

George Brown College Instructor Guide: Creating Accessible Documents



Make it happen.



Copyright/Acknowledgements

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Background/Introduction

George Brown College is dedicated to fostering an inclusive environment for our students, employees and community members. Our core value of diversity and respect is the corner stone of our commitment to achieve and demonstrate leadership in accessibility.

In 2005, Ontario introduced its first legislation, designed to create a province of inclusion for people with disabilities - the Accessibility for Ontarians with Disabilities Act (AODA) . George Brown College was one of the first academic institutions to demonstrate leadership by beginning a rigorous process of identifying accessibility barriers and committing to the development of action items to address all barriers and make changes annually.

When the first regulation – Customer Service Standard, became law on January 1st, 2008, George Brown College acted quickly to develop a plan that would align the accessibility efforts with the requirements of this law.

As a result of the College's efforts to ensure that we always keep accessibility top of mind and woven into the fabric of our College – the college identified that a resource guide in developing accessible materials would be an asset in supporting faculty and other employees of the College.

GBC Accessibility

George Brown College has several processes and offices established to provide services to people with disabilities. The Diversity, Equity and Human Rights Services office is dedicated to student and staff success by fostering a respectful learning and working environment. The Disability Services Office provides direct services for students with disabilities who wish to access academic accommodations. With the introduction of the Accessibility for Ontarians Act (AODA), George Brown College was the first College to appoint an AODA Coordinator to facilitate the implementation of this disability legislation across the entire College and provide expertise on accessibility issues.

Legal and Policy Background

There are three "guiding principles" for creating more accessible course content:

1. The Ontario Human Rights Code.
2. Reasonable and Appropriate Accommodation
3. Accessibility for Ontarians with Disabilities Act.

Ontario Human Rights Code

The Ontario *Human Rights Code* (the "Code") requires that service providers provide equal treatment to all persons without discrimination because of disability (section 1). It provides that reasonable measures must be taken by service providers to accommodate disability, short of "undue hardship" (subsection 24(2)). The Code defines "disability" broadly, to include physical disabilities, infirmities, malformations, disfigurement or illness, as well as mental impairment, developmental or learning disability, language dysfunction or mental disorders.¹

Reasonable and Appropriate Accommodations

What are "reasonable and appropriate accommodations" and what does "short of undue hardship" mean in the academic context? What constitutes reasonable measures will vary depending on the circumstances. In other words, different types of disabilities require different accommodations and each student must be assessed on an individual basis in the context of the particular course and its academic requirements.

¹ The Code, subsection 10(1), defines "disability" as: (a) any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes diabetes mellitus, epilepsy, a brain injury, any degree of paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, or physical reliance on a guide dog or other animal or on a wheelchair or other remedial appliance or device; (b) a condition of mental impairment or a developmental disability; (c) a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or spoken language; (d) a mental disorder; or (e) an injury or disability for which benefits were claimed or received under the insurance plan established under the *Workplace Safety and Insurance Act, 1997*.

Accessibility for Ontarians with Disabilities Act

The [Accessibility for Ontarians with Disabilities Act](#)¹, 2005 (AODA) became law on June 13, 2005. Under this landmark legislation, the government of Ontario will develop mandatory accessibility standards that will identify, remove and prevent barriers for people with disabilities in key areas of daily living.

Five key areas have been identified by the legislation:

1. **Customer Service.** The standard states what businesses and other organizations in Ontario must do to provide their goods and services in ways that are accessible to people with disabilities.
2. **Transportation.** This standard is the only one that is sector specific, that is, it relates specifically to modes of transportation that come under the jurisdiction of provincial and municipal governments.
3. **Employment.** The goal of the is to help employers create equal employment opportunities for people with disabilities.
4. **Information and Communication(which includes digital/course content).** Outlines how businesses and organizations may be required to create, provide and receive information and communications in ways that are accessible for people with disabilities.
5. **Built Environment.** The goal is to break down barriers in buildings and other structures for people with disabilities by proposing accessibility requirements.

Creating Accessible Documents

It doesn't matter what application/program you use to create documents for staff or students, there are some basic principles that you can use to ensure that the documents have the structural elements necessary for people using adaptive technology such as screen readers.

By creating documents to be inherently accessible there is no need to create "differently accessible" documents.

Elements of an accessible document are:

- The use of templates for specific documents.
- The use of Heading styles.
- Create a custom style based on an existing one for headings.
- Adding Alt Text for images/links.
- Using captions for images in print/digital documents.
- The use of Standard fonts, preferably, Frutiger, Arial, Verdana.
- When combining fonts make sure to use a sans serif with a serif.
- Use Good colour contrast.
- Consider using plain language.
- Do not use tables for design layout.
- Identify table header rows.
- Do not use Text Boxes in Word documents.
- Do not use single cell tables to isolate important information in a Word document.
- Create one image out of grouped objects and add Alt Text to one image. Where there are complex images, provide a descriptive document in addition to the source document or ensure that the complex image is explained in the body text.

Plain Language Definition and Guidelines

Plain Language is accessible for many persons with disabilities. When producing a document you may want to consider incorporating some of the basic principles of plain language or plain English.

There are many definitions for Plain English or what is sometimes referred to as Plain Language. The goal is always to use language in a way that is user friendly, clear, direct and natural.

As a starting point, the writer should always consider who the target audience is. Make it your goal to convey the ideas with the greatest possible clarity. Do not make the document sound formal and omit unnecessary details. Scale back the information to what your reader needs to know and use examples as needed to help explain the text.

Remember whenever possible to write in active voice. The active voice emphasizes the doer of an action, and it is usually briefer and clearer. Don't ban the passive voice – just use it sparingly.

Here are some tips in creating a plain English document:

Design

Consider these design elements: hierarchy of information, typography, layout, graphics and color.

A typical hierarchy may include, document title, section headings, subsection headings, paragraph headings and general text.

- Divide your information into short sections.
- Make a table of contents for long documents.
- Use lots of headings.
- Structure your writing by putting the main message first.
- Typefaces come in to varieties: serif and sans serif. It is best to use sans serif typefaces in small quantities - for emphasis or headings. Serif typefaces are better for general texts. Both Serifs and sans serifs work well for headings.
- Minimize the mixing of typefaces as not all typefaces work well together. As a general rule, do not use more than two typefaces in a document.
- Use at least 10 to 12 point type for text.
- Try to use between 32 and 70 characters in a line. Any longer and readers will lose their place when they read from line to line.
- Columns should contain between 25 – 40 characters. Remember to use ample white space between columns.
- Use techniques such as boldface, bullet dots, and boldface – but do not over do it.
- Avoid using all-capital letters. For short headers capitals are acceptable, but anything more is unacceptable. Avoid over using capitals for common nouns.
- Graphics such as diagrams, tables or charts should be used in explaining text. Make sure they have informative headings and try to place them on one page.
- Keep the design of any graphic simple and drawn to scale.
- Be consistent when grouping graphics.
- Use white space in margins, around headings and between sections.
- Justifying the right margins decreases readability. Research shows that the easiest text to read is left justified, ragged right text. This document is set left justified, ragged right.
- The majority of the document should be produced in black and white. Colour elements in your document should not overwhelm or distract the legibility of your text.

Organizing the document

- Use descriptive headers and sub-headers to break documents up into manageable pieces.
- Make sure your headings tell the reader what the upcoming sections will cover. Headings like “general” or “background” are not very helpful.
- Use short sections or subdivide the longer ones.
- Always group related material. This helps you eliminate repetitious information.
- Use vertical lists to identify the important material.
- Order the information. Put the more important information before the less important and the general before the specific.
- Use lots of headings
- Minimize cross-references.

Sentences

- Prefer to use short and medium-length sentences with an average length of about 20 words.
- Try and keep paragraphs under 10 or 12 lines.
- Whenever possible put the subject and verb near the beginning.
- Use concrete, familiar words and no surplus of words.
- Use Active voice with strong verbs.
- Keep the subject near the verb, and the verb near the object.
- Use examples to make complex information more understandable.
- User parallel structure for parallel ideas. State related ideas in similar grammatical form.
- Don’t use unnecessary qualifiers, multiple negatives.
- Avoid redundancies.

Words

- Use simple, direct words.
- Omit needless words.
- Avoid legal jargon.
- Explain technical terms that you cannot avoid using.
- Never use “shall”. This is an ambiguous word.
- Use the word “must”. It is the clearest way to convey to the reader they have to do something.
- Be consistent with the terms you use to mean the same thing.
- Use personal pronouns. Helps readers relate better to documents. Personal pronouns clarify what applies to your reader and what applies to you.

- Find nouns and try to make it the main verb of the sentence. As you change nouns to verbs, your writing becomes less abstract. Example: “instead of ..We made an application....use....We applied”.
- Omit superfluous words. For example: “instead of.....In order to...use.....to”. “instead of....because of the fact....use....because, since”.
- Use positive sentences.
- Replace negative phrases with a single word that means the same thing. For example: “instead of....not able...use...unable”.

