clear Print Accessibility Guidelines](#).

Accessible Word Documents

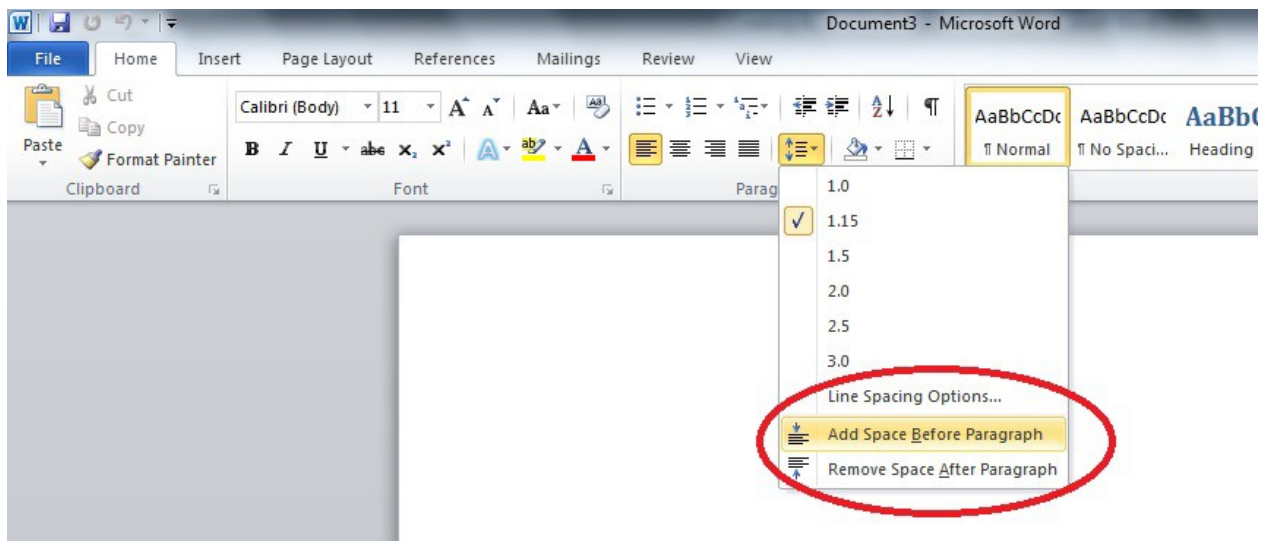
1. General Tips: The first step in creating accessible Word documents is to make sure that your text is clear and readable.
 - Whenever possible, write clearly with short sentences.
 - Introduce acronyms and spell out abbreviations.
 - Fonts should be simple and sans serif (without decoration). Arial, Comic Sans MS, or Verdana are good choices.
 - Text size should be at least 12-point; preferably between 12 and 18 points depending on the font (point size varies between fonts). Consider your audience when choosing point size.
 - Choose fonts with medium heaviness and avoid light type with thin strokes.

- Use normal or expanded character spacing, rather than condensed spacing.
 - Avoid animated or scrolling text.
 - Printed material is most readable in black and white. If using colored text, restrict it to things like titles, headlines or highlighted material, and select those that are highly contrasting.
 - Make sure the content can still be interpreted in grey-scale if someone prints the document in black and white.
 - Maintain a high contrast; black text on a white background, or white text on a black background are easiest to read. You can download a free tool called The Color Contrast Analyzer (CCA) for Mac and Windows from this link: [The Color Contrast Analyzer \(CCA\) tool](#)
 - Use a bold font to show emphasis. Italics or upper-case letters are not recommended.
 - The space between lines of text and should be at least 25 to 30 per cent of the point size. This helps readers move their eye more easily to the next line of text.
 - Separate text into columns to make it easier to read, as it requires less eye movement and less peripheral vision.
 - Do not use tabs or the spacebar to create columns of text with space between them. To create multi-column documents, always use Word's "Columns" layout feature.
 - Number your pages.
 - Provide a table of contents, especially for long documents. If you have a good heading structure, creating a table of contents would be easy.
 - Use a matte or non-glossy finish to cut down on glare. Reduce distractions by not using watermarks or complicated background designs.
2. Headings: A good heading structure is crucial in creating accessible Word documents. Headings will allow screen reader users to navigate through the page easily. When creating a heading many people simply change the font, enlarge the font size, or make it bold. If this is done, the document has no real structure that a screen reader can recognize. Therefore you should design your document by using "Styles" menu, rather than by applying formats to the text directly. The picture below shows Styles menu in Microsoft Word 2010.



If you are not sure where your “Styles” menu is, or how to apply it to your document you can refer to following WebAIM (Web Accessibility in Mind) link. It demonstrates proper application for Microsoft Word 2000-2003, 2007 and 2010, and Word for Mac: [Link to WebAim article on creating accessible word documents](#)

3. Paragraph Formatting: Avoid using the “Enter” or “Return” key to create space between paragraphs. To change the spacing, select the paragraphs and change their spacing-before and spacing-after settings. Newer editions of Word add a blank line after each paragraph, and insert space before headings by default, so this may not be required.

