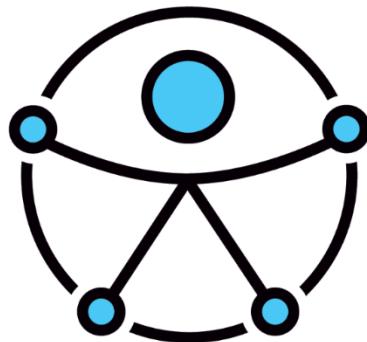


Karlen Communications

Accessible Document Design

Conference Handout 2017



Karen McCall, MEd

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Contact Information

This document is the material corresponding to conference and pre-conference sessions on accessible document design for Word and PowerPoint 2016 for both the Windows and Mac platforms.

The conference and pre-conference sessions are presented by Karen McCall, MEd, Microsoft MVP for Word (2009 to present), Microsoft Accessibility MVP (2014 to present and , Canadian delegate to the ISO (International Standards Organization)PDF/UA (Universal Accessibility) committee. You can [contact Karen](#)¹ by e-mail with any questions you might have or visit the [Karlen Communications website](#)² for more handouts and tutorials.

Note: The content in this handout is copyright from other publications by Karen McCall. The titles and their ISBN numbers can be found on the Karlen Communications website, [Books and Services](#)³ page. The content was updated June 2017.

Introduction

Microsoft Office makes it easier to create accessible documents especially in Word and PowerPoint. This support document for workshops on accessible document design will give you the basics and hopefully answer some of your questions.

Not everything related to what can be done in Word and PowerPoint to optimize documents and presentations for accessibility is contained in this document or presented in workshops. However, it is a start and will get you well on the way to creating more accessible content.

There are additional documents attached to this PDF document for topics I've developed more specific tutorials for. I'm still working on the Mac versions. There are two pages on the Karlen Communications website, one for [Microsoft Office for Mac](#)⁴ and one for [Microsoft Office for Windows](#)⁵.

Have fun!

¹ Contact Karen McCall: info@karlencommunications.com

² Karlen Communications website: <http://www.karlencommunications.com>

³ Karlen Communications, Books and Services: <http://www.karlencommunications.com/products.htm>

⁴ Microsoft Office for Mac web page on Karlen Communications website:
<http://www.karlencommunications.com/OfficeForMacAccessibility.html>

⁵ Microsoft Office for Windows web page on Karlen Communications website:
<http://www.karlencommunications.com/OfficeForWindowsAccessibility.html>

Word 2016

There are several elements you can use to create more accessible Word documents:

- Create templates for individual types of documents such as letters, reports and newsletters.
- Use Themes and Style Sets so that if someone can't use the colours, fonts and/or font sizes you've chosen they can use their own Style Set or a different Theme.
- Use heading styles and custom heading styles.
 - Always make sure that the Headings are sequential! **DO NOT skip Heading levels!**
- Use inherent document structure such as lists.
- Insert, don't draw tables.
- Don't allow table rows to break across pages.
- Use cell margins instead of the Enter key for spacing.
- Identify table header rows [these are NOT headings.]
- Provide Alt Text for images and objects.
- Provide Captions for tables, images and equations.
- Use contextual links supported by footnotes or endnotes.
- Do not use Content Controls to create fillable forms/document parts.
 - You can create a more accessible form by using a Word template, printing to adobe PDF and adding the form controls then Tags in Adobe Acrobat.

Always create a template for the various types of documents you'll use. This makes it easier to give each document a consistent and distinct look and feel.

Take advantage of Themes and Style Sets in Office. This will let people swap out a Theme that is not accessible or usable to them and use one that is. When you combine Themes with a personalized Style Set the level of accessibility can be optimized.

Clearing Formatting!

One of the barriers to accessibility is the formatting that often comes with repurposing content from one document to another or when document authors use direct formatting, both of which brings the formatting from the source document into your current document or template. This can create chaos in terms of styles and result in content being formatted in ways you don't want or need. It is important to clear the formatting of anything you are

adding to your current document or template. This should be done BEFORE you bring it into the current document or template.

There are several ways to clear formatting from selected content in Word:

- Select the text in the source document and press Alt + H, E to “erase” the formatting.
- Selecting a paragraph and pressing Ctrl + Q will reset the paragraph to the margin but will not clear formatting.
- Selecting a paragraph and pressing Ctrl + Spacebar will clear manual formatting such as Bold or Italic.
- Set the Copy and Paste options in the Word Options dialog to match the destination formatting, or Keep Text Only.

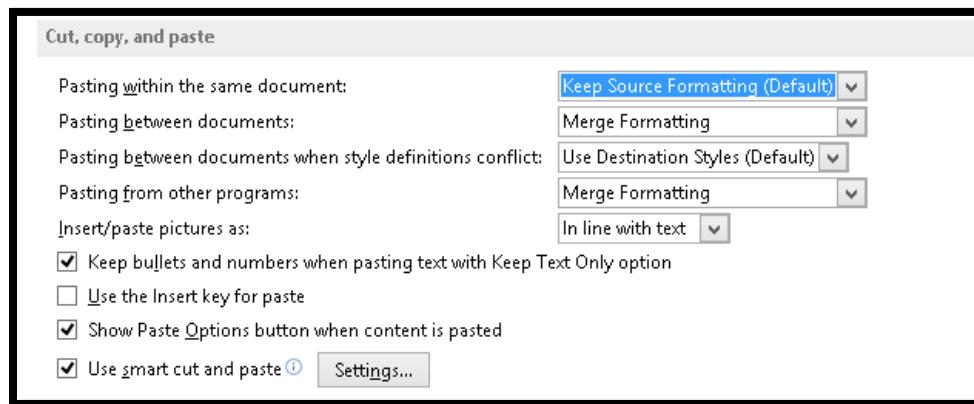


Figure 1 Cut, Copy and Paste setting in Word Options dialog.

To find the Cut, Copy and Paste settings in the Word Options dialog:

1. Press Alt + F, T for File/Backstage area, Word Options.
2. When the Word Options dialog opens, press A for the Advanced category.
3. Press Alt + W twice to move to the list for copying or moving within the same document.
 - a. For this setting it is OK to “Keep Source Formatting” because you are copying and pasting within the same document and most likely just want to move content around, not get rid of wonky formatting.
4. Press Tab to move to the next setting.
5. The next setting is for copying and pasting content from one document into another. For this setting, choose Keep Text Only which will remove formatting from the source content as it is being pasted into the current document.
6. Press Tab to move to the next setting.

7. The next setting is for copying and pasting content from other applications into Word documents. For this setting, choose Keep Text Only so that any formatting done in the source application will be removed when you paste the content into a Word document.

By default, copying images or pictures into Word will result in Inline objects.

In addition to these main settings for copying and pasting, there are Smart Copy and Paste options found under a Settings button in the same area of Advanced settings. If you press Alt + S you will move to and check the check box for “Use Smart copy and paste options” which will reveal a Settings button (once the check box is checked, press Tab to move to the Settings button and press Enter.)

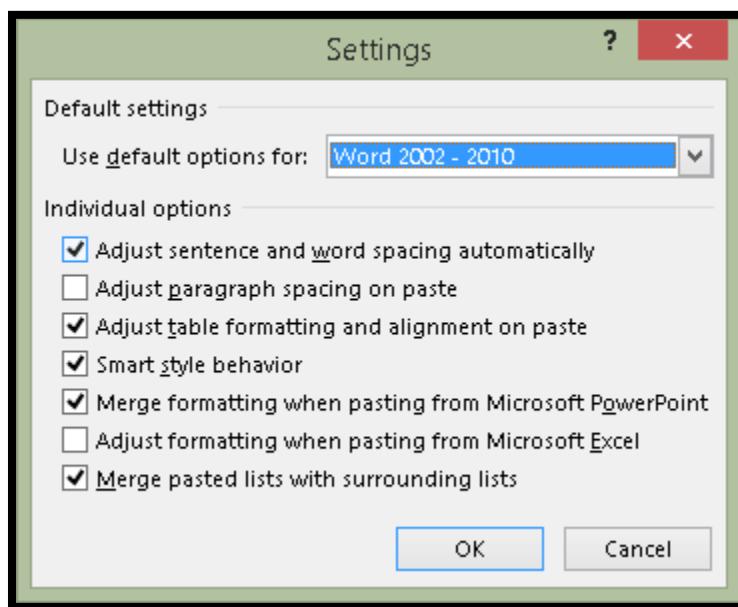


Figure 2 Smart Paste Settings in Word 2010.

The advanced copy and paste settings are:

- Alt + D for “Use default settings for Word 2002-2010.”
- Alt + W for “Adjust sentence and Word spacing automatically” which is checked by default.
- Alt + P for “Adjust paragraph spacing on paste” which is not checked by default.
- Alt + G for “Adjust table formatting and alignment on paste” which is checked by default.
- Alt + S for “Smart style behaviour” which is checked by default.
- Alt + letter O for “merge style formatting when pasting from Microsoft PowerPoint” which is checked by default.

- I usually uncheck this.
- Alt + E for “Adjust formatting when pasting from Microsoft Excel” which is not checked by default.
- Alt + M for “Merge pasted lists with surrounding lists” which is checked by default.
 - I usually leave this but if you have problems copying and pasting content in lists or near lists, you might want to uncheck this.

It is helpful to know that these settings exist so that you can change them if you need to.

Navigation Pane

Those of us who use adaptive technology such as the JAWS screen reader, may have access to a list of headings in the document. Not all adaptive technology has this feature. It is also helpful for those creating documents to be able to check to make sure that the text that they want to be Headings or navigational points, use the correct Heading level style.

Word has the Navigation Pane (in Word 2007 or earlier, this was known as the “Document Map”) that anyone can use.

When remediating Word documents I always keep this open. It not only shows what text is a heading, but also the hierarchical structure of headings.



Figure 3 View Ribbon Navigation Pane check box.

The Keyboard command to show or hide the Navigation Pane is Alt + W, K for View Ribbon, Navigation Pane. Pressing this keyboard command when focus is in the document will either open or close it (check or uncheck it).

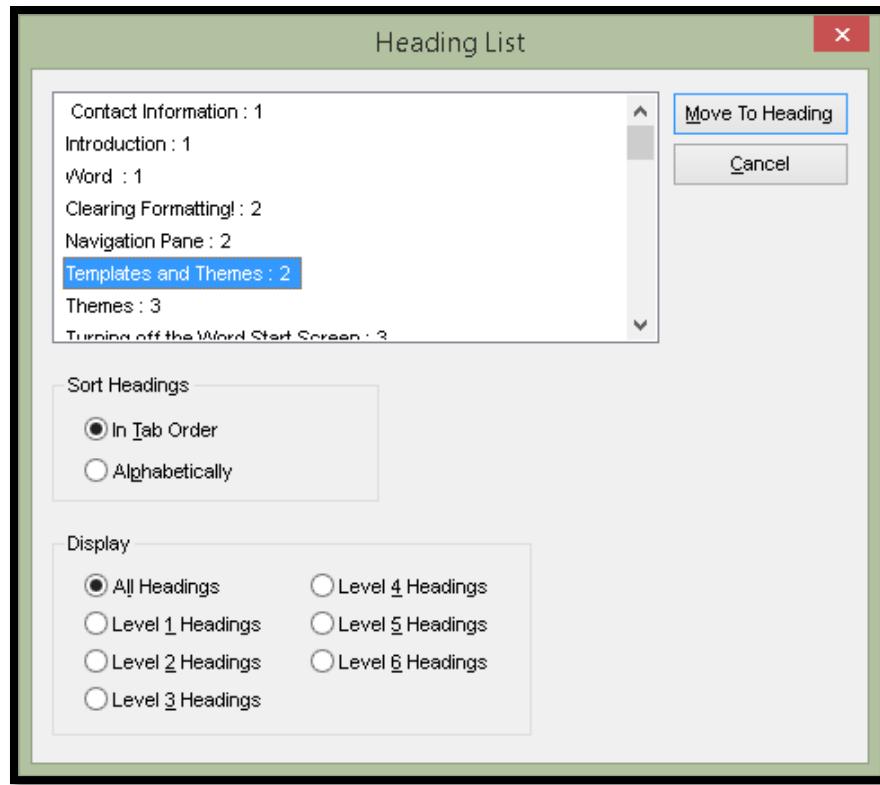


Figure 4 List of Headings in a Word document from JAWS screen reader.

The preceding image shows the Headings List for this document from the JAWS screen reader. Headings and their level are listed. This provides information on the hierarchy of content in the document as well as being a navigational tool to quickly move to the content you want to go to and read.

The following image shows part of the Navigation Pane for this document. The Navigation Pane opens to the left of your document.

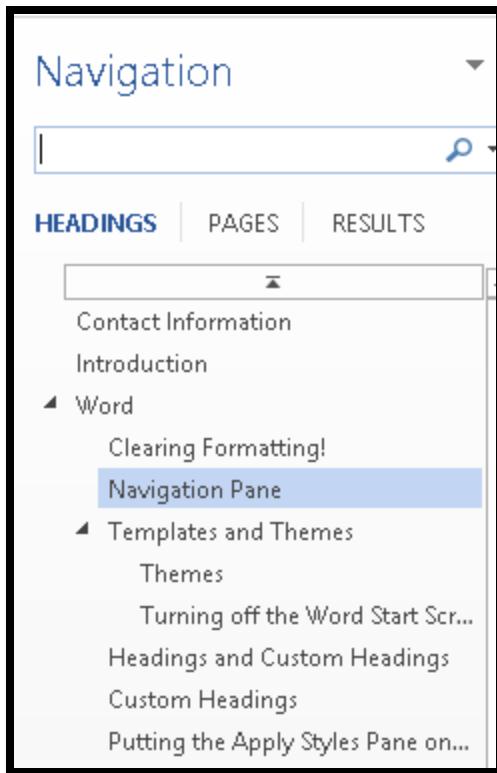


Figure 5 Navigation Pane in Word.

The Navigation Pane shows you the hierarchy of content in your document and whether Heading levels have been skipped. Each Heading level is nested one under the other in incremental indents. **DO NOT skip Heading levels in documents!**

If you are converting the document to tagged PDF, the headings will become Bookmarks. The Navigation Pane gives you a preview of what items will be in the Bookmarks.

Headings are also the basis for generating a Table of Contents.

The Navigation Pane is accessible to those using adaptive technology and/or the keyboard.

Press Shift + F6 and F6 to move between the document and the Navigation Pane. Use Tab to move to the first Heading and then the Up and Down Arrows to go through the Headings. Press Enter on the one you want. You are taken to that point in the document and can begin reading. To get back to the Navigation Pane, press Shift + F6.

Templates and Themes

It is easier to use templates and Themes with documents in Word and PowerPoint.

The first step is to create a template.

There are two ways to create a template. The first is the easiest.

1. Open a new blank document and press F12. This opens the Save As dialog.

2. Give the new template a name such as "Report" or "Annual Report."
3. Press Tab to move to the Files of Type list and choose Word Template (DOTX).
4. Your template will be saved in the Custom Office Templates folder in your Documents folder as soon as you choose Word Template as your file type.

The second method might work better for those of you who are mouse dependent.

1. Press Alt + F, N for File/Backstage area, New or click on file, then click on New.
2. Choose your storage device. By default, it is most likely to be This PC. Keep that as the storage device to save your template in the Custom Office Templates folder on your hard drive.
3. Press Alt + Y, 3 to move to the edit area where you can give the file a name and then press Tab to move to the Files of Type list and choose word Template (DOTX). The keyboard command is Alt + Y, 4.

With any Office application you can save templates to any storage device. However, if they are not in the Custom Office Templates folder they will not be easy to find and use again.

Once you save your template you can modify the default styles and add any static text to the template.

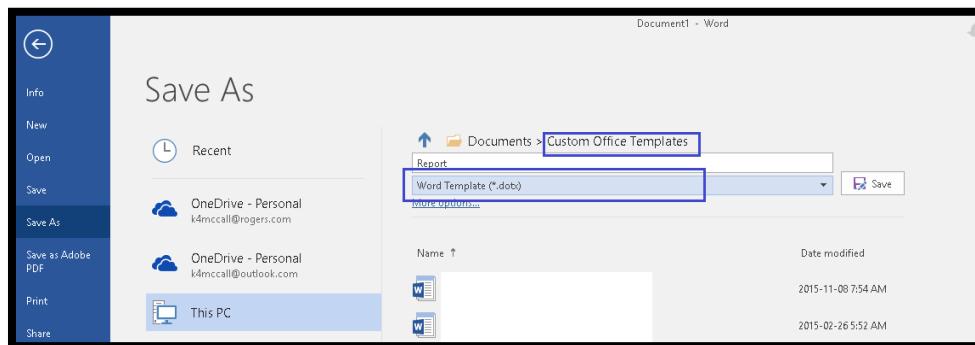


Figure 6 File/Backstage area, Save As...Word Template.

Note: Any content you place in the Page Header or Footer area of the document is not readily discoverable by adaptive technology. Do not put the title of the document in the Page Header only! It must be in the main text layer of the document. When information is placed in the Page Header, accessing it requires going into the Page Header then back to the main document. Many basic users don't know how to do this and it is bad document design.

Pinning Documents to the Recent Documents List

I recommend pinning templates to the list of Recent Documents. It will be easier to find when you want to use it.

To pin a document to the list of Recent Documents:

1. The document does not have to be open but it does have to be in the list of Recent Documents.
2. Press Alt + F, R for File/Backstage area, Recent Documents.
3. Press Tab to move into the list of Recent Documents then Tab again to move to the actual list. If you are using a screen reader you will hear the name of the first document in the list. Use the Up and Down Arrows to find the document you want to pin to the list.
4. When you locate the template, press the AppKey or right mouse button and Choose "Pin to List."
5. Visually the document is now placed in the top area of the list of Recent documents and has a push pin in dark blue to the right of the name of the document. The list of Recent documents are alphabetical.