Fonts and Font Sizes

It is more important to use a standard font and consistent font size rather than try and identify which font or font size "is best." While some people with or without visual or print disabilities find Arial or Verdana fonts easier to read, others depend on the ligatures or little hooks on the letters to decode what letter they are looking at and predict what word they are reading.

The keys for fonts and font sizes are:

1. Use standard font types/styles that are Unicode based.
2. Be consistent in the font and font size used in your documents.
3. Avoid complicated, decorative or cursive fonts.
4. Sans serif fonts have been reported to be more legible when the character size is small.

Colour Contrast

It is important to have good contrast between foreground and background colours in your documents. This includes any shaded text such as table headers or cells.

The Web Accessibility Tools Consortium has developed a [Color Contrast AnalyzerText](#)² for the web. The following illustration shows that it will work on Word documents. The colours checked were the colours for the foreground and background of the headings in this document. This is a free tool!

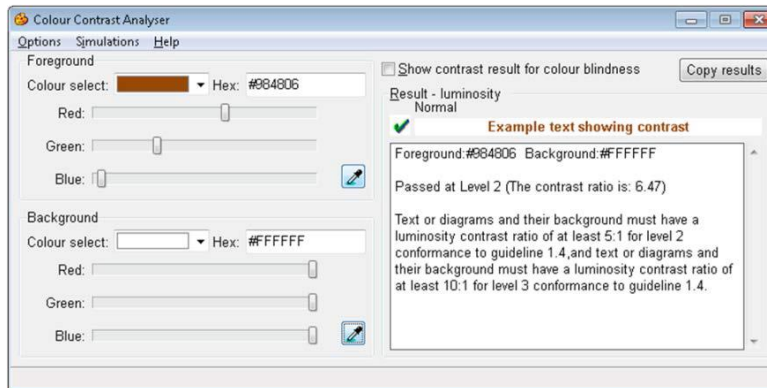


Figure 1 Results from the Colour Contrast Analyser.

Word 2007

Once you know the basics, it's easy to add accessibility to your documents. In most cases it is "added" automatically.

1 Templates

Whenever possible use a template for your documents. This ensures that each document has the features you want as well as a consistent look and feel. By building the structure into your template, most of the work is done.

To create a template in Word:

1. Open a blank document.
2. Choose File, Save As or press F12 to open the Save As dialog.
3. Name your template, for example Course Content.
4. Press Tab or move to the "Files of Type" list.
5. Choose "Word Template."
6. Make sure that the template is going to be saved where you can find it easily. In most cases it will be saved in a Templates folder automatically.
7. Add any static content to the document such as logos, contact information, disclaimers and so forth.
8. Change the fonts, add or modify styles. Create the look and feel you want for the document.
9. Save the template and close it.

To use your template:

1. Choose File, New or press Alt + F, N.
2. Choose My templates in Windows Vista or Windows 7.
 - a. Choose Templates on my computer for Windows XP.
3. Your new template will be in the list of available templates.
4. Press Enter when it is selected or double click on it to open the template.
5. Add the content you want.
6. Save the document in the Documents or My Documents folder.
 - a. You can also save it to an external storage device.

2 Styles

If you have a template you can change the default heading styles to look the way you want. Headings can be used to generate a Table of Contents like the Table of Contents in this guide.

If a heading style is not used to identify changes in subject or topic, every piece of text in your document will have the structural element of a paragraph. This means that people with disabilities who are using technology to navigate your documents and read specific content will not be able to do so.

Therefore, there should not be one heading style throughout an entire document unless every change in topic/subject is a top level heading or heading 1.

You can change the look and feel of headings in a template to match the overall theme of the template. This preserves a hierarchy of content beginning with level 1 headings and moving downward through other heading levels based on the hierarchy of the content.

How to modify the existing heading styles in a template:

1. Open your template.
 - a. Don't use File, New as this will open a new document based on your template.
 - b. There is no "reset button" for the Word Normal template so it is not recommended that you modify default heading styles in a normal Word document.
2. Press Alt + H, F, Y which will open the Styles Pane.
 - a. The keyboard command is faster since this tool is a small icon in the lower right of the Paragraph Group.

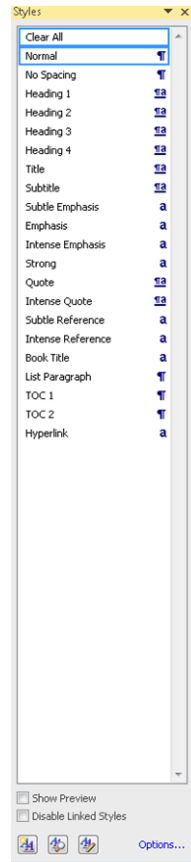


Figure 2 Styles Pane in Word.

3. Right click the mouse or use the keyboard equivalent for a right click on the style you want to modify and choose Modify.
4. A dialog opens with the options for formatting the style.

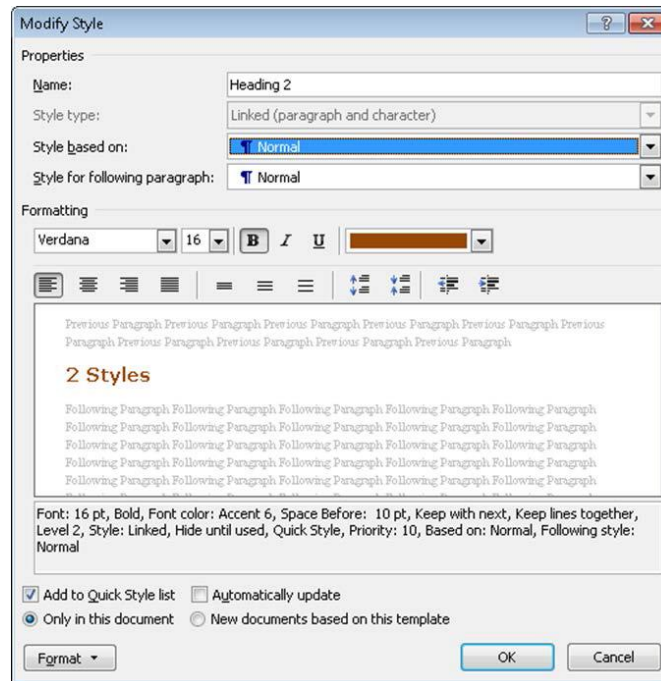


Figure 3 Modify Styles dialog in Word.

5. Make any changes to the colour, font (such as to Arial or Verdana) size, or alignment (such as centre aligned).
6. There are other options related to borders and paragraph alignment under the Format button in this dialog.
7. Once you've finished modifying the style choose to either apply the changes to this document only or other documents based on this template.
8. Move to and activate the OK button.

3 Creating a New Heading Style

Remember the following tips for creating a new heading style:

1. When you choose to Modify an existing style or to create a new style, a dialog opens with all of the elements you can modify.
2. If you are creating a new heading style with a different look and feel it is important to base it on an existing heading style to ensure that the structure of headings is maintained in the document.
 - a. In the section on modifying the current heading style, the style is based on the Normal style in the document. This is not a mistake. This will add the structure you want. It is when you are creating a new style that you need to make sure it is based on an existing style in the list of styles.

3. If you don't base the new heading style on an existing heading style it will look like a heading but the underlying structure will be a normal paragraph.
4. It is a good idea to include the heading level number in the new style name so that you remember what level it is when creating other documents based on this template.

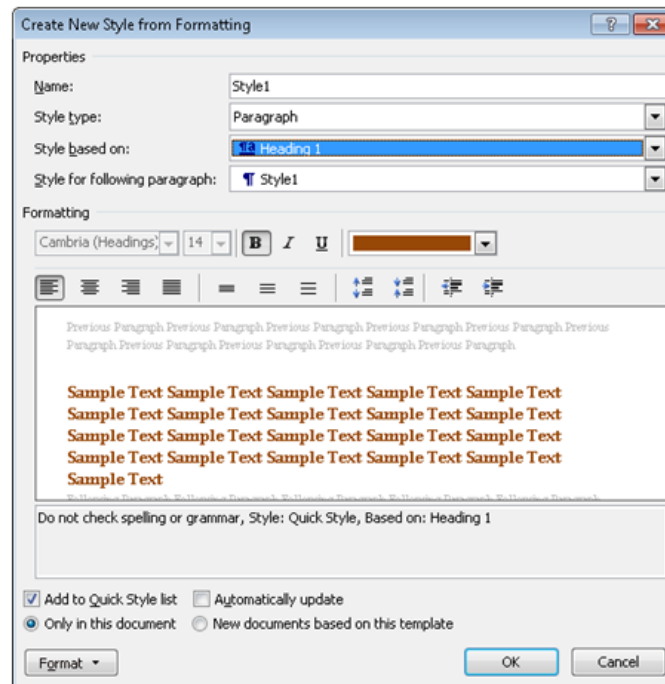


Figure 4 Create New Style dialog with Style based on options selected.