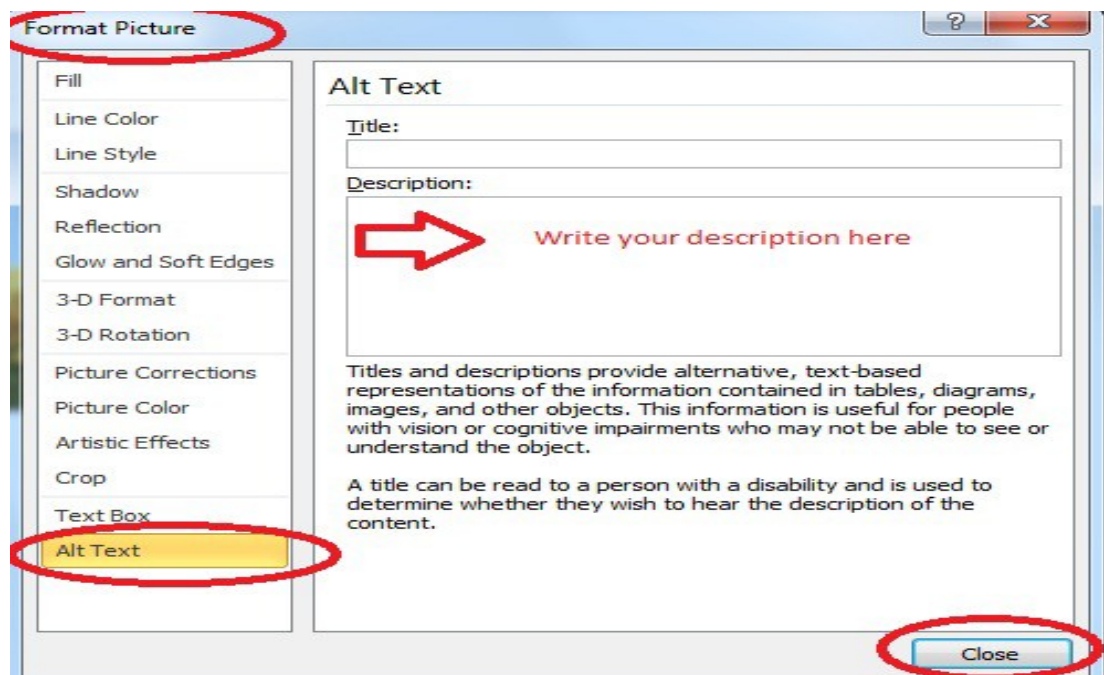


4. Images: If you need to use images in your document, you have to provide a brief and meaningful description of the image in alternative text. Alternative text (Alt Text) describes an image so that the user’s assistive technology conveys what information is being provided. For your documents and lecture presentations to be accessible, Alt Text must be assigned to all photos, images, multimedia,

graphs, charts, text boxes, ClipArt, SmartArt, AutoShapes, etc. An effective alternative text:

- Communicates the purpose of the image accurately and succinctly.
 - Contains a short description of the image that is important to the user's understanding of the information conveyed and a longer description for complex or detailed diagrams and images.
 - Does not repeat the text of an adjacent caption. Screen readers read both the caption and the Alt Text, so avoid having the same details in both.
 - Does not contain the words "Image of" at the start of the Alt Text. Screen readers tell the user that there is an image and then read the Alt Text.
 - Does indicate "Screen shot of..." if it is an image taken from a computer screen.
 - Does indicate "Photo of..." if it is a photo.
 - Requires no text if an image is purely decorative. Simply provide two quotation marks (" ") as the Alt Text.
 - Uses punctuation for full sentences.
- To add Alt Text into your document:

- Right click on the image. (Control+click if using a Mac)
- Depending on the edition of Word you're using, select "Size," "Format" or "Format picture." For tables, click "Table properties."
- Select "Alt Text" and type in the text that describes the image.

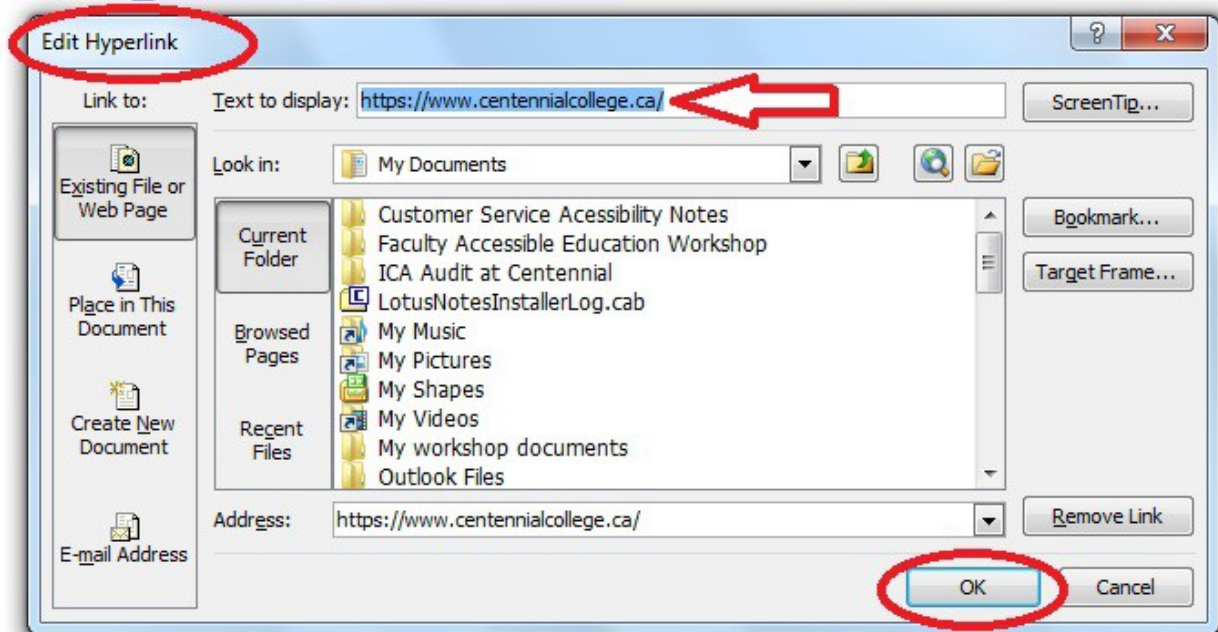


It is not possible to add Alt Text to images, charts or graphs using Word for Mac 2004 or 2008. For more information you can check: [Link to WebAim article on creating accessible word documents.](#)