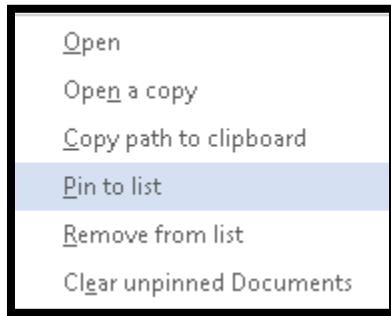


Figure 7 Document context menu in list of Recent Documents showing Pin to List option.

You can pin or unpin any document by following the same process. If a document is pinned, the text will say "Unpin from list."

To use the template, Press Alt + F, R for File/Backstage area, Recent Documents.

When you locate the document in the list of Recent Documents, right click or press the AppKey and choose "Open a Copy."

Note: Do not press Enter on the template from your list of recent documents. This will not create a document based on the template but will open the template for you to modify.

You can go through the File/Backstage, New (Alt + F, N) process but once you get the Start Screen you will need to press Tab to move into the list of Templates and then E to list your Personal or Custom Office Templates. You will need to Tab to the list of templates then Arrow around the templates to find the one you want. If you are using a screen reader, this may take a while. Using the option to pin documents you use a lot or are working on over a long period of time makes using templates much easier if you are using adaptive technology.

Themes

You can use Themes to mix and match colours, fonts or effects. You can even create a new Theme with your branding colour palette or modify an existing Theme (and give it a new Theme name).

Press Alt + G, T , H to open the Themes Gallery. This will let you choose an entirely different Theme for the look and feel of the document.,

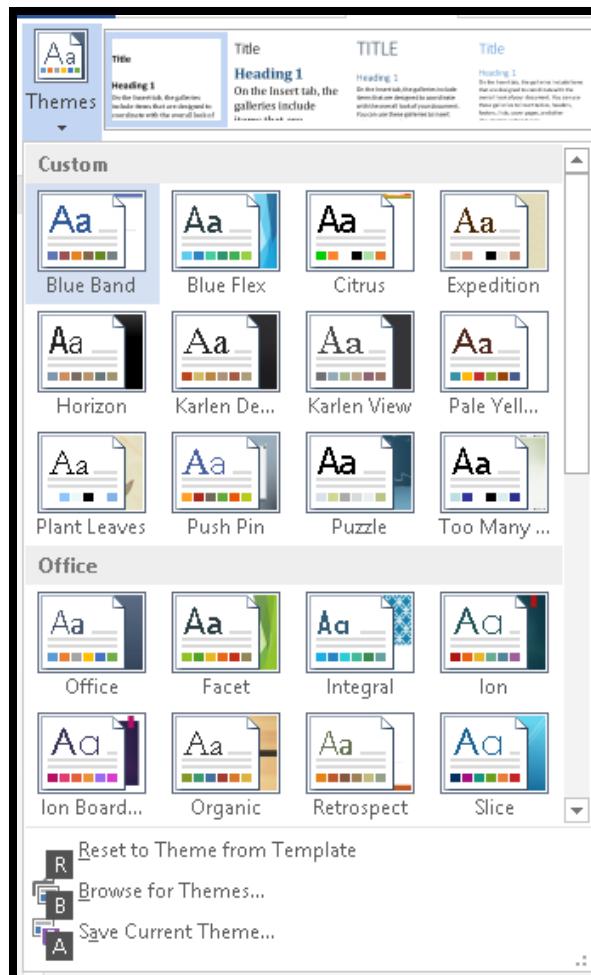


Figure 8 Themes Gallery in Word.

Press Alt + G, T, C to open the colour choices, Alt + P, T, F to open the font choices, or Alt + P, T, E to open the Effects choices. You can't change the Effects colours. They are based on the Theme colour palette.

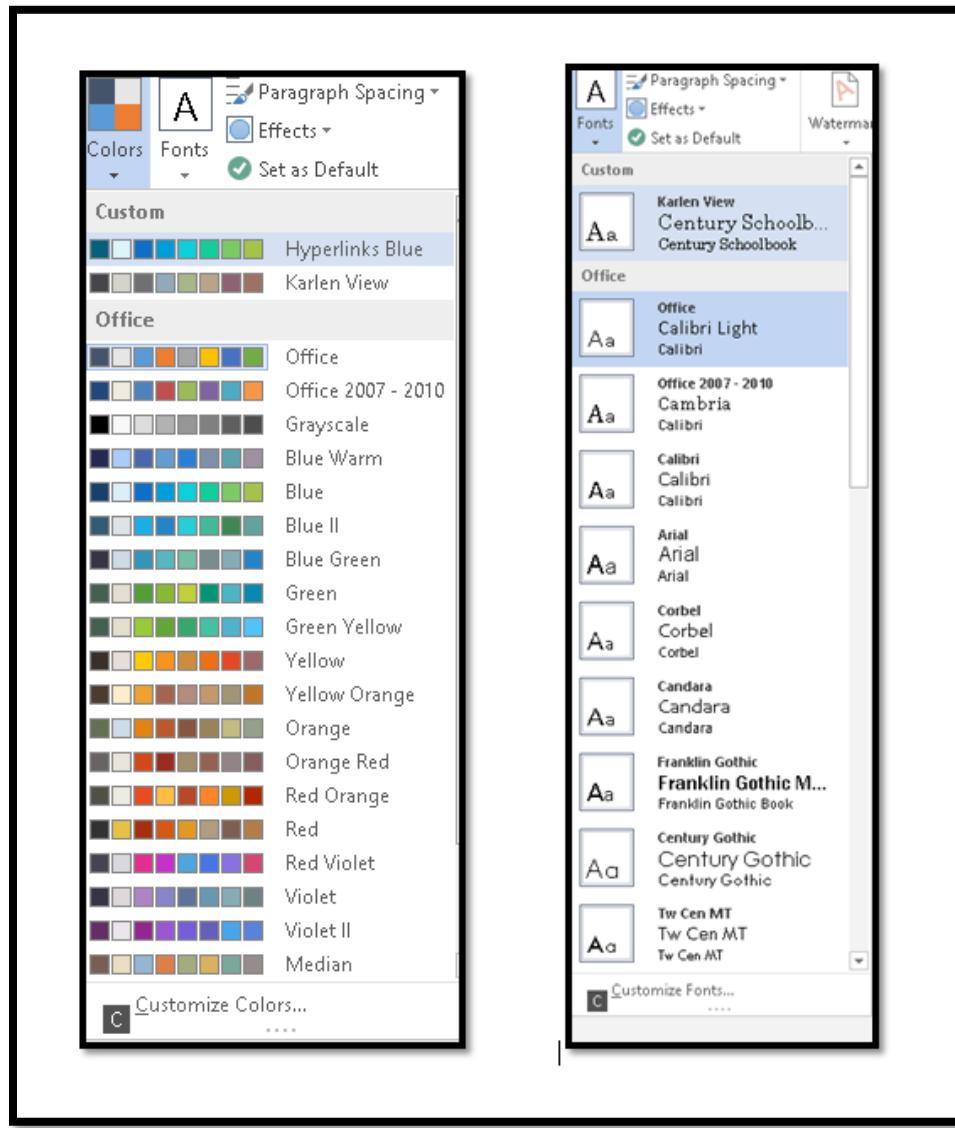


Figure 9 Themes Colour and Themes Font Galleries in Word.

A Theme is made up of four parts:

- The Theme itself.
- Theme Fonts.
- Theme Colours.
- Theme Effects.

You can modify the fonts and colours of Themes but not the Theme Effects . We'll look at modifying a colour in the PowerPoint section of this handout.

You can make your template a Theme that can be applied to any document.

While the template is open, just before you close it, press Alt + G, T, H, S to save the current Theme (Design Ribbon, Themes, Save Current Theme).

Focus is in the area where you can give the Theme a name.

Once you give the Theme a name and save it, your new Theme will appear in the Themes Gallery for all Office applications. It will include its own Theme Fonts and Theme Colours based on your choices.

You can choose an existing Template such as a report, invitation, flyer or other type of document by pressing Alt + F, N, then number 1 for Business, 2 for Industry, 3 for Personal, 4 for Design Set, 5 for Event, 6 for Letter or 7 for Education.

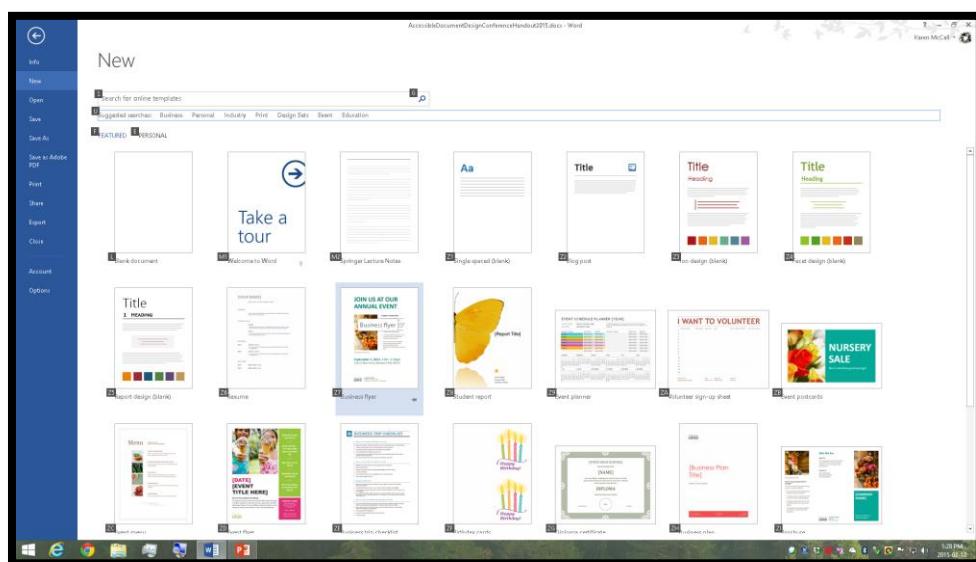


Figure 10 New document Template for Word.

Press Tab to move into the list of document templates and then the Up, Down, Left and Right Arrow keys to locate the template you want to use. Press Enter on the document template to use it.

If you want to work with the default blank Word document, press either Alt + F, N, L for File/Backstage area, New, Blank Document or Ctrl + N if the Start Screen is not visible..

Turning off the Word Start Screen

If you want to turn off the Start Screen, which shows each time you open Word 2016, press Alt + F, T for File/Backstage area, Word Options.

In the General category, press Alt + H to uncheck the check box to Show the Start Screen. This is a toggle that will move you to that check box and either check or uncheck it. This option is checked by default.

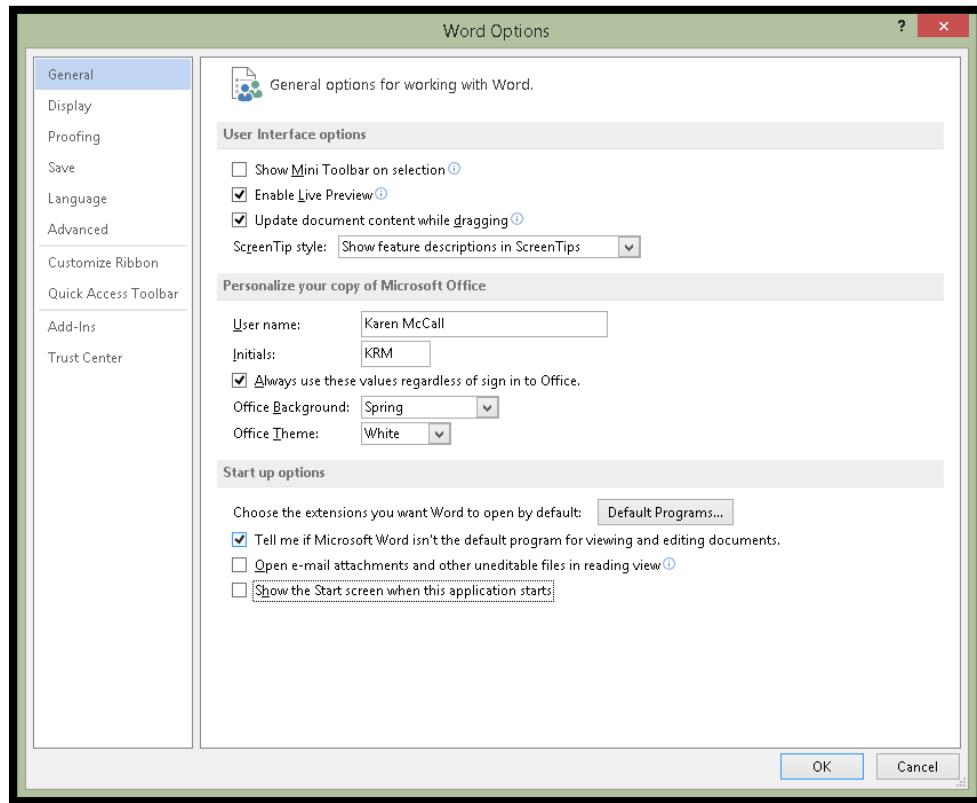


Figure 11 Word Options dialog with setting to show Start Screen turned off.

Headings and Custom Headings

One of the most critical structural elements of a document is the use of heading styles in our documents. Typically our first instinct is to fling formatting at text to make it look like a change in topic.

To create a more accessible document use proper heading styles and custom heading styles based on existing ones. You must also use Heading Styles in a hierarchical order, moving from Heading 1 to Heading 2 and not from Heading 1 to Heading 3. Headings are navigational points in a document and help everyone find the content they need when they need it. The Table of Contents is generated from the Headings in a document.

It is essential that Headings are in a sequential order in a document. This means that you have Heading 1 followed by Heading 2 followed by Heading 3 and Not Heading 1 followed by Heading 3 or Heading 2 followed by Heading 4.

Those of us using screen readers or Text-to-Speech tools depend on sequential Headings to navigate documents. If a Heading level is skipped, we begin troubleshooting to see if our

adaptive technology is not working correctly, that we somehow missed content or that content is missing from the document. Using sequential Headings in documents means that we don't start flinging content on the Page without first designing the structure of that content. We plan the structure and Headings of our documents. We also don't use Heading levels just because they look a certain way. We modify the look and feel of Headings so that the hierarchical or sequential structure of the document is retained.

To apply a heading style:

1. Select the text to be formatted with the heading style.
 - a. Press Ctrl + Alt + the number 1 for a heading level 1.
 - b. Press Ctrl + Alt + 2 for a heading level 2.
 - c. Press Ctrl + Alt + 3 for a heading level 3.

If you are not familiar with keyboard commands, use the Apply Styles Pane by pressing Ctrl + Shift + S.

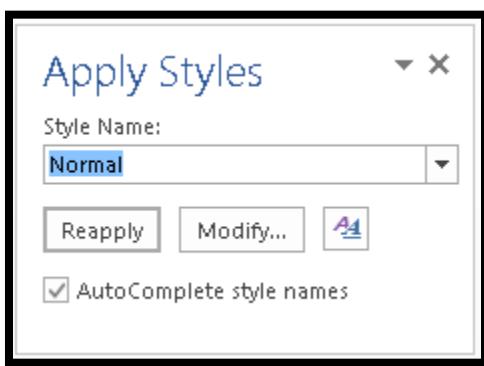


Figure 12 Apply Styles Pane showing the Normal Paragraph Style in use.

You can either type the name of the style you want to apply or press Alt + Down Arrow and use first character navigation to locate it. Press Enter and the style is applied to the selected text.

When you are finished working with the Apply Styles Pane, pressing Ctrl + Space, C while focus is in the Apply Styles Pane will close it. To put focus back on the Apply Styles Pane, press Ctrl + Shift + S again.

I recommend putting the Apply Styles Pane on the Quick Access Toolbar. There are instructions on how to do this in the [Office 2013 Settings and Changes](#)⁶ document on the Karlen Communications web site. There are also instructions for this later in this document.

⁶ Office 2013 Settings and Changes, Karlen Communications web site:
<http://www.karlencommunications.com/MicrosoftOfficeAccessibility2013.html>

You can use the Quick Styles Gallery on the Home Ribbon to apply a Style by pressing Alt + H, L and clicking on it. While the Styles in the Quick Styles Gallery are accessible using the keyboard, you cannot use first character navigation so this is a tool better left to those who are mouse dependent.



Figure 13 Quick Styles Gallery from the Home Ribbon.

Additionally, you could use the Styles Pane by pressing Alt + H, F, Y. This is one of those tools where the icon on the Home Ribbon is tiny and using the keyboard command to show the Styles Pane will save you time.

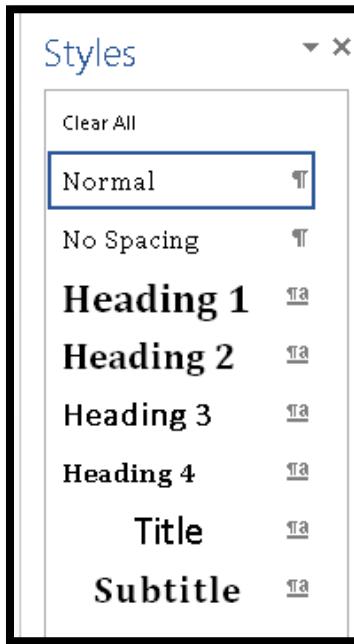


Figure 14 Styles Pane in Word.

Pressing Alt + H, F, Y again while focus is on the document will close it. If focus is on the Styles Pane, press Ctrl + Spacebar, C to Close it.

An advantage to using proper heading styles is the ability to generate a table of contents and to have headings in Word tagged as headings in an accessible PDF or Braille document or in an ePub book.

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Figure 15 Linked Table of Contents for this document.

If you want keyboard commands for heading levels 4 through 6, there is a [Customizing Keyboard Commands in Word](#)⁷ document on the Karlen Communications web site.

Custom Headings

If you need more than one look and feel for a heading level, you can create custom headings based on existing headings. This is the key for accessibility: the new headings are based on the existing heading structure in Word.

I usually add some text to the template, select it and then apply the inherent heading or other style I need to use as the base for the new style.

You can add random text to a Word document by typing the following and pressing Enter after the right parenthesis.