4 Alt Text and Captions for Images

Graphics used in documents should support the content. Decorative graphics can be used but used sparingly.

Alt Text is a brief and concise description of what the image is. For people with disabilities who are using technology to access your documents, using Alt Text will give them the information you want them to have about an image in your document. Without Alt Text someone who is blind would hear something like "graphic image452.gif."

In Microsoft Office for Mac 2004 or 2008 you cannot add Alt text to images. If you are using an Office for Mac version of Word it is important to use captions for images.

To add Alt text to an image or object:

1. Select the image or object.
2. Either right click the mouse or press the AppKey and choose Size.
3. In the Size dialog choose the Alt Text tab by clicking on it or pressing Ctrl + Tab.
4. Type or copy and paste the Alt Text into the edit area.
5. Close the Size dialog by clicking the Close button or by tabbing to the Close button and pressing Enter.

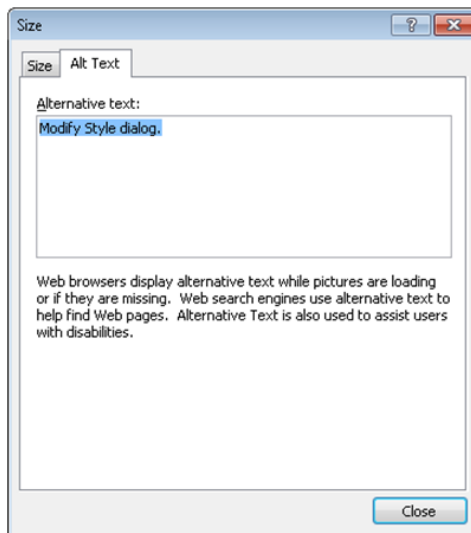


Figure 5 Alt Text dialog in Word.

5 Captions for Images, Tables and Equations

Captions are useful if the document is being printed and the image or object isn't clear on the printed page. Someone reading the document will then have access to the description of the graphic in the caption.

To add a caption for images:

1. Select the image or object and either right click the mouse or use the keyboard equivalent command for a right mouse click and choose "Insert Caption."
2. A Caption dialog opens with the figure number already in place ready for you to type the caption. You can also copy and paste information into the Caption edit area.

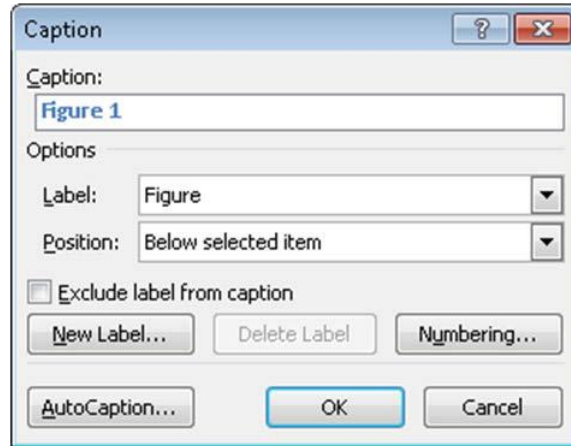


Figure 6Caption dialog in Word.

Captions should also be used for tables and equations, Table captions would go before the table so that someone who can't see the table would know what type of data they are about to encounter.

6 Tables

Ensuring that a uniform table is used for data is a key to a well structured document. In Word 2007 the Table Gallery will also add an accessible table to your document

1. Tables should be inserted into a document and not drawn.
2. Tables should not be used for the design layout.

To add a table to a Word document:

1. Choose Insert, Table and either use the arrow keys to choose the number of columns and rows,

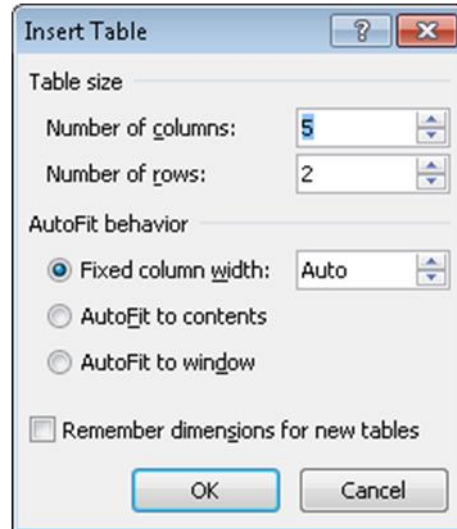


Figure 7 Insert Table dialog.

2. Or choose to Insert Table from the same sub-menu.

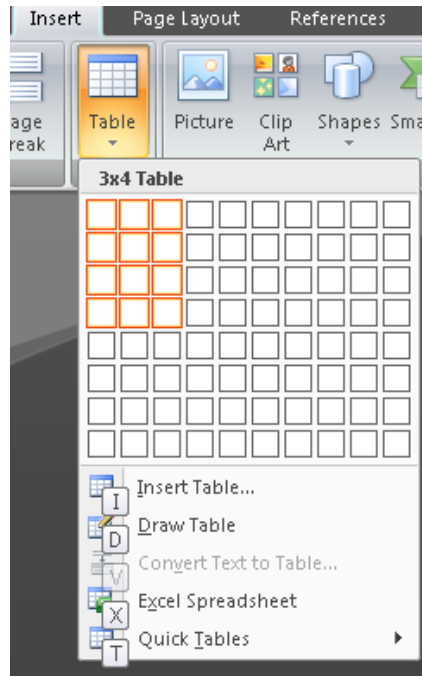


Figure 8 Table Gallery from Insert Ribbon.

7 Header Rows Repeat

If your table spans more than one page it is important to have the header rows repeat at the top of each page.

To have table header rows repeat:

1. Select the first row of the data table and either right click the mouse or press the AppKey to open the context menu.
2. Choose Table Properties and then the Row tab.
3. Check the check box to have the header rows repeat.
4. Close the Table Properties dialog by either clicking the OK button or tabbing to the OK button and pressing Enter.

It is a good idea to select the table and in the Row tab of the Table Properties dialog uncheck the "Allow rows to break across pages" check box. This improves the readability of the information in your tables.

8 Text Boxes and Single Cell Tables

Often when we want to identify important information to someone reading course content, we use either a single cell table or a text box. Single cell tables are not a good use of tables and using them this way is contrary to a well structured document.

Text boxes sort of float over the text of the document. If you've moved the cursor down a page you'll notice that when a text box is encountered the cursor remains at the left margin and doesn't move to the text box. This means that someone who is blind and using technology to read your document will never see this important information.

The **most accessible way** to identify important information visually and accessibly is to **use paragraph formatting**.

This paragraph uses a style created by the document author called "Important." It has a border and is indented left and right from the margin. It is completely accessible AND makes the text stand out visually for someone reading the document on screen or in print. Same visual effect but completely accessible.

To create the paragraph style for important information:

1. Select a paragraph you want to format to be special:
 - a. You can do this without selecting the paragraph but this method lets you see how the formatting looks as you apply it.
2. Press Alt + H, F, Y to open the Styles Pane and Tab to the New Style button and press Enter or click on the New Style button.
3. Change the font and font size as well as the alignment if you want.
4. To double indent the paragraph as in the example above, click on the Format button or press Alt + letter O while in the New Style dialog. This opens a context menu.
5. Choose Paragraph. This opens the Paragraph dialog.
6. In the area that identifies the indentation for the paragraph make the indentation equal for both left and right.
7. Close the Paragraph dialog by clicking on the OK button or tabbing to it and pressing Enter.
8. While in the New Style dialog press Alt + letter O again and this time choose Border. This opens the Borders and Shading dialog.
9. Choose the border you want and apply it to all four "sides" of the paragraph or any combination you want.
10. Make sure that the border will be applied to the paragraph and not text.
11. You can change the padding or margins between the text and border if you need a bit more space. This is found in the Borders and Shading dialog Options button.
12. Once you have the borders and shading the way you want, Click OK or Tab to the OK button and press Enter to close it.
13. You can then decide whether to add this style to the template or use it only in the current document.

You'll be able to see how the changes you make look in your document as you add them.

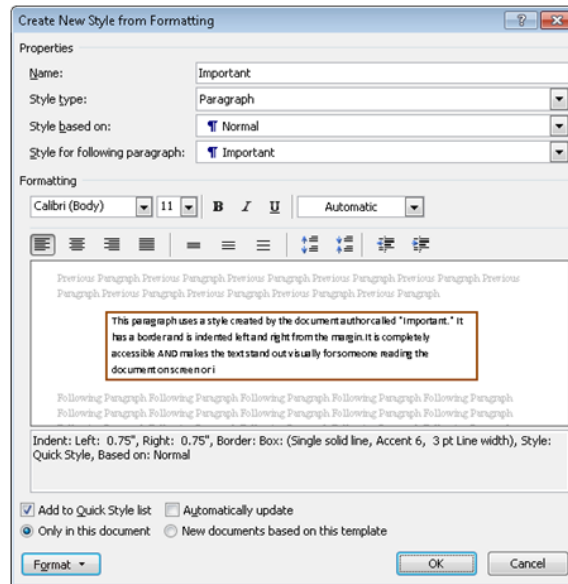


Figure 9 Creating a paragraph style using Create New Style dialog.