5. Hyperlinks: When you need to use hyperlinks insert a descriptive title for the link rather than a long web address. Hyperlinks are usually created in Word by pasting the full URL into a page (e.g., <http://webaim.org/techniques/word/>) and hitting space, Enter, or some other key. This automatically creates a link. It's simple, but the URL may not make sense to the screen reader. To change the hyperlink text:

- Select a link, right click and select Edit Hyperlink; or select Ctrl + K (Cmd + K on a Mac).
- Change the URL in the “Text to display” field to something more descriptive.
- Click “OK.”

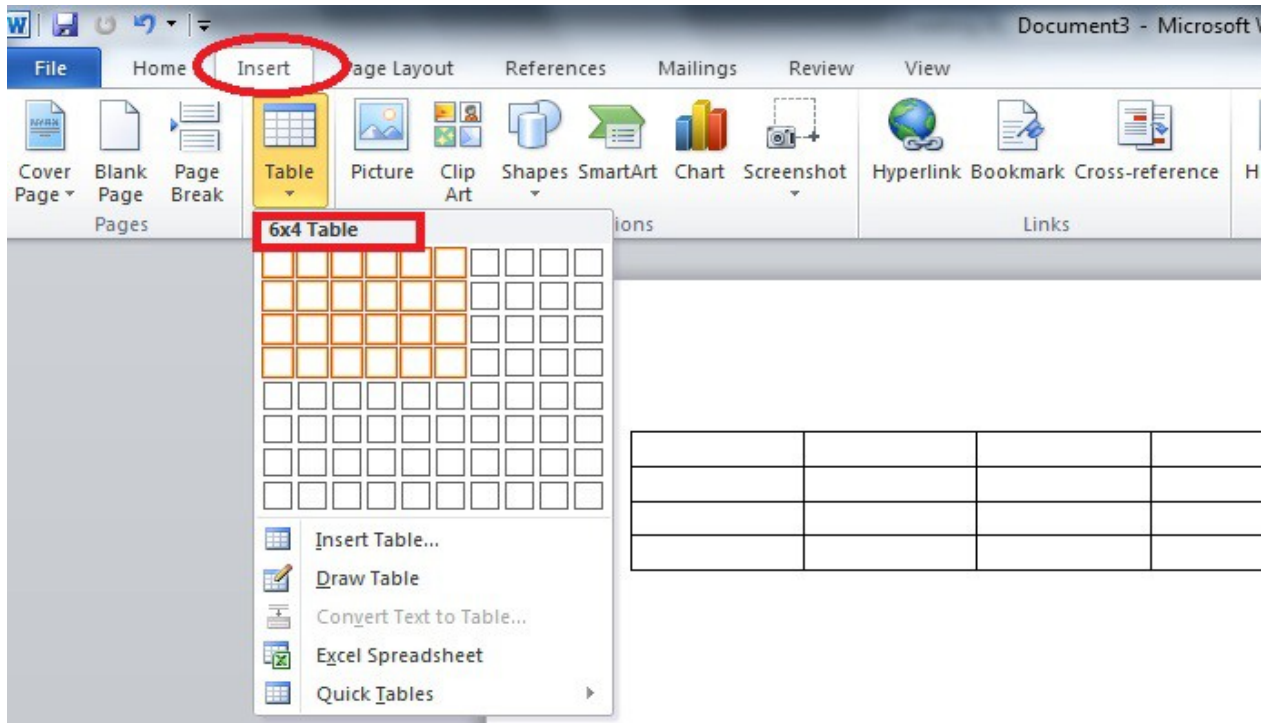
<https://www.centennialcollege.ca/>



- Only use tables for tabular information, not for formatting, such as to position columns.
- Use "real tables" rather than text formatted to look like tables using the TAB key or space bar. These will not be recognized by assistive technology.
- Keep tables simple by avoiding merged cells and dividing complex data sets into separate smaller tables, where possible.
- If tables split across pages, set the header to show at the top of each page. Also set the table to break between rows instead of in the middle of rows.
- Create a text summary of the essential table contents. Any abbreviations used should be explained in the summary.
- Table captions or descriptions should answer the question "what is the table's purpose and how is it organized?" (e.g. "A sample order form with separate columns for the item name, price and quantity").
- Table cells should be marked as table headers when they serve as labels to help interpret the other cells in the table.
- Table header cell labels should be concise and clear.
- Use captions to describe a table before the table so that someone who can't see the table would know what type of data they are about to encounter.