=rand(x)

Where "x" represents the number of paragraphs inserted, each having 3 sentences.

You can also type:

=rand(x, y)

⁷ Customizing Keyboard Commands in Word, Karlen Communications:
<http://www.karlencommunications.com/MicrosoftOfficeAccessibility2013.html>

Where "y" represents the number of sentences in each paragraph. If you prefer Latin text, use the same syntax but type the following:

```
=lorem(x, y)
```

Once you have some text in a document, you can begin modifying and adding Styles.

To create a new Style:

1. Open the Styles Pane by pressing Alt + F, Y.
2. The New Style button is at the bottom left of the Styles Pane. It is the button to the far left in the group of three buttons.
3. Once activated, the New Style dialog opens and you are ready to create the new style.

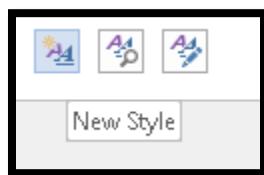


Figure 16 New Style button in the Styles Pane.

If you are creating a new Heading Style, I recommend that you name the Style something Like Heading 1A so that it falls alphabetically in line with other Styles in the Styles Pane. This makes it easy to find and use, especially if you are creating a template for others to use. If you will be the only one using the template, using a standard naming convention will help you remember what Style to use months or years later.

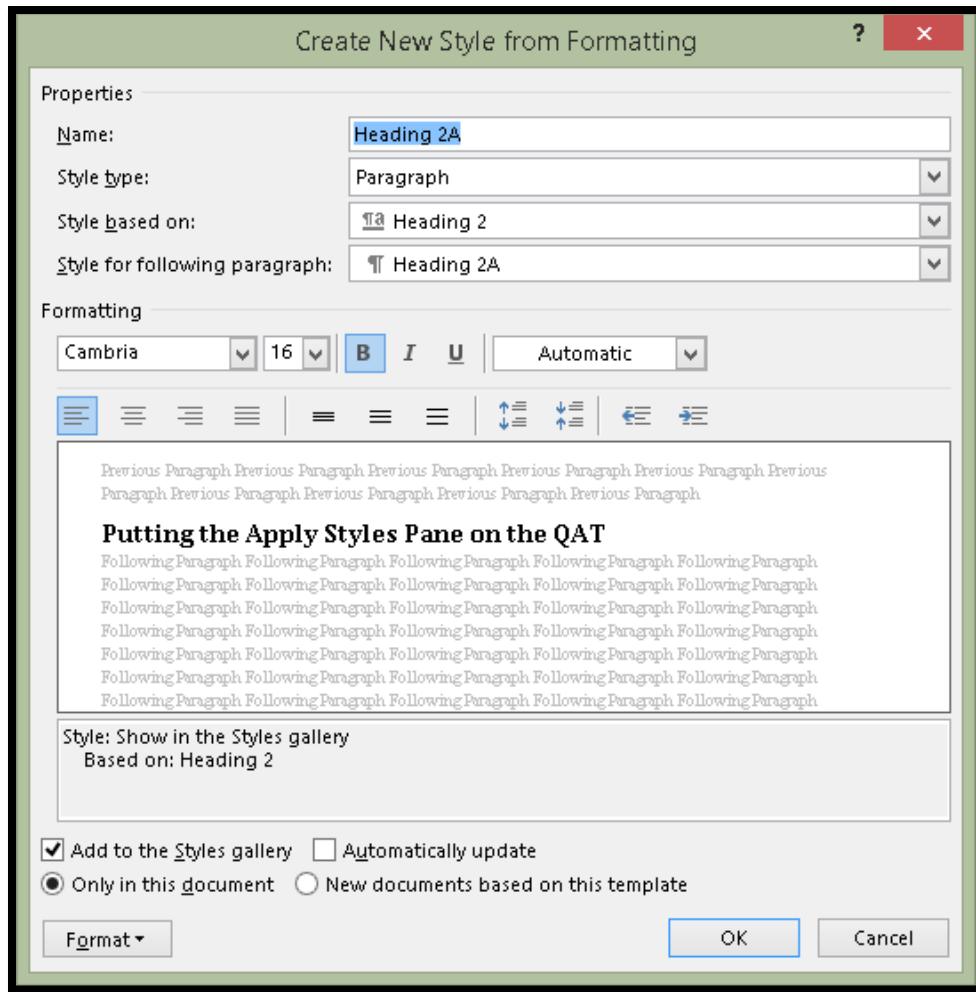


Figure 17 New Style dialog showing Heading 2A Style.

Note: In the preceding image I've created a Heading 2A based on Heading 2. This is important. If you create a Heading 2A and it is based on the Normal paragraph Style, it will not be a real heading. Any new heading styles you create must be based on an existing heading style.

You can now make any formatting changes that would apply to a Heading 2A in your documents.

When you are finished, don't check automatic update! This will add a new style for EVERY one-off formatting you apply in subsequent documents creating a "dog's breakfast" of formatting that is impossible to sort through and use.

The one thing you do need to decide is whether you want the new style to be available only in this document or for new documents based on this template. The keyboard command to

move to the first radio button is Alt + D while you are in either the Modify Style or New Style dialog.

Modifying an Existing Style

I mentioned earlier that if you don't like the way Heading 1 looks, you can change it. The best way to do this without corrupting the normal blank document in Word is to create a template. For example, if we have a Report template, we can then modify Heading 1 to look the way we want. We can also modify the Normal Paragraph Style font and font size so that when we create a new document based on the template, it will have the look and feel we want.

To modify an existing style:

1. Select some text and format it with the Style you want to modify..
2. Press Ctrl + Shift + S to open the Apply Styles Pane.
3. Tab to the Modify button and press Enter.

You don't need to rename the style because you are just going to modify it. The Modify Style dialog looks the same as the New Style dialog.

If you are mouse dependent, you can right click on a style in the Quick Styles Gallery and choose Modify. You can also do this from the Apply Styles Pane. While this can be done from the keyboard in both places, it is faster using the Apply Styles Pane.

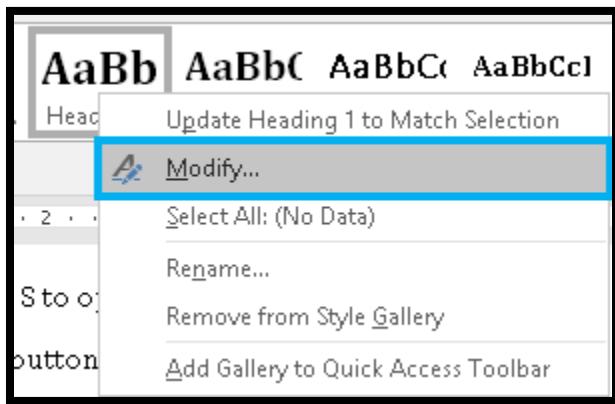


Figure 18 Modify option from the context menu in the Quick Styles Gallery.

The Modify Style dialog looks the same as the New Style dialog. You can make any changes you want to the font, font size, font colour, Paragraph spacing, borders or alignment.

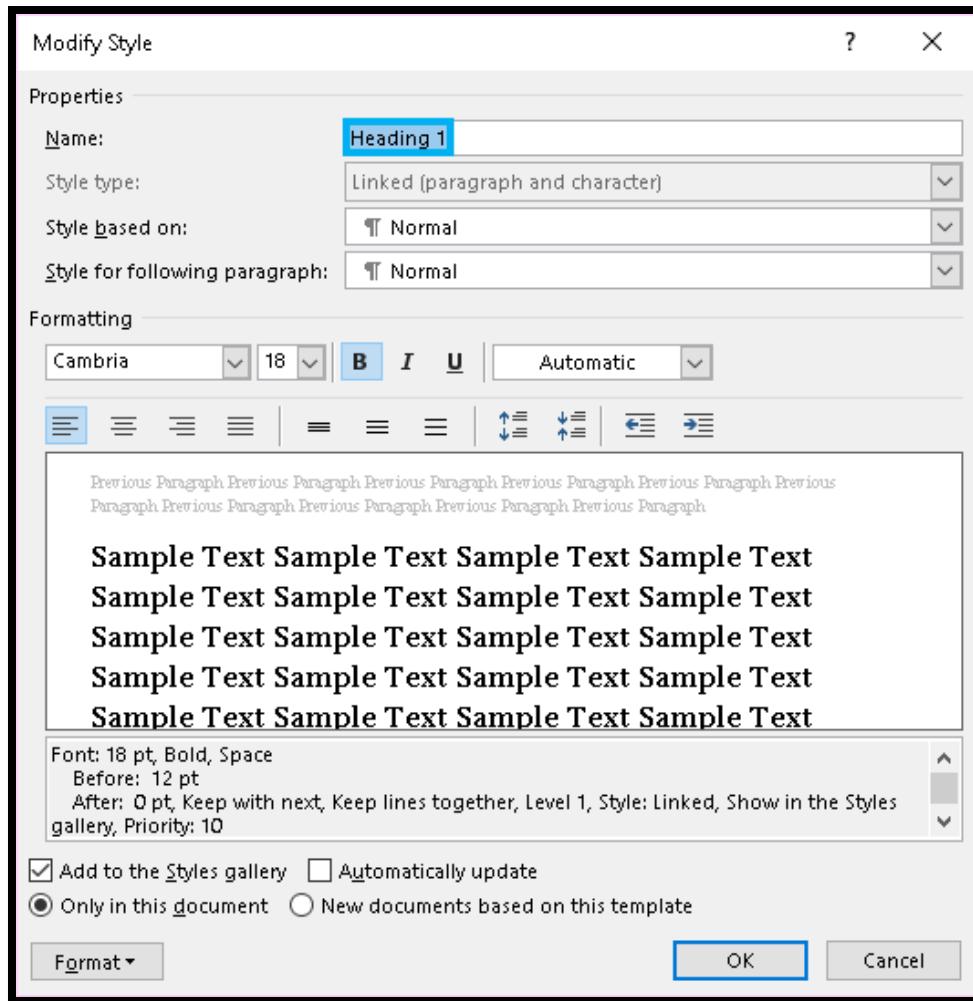


Figure 19 Modify Style dialog for the Heading 1 Style.

Putting the Apply Styles Pane on the Quick Access Toolbar

If you used the style drop down list in Word 2003 you probably miss it. If you didn't use it, you will want to start using it.

Word does have the Quick Styles Gallery that is visible so that you can see the Style in use. However, it is sometimes faster to use the keyboard. The Apply Styles Pane is easier to glance at and verify the formatting for the selected text if you are using the keyboard.

The Apply Styles Pane is a floating dialog that is located to the right of the document when you open it using Ctrl + Shift + S.

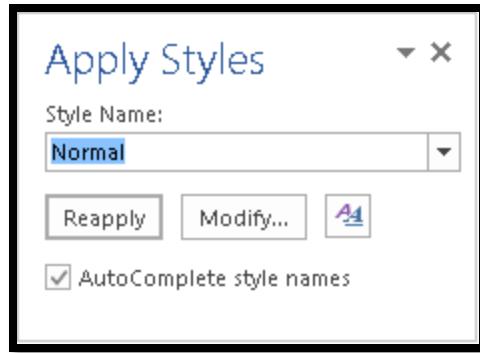


Figure 20 Apply Styles Pane.

To put the Apply Styles Pane on the Quick Access Toolbar:

1. Press Alt + F, T to open the Word Options dialog.
2. Press Q to move to the Quick Access Toolbar category.
3. Press Tab to move into the options for the Quick Access Toolbar. You are in the list of possible types of commands to list.
4. Choose All Commands from the list of commands.
5. Find "Style" with no other verbiage associated with it.
6. Press Alt + A to add it to the Quick Access Toolbar.
7. Tab to and press Enter on the OK button to confirm the addition.

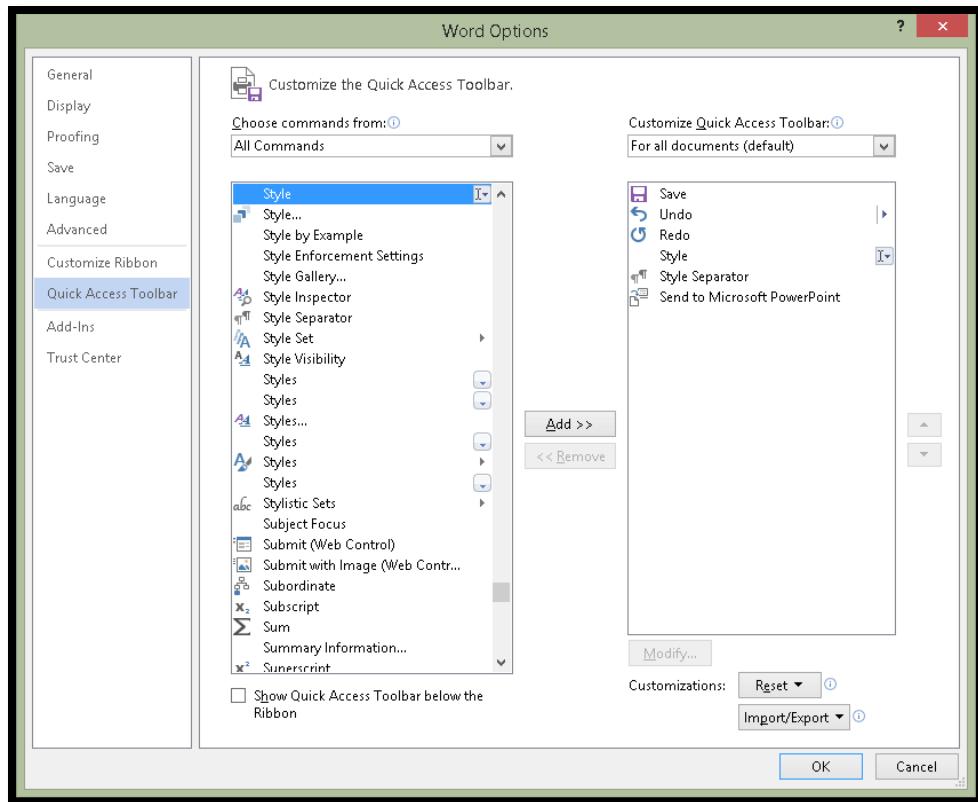


Figure 21 Word Options dialog showing Quick Access Toolbar options.

Items on the Quick Access Toolbar can be accessed by pressing Alt + a number. In this case, the Apply Styles Pane is Alt +5 because on my Quick Access Toolbar, it is the fifth item.

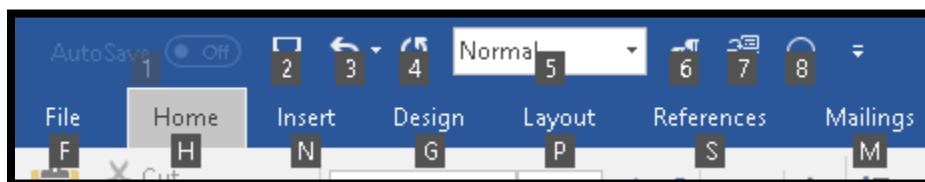


Figure 22 Quick Access Toolbar with focus in the Apply Styles Pane.

Other tools you will want to put on the QAT are:

- Select Table which is in the Popular Commands.
- Send to Microsoft Office PowerPoint which is in the Commands not in the Ribbons. This will let you create your PowerPoint content in Word and then send it to PowerPoint to add the bling or eye candy.
- Reveal Formatting which is in the Commands not in the Ribbons. (Shift + F1 is the only way to see the Reveal Formatting Pane if you don't put it on the Quick Access Toolbar.)

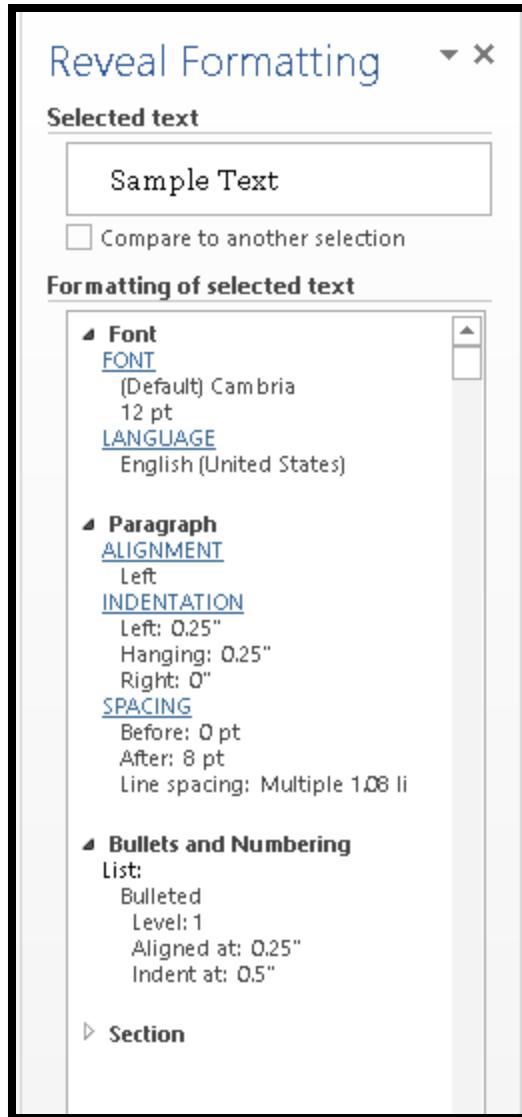


Figure 23 Reveal Formatting Pane.

Pressing Shift + F1 again will close the Reveal Formatting Pane.

The Reveal Formatting Pane shows you the formatting at the cursor point.

Bulleted and Numbered Lists

Use the Bullets and Numbers tools to create standard lists. Avoid using non-Unicode symbols for lists.

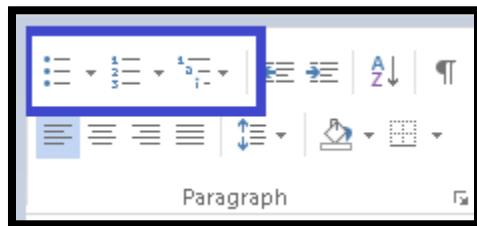


Figure 24 Bullets and Numbering icons in upper left of Paragraph Group.