Once you've activated the Format button, you can choose Borders which opens the Borders and Shading dialog shown in the following image.

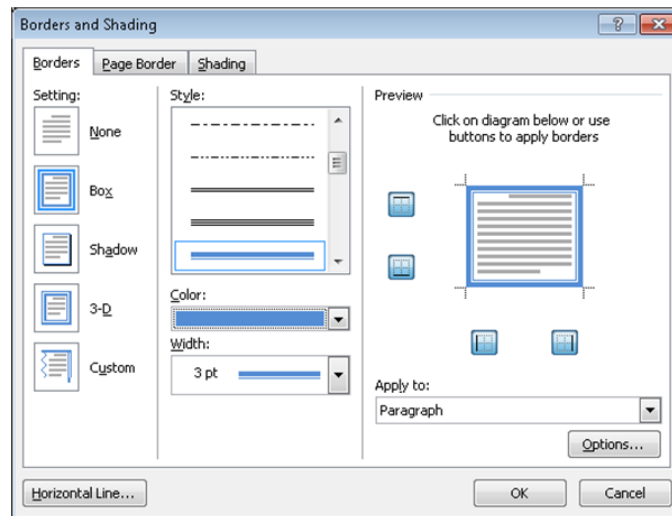


Figure 10 Borders and Shading dialog from the Create New Style dialog.

If you want some space between the border and the text and/or shading, use the Options button in the Borders and Shading dialog to do this. The Borders and Shading Options dialog will then open.

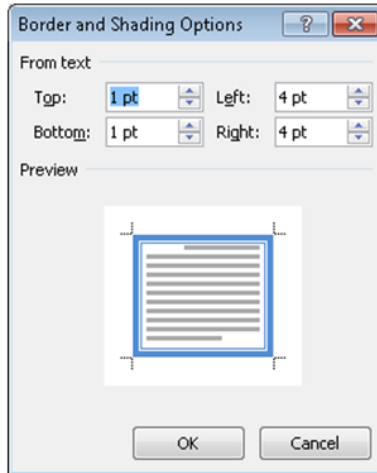


Figure 11 Borders and Shading Options dialog.

9 Bulleted and Numbered lists

If you need more space between bullets or numbers in a list, don't use the Enter key to create the space. This method breaks the list structure and for someone who is using technology to read your document each bulleted or numbered list item will be identified as an individual list.

This means that there is no relationship between the listed items even though visually the relationship may be identifiable.

To add space between bulleted or numbered list items select the list and:

Press Alt + H, P, G to open the paragraph dialog and uncheck the check box "Don't add space between paragraphs of the same style." The default spacing is 10pt after each bulleted or numbered list item.

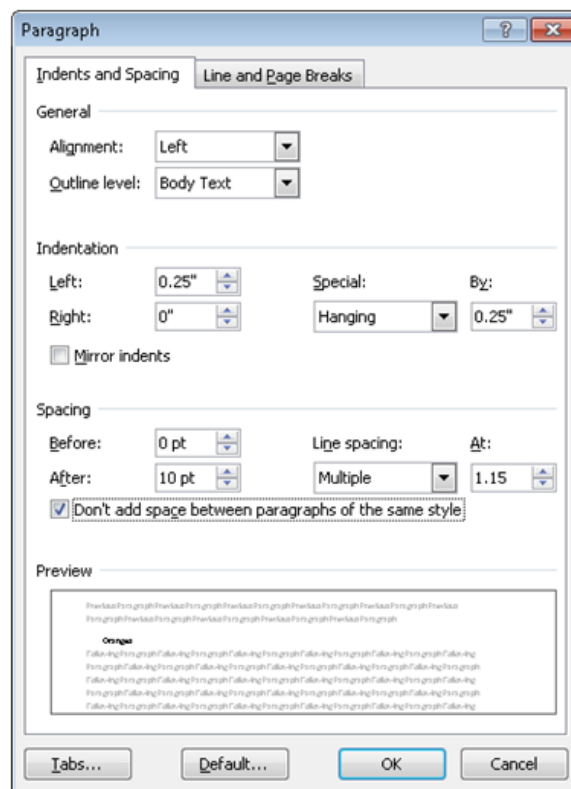


Figure 12 Paragraph dialog in Word.

It is OK to put an image between list items because when you continue the list, the subsequent list items will be in a single continuous list format.

If you break a bulleted or numbered list by using the Enter key or by adding paragraphs of text between bulleted or numbered items you will need to repair

these in a tagged PDF document if the document is converted to PDF. Someone reading the Word version of the document will lose the relationship between items as well.

If you need to add paragraphs between bulleted items try using the Outline options instead of traditional bullets and numbering. This will let you create a hierarchy of information that is more accessible.

PowerPoint

When creating PowerPoint presentations there are some decisions that need to be made before you begin to optimize accessibility for people using adaptive technology.

If you are going to distribute the presentation in PPT or PPTX or slide format, you can use objects such as, Word documents or Excel worksheets in your presentation. The underlying documents can be accessed by someone who cannot read the slide content.

If you are going to distribute the presentation as a PPS or slide show only or as a tagged PDF document you will not be able to use these dynamically embedded objects without providing access to these documents. When you save a presentation as a slide show the dynamically linked objects become pictures or images in your presentation and therefore, become inaccessible.

1 Slide Outline

One of the ways to see how much of a PowerPoint slide presentation is accessible in either a PPS or slide show format, as an RTF (Rich Text Format) is to switch from the Thumbnail view of a presentation to the Outline view.

- Decide in advance which version of the presentation is going to be available to students/staff.
- Use Outline to see what is going to be accessible to someone who may have difficulty reading the on-screen content.
- Correct Tab Order of slide content.

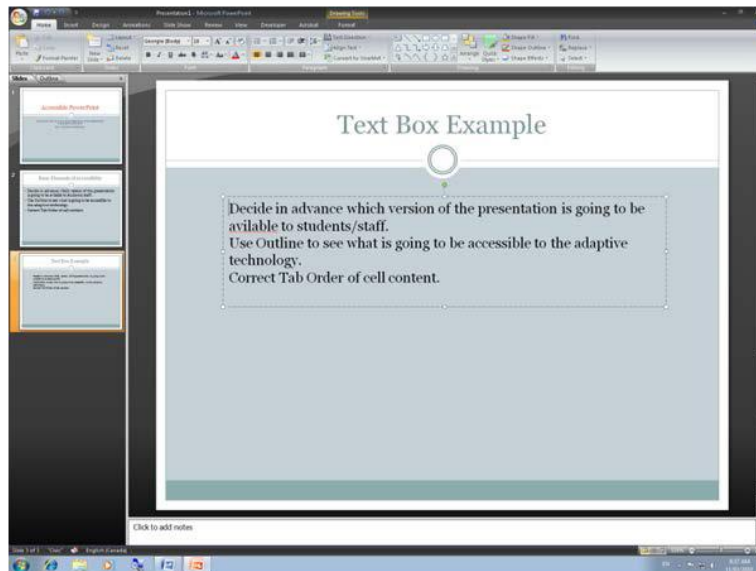


Figure 13 Slide in PowerPoint showing Thumbnail view.

When we switch to Outline view on the left, we can see that the content in the text box on the slide will not be available to someone who saves the presentation in Outline view.

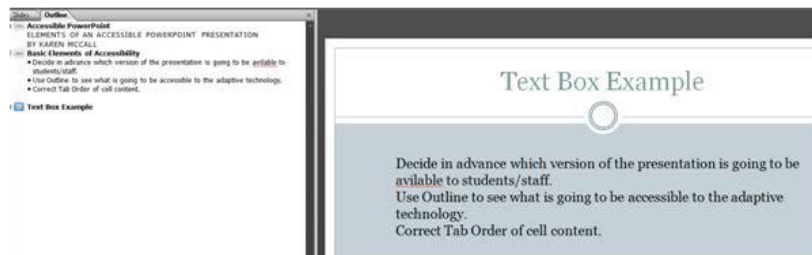


Figure 14 Slide showing Outline view.

The information on this slide would have to be copied and pasted into an RTF or Outline document. This would be true for content in any text box on a slide.

Use Slide Master view to create the layout for specific slides used often. Sometimes it is easier to do this even for slide layouts we will use once.

2 Duplicating Slides in Slide Master.

The first thing to do is to create a duplicate slide by choosing the View Ribbon and Slide Master (Press Alt + W, M).