To add a table into your document:

- Go to menu item: Insert
- In the "Tables" section, select the Tables icon
- Select the number of rows and columns you would like your table to have
- Select the table and a Table Tools menu item should appear



7. Text Boxes: Avoid using text boxes. Screen readers cannot see inside them so the user of the reader would miss the information conveyed in a text box. Similarly avoid placing drawing objects such as arrows, lines and shapes directly into the document. Instead, create borders with page layout tools and insert complete graphical objects inside.
8. Lists: Use true numbered and bulleted lists. If you need more space between bullets or numbers in a list, don't use the Enter key to create the space. If you do, screen readers interpret your list as a series of short separate paragraphs instead of a coherent list of related items.
9. File format: The "docx" format is the default file format for documents created in Word 2007 and newer. The format has some advantages (such as smaller file size), but is not as widely supported as the old "doc" format. If the Word file is going to end up on the web, or if you are going to send it to someone and are not doing anything that relies on the newer docx format, consider saving files as Word 97-2003 Document (*.doc) in Office 2007 and 2010.
10. Word 2010 Accessibility Checker: Word 2010 includes a new accessibility checker that allows you to check for, identify and repair accessibility issues. However it cannot detect all types of accessibility issues. For example it can tell if alternative text is missing, but it cannot tell if alternative text is actually correct. To run the accessibility checker:

- Go to menu item: File
- Select “Info,” and then “Check for Issues”
- Click on “Check Accessibility”

For more information on how to create accessible word documents you can refer to the following links:

- Microsoft Word Accessibility by WebAIM: [Accessible Word Documents Article](#)
- The Accessible Digital Office Document Project by Inclusive Design Research Centre at OCAD University: Authoring Techniques for Accessible Office Documents [Word 2003](#), [Word 2007](#), [Word 2008 for Mac](#), [Word 2010](#), and [Word 2011 for Mac](#)
- Accessible Campus Webpage Links for Educators: [Tips for Using Word Documents and PDFs](#)
- Microsoft Office Guide: [Creating Accessible Word Documents](#)

Accessible PDF

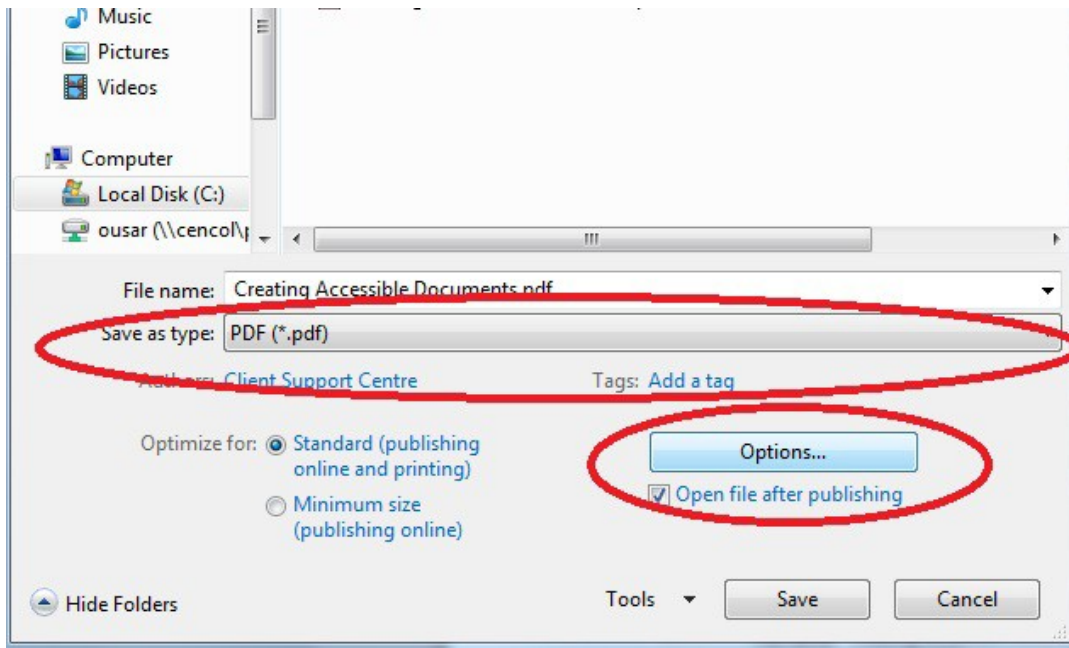
PDF stands for Portable Document Format. It enables to preserve the original look of the document on the screen and in print regardless of the software program or computer system are used.

Accessible PDF file refers to "tagged" PDF files. Tagging creates an additional layer of information that allows screen readers to navigate the file, identify images, headings and paragraphs, among other items. Tags exist for accessibility purposes and have no visible effect on the PDF file.

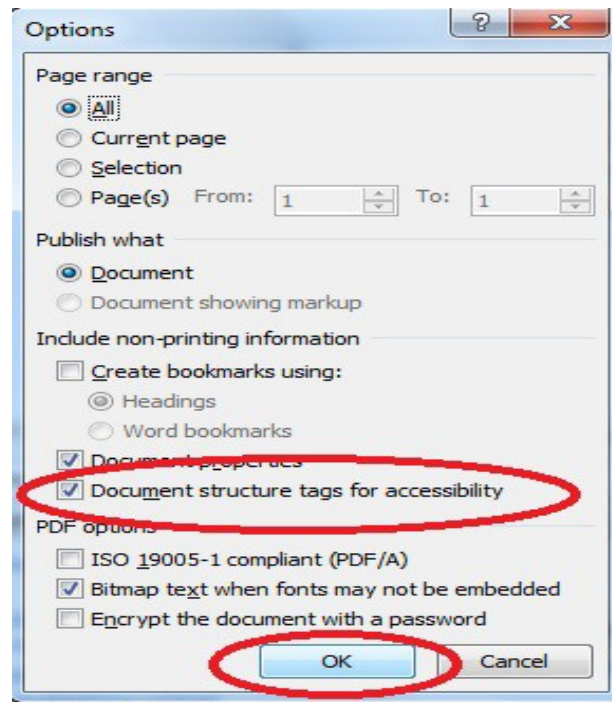
In general, a document is created in another program such as Microsoft Word, and then converted to PDF. This means, the first step in creating accessible PDF is to make sure the original document is accessible. The majority of the PDF files are created in Microsoft Word. Therefore the focus of this section is on converting Word document to a properly tagged PDF and checking the PDF's accessibility.