The following image shows the Bullets Gallery, the Numbering Gallery and the Multilevel List Gallery.

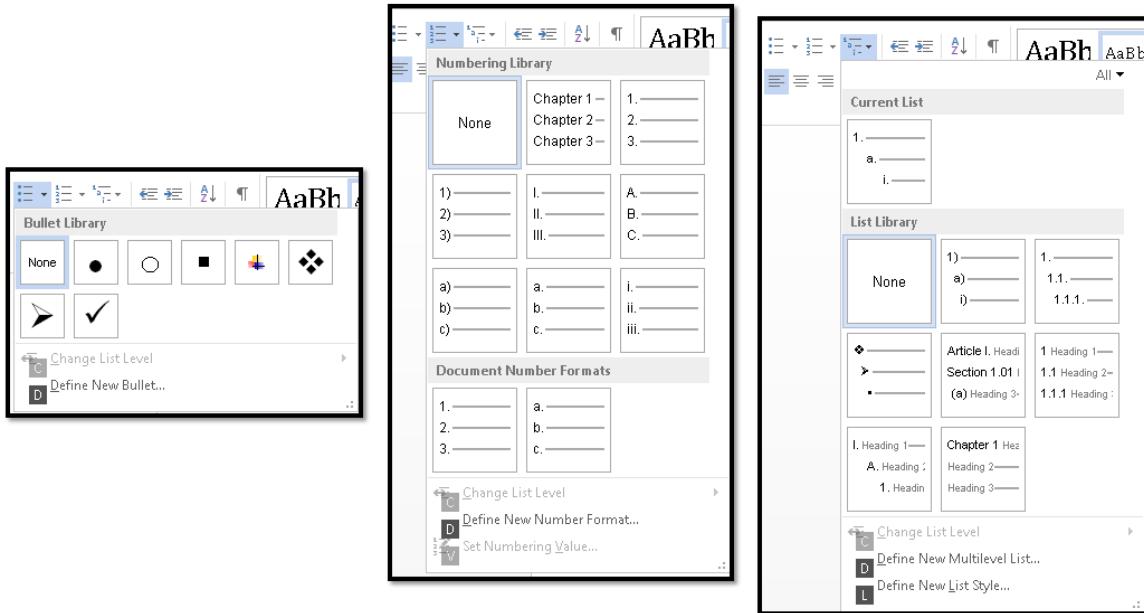


Figure 25 Bullets Gallery (Left), Numbering Gallery (Centre) and the Multilevel List Gallery (Right).

Adding Space Between Bulleted or Numbered List Items

Do not press Enter to put space between list items. This breaks the list into several individual lists rather than one list of items. Select the list and use the paragraph dialog to add space after each list item.

Modify the List Paragraph Style to ensure that all lists in a document have the same spacing.

Select an the text in a list so that the List Paragraph Style is identified as the one in use. You can look at the Quick Styles Gallery to see if it is highlighted or if you are using the JAWS screen reader you can press JawsKey + F to get font information at the cursor point. If you are using another screen reader or Text-to-Speech tool, look up the keyboard command for font information for that technology.

By modifying the List Paragraph Style, all lists in the document will be affected this means that every bulleted, numbered or multilevel List structure will have the same spacing and the document will retain a consistent look and feel for those creating it and reading it.

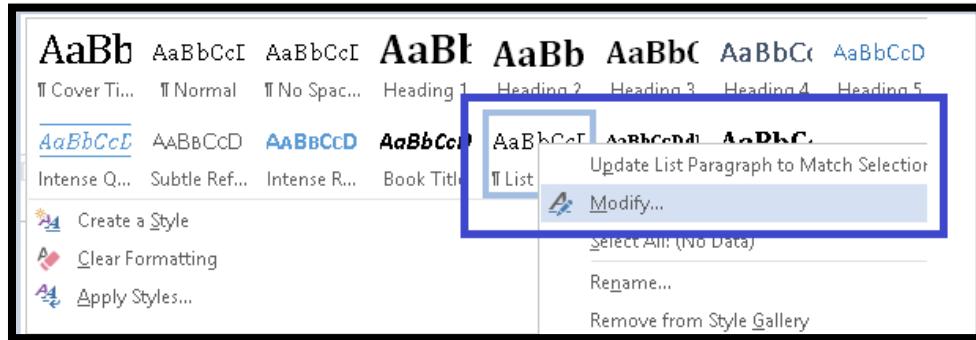


Figure 26 Modify the List Paragraph Style from the Quick Styles Gallery.

With a list item selected, either activate the Modify option form the List Paragraph Style on the Quick Styles Gallery or press Ctrl + Shift + S to open the Apply Styles Pane and Tab to the Modify button then press Enter/Spacebar.

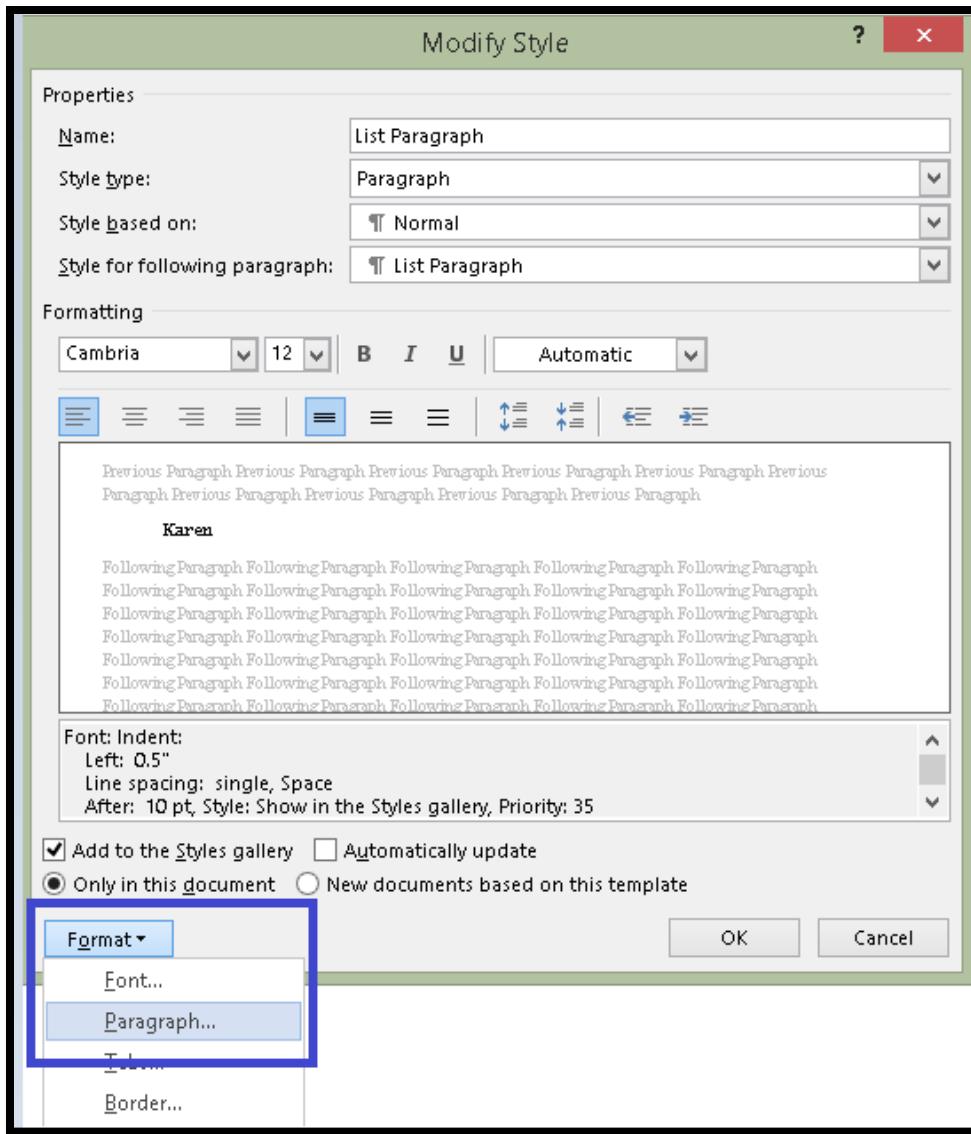


Figure 27 Format button expanded to show the context menu and Paragraph selected.

In the lower left of the Modify Style dialog (and the New Style dialog) is the Format button. The keyboard command to open the Paragraph dialog is Alt + H, P, G. This is another of those tools that is accessed faster using the keyboard than the mouse. The small icon for it is located in the lower right of the Paragraph Group on the Home Ribbon.

To add space between list items, uncheck the check box to “Don’t add space between paragraphs of the same style.”

Usually 8 point to 10 point spacing after a list item works well visually. I don’t generally add spacing above each list item because the purpose is to add a bit of spacing and as you can see from this document, adding space below each list item provides just enough spacing to separate the list items. (In this template the spacing is 8 point after each list item.)

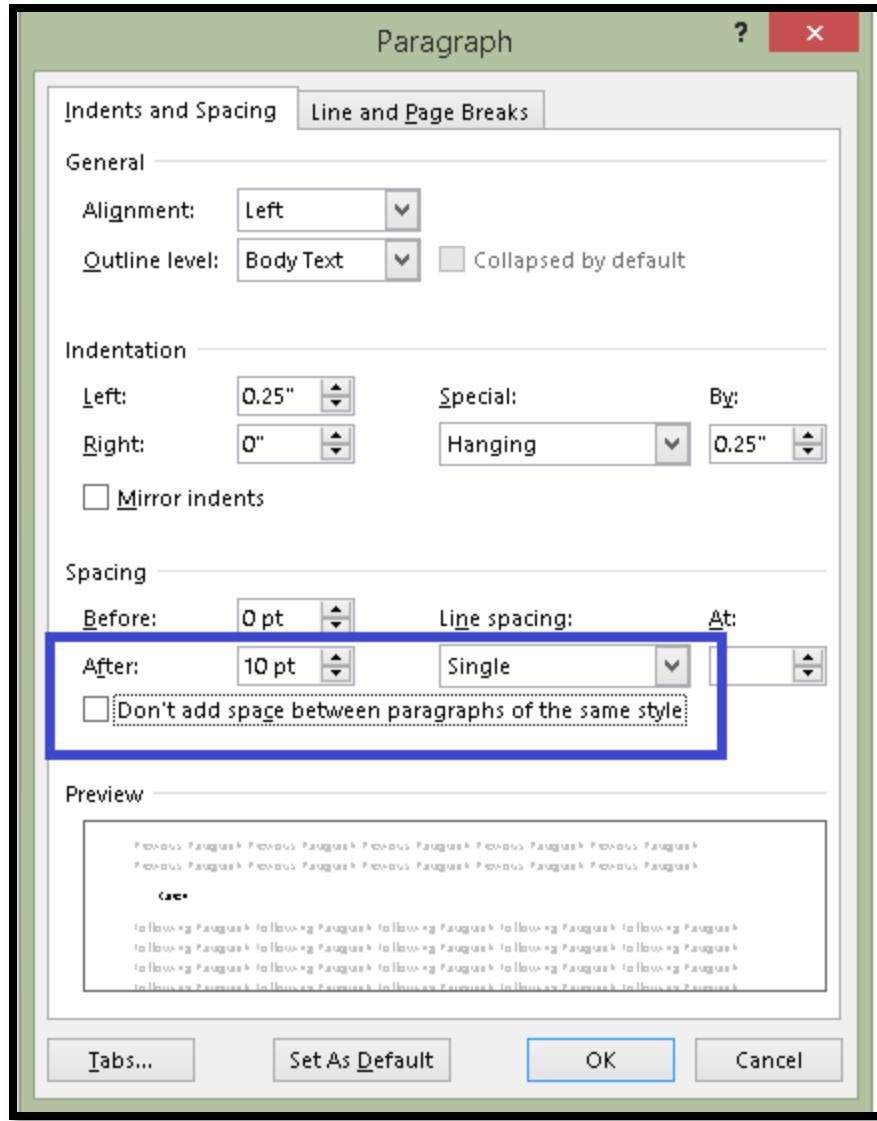


Figure 28 Paragraph dialogue showing changes to spacing below each list item.

I generally match the spacing below a list item to the font size used for the list or the document. This gives that professional amount of space below each list item without the lists looking awkward or unprofessional/too much space between list items.

The Role of Sub-Lists and their List Items

Sometimes in documents that are poorly designed we see several paragraphs of content loosely “associated with a single bulleted or numbered list item. The following image demonstrates the visual effect in a document (Left). And the true role of that paragraph in the document (Right).

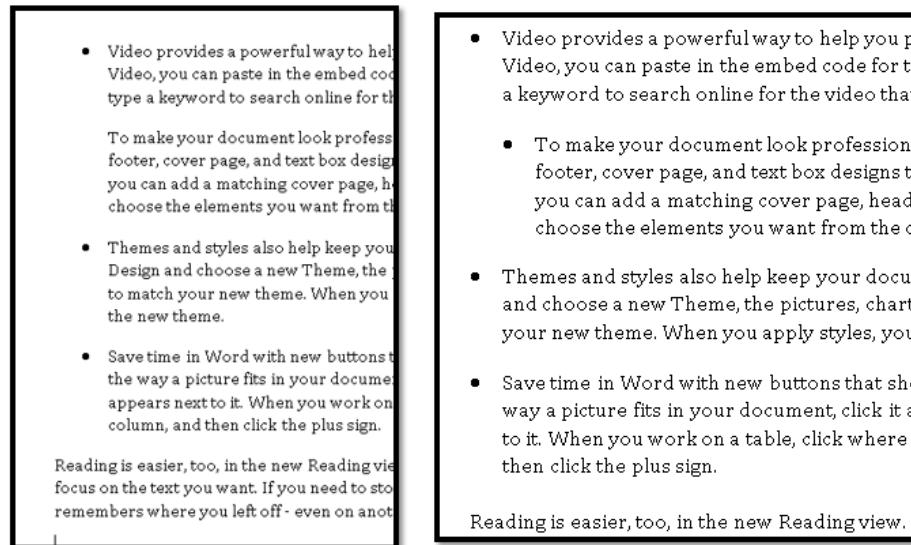


Figure 29 Visual effect of sub-list without structure (Left) and the true role it has in the document (Right).

The technique shown on the left breaks the list structure. This means that someone using a screen reader or Text-to-Speech tool will hear that they are entering a list of one item, the first bulleted item will be read and the person will be told they are leaving the list. The paragraph will be read and then the person using a screen reader or Text-to-Speech-tool will be told they are entering a list of two items.

We know that the paragraph is a sub-list because it is placed directly under the first bulleted item. If it were text/content separate from the list of three items, it would be positioned as a normal paragraph at the margin as in the following image.

Video provides a powerful way to help you prove your point. You can paste in the embed code for the video you found or use the search function to enter a keyword to search online for the video that best matches your needs.

- To make your document look professional, you can add a footer, cover page, and text box designs that match the rest of the document. You can add a matching cover page, header, and footer, or choose the elements you want from the design gallery.

Themes and styles also help keep your document consistent. When you apply a new theme, the pictures, charts, and styles change to match the new theme. When you apply styles, your headings, paragraphs, and lists will all look the same.

- Save time in Word with new buttons that make it easier to add a picture. Click the plus sign to see the way a picture fits in your document, click the arrow to see where it appears next to it. When you work on a table, click the plus sign to add a row, column, and then click the plus sign.
- Reading is easier, too, in the new Reading view. When you open a document and focus on the text you want to read, Word remembers where you last stopped reading and highlights the text you have already read.

Figure 30 Two lists separated by a paragraph of text

As document designers and authors we need to pay attention to how we construct/design our documents so that someone who can't see them knows what role content has and what its relationship to surrounding content is as well as other document structures such as Headings, lists and paragraphs.

Import/Export Styles

Perhaps one of the “coolest” features available to us in Word is the ability to import or export styles. Once you have a template you like with your branding and formatting, you can apply it to any other document. This means that revising legacy documents becomes much easier and faster.

You will still have to add the structural elements such as headings and lists, but the look and feel of the document will be consistent with the current look and feel of all of your documents once you import the current Styles from either a template or a current document..

This process is accessible using the keyboard and adaptive technology.

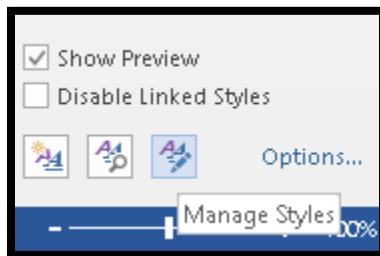


Figure 31 Manage Styles button in the Styles Pane.

To use the Import/Export tool:

1. Open the Styles Pane by pressing Alt + H, F, Y.
2. When the Styles Pane opens, press shift + Tab to start at the bottom of the Styles Pane and locate the Manage Styles button.
3. Press Spacebar to open the Manage Styles dialog.
4. In the lower left of the Manage Styles dialog is the Import/Export button. The keyboard command is Alt + X.
5. The Import/Export dialog opens and focus is on the Style stab.
6. Press Tab to move into the list of styles in the current document. The current document is represented on the left of the dialog.
 - a. On the right side of the Import/Export dialog is the document you will be sending styles to.
 - b. You can choose which way to import and export styles, left to right or right to left, but I try to be consistent so I don't get confused.
7. When you press Tab to move into the list of styles, nothing is selected. Press Spacebar to select the first style and then press Up or Down Arrow to move through the list of styles.
8. If this is not the document you want to copy styles to or from, press Alt + F to Close File. The Close File button becomes an Open File button and you can choose to open a different file.
 - a. For each side of the Import/Export dialog, there is an edit area just above the Close/Open button with the filename in it.
 - b. The JAWS screen reader announces the filename when you enter the list of styles on the left or right of the dialog.