Find the slide with the title placeholder and no other text areas. Right click on it and choose Duplicate Slide. Once the new slide is in the stack, right click the new slide and choose Rename.

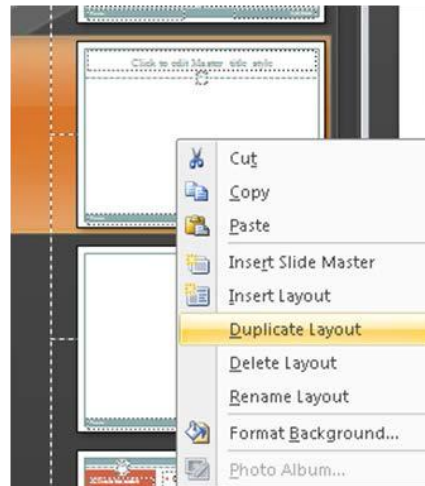


Figure 15 Duplicate Slide option in Slide Master view.

At this point the process changes for PowerPoint 2007.

Once you have the duplicate slide created, the next step is to rename it so that if you use the same slide template or presentation in the future you can find the layout in the Insert Slide options.

To rename the slide layout

1. Either right click or press the AppKey on the layout in the Thumbnail view.
2. From the context menu choose "Rename Layout."
3. A dialog will open where you can type the name of the new layout.
4. Once this is done it will appear in the list of available layouts for slides in the presentation or the slide template (if you are working on a template).

In PowerPoint 2007 while in Slide Master View you can add either Text or Content placeholders to slides. This lets you create slide layouts for the type of slides you use regularly while keeping the content accessible.

To add text or content placeholders in PowerPoint 2007:

1. Click the Slide Master Ribbon.
2. Choose "Insert Placeholder." The keyboard command is Alt + M, A.
3. To add a default text placeholder choose either "Content" or "Text."
4. Use the mouse to identify the place on the slide where you want to add the new placeholder.
5. Modify the size of it and move it to a different place on the slide as you need.

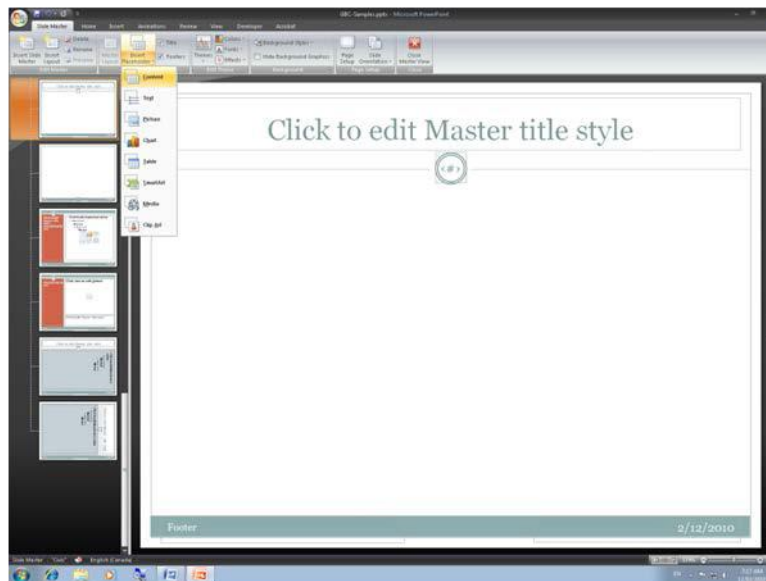


Figure 16 Adding an accessible text placeholder to a slide.

When you return to the Slide Layout (Alt + W, L or View, Slide Layout) and choose to insert a new slide using the Home Ribbon, you will see the new layout as an option.

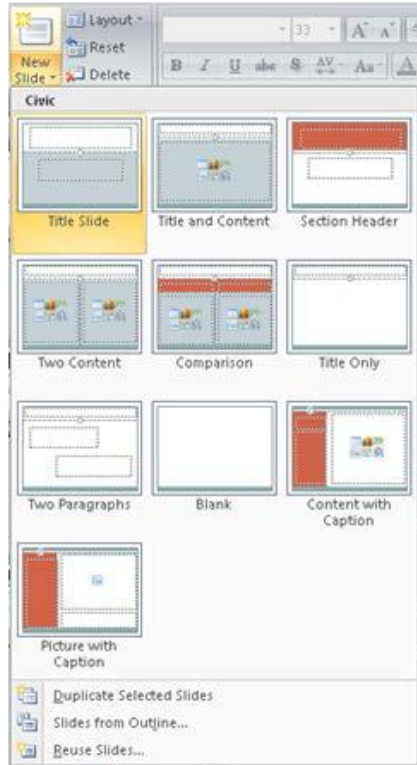


Figure 17 Insert Slide Gallery showing newly created slide layout.

The following image shows the Outline view of a slide in the Outline view. The slide has content positioned and formatted to be visually identifiable and the content is accessible.

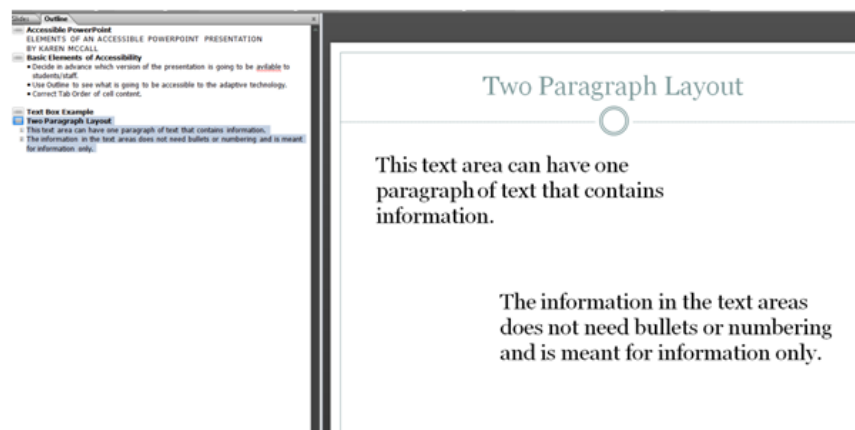


Figure 18 Two paragraph slide layout in Outline view.

3 Correct Tab Order of Slide Content

One of the things you can do to a PowerPoint presentation is, to ensure that the Tab Order of content is correct. This should be something that you include in the workflow when you create your presentations.

What is the "Tab Order?"

If you look at a slide and press the Tab key repeatedly you will see the order in which the content of the slide will be read to someone who can't see it.

Making sure that the order is the way the content should be read is essential to the understanding of your presentation.

You can repair the Tab Order in PowerPoint 2007.

To repair the Tab Order on a slide:

1. If your presentation has slide numbers or a footer make sure that they have been added.
 - a. To do this, press Alt + N, S, N or click the Insert Ribbon and choose Slide Numbers.
2. Click on any slide element or Tab to it.
3. Choose Drawing Tools, Selection Pane or press Alt + J, A, P.
4. The Selection Pane opens to the right of the slide.
5. The elements of the slide are listed from last to first in the Selection Pane.
6. Click on the slide element that needs to be reordered and use the Up or Down Arrow in the Selection Pane to move it to its logical reading order/Tab Order on the slide.
7. You can test the order in which elements will be read/accessed by someone who can't see the slide by pressing the tab key which will move you through the elements of the slide in their "logical reading order."
8. Repeat this process for all slide elements that are not in their correct order and for all slides in your presentation.

4 Alt Text on Images

The next essential thing you can do is to provide Alt text for images and objects.

To provide Alt Text for images and objects on a PowerPoint slide:

1. Select the image or object.
2. Right click on it or press the AppKey.
3. From the context menu choose Size.
4. A dialog opens.
5. Choose the Alt Text tab.
6. Either type in or paste the Alt text for the image or object.
7. Click on the OK button or Tab to it and press Enter to confirm the Alt Text.

5 Grouped Objects

Although you can create nifty grouped objects on slides to represent content, grouped objects are inherently inaccessible. The better solution would be to create a single image using an image editor and provide it with Alt Text.

The problems with grouped objects is that you often can't provide them with Alt text and someone who is tabbing through the presentation has to Tab through EVERY object and shape used to create the grouped object. The grouped objects are identified as individual pieces with no relationship to each other. While notification is given that the objects are grouped consider hearing the following:

"Grouped object, rectangle, triangle, rectangle, circle, rectangle..." Would you be able to decode what this content is?

6 Audio and Video Content Accessibility

GBC has a policy that only captioned videos can be used in course content. For details on the [George Brown College Captioning policy](#)³ visit the GBC web site.

Course Packs

The goal is to make accessible course pack material available to students with disabilities at the same time it is available to students without disabilities.

The solution to providing course packs in accessible formats is to have the course pack available in a CD containing the course pack content in tagged PDF format. If you've followed the guidelines in this document when creating your Word documents, the structure will be carried through to the tagged PDF version of your work.