If your original document is created by Microsoft 2010, you can create tagged (accessible) PDF files automatically when you save your file in a PDF format.

- First choose PDF (*.pdf) as your “Save as type” under “Save as” menu, and click on “Options” button, as shown in the picture below.



- Once the Options window is open make sure that the “Document structure tags for accessibility” option is selected. Then click on OK.



- Don't forget to click on “Save” once the Options windows is closed and you are back to “save as” window. Your document should be converted into an accessible PDF file now.

In Mac and in earlier versions of Word, using this method creates an untagged and therefore inaccessible PDF. If this is the case you need to install Adobe Acrobat to your computer to create a tagged PDF. If you are using Microsoft Word 2007, Microsoft Word 2000-2003, or OpenOffice Writer to create your documents you can check WebAIM [PDF accessibility article](#) to learn how to convert your document to accessible PDF once the Adobe Acrobat is installed.

If you have followed the above guidelines the resulting PDF has a basic level of accessibility. However this document may not be fully accessible to all screen readers or assistive technologies. You may need Adobe Acrobat software to provide additional information, or Adobe Acrobat Professional to evaluate, repair, and enhance the accessibility of existing PDF files.

For more information on how to create accessible PDF you can refer to the following links:

- Adobe Accessibility Webpage: [Adobe Acrobat Accessibility Training Resources](#)
- PDF Accessibility by WebAIM: [PDF Accessibility Article](#)
- Accessible Campus Webpage Links for Educators: [Tips for Using Word Documents and PDFs](#)
- The Accessible Digital Office Document Project by Inclusive Design Research Centre at OCAD University: [Authoring Techniques for Accessible Adobe Acrobat 9 Pro, 10 Pro, and 11 Pro.](#)

Accessible PowerPoint

Microsoft PowerPoint is a popular tool for creating slide show presentations. It is used to organize and present key points in a meeting, classroom, conference, or in any other setting. All students can benefit from a well-organized, clear, and concise PowerPoint presentation.

1. General Tips: Most of the general tips provided for preparing accessible Word documents are equally important for accessible PowerPoint presentations. These include:
 - Use plain language; write clearly with short sentences.
 - Introduce acronyms and spell out abbreviations.
 - Fonts should be simple and sans serif (without decoration).
 - Ensure that the font size is large enough to read easily. If your presentation will be viewed via projector, the font size should be larger than on printed handouts.

- Make sure there is a high contrast between the background and the text. If your presentation will be viewed via projector, the contrast needs to be even more pronounced.
- Do not use color as the only way to convey content. If you use colours, choose ones that are highly contrasting.
- Make sure the content can be interpreted in grey-scale.

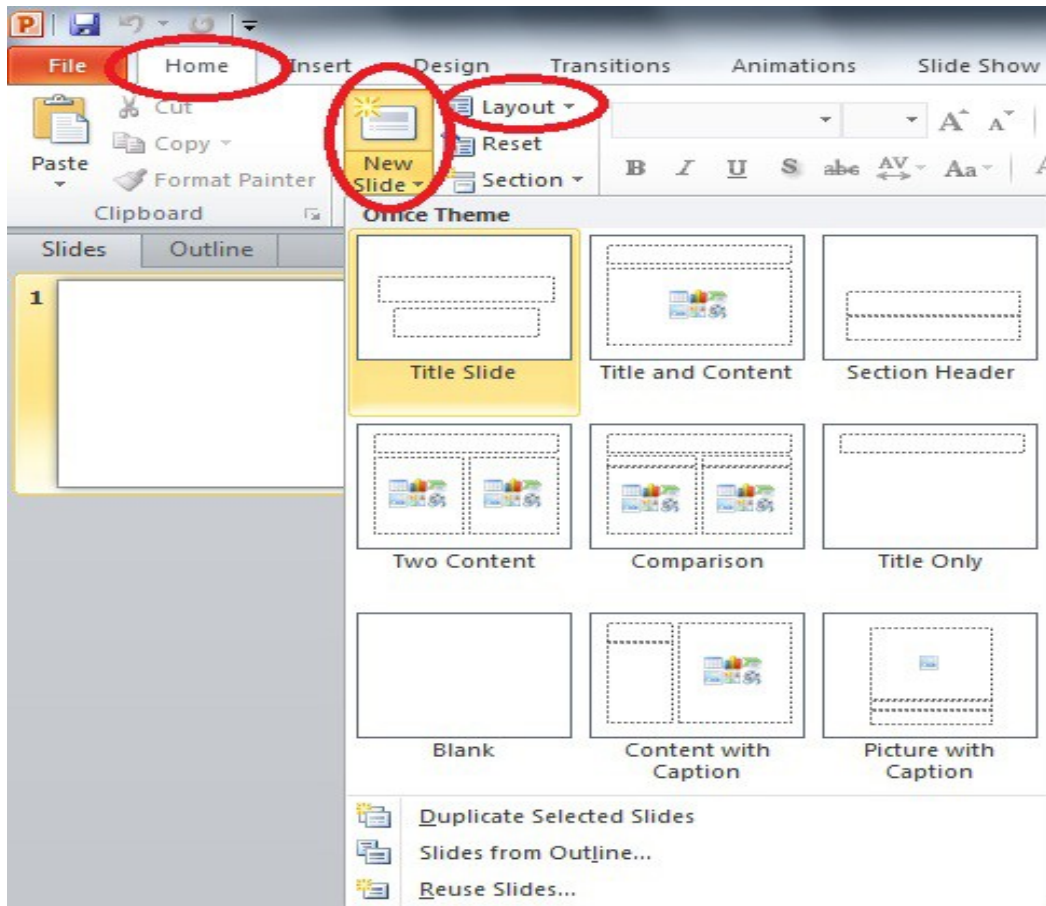
In addition:

- Use titles on each slide, so the flow of the presentation is easy to navigate.
- Don't make your slides too busy. Three to seven bullet points per slide is a good rule of thumb.
- If your slides contain animations, make sure they are brief and do not distract from the important points.
- Avoid automatic slide transitions.
- Use simple slide transitions. Complex transitions can be distracting.
- If you embed audio, make sure a transcript is available.
- If you have embedded video, ensure that the video is captioned, and that the player controls (start, pause and stop buttons) are accessible. If you're using PowerPoint 2010, you can download and install the [Sub-titling text add-in for Microsoft PowerPoint \(STAMP\)](#), which lets you easily create closed captions for video and audio in your presentations.
- When you need to use hyperlinks insert a descriptive title for the link rather than a long web address.
- Make the slides available electronically to your students on a learning management system, such as Desire 2 Learn.

2. **Templates and Slide Layouts:** All office documents start with a template, which can be as simple as a blank standard-sized page or as complex as a nearly complete document with text and graphics. Because templates are the starting-point, their proper use is the key to create accessible PowerPoint documents. Since 2000 every version of Microsoft PowerPoint for PC contains highly-accessible templates. Using them properly ensures that your files have correctly-structured headings, lists, reading order, etc.

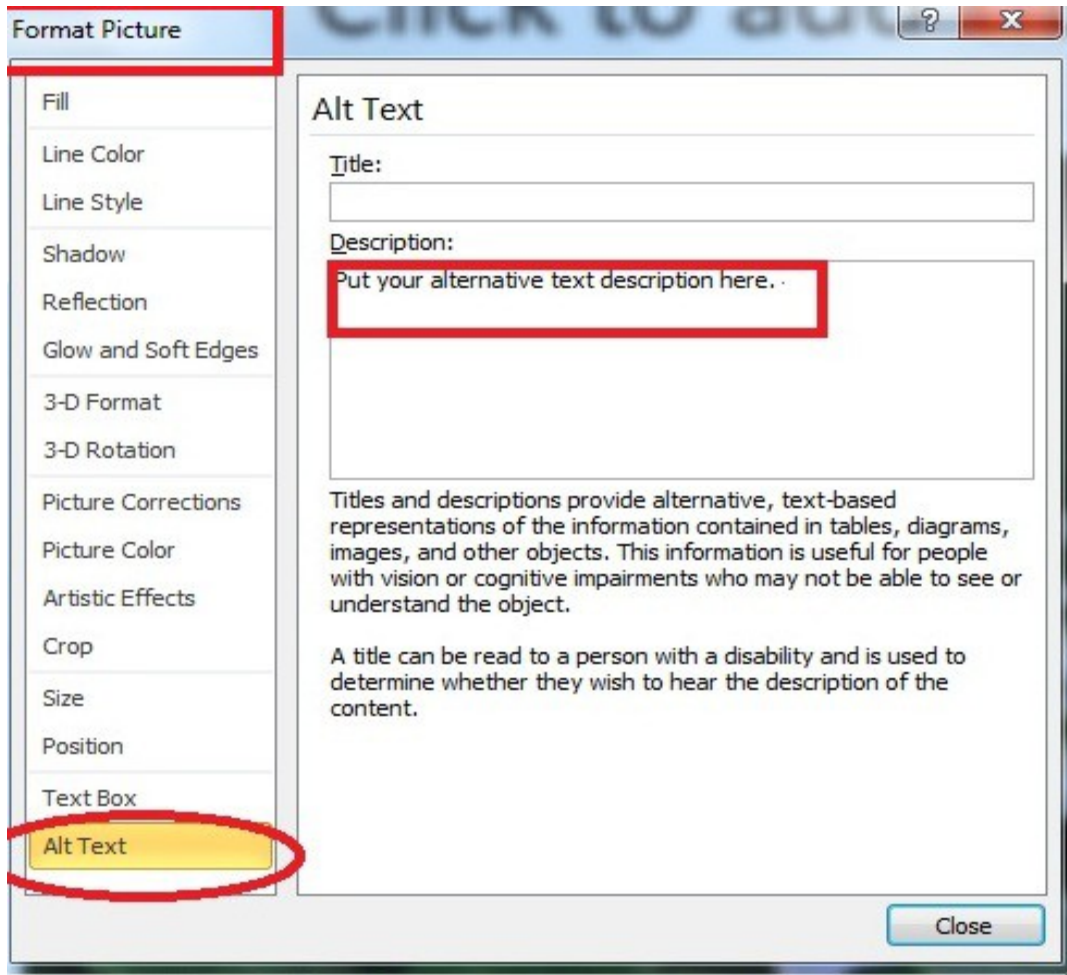
For Microsoft 2007 – 2010 you can select “New Slide” in the Home menu and a menu of slide types will appear. You can select the “Layout” button to choose the layout of the slides. For PowerPoint 2000-2003 you can choose “Slide Layout” from the Format menu, or use the Slide Layout sidebar.

The picture below shows where you can find the “New Slide” and “Layout” buttons in Microsoft PowerPoint 2010.



3. Images: PowerPoint presentations usually include images. Some of these images may be decorative, but many contain content that should be given a text alternative. This alternative text will be read by a screen reader in a PowerPoint file and should remain intact when exporting to HTML or PDF. For more information on Alternative Text (Alt Text) please refer to creating accessible Microsoft Word documents point 4, on the third page of this document.