9. On the right side of the Import/Export dialog is a list of styles in that document (many of them are the same) and a Close File button. The keyboard command for that button is Alt + C.
 - a. As with the other document, the Close file button becomes an Open File button and you can then choose to open a different document.
10. By default, Word thinks you want to copy the styles to the Normal document template. We don't.
11. Close the document represented on the right side of the Import/Export dialog and then open the file you want to copy styles into.
12. When the Open dialog appears, make sure to change the files of type to All documents from Word Templates.
13. When you select styles on the left, the Copy button between the two documents has an arrow pointing to the right.
 - a. If you select styles in the left side of the Import/Export dialog, the arrow points to the left.
 - b. This information is not conveyed to those using screen readers which is another reason I always transfer left to right.
14. To copy all styles, hold down the shift key and select all styles in the dialog.
 - a. The Home and End keys work in this dialog but Ctrl + A to Select All does not.
15. With the styles on the left selected, press Alt + C for Copy.
 - a. If there are styles such as Headings, you will be asked if you want to replace the inherent Word styles with the ones in the document you are copying from. Say yes.
16. Once the styles have been copied to the second document, the one on the right, the change will be instant.
17. Tab to and activate the OK button in the Import/Export dialog.
18. Tab to and activate the OK button in the Manage Styles dialog.

You don't have to have the second document open, but I like to see the instant effect of the style changes.

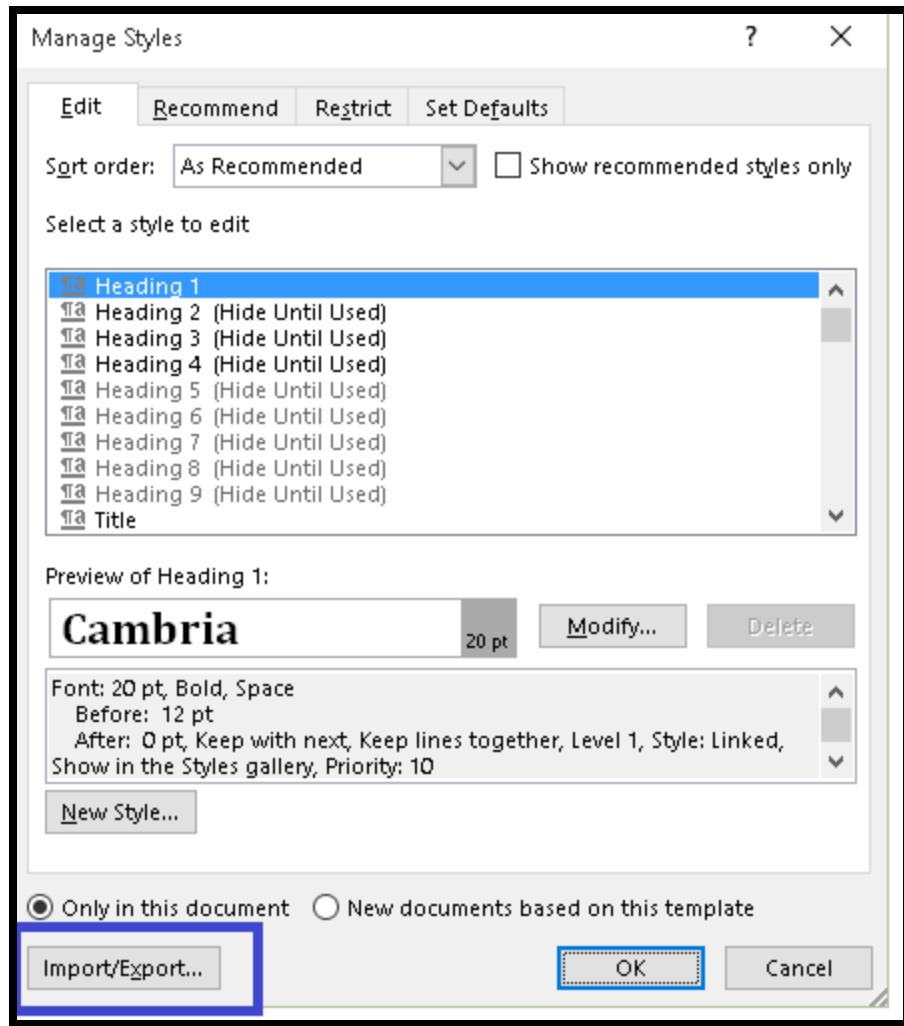


Figure 32 Manage Styles dialog.

The preceding image shows the Manage Styles dialog. Press Alt + X to open the Import/Export dialog.

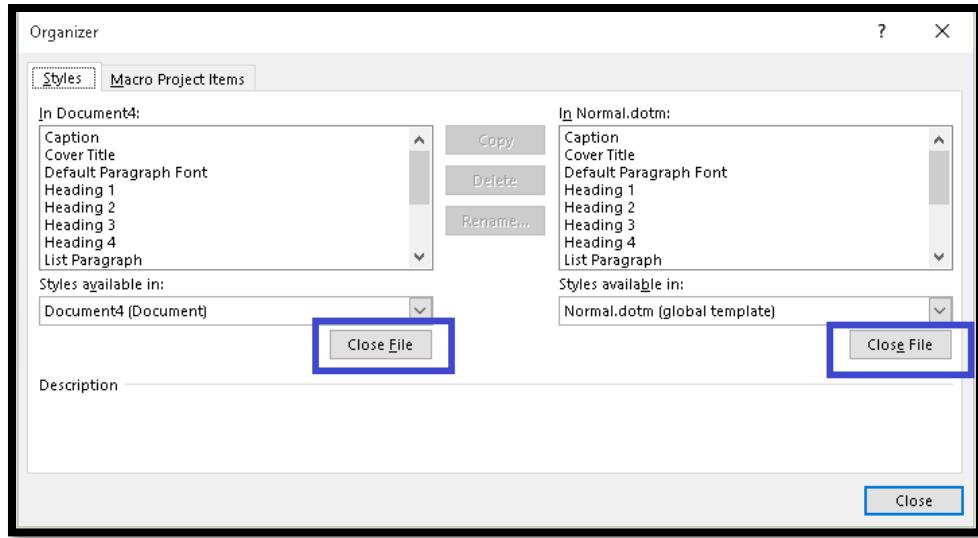


Figure 33 Import/Export dialog showing two Close buttons.

The preceding image shows the Import/Export dialog. You can open or close documents on either side of this dialog. When you close one document, as is shown in the following image, the Close button becomes an Open button. Activate the Open button to find the file with your current Styles.

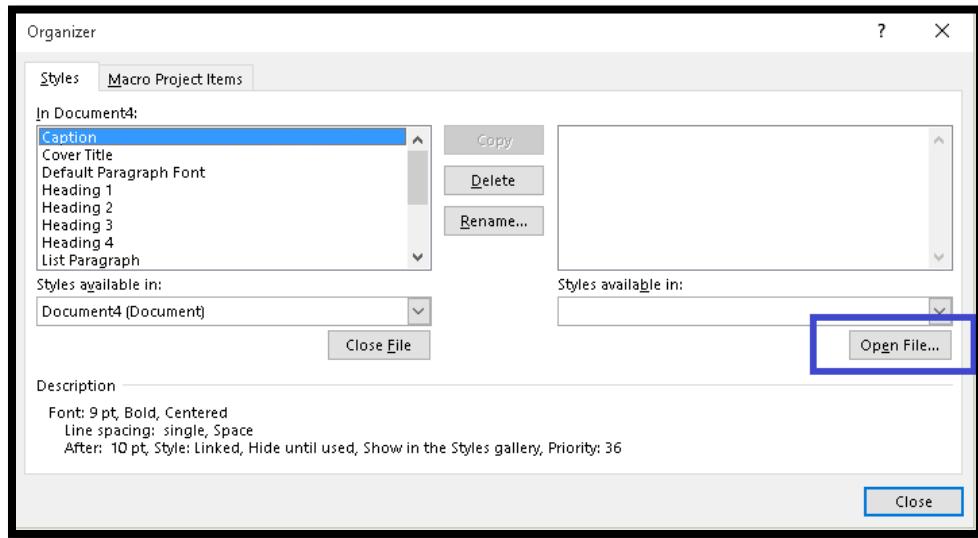


Figure 34 Organizer dialog showing Open File button.

Once you activate the Open button, you have the Open dialog where you can choose the file to import your Styles from. You'll need to change the file extension if you are going to import from a DOCX document. The default is to import from the Normal document template.



Figure 35 Open dialog bottom right showing All Files chosen as the Files of Type to look for.

Be sure to choose “All files” in the files of Type list so that any Word documents you want to use are shown. You will also need to locate the file on your computer or storage device. By default, the Import/Export dialog looks in the Templates folder on your computer.

Once you have opened the file you want to copy from, select either a single Style or all Styles. I prefer to import all Styles so that I don’t have to keep track of which ones are new or modified. This saves time.

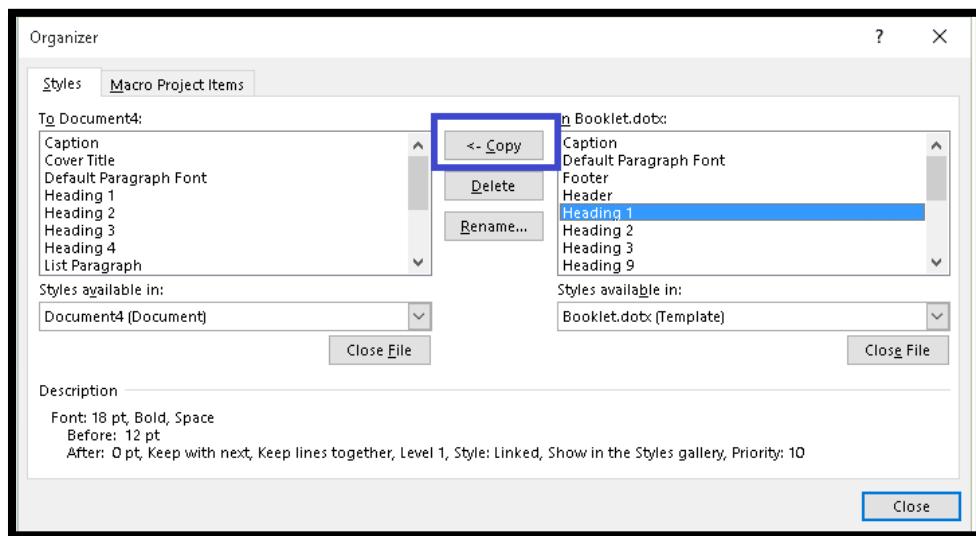


Figure 36 Organize Styles dialog showing import of Styles from document on right to document on left.

To select all of styles, press Home to put focus at the top of the list of styles and then hold down the Shift key, press Down Arrow until you reach the end of the list of styles.

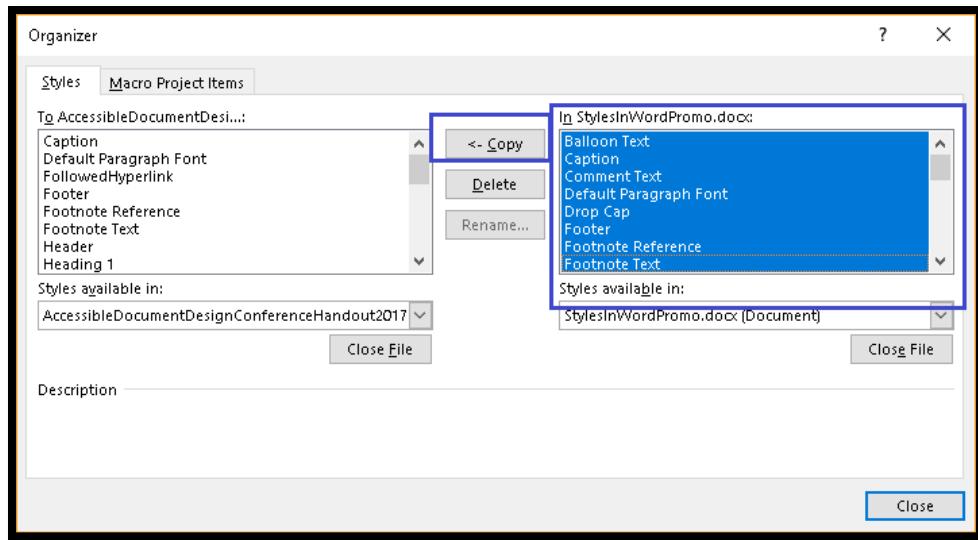


Figure 37 Organize dialog with Several Styles selected to copy from document on right to document on left.

This is what I usually do as it is sometimes faster than locating each style I want to copy. If there are no changes to a style from one document to the next, no “harm” is done.

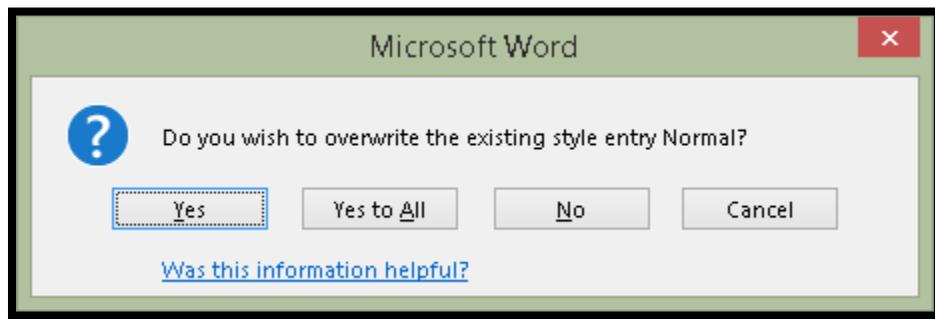


Figure 38 Dialog asking if you want to overwrite existing styles.

When you are asked if you want to overwrite the existing styles, say yes.

You can then dismiss the Organize dialog and return to your document. The changes to all the Styles you selected in the Organize dialog have been made in the current document.

If you don't like the changes, simply close the document without saving it.

Of course you can copy Styles from the document on the left to the document on the right. You just need to make sure that both documents are the ones you want to import to and import of copy from.

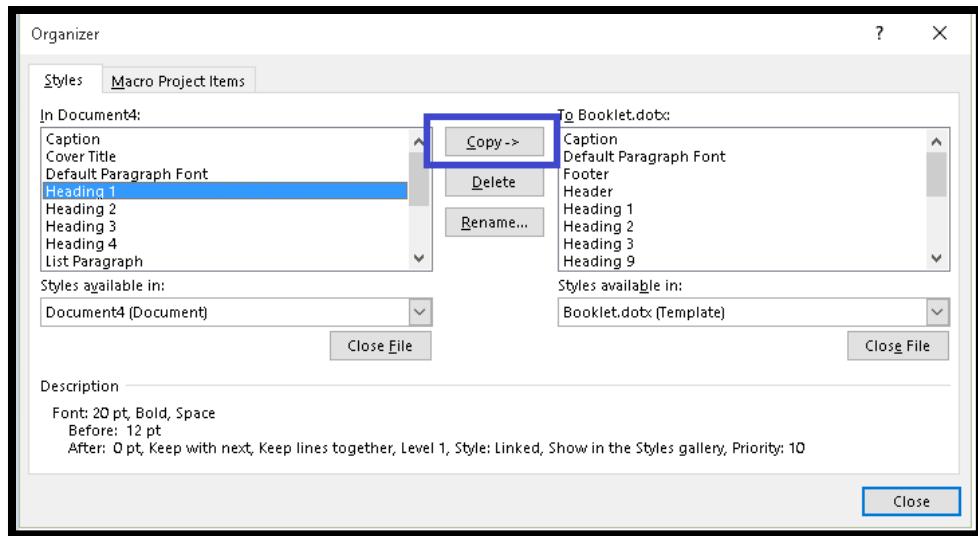


Figure 39 Copy Styles from document on left to document on right.

I usually import/copy Styles in the same direction each time so that I don't get confused about what I'm doing. I always open the document I want to import Styles into and then start the process. This consistently puts the document I want to import/copy the Styles into on the left of the Organize dialog. Find what works for you and be consistent to avoid confusion.

Putting a Heading on the Next Page

There are times, as shown in this tutorial, when you want to put a heading on the next page for either visual effect or to further separate content/topics/chapters.

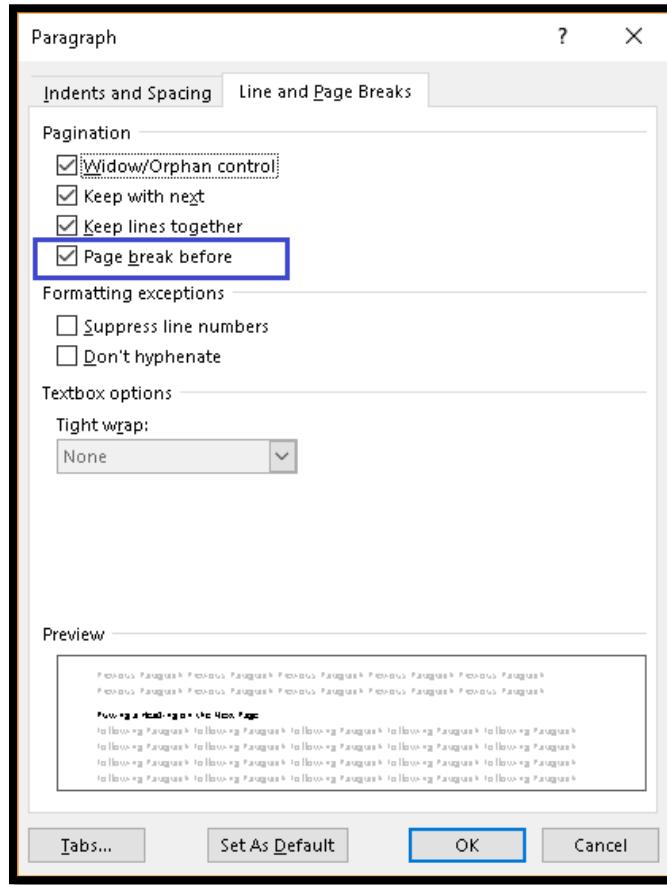


Figure 40 Paragraph dialog, Line and Page Breaks tab, Page Break Before check box.