You can create a tagged PDF from Word, PowerPoint or Adobe InDesign. The key is to add the document structure as you create the course pack material.

If your course pack is compiled using articles from the library's electronic databases, you must ensure that the digital versions of the articles are available so that they can be converted to an accessible format.

As a Professor once you have permission to compile a course pack you will need:

- You will send your originals to Grenville Management & Printing who will complete all copyright registrations and assist you with the production details
- To place an adoption with the bookstore, the same as doing a textbook adoption. You can access this information at gbcbookstore.bookware3000.ca⁴
- Click on the button "Instructors – Need to adopt your books?"
- You will need to request a password on-line if you don't already have one, which will be sent to you within 24 hours weekdays.
- Then just follow the steps to adopt your course pack.

Copyright Compliance & Course packs

Coursepacks are collections of photocopies of published works, e.g., books or articles that are assembled and sold to students through direct sale or through material fees at the beginning of the term. The copying is done by the contracted service provider, which operates the College's duplication services, under the service provider's own license with Access Copyright. Where required, the service provider will obtain any necessary permission for copying that is outside the scope of its Access Copyright license.

All other copying must be in compliance with the [College's Copyright Policy](#) and the [Association of Canadian Community College's Fair Dealing Policy](#)⁵

PDF Document Accessibility

This guide has talked about tagged PDF through all of the topics. What do we mean by this and how do you do it?

The ability to "Tag" a PDF document provides the accessibility to the document content. A Tag is much like the information you would see in the Reveal Codes of WordPerfect or the code used to write HTML or web documents. For each piece of content in your document there should be a corresponding Tag in the PDF document.

If you've built the structure and accessibility into your documents as illustrated in this booklet, the Tags in a PDF document converted from your source document should provide a "logical reading order" for someone using adaptive technology.

1 Print to Adobe PDF

If you use the Print dialog and print your accessible document to Adobe PDF you will create an untagged and inaccessible PDF document.

2 Tools for Adding Tags to PDF Documents

In order to add the Tags to your documents you will need to use one of the following tools:

- [Adobe Acrobat Professional](#)⁶ This is an application you must purchase, however there is academic pricing for it. You will need either the Acrobat Professional or Acrobat Professional Extended.
- [Save as PDF or XPS](#)⁷ add-in for Office 2007. This is a free download from the Microsoft site. Note that XPS is an inaccessible file format.

4 Viewing Tags in Acrobat

In Adobe Acrobat you can view the Tags Tree through the Tags Panel. By default when you show the Tags Panel it is a floating palette over your work which can be bothersome. The best way to work with tagged PDF is to put the Tags Tree in the Navigation Panel.

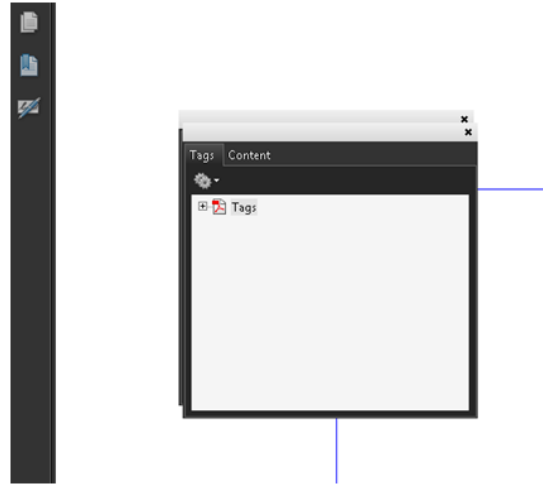


Figure 20 Floating Tags Panel.

To put the Tags Panel in the Navigation Panel:

1. Choose View, Navigation Panel, Tags in Adobe Acrobat Professional or press Alt + V, N, G.
2. The Tags Panel which includes the Tags Tree is displayed as a floating palette over your document.
3. Choose View, Navigation Panel and Doc All Tabs or press Alt + V, N, K.
4. The Tags Panel will be docked in the Navigation Panel until you have to reinstall Acrobat or one of the Acrobat updates removes your settings.

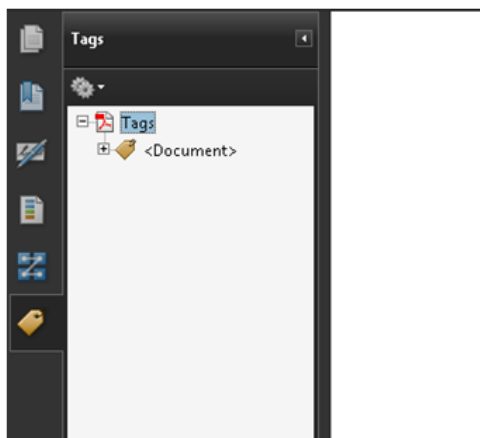


Figure 21Tags Panel docked in Navigation Panel.

5 Language

Each document must have a core or global language attribute. This tells adaptive technology such as screen readers for people who are blind which "voice" to use when reading the document. The screen reader will have multilingual synthesized voices. If they are a person who is working in French using a French language synthesized voice and a PDF document does not have a language specified, you may have a document in English trying to be read by a French voice.

To ensure that the PDF document has a core language:

1. In Adobe Acrobat Professional choose File, Document Properties or press Alt + F, R.
2. This opens the Document Properties dialog.
3. Click on the Advanced tab or move to it by pressing Ctrl + Tab.
4. The last setting on the Advanced tab is "Language." This is a drop down list.
5. Choose the language for the document.
6. Click the OK button or Tab to it and press Enter.

Save your document to save the language attribute.

Note that you can also change the language for specific paragraphs if you are creating a multilingual document.

6 Tab Order

People who are using adaptive technology to read a tagged PDF document use the Tab key to move from link to link in the document or from form control to form control if the document is a fillable form. These keyboard commands are separate from general reading commands.

Sometimes there will be a message in the accessibility full check report that a document that has links or form controls has an incorrect Tab Order.

To repair the Tab Order in a tagged PDF document:

1. In the Navigation Panel of Adobe Acrobat Professional choose the Pages tab.
2. Press the Tab key once to move into the pages of the document or click on Page 1.
3. Select all of the pages in the document by pressing Ctrl + A.
4. Right click or press the AppKey to open the context menu for Pages.
5. Choose Properties which is the last item in the context menu.
6. In the Pages Properties dialog select the radio button to "Use the document structure" for the Tab order.
7. Click on the Close button or Tab to it and press Enter.
8. The Tab Order has now been repaired.

7 Basic Accessibility Tools

There are tools you can use in Adobe Acrobat Professional to view your documents in their logical reading order. The three that will be illustrated in this document are:

- Reflow.
- Highlight Content.
- Order Panel and TouchUp Reading Order Tool.

8 Reflow Tool

This tool can be used in Adobe Acrobat Professional when your document has a complex layout. It will show how the document will be read to someone using a screen reader. In other words, you will visually see the logical reading order of your content.

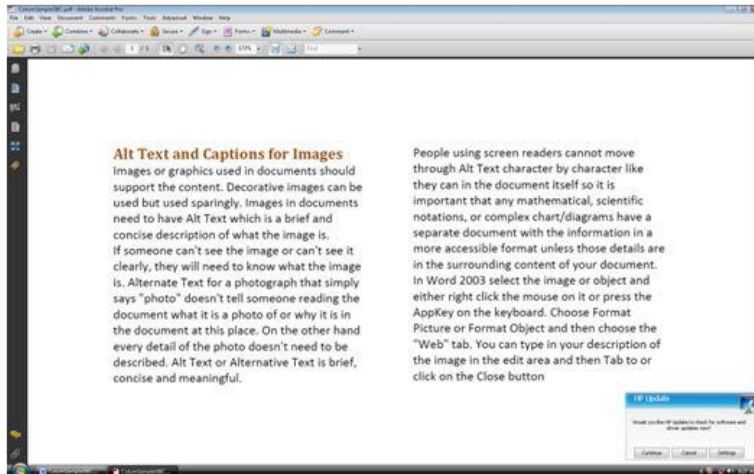


Figure 22 Columns before Reflow.

The keyboard command for Reflow is a toggle. Pressing Ctrl + 4 on the number row will turn it on and pressing Ctrl + 4 on the number row again will turn it off.

If you want to use the menus, choose View, Zoom, Reflow. The keyboard command is faster!