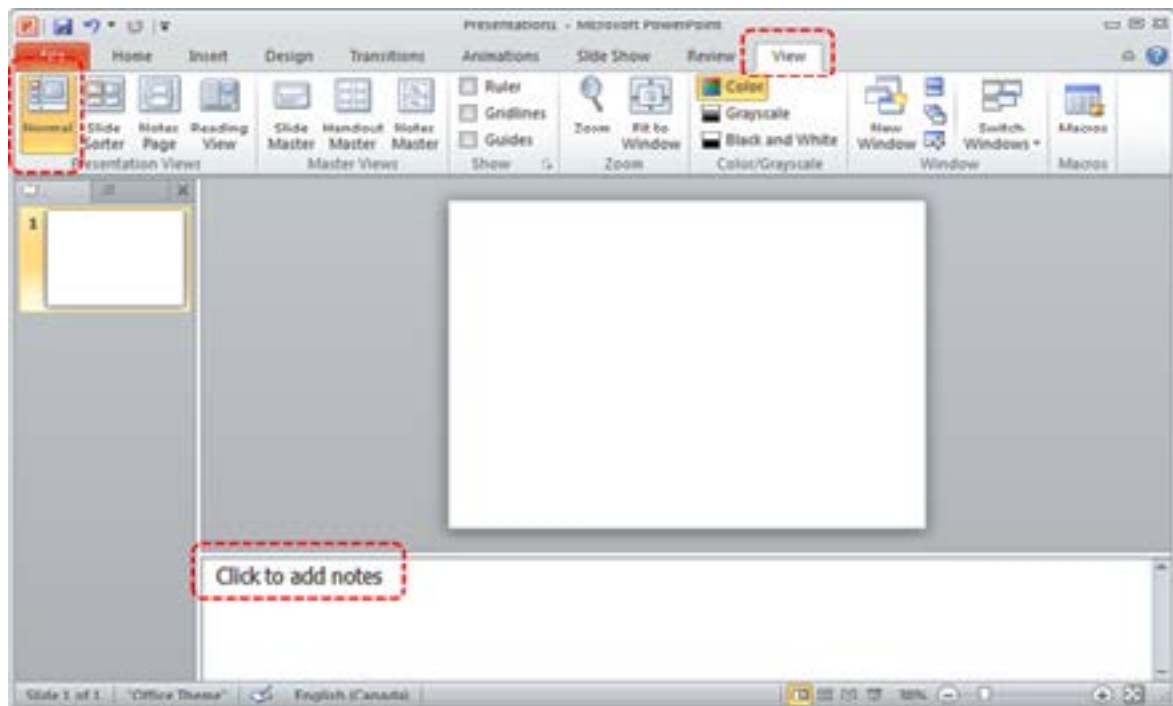
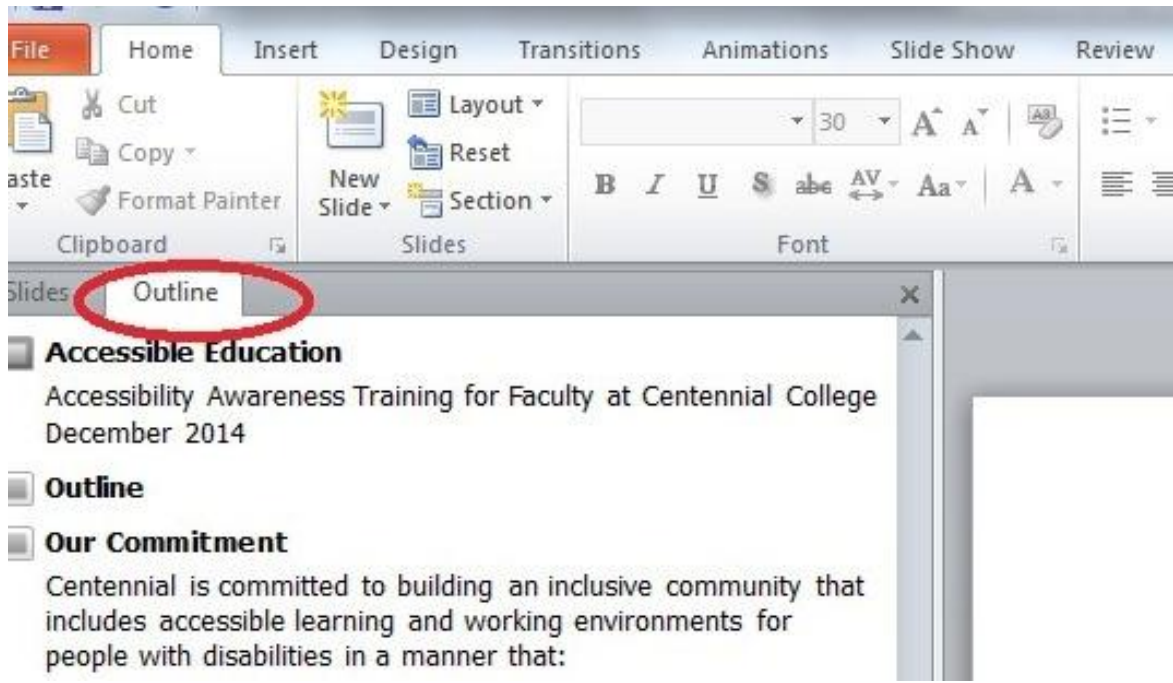
The method for adding Alt Text varies from version to version of PowerPoint. Typically you start by right-clicking on the image and then making a selection from the menu that appears (in general, it is under “Format Picture” or “Size and Position”). Below is the screenshot of the PowerPoint 2010 Alt Text window under “Format Picture” option when you right click the image.