To add a page break before text in a document:

1. Select the Heading or piece of content you want at the top of the next page.
2. Press Alt + H, P, G for Home Ribbon, Paragraph dialog.
3. Press Ctrl + Page Down to move to the Line and Page Breaks tab.
4. Press Alt + B to move to and check the check box to put a Page Break Before.
5. Tab to and activate the OK button by pressing Enter.

This technique provides a cleaner page break than using Shift + Enter and is easy to remove if you have to due to additional content or reorganizing of content.

To remove the page break before, access the Paragraph dialog again and uncheck this check box. By using this method consistently, it is faster and easier to add or remove the page breaks before content.

Images, Tables, Columns and Text Boxes

I've attached recent updates to the techniques for Adding Accessible Images to Documents, Tables and Columns, and Text Boxes and Accessibility to this PDF document. They are tagged PDF and the two documents, Tables and Columns and Text Boxes and Accessibility have sample documents attached.

You can download these documents on [Tables, Accessible Images and Text Boxes and Accessibility](#)⁸ individually from the Karlen Communications web site.

Word Accessibility Checker

Word has an Accessibility Checker to help with accessibility barriers that might be lurking or overlooked in the document. There are times when I am writing and forget to add Alt text to an image and the Accessibility Checker keeps me on track.

Press Alt + F, letter I for File/Backstage area, Information.

Press the letter I again to open the Inspect Document sub-menu.

There is no keyboard command once you are in the Inspect Document sub-menu. Press down Arrow to move to Accessibility Checker and press Enter.

⁸ Karlen Communications Handouts page: <http://www.karlencommunications.com/handouts.html>

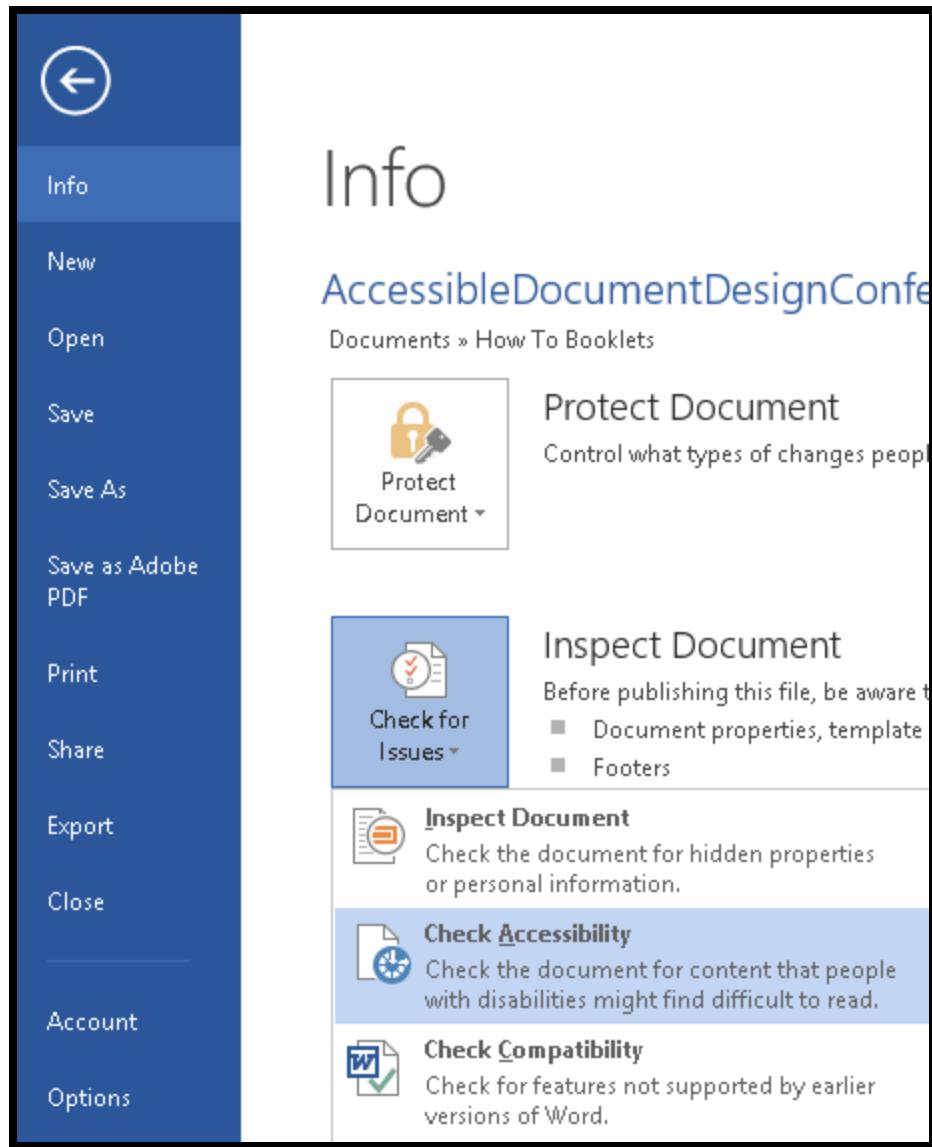


Figure 41 Word Accessibility Checker under the Info tab.

The Accessibility Checker opens to the right of the document in the Accessibility Check Pane and begins checking the document.



Figure 42 Accessibility Check for this document at this point in time.

The preceding image shows the results of an accessibility check for this document at this point in time. Because I created images for an entire process and then will go back and add the text and Alt Text, two images have been flagged as not having Alt Text.

The check also found the links in the Footnotes and has identified them as not being contextual. Since I want the long URL's in the Footnotes, I can ignore this. I might, however, want to click on or activate each of them in the Accessibility Check Pane to make sure that they are all Footnotes.

It also appears that I have repeated blank characters which is something I need to investigate because I don't use spaces for positioning.

Of course, they are the blank lines between the title of the document and the picture of Olivia and Barnaby. I removed the blank line after my name and once that was done, that item was automatically removed from the Accessibility Check...so I don't have to run it again to see that remediation.

I also went to the images and added Alt Text to them. The following image shows the up to date Accessibility Check.



Figure 43 Updated Accessibility Check for this document at this point in time.

To fix the remaining repeated characters error, I modified the Title Style to create the space I want below the style and before the image. I used the Paragraph dialog from the Modify Style, format dialog to add 120 points of spacing under the Title style. Since I am only going to use the Title Style in this way, modifying the Title style will not affect any other aspect of the cover page.

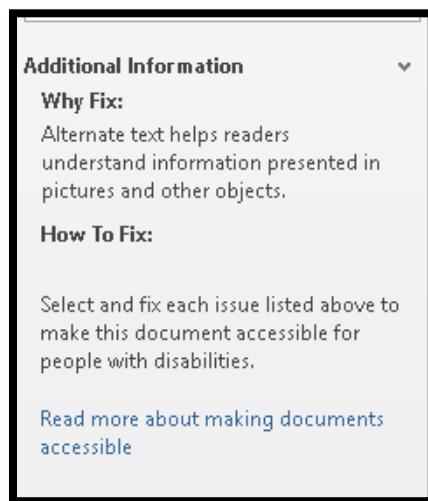


Figure 44 Additional information at bottom of Accessibility Check Pane.

PowerPoint 2016

You have flexibility in PowerPoint to make more accessible templates and presentations. Unlike PowerPoint 2003 where it was difficult to use the Slide Master View and insert an accessible Content or Text Placeholder, you can do this easily in PowerPoint 2013.

An accessible PowerPoint presentation includes:

- Correct Tab Order of content.
- Decorative images in background on Slide Master.
- Text or Content Placeholders NOT text boxes
- Tables are inserted not drawn.
 - Use Insert Ribbon to define the table.
- Use of Themes so that if someone can't use the colours you've chosen they can use their own or a different Theme.
- Create a template of your own!
- Good colour contrast and simple design.

One of the frustrating things about PowerPoint presentations is something I talked about back in 2001. I was searching for a specific piece of information on the Internet, for example, accessible PowerPoint design. I found the exact text! It was a single PowerPoint slide with the slide title “Accessible PowerPoint Design.” The only content on the slide was a picture and the text “You should create accessible PowerPoint.” This was a presentation to a conference and I thought that there would be more information than that on the topic/slide. I understand the need to “protect” your knowledge, but at some point, finding these types of cryptic non-informative pieces of information just turns people off.

A common misconception is in the belief that PowerPoint is a word processor. Slides are for brief speaker prompts not essays. Think of them as tools that replace the old index cards you used to use when speaking to remind yourself of the order of speaking points. Slides are the digital version of speaker “reminders.”

Another common misconception is in thinking that all of the slide designs and templates available in PowerPoint or on the Microsoft [PowerPoint Templates and Themes](#)⁹ web page are inherently accessible. They are not.

As of July 2017, for both Word and PowerPoint, Microsoft does provide some accessible templates. The notification that this is an accessible template is in the description you see when you choose a template from the Templates Gallery in Word or PowerPoint.

⁹ Microsoft PowerPoint Themes and Templates page: <https://templates.office.com/en-us/Themes>

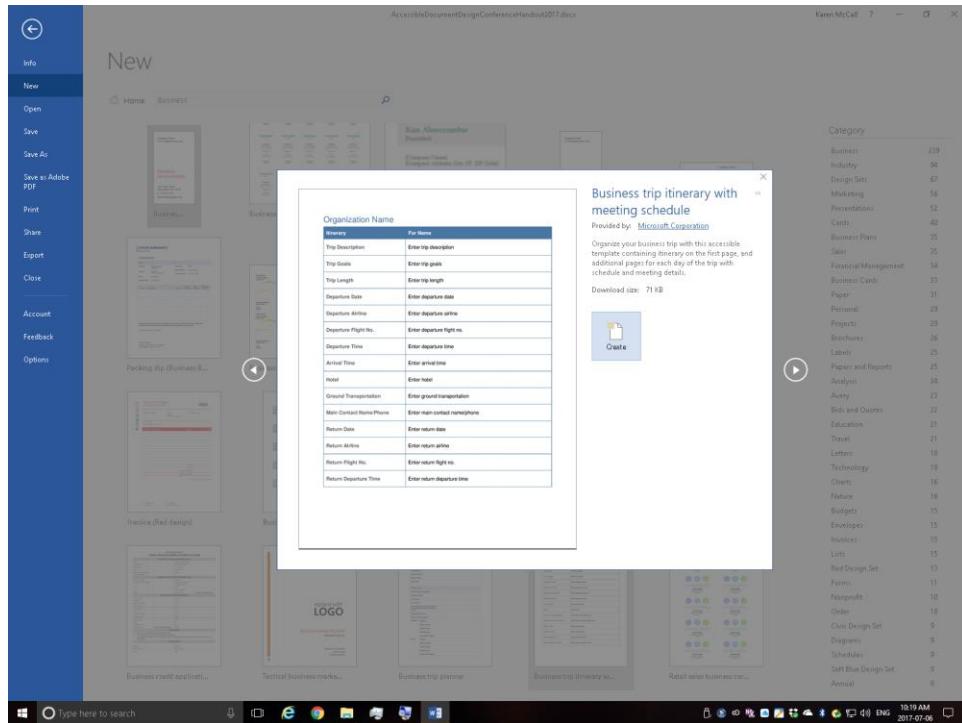


Figure 45 Business trip template using tables for design layout. Just say no!

As with all templates and Themes you can choose from, even though there might be text to indicate that it is “accessible” the preceding image of the business trip template uses a table for design layout which is a clear violation of best practices for accessible document design.

As a document author, you still have to know about accessible document design so that you can spot these violations of best practices.

Turning off the PowerPoint Start Screen

If you want to turn off the Start Screen, which shows each time you open PowerPoint 2016, press Alt + F, T for File/Backstage area, Word Options.

In the General category, press Alt + H to uncheck the check box to Show the Start Screen. This is a toggle that will move you to that check box and either check or uncheck it. This option is checked by default.

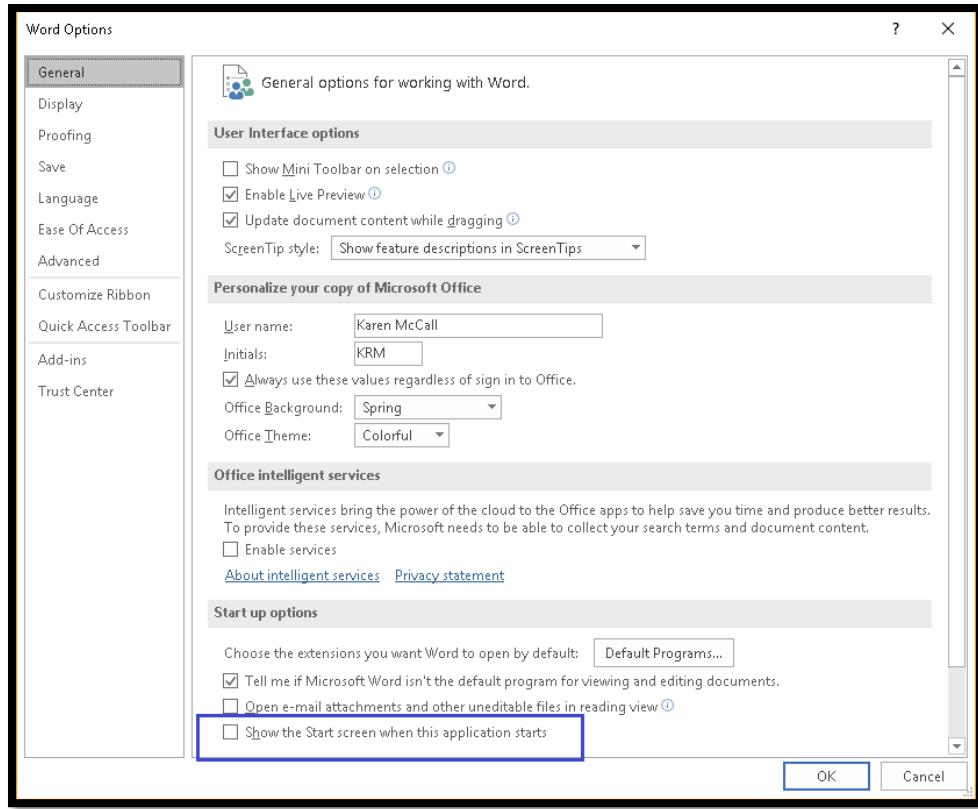


Figure 46 PowerPoint Options dialog, General category, turn off Start Screen.

New Slide Sizing

With PowerPoint 2013 Microsoft introduced a new “widescreen” slide size. This is to accommodate the larger, wider monitors.



Figure 47 Two slide widths, Standard (left) and Widescreen (right).

If you have an older presentation and want to bring it into the widescreen size, you can do this. You can also take the widescreen size and make it smaller.

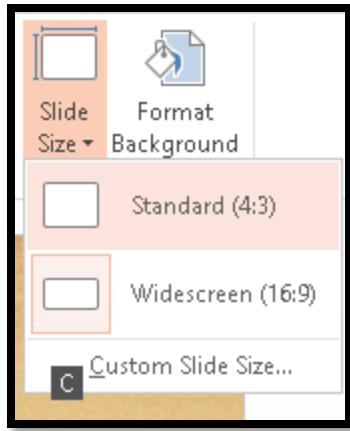


Figure 48 Design Ribbon, Size sub-menu.

Press Alt + G, S for the Design Ribbon, Size.

The sub-menu will open and your choices are Standard, which is the old size, or Widescreen, which is the new size.

If you are using a Widescreen size and decide you want to change it to a Standard size, you will be asked how you want to implement the sizing.

A dialog opens and your choices are Maximize which will maximize the slide area for that sizing; or, Ensure Fit, which will adjust the sizing to ensure a good fit for content. I would choose that one!

When the dialog opens focus is on the buttons which are not accessible BUT, you can press Alt + M to choose Maximize Fit or Alt + E to choose Ensure Fit.

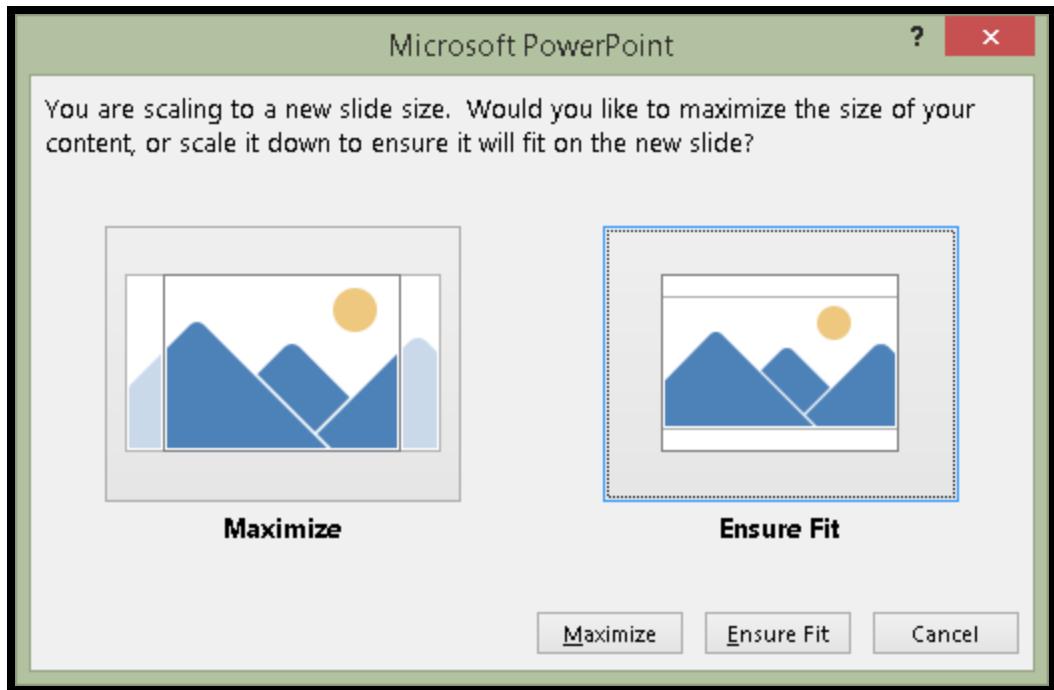


Figure 49 Adjust Standard size dialog.