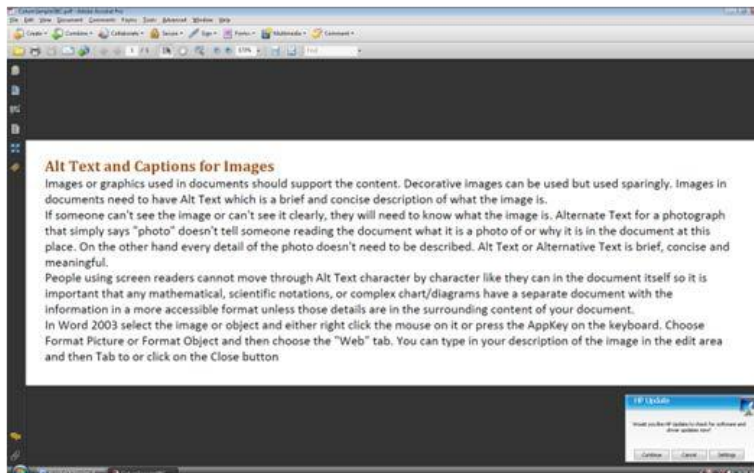


Figure 23 Columns after Reflow.

9 Highlight Content

Highlight Content can be used in the Tags Tree/Tags Panel of Adobe Acrobat Professional to show what content the Tag corresponds to in the document.

Turn on Highlight Content in the Tags Tree by right clicking anywhere in the Tags Tree or pressing the AppKey anywhere in the Tags Tree. Choose Highlight Content from the context menu. The hotkey is the letter H.

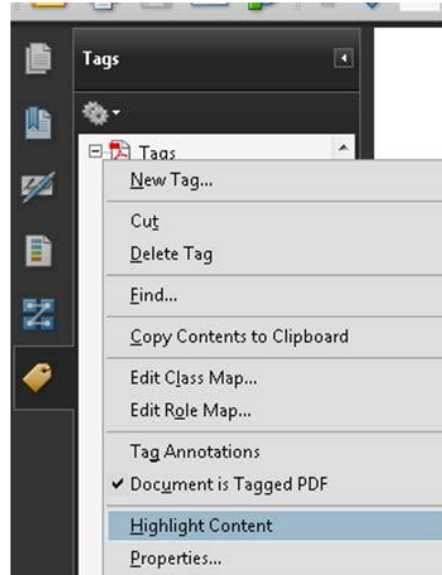
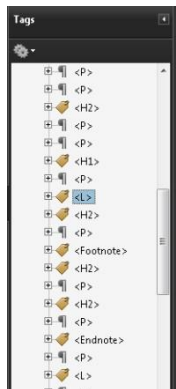


Figure 24 Highlight Content in Tags Tree of Adobe Acrobat Professional.

This lets you move through the Tags and see the corresponding content in the visual representation of the document.



Legal and Policy Background

There are three "guiding principles" for creating more accessible c

1. The Ontario Human Rights Code.
2. Reasonable and Appropriate Accommodation
3. Accessibility for Ontarians with Disabilities Act.

Figure 25 List Tag with Highlight Content turned on showing corresponding list in a document.

10 Order Panel and TouchUp Reading Order Tool

The Order Panel in Adobe Acrobat Professional can give you a more global view of the reading order of content on a page. Each piece of text or content is given a number and that number identifies the order in which the content should be read.

There are two caveats to using the TouchUp Reading Order tools:

1. Adaptive technology uses the Tags to provide the reading order so if you can't rearrange the items in the Order Panel concentrate on getting the Tags right.
2. You can't see the individual Tag elements in the Order Panel. Often a page will be shown as one block of text or graphics. You can't see if headings or lists are tagged correctly.

The Order Panel does, however, give you a fast view of what is and isn't tagged.

It is an ideal situation where the Tags and the Order Panels are in harmony but if you have a poorly designed document or one without structure this might not be possible. For those documents concentrate on the Tags being in the right order.

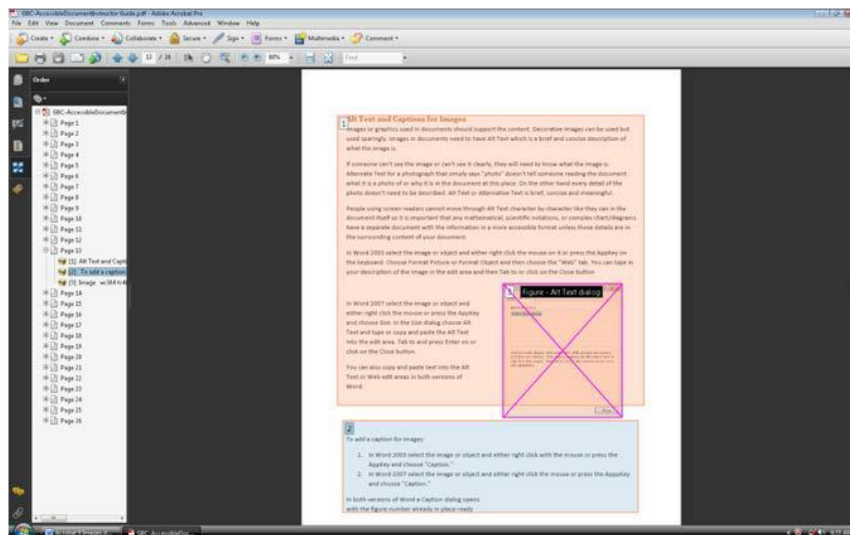


Figure 26 Order Panel in Adobe Acrobat Professional.

The TouchUp Reading Order Tool floats over the document area but sometimes gives you more flexibility when working with tagged PDF. By default the colours of the content are varying shades of black. In the preceding and following images they have been changed so that each type of element is more visible.

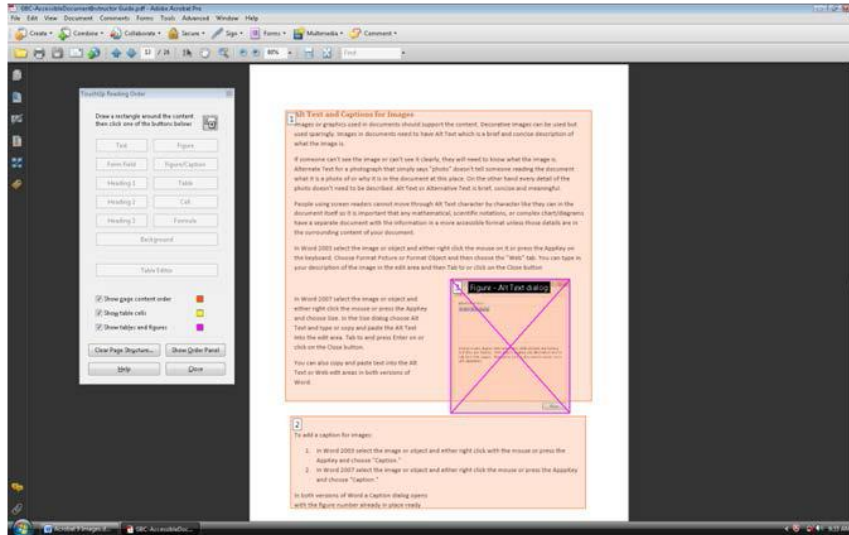


Figure 27 TouchUp Reading Order tool in Adobe Acrobat Professional.

Notice that until you select one of the elements on the page most of the options are not available. Once you select an element on the page the buttons and options become usable. This tool is used to fine tune content on a page or to select content that has been missed by the conversion process and is not Tagged.

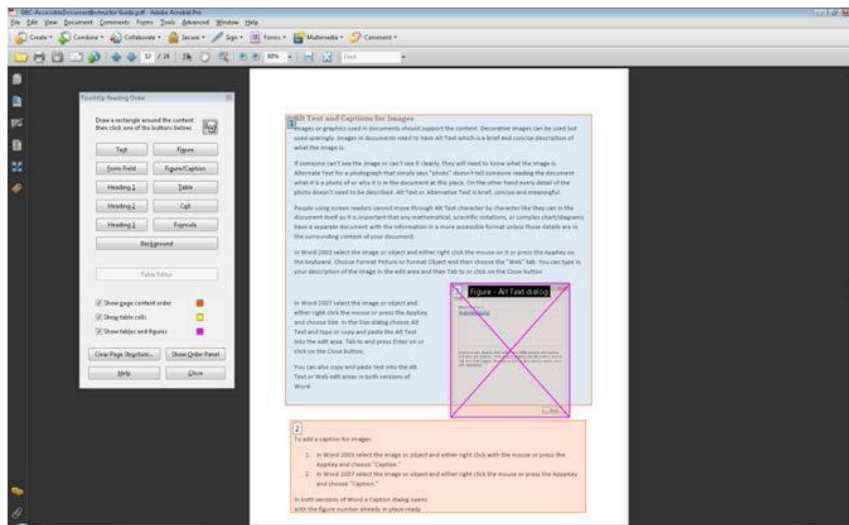


Figure 28 TouchUp Reading Order tool with page element selected.

11 Alt Text on Images in a PDF Document

If you've added Alt Text for images in Word or PowerPoint, it will be converted to the tagged PDF when you perform the conversion.

If you have not added Alt text to images it can be repaired in the PDF document.