Earlier versions of PowerPoint for Mac, up to and including 2008, don't have an option for adding Alt Text to images. If this is the case you can always incorporate the description of the image into the main text. However PowerPoint for Mac including 2008 has additional accessibility limitations. Similarly, Apple's Keynote presentation software is not recommended if you would like to create an accessible presentation.

4. Outline and Notes Panels: The outline and the notes panels can be used to enhance accessibility. The outline panel contains a text outline of the content that appears in your slides. Reviewing this panel can help ensure the content on the slides is logically sequenced, that slide titles are unique and meaningful and that reading order is appropriate.

The notes panel allows the speaker to add notes and information that are not on the slides. However please keep in your mind that placing image or chart descriptions in this area is not reliable and should be avoided. This information may not be accessed by a screen reader, especially if the presentation is saved to PDF.



5. File Format: The "ppD<" format is the default file fomnat for files created in PowerPoint 2007 and after. The format has some advantages (such as smaller file size), but is not as widely supported as the old "ppt" format If the PowerPoint

file is going to end up on the web consider saving files as PowerPoint 97- 2003 Presentation (*.ppt) in Office 2007 and 2010.

PowerPoint is a good format for face to face presentations, but it is usually not the best format for content on the web or if you would like to send it to your students as an electronic file. The file can be large, and users must either have Microsoft Office or a special plugin to view the file. PDF is often the best format to display PowerPoint presentations. The file size is relatively small, distracting slide transitions are removed, and everyone has a PDF reader. Most importantly, heading structure and other accessibility information will remain intact if you export the file correctly as PDF file.

6. PowerPoint 2010 Accessibility Checker: PowerPoint 2010 includes a new feature that allows you to check your presentation for accessibility problems. The accessibility checker makes it easier to identify and repair accessibility issues.

To run the accessibility checker:

- Go to menu item: File
- Select “Info,” and then “Check for Issues”
- Click on “Check Accessibility”

This will start the accessibility checker. The checker presents accessibility errors (e.g., images with no alternative text), warnings (e.g., unclear link text) and tips (e.g., slide reading order). For more information visit [Microsoft Office Online Check for Accessibility Issues](#) page.

For more information on how to create accessible PowerPoint documents you can refer to the following links:

- PowerPoint Accessibility by WebAim: [PowerPoint Accessibility](#)
- Accessible Campus Webpage Links for Educators: [Using PowerPoint](#)
- The Accessible Digital Office Document Project by Inclusive Design Research Centre at OCAD University: [Authoring Techniques for Accessible Office Documents: PowerPoint 2003, 2007, 2010, and PowerPoint 2008 for Mac](#)
- Microsoft Office Online: [Creating Accessible PowerPoint Presentations](#)

Accessible Excel

If you would like to learn how to create accessible Microsoft Office 2010 Excel workbook you can refer to following links:

□ The Accessible Digital Office Document Project by Inclusive Design Research Centre at OCAD University: [Authoring Techniques for Accessible Office Documents: Microsoft Excel 2010](#)

□ Microsoft Office Online: [Creating Accessible Excel Workbooks](#)

Like the other documents created by Microsoft Office 2010, you can check any accessibility issues of your Excel workbook by running the Accessibility Checker.

References

Accessible Campus Website, Using PowerPoint:

<http://www.accessiblecampus.ca/educators/teaching-tips/using-powerpoint/>

Accessible Campus Website, Using Word Documents and/or PDFs:

<http://www.accessiblecampus.ca/educators/teaching-tips/using-word-docs-and-pdfs/>

Adobe Accessibility Resource Centre: <http://www.adobe.com/accessibility/>

Canadian National Institute for the Blind (CNIB), Clear Print Accessibility Guidelines:

<http://www.cnib.ca/en/services/resources/Clearprint/Documents/CNIB%20Clear%20Print%20Guide.pdf>

Color Contrast Analyzer: <http://www.paciellogroup.com/resources/contrastanalyser/>

Microsoft Office Online, Creating Accessible Excel Workbooks:

<https://support.office.com/en-us/article/Creating-accessible-Excel-workbooks-6cc05fc5-1314-48b5-8eb3-683e49b3e593?ui=en-US&rs=en-US&ad=US>

Microsoft Office Online, Creating Accessible PowerPoint Presentations:

<https://support.office.com/en-us/article/Creating-accessible-PowerPoint-presentations-6f7772b2-2f33-4bd2-8ca7-dae3b2b3ef25?ui=en-US&rs=en-US&ad=US>

Microsoft Office Online, Creating Accessible Word documents:

<https://support.office.com/en-us/article/Creating-accessible-Word-documents-d9bf3683-87ac-47ea-b91a-78dcacb3c66d?ui=en-US&rs=en-US&ad=US>

Ontario College of Art & Design University (OCAD), The Accessible Digital Office Project Website, Accessibility of Office Documents and Office Applications:

<http://adod.idrc.ocad.ca/>

The Paciello Group Accessibility Testing Tools:

<http://www.paciellogroup.com/resources/>

WebAIM link to useful articles: <http://webaim.org/articles/>

WebAIM link to useful resources: <http://webaim.org/resources/>

WebAIM Microsoft Word article on creating accessible documents:

<http://www.webaim.org/techniques/word/>

WebAIM PDF Accessibility article: <http://webaim.org/techniques/acrobat/>

WebAIM PowerPoint Accessibility article: <http://webaim.org/techniques/powerpoint/>