If you are using the mouse, you may have to click OK to complete the process. If you are using the keyboard you don't. Your instructions are carried out immediately.

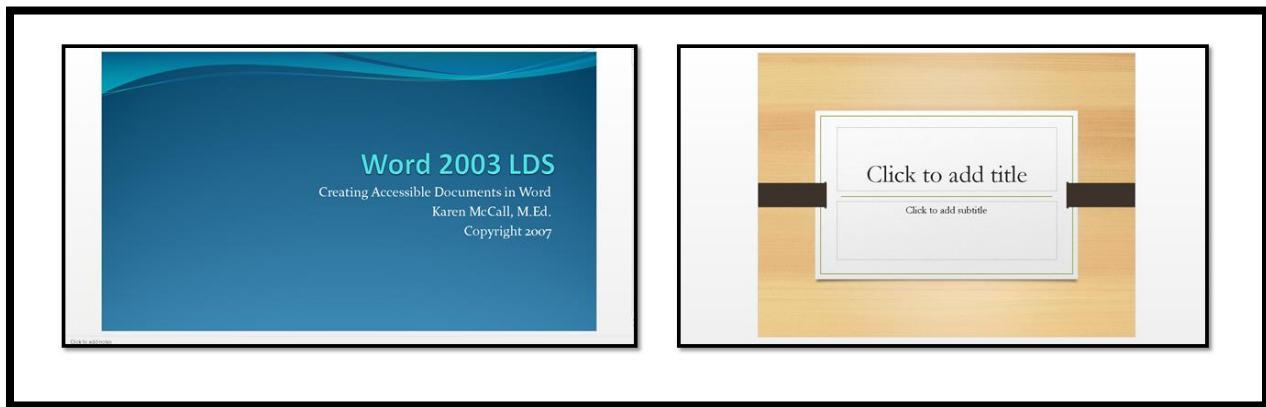


Figure 50 Presentation on left changed to Widescreen, presentation on right changed to Standard.

Creating a Presentation in Word

It is easy to create your presentation in Word and then send the content to PowerPoint.

In Word 2010, unlike Word 2003, we will need to put the “Send to PowerPoint” item on the QAT or Quick Access Toolbar first. Follow the instructions for putting the ASP or Apply Styles Pane on the QAT or Quick Access Toolbar. The “Send to PowerPoint” item can be found in the “Commands not on the Ribbons” list.

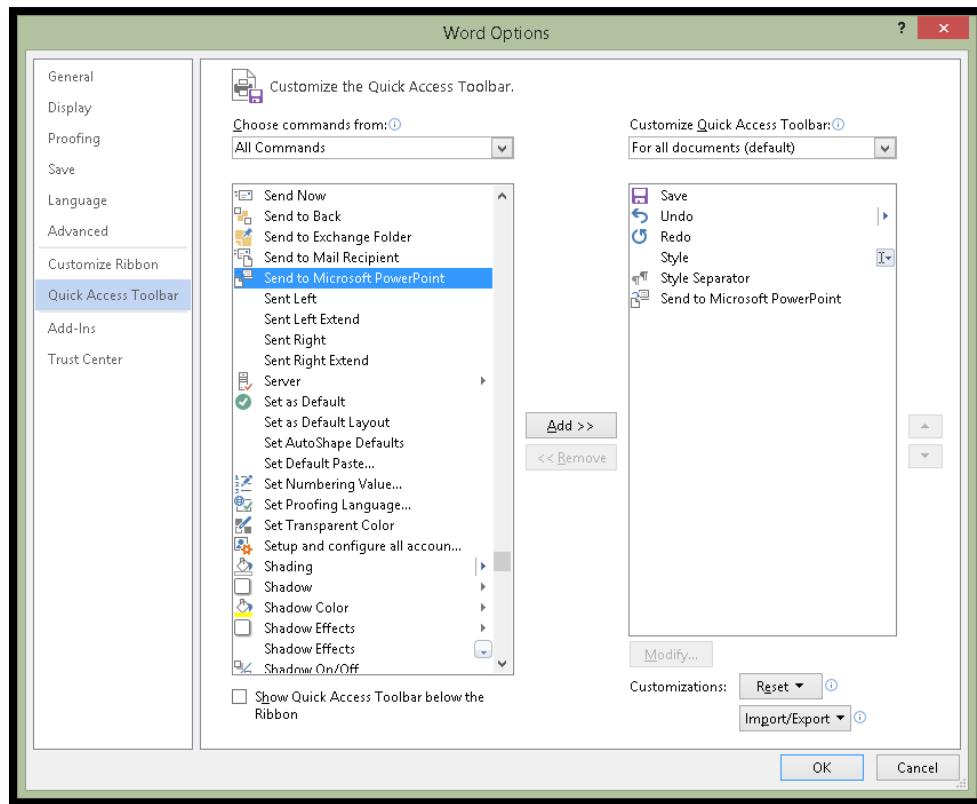


Figure 51 Customize Quick Access Toolbar showing Send to Microsoft PowerPoint tool.

I've attached a template for creating your PowerPoint content in Word to send to PowerPoint to this PDF document.

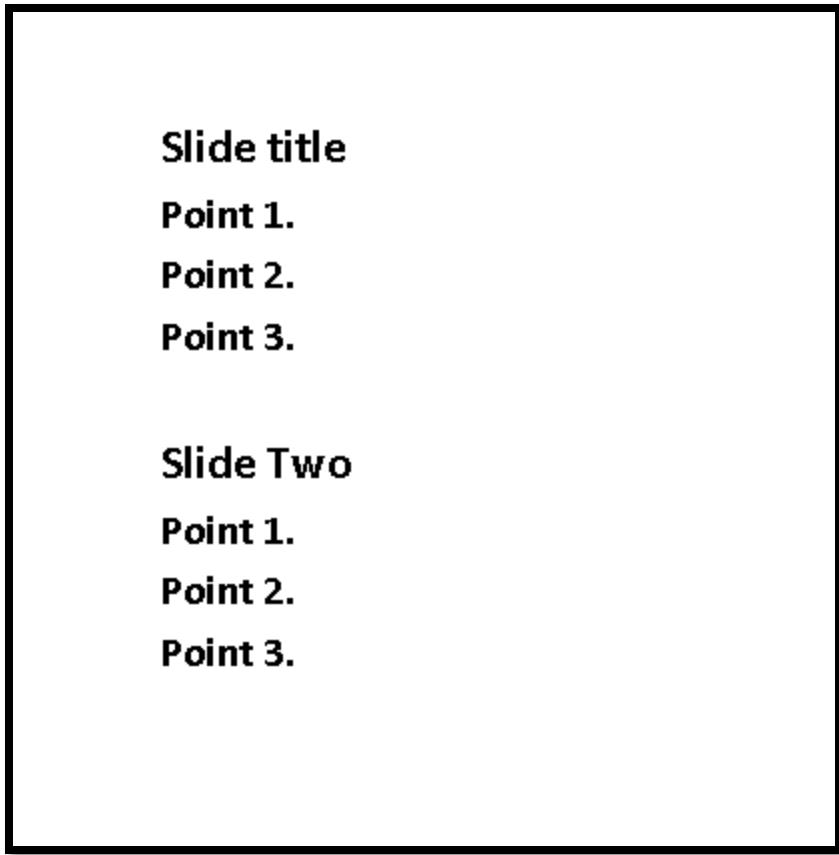


Figure 52 Sample text in a Word document for PowerPoint slides.

To create a PowerPoint presentation in Word:

1. Open a new blank document. It doesn't have to be a template; it is the underlying structure that will be converted to the slide components.
 - a. The "Send to PowerPoint" template I've included uses black text on a white background to avoid any conflicts with a slide design or Theme you might choose.
 - b. You can copy and paste it or simply save it to your Custom Office Templates folder.
2. When this gets sent to PowerPoint, the text will start on the second slide. Type the text for the second slide.
 - i. We will add the title slide in PowerPoint.
3. Type the bullet points for the first slide but do not format them as bullets.
4. Select the text that you want to be the title of the second slide.
5. Press Ctrl + Alt + the number 1 to make it a heading level 1.
6. Select any bulleted items on "the slide" and make them heading level 2.
7. Repeat this process for each slide of the presentation: slide titles are heading level 1 while bullets are heading level 2.

8. Save your document as something meaningful to your presentation.
9. Activate the “Send to PowerPoint” item placed on the QAT or Quick Access Toolbar.

When you do this, the slide presentation is created. PowerPoint will open, the slides will be constructed and you are ready to add images and the title slide.

This lets you work on the content of your presentation without being distracted by visual design and bling. It also creates an accessible version of your presentation that can be sent to participants who can then access it on note taking devices or laptop computers or it can be Brailed To tidy up the Word document as an alternate format document, open the Styles pane, select all instances of heading level 2 and make them normal text once you've sent the document to PowerPoint.

Finishing the Presentation in PowerPoint

Once the slide content has been sent to PowerPoint, switch to slide sorter view in PowerPoint by pressing Alt + W, letter I for View Ribbon, Slide Sorter. .

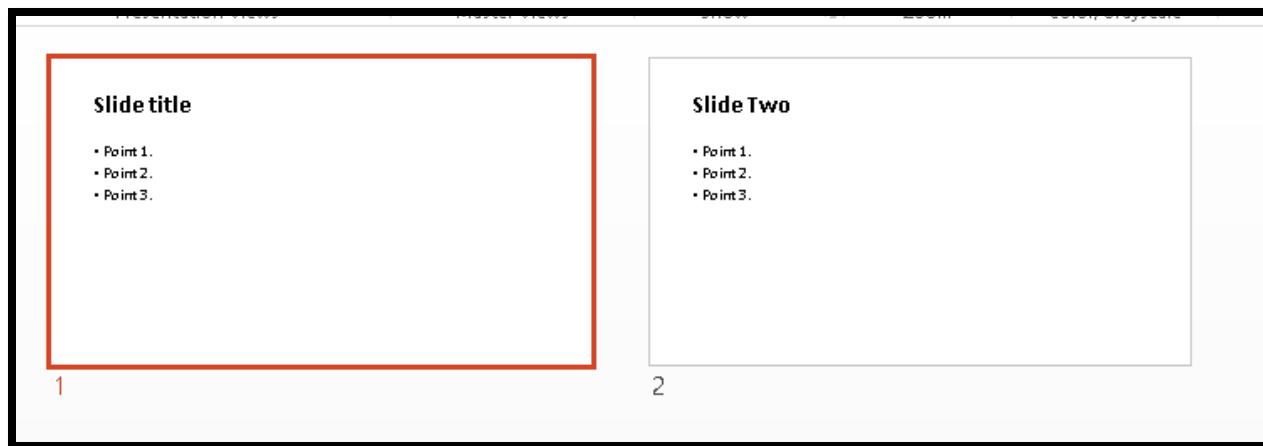


Figure 53 Slide Sorter View in PowerPoint showing text for two slides created in Word.

In Slide Sorter view use the keyboard because it is more accurate and faster to position the cursor just before the first slide.

To finish the slide presentation:

1. Press Left Arrow to take focus off of the first slide and put it just before the first slide.
2. Press Alt + H, letter I for Home Ribbon, Slide Layout Gallery.
3. Locate the Title Slide and press Enter to add it to the presentation.
 - a. The reason we took focus off of the first slide and put it just before the first slide is because this is where we want the Title Slide to be added to the presentation.

- b. If you were a bit off, you can drag the Title Slide to its position or cut and paste it there.
4. Switch to Normal view by pressing Alt + W, L for View, Normal.
 5. Press Tab to move into the Title placeholder.
 6. Press Enter to activate Edit mode.
 7. Type in the title of the presentation.
 8. Press the Escape key once to get out of Edit mode.
 9. Press the Tab key to move to the Subtitle placeholder.
 10. Press Enter to activate Edit mode.
 11. Type in The Subtitle information.
 12. Press Escape to get out of Edit mode.
 13. Save your presentation and continue working on it.

Now you can add the bling.

Press Alt + G for the Design tab and then press H for the Themes Gallery. Choose your Theme!



Figure 54 Focus in Slide Sorter View just before first slide.

The ability to create the content of the presentation in Word and then send it to PowerPoint helps those of us who have trouble organizing our thoughts or who spend more time on the blind than on the content.

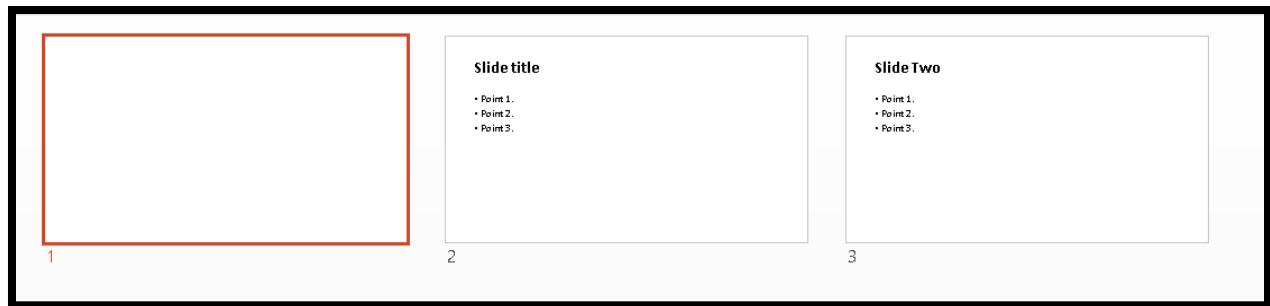


Figure 55 Slide sorter View with Title Slide added.

The following image shows the slide presentation once a Theme was added. To add a Theme press Alt + G, H for Design Ribbon, Themes and use the arrow keys to locate the Theme you want. Press Enter on it to apply it to the current presentation.

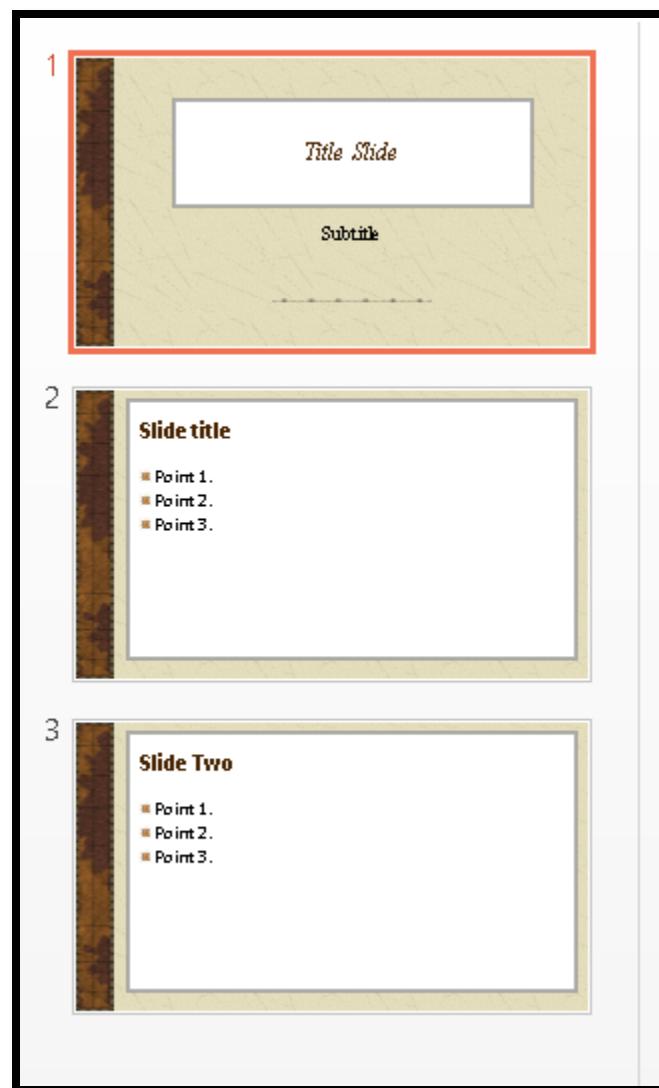


Figure 56 Finished PowerPoint presentation.

Slide Masters

It is always a good idea to create custom presentation templates and custom slide layouts for presentations. Just as we created a template in Word, we can create templates or add new slide layouts to existing templates in PowerPoint.

- To access the Slide Master press Alt + W, M.
- To return to the Normal slide view press Alt + W, L.

Slide Master view shows you all the possible slide choices for a presentation.

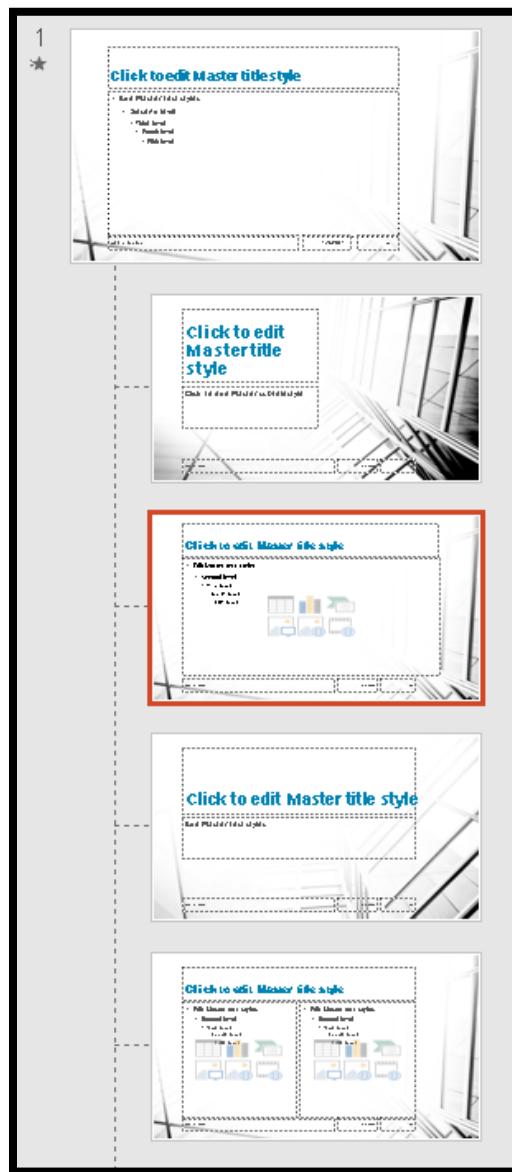


Figure 57 Slide Master view of a presentation.