To add Alt text to an image or object in a tagged PDF document:

1. Locate the corresponding <Figure> or <InlineShape> object.
2. Either right click on it or press the AppKey.
3. This opens a context menu.
4. Choose Properties from the context menu.
5. The TouchUp Properties dialog opens.
6. Either click into the Alt text area or press Alt + R.
7. Type in or copy and paste alternative text for the image.
8. When you are finished either click the Close Button or press Alt + C to Close the TouchUp Properties dialog.

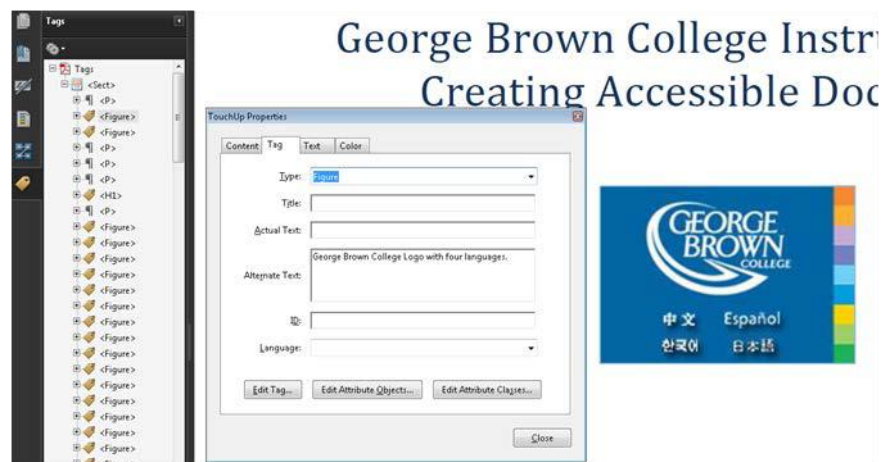


Figure 29Element in tagged Pdf document selected using TouchUp Reading Order tool.

If the image is a picture, diagram, or logo it would need Alt Text. If it is content from Adobe Illustrator that is text only but has been created as an image of text, you would add Actual Text instead of Alt text. This affects the way the information is read to someone who is blind and using a screen reader.

Do not use both Alt Text and actual Text. Use one or the other.

12 Accessibility Full Check

The final step in ensuring that a PDF document is accessible is to perform an Accessibility Full Check.

This is a mechanical tool and is not a substitute for human evaluation of accessibility. It can tell you if; some Tags are missing, non-Unicode characters have been used, there is no structure or language for the document and if the Tab Order of links and form controls is not correct.

It cannot tell you if Alt text is appropriate for images or if text that should be headings is tagged correctly.

If you get a result that indicates elements are not accessible to screen readers, it might be a piece of the background and not critical to the understanding of the content. In that case it is a judgement call as to whether it needs to be tracked down and retagged as part of the background. Screen readers do not see inaccessible elements.

A clean Accessibility Full Check is not a definition of an accessible document. It is one tool, a mechanical tool, that we have to help identify problem areas.

Resources

The following resources are organized by application. The first set of resources are generic and include best practices tips and techniques.

General Document Accessibility

These resources contain common elements of accessible documents that can be applied to any document created.

[Adobe Accessibility Resource Centre](#)⁹.

[Best practices for Creating Accessible Microsoft Office Documents from CalPoly](#)¹⁰.

[Creating Accessible Documents from Accessible IT @ NC State](#)¹¹.

[Creating Accessible Documents from Empire State College New York](#)¹².

[WebAIM Microsoft Word article on creating accessible documents](#)¹³.

Accessible Course Packs

These resources are a combination of course pack and general accessibility tips for instructors for students with disabilities.

[Accessible Instructional Material by Poly](#)¹⁴. This is a tagged PDF document so it is accessible but it does not have links or headings so is difficult to navigate if you are using adaptive technology.

Word 2003

These resources are for Word 2003 but you can learn techniques for Word 2007 or 2010 from them.

[Creating Accessible Word 2003 Documents from CalPoly](#)¹⁵. This is a tagged PDF document so you can see what a well tagged and structured PDF looks like while finding out how to create accessible Word documents.

[Creating Accessible Word 2003 Documents from California State University ENACT](#)¹⁶.

Word 2007

These resources are specific to word 2007 but you can use the techniques in other versions of Word.

[Microsoft Word 2007: Creating Accessible Documents](#)¹⁷ .

[Logical Document Structure Handbook: Word 2007](#)¹⁸, ISBN 0-9738370-9-8 by Karen McCall, M.Ed.

Word 2010

These resources are specific to word 2010 but you can use the techniques in other versions of Word.

[Making Documents Accessible from Humbol University](#)¹⁹. A note about the video on using Word styles: a person using a screen reader will only know that you've used intense emphasis if they have a verbosity setting chosen to announce style changes and they are reading the document word by word. If someone is reading through the document or reading paragraph by paragraph, sentence by sentence or line by line changes in style are not identified. For those of us using screen readers having every style change announced is annoying and distracting from comprehension. That aside, this is a good visual resource and is captioned.

PDF Document Accessibility

This guide has provided basic information about tagged PDF. There are several online resources and one Book on how to create tagged PDF documents. As instructors you will most likely not have time to delve into repair techniques. It is for this reason that creating accessible Word and PowerPoint documents is essential to meeting the needs of your students and the legislative criteria for AODA.

These resources are a mixture of how to create tagged accessible PDF documents and how to build accessibility into other document formats.

[Creating Microsoft Word to PDF Documents from Adobe](#)²⁰. This is a tagged PDF quick reference card.

[Accessible and Usable PDF Documents: Techniques for Document Authors Second Edition](#)²¹ ISBN 978-0-9782675-2-0, by Karen McCall, M.Ed.. This is a book for anyone working with tagged PDF and covers beginner to advanced topics.

Web Addresses for Cited References

- ¹ Accessibility for Ontarians with Disabilities Act provincial home page: <http://www.mcass.gov.on.ca/en/mcass/programs/accessibility/>
- ² Web Accessibility Tools Consortium Color Contrast Analyzer: <http://www.wat-c.org/tools/CCA/1.1/>
- ³ George Brown College Captioning Policy: http://www.georgebrown.ca/policies/caption_media_e_text.pdf
- ⁴ George Brown College Bookstore 3000: <http://gbcbookstore.bookware3000.ca/>
- ⁵ Association of Canadian Community College's Fair Dealing Policy: http://www.georgebrown.ca/uploadedFiles/GBCLLC/Pages/Home_Page/Services/Appendix%20A%20-%20FairDealingPolicyACCC.pdf
- ⁶ Adobe Acrobat Home Page: <http://www.adobe.com/products/acrobat/?promoid=BPDDU>
- ⁷ Microsoft Save as PDF or XPS add-in: <http://www.microsoft.com/downloads/details.aspx?FamilyID=4d951911-3e7e-4ae6-b059-a2e79ed87041&displaylang=en>
- ⁸ Open Office Home Page: <http://www.openoffice.org/>
- ⁹ Adobe Accessibility Resource Centre: <http://www.adobe.com/accessibility/>
- ¹⁰ Best Practices for Creating Accessible Microsoft Office Documents from CalPoly: http://www.accessibility.calpoly.edu/content/instmaterials/document_creation/best_practices
- ¹¹ Creating Accessible Documents from Access IT @ NC State: <http://accessibility.oit.ncsu.edu/training/it-accessibility-quick-guide.php>
- ¹² Creating Accessible Documents from Empire State College New York: http://www.esc.edu/esconline/across_esc/disabsvnc.nsf/3cc42a422514347a8525671d0049f395/5dc1b1858e034c97852571bd006df3ca?OpenDocument
- ¹³ WebAIM Microsoft Word article on creating accessible documents: <http://www.webaim.org/techniques/word/>
- ¹⁴ Accessible Instructional Material from CalPoly: <http://access.sdsu.edu/pdf/InstructionalChecklist.pdf>
- ¹⁵ Creating Accessible Word 2003 Documents from CalPoly: http://training.calpoly.edu/calwac/Creating_Accessible_Microsoft_Word_Documents.pdf
- ¹⁶ Creating Accessible Word 2003 Documents from California State University ENACT: http://www.csub.edu/ati/documents/Accessible_MS_Word_documents.doc
- ¹⁷ Microsoft Word 2007: Creating Accessible Documents from California State University: http://teachingcommons.cdl.edu/access/docs_multi/documents/2007WordCSUv2_Final.pdf
- ¹⁸ Logical Document Structure Handbook: Word 2007 by Karen McCall: <http://www.karlencommunications.com/products.htm>
- ¹⁹ Making Documents Accessible from Humbol University: <http://accessibility.uoit.ca/tutorials/>
- ²⁰ Creating Microsoft Word to PDF Documents quick reference card from Adobe: http://blogs.adobe.com/accessibility/assets/WordToPDFReferenceCard_v1.pdf
- ²¹ Accessible and Usable PDF Documents: Techniques for Document Authors Second Edition by Karen McCall: <http://www.karlencommunications.com/products.htm>