Just as with Word, once you create your template, you can save it as either a template or a Theme, or you can begin the process by using the Theme you created in Word.

To use a template press Alt + F, N for the File/Backstage area, New.

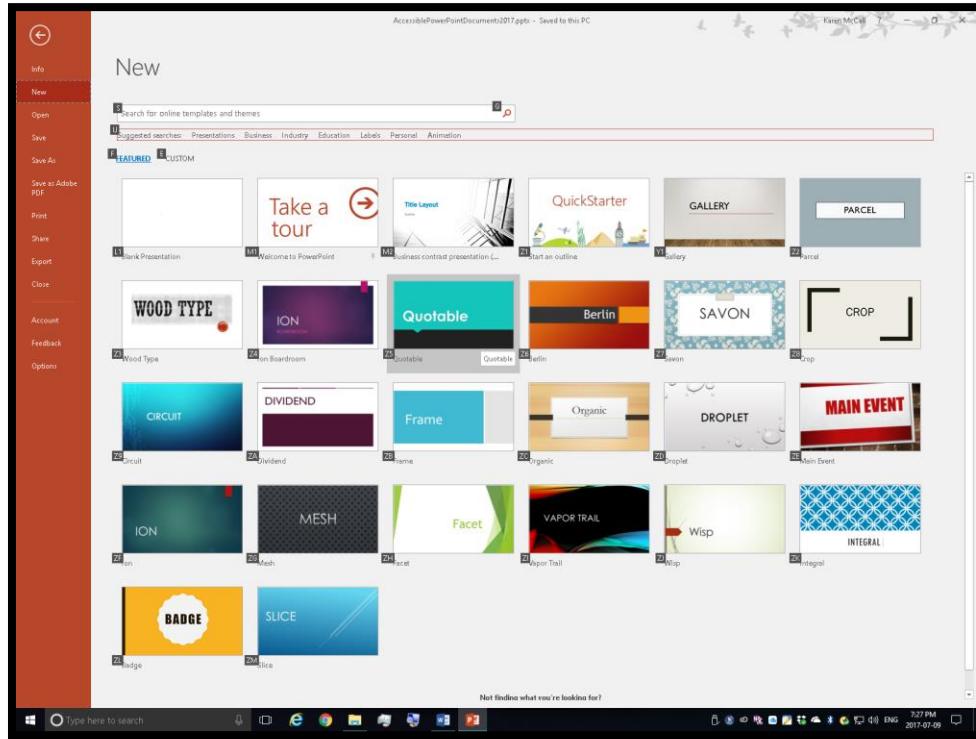


Figure 58 File/Backstage area, New, Template Gallery.

You can also start with a blank presentation by using either the blank presentation that appears when you launch PowerPoint or by pressing Ctrl + N for a new blank presentation and then pressing Alt + G, S for the Design Ribbon, Themes Gallery.

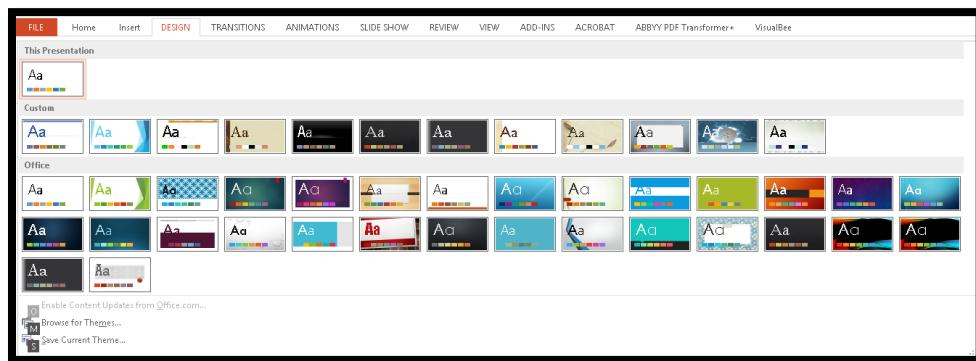


Figure 59 PowerPoint Themes from the Design Ribbon.

We then move into Slide Master view by pressing Alt + W, M for View Ribbon, Slide Master.

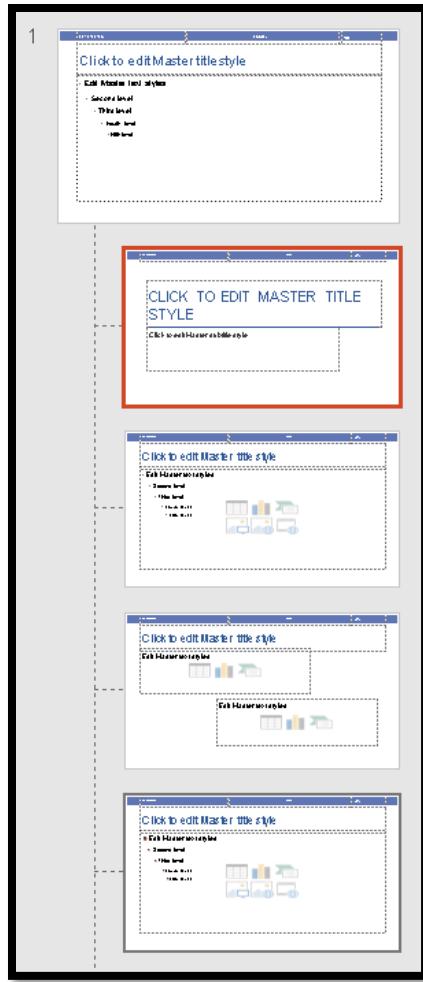


Figure 60 Slide Master view to the right of the slide layout.

Slide Master view will show the slide in focus in the current presentation and all of the existing available slides for the presentation as thumbnails to the left of the main slide. “Slide 1” is the base design for the rest of the presentation. All other slides nest under it and inherit the fonts, colours and background images from that first slide. You can change the colour for an individual slide layout by selecting it in the Slide Master view and modifying the colours.

Any additional slide layouts you create become part of the template. You can also save the Template as a Theme. The unique thing about PowerPoint is that the slide layouts become part of the Theme and can be applied to any presentation.

Once you have your slide template the way you want it, press F12 to open the Save As dialog and give your template a meaningful name. Press Tab to move to the Files of Type list and choose PowerPoint Template. As with Word, your custom templates will be saved in the Custom Office Templates folder on your hard drive.

To also save your work as a Theme that can be applied to any presentation press Alt + G, H, S for Design Ribbon, Themes, Save current Theme. Give your Theme a meaningful name. It will appear in the list of Themes for PowerPoint.

At any time you can resave the Theme with new slide layouts. Just save the changes with the same Theme name and you'll be asked if you want to replace the existing Theme. Say yes and the new slide layouts or any other adjustments you've made to the Theme will be saved.

The same is true for templates. If you make changes to a template, just save over the existing one.

Once you have applied an existing Theme or template to a presentation you can change the fonts, font sizes, colour palette, create new slide layouts and add static content such as contact information or instructions for someone else who might be using the template and need to know what types of content to add.

There are instructions for adding your own custom slide layouts in the attached tutorial on Accessible PowerPoint Placeholders.

Note: As a reminder, we often forget that there are other slide layouts and simply keep adding the same slide layout to our presentations. We don't have to do that!

Press Alt + H, letter I for Home Ribbon, New Slide Layout to see the Slide Layout Gallery.

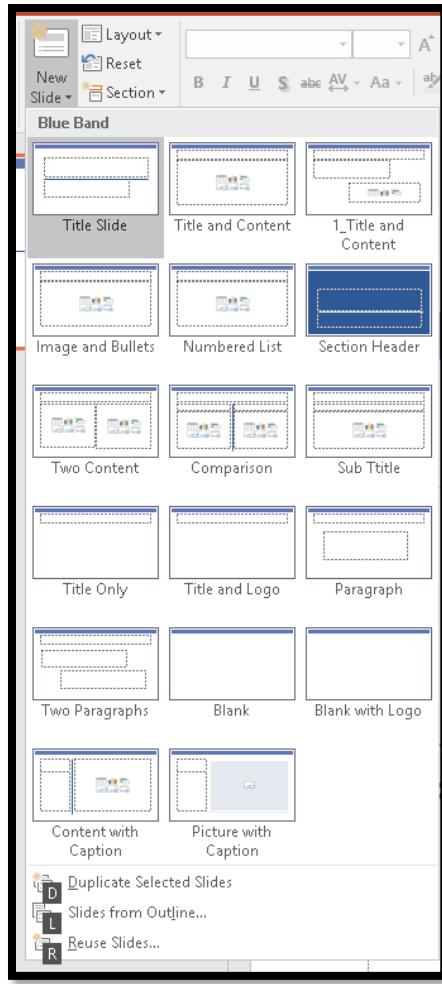


Figure 61 Slide Layout Gallery in PowerPoint Home Ribbon.

Possible Slide Layouts

The how to booklet on Accessible PowerPoint Placeholders which is attached to this document shows how to take available slide layouts and create the layout you need. For example, some people like to have a sub-title on their slides. You can use the Comparison slide layout to create a new slide layout called Subtitle and have the content on the slide be accessible.

Part of planning your presentation is the use of Section Break slide layouts. Do you really need to have the same subtitle on EVERY slide or can you use a Section Break slide to group topics together?

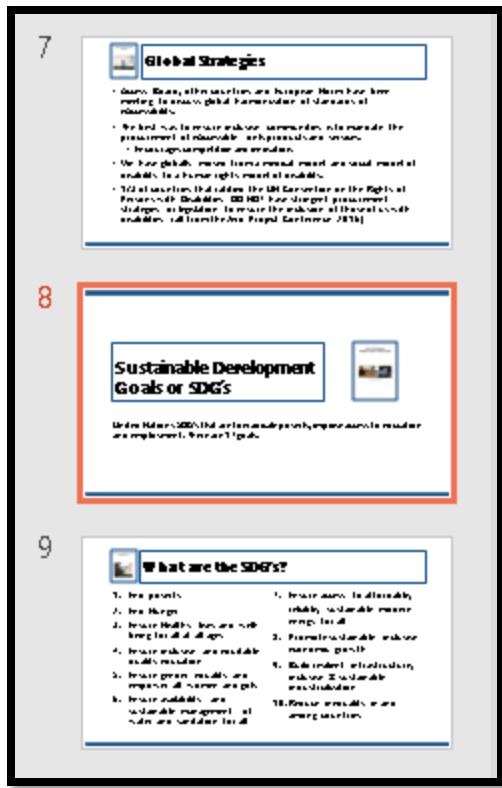


Figure 62 Section Break slide in the thumbnails view.

I mentioned creating a Subtitle slide layout. Here is what it looks like in the presentation. Keep in mind that this IS an accessible slide.

Slide with Subtitle

Subtitle

- Main content of the slide

Figure 63 Subtitle slide layout.

I used the Comparison slide layout as the basis for the new slide layout. I simply removed the placeholders on the right of the slide and expanded the placeholders on the left. This is done in the slide master if you want to save it to your template or add it to t Theme.



Figure 64 Comparison slide layout.

If you go into Slide Master view, you can place decorative images on slides, adjust the accessible Content Placeholders and the decorative images will be “invisible” to adaptive technology. I’ve done this for slides where I promote my books. The book cover is on the slide master so the screen readers and Text-to-Speech tools only see the text. Someone using adaptive technology doesn’t need to hear Alt Text of “book cover” or “Styles in Word: A Primer for Accessible Document Design book cover.”

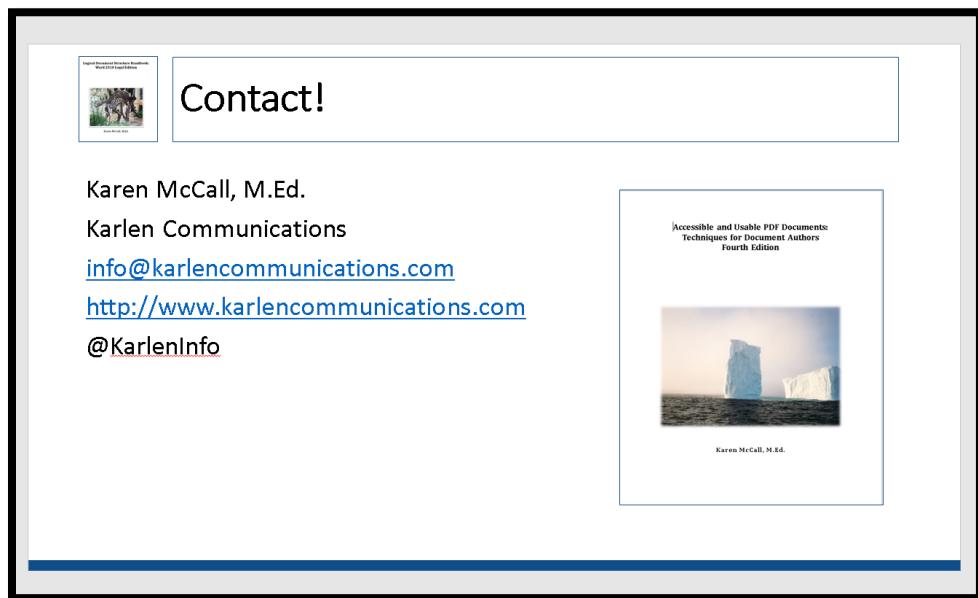


Figure 65 Contact Karen McCall slide with decorative images.

Colour Contrast and Readability

This brings us to an important accessibility and usability issue: the readability of the content on the slides.

In the Background options you have some fills and textures that can be applied to slides. Always test these to ensure that the content of your slides is still readable once you apply the fill or texture. Consider the following combination:

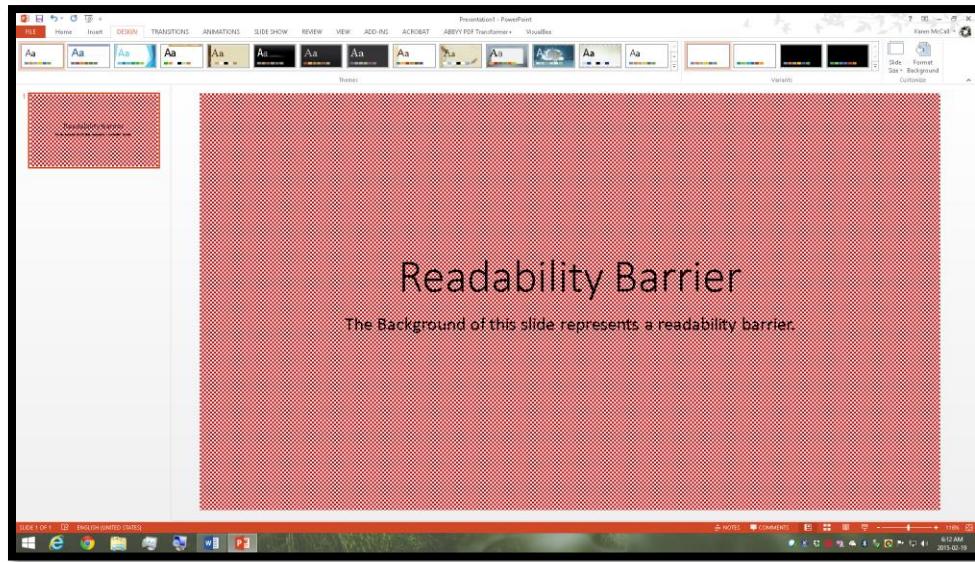


Figure 66 Slide with small red check background and black text.

Even if we chose another pattern and colour, we affect the readability of content by the choices in slide design and fonts that we use.

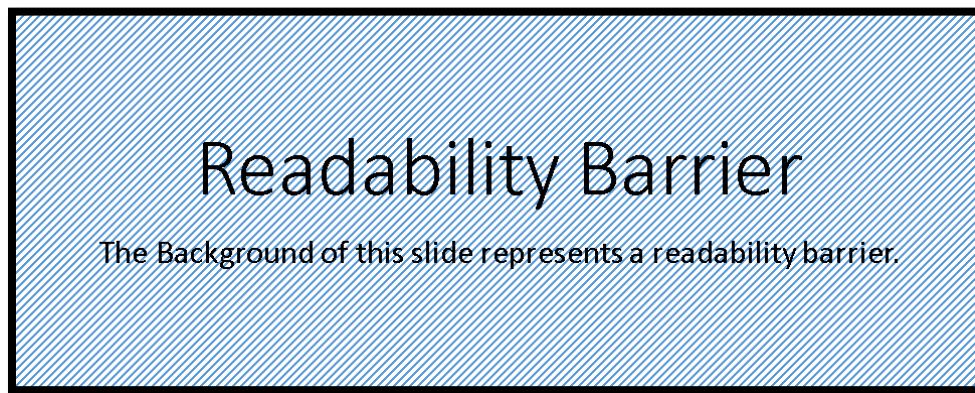


Figure 67 Light blue diagonal line background with black text.

When you go to Office online Templates, you should also be wary of the template you are choosing. Just because it is on the Templates site does not mean it is accessible.



Figure 68 Three PowerPoint Templates and Themes with readability or contrast barriers.

The preceding image shows three built-in templates and Themes with readability and/or accessibility barriers based on colour and/or fonts. They are, from left to right, “Berlin,” “Main Event” and “Basis.”

The “Berlin” template/Theme is oranges and dark browns and although the text is white, the person in the audience is overwhelmed by the amount of colour and the colour choices. When choosing a template or theme, consider how it will look “on the big screen.”

This design does not pass the Paciello Group’s [Colour Contrast Analyzer](#)¹⁰.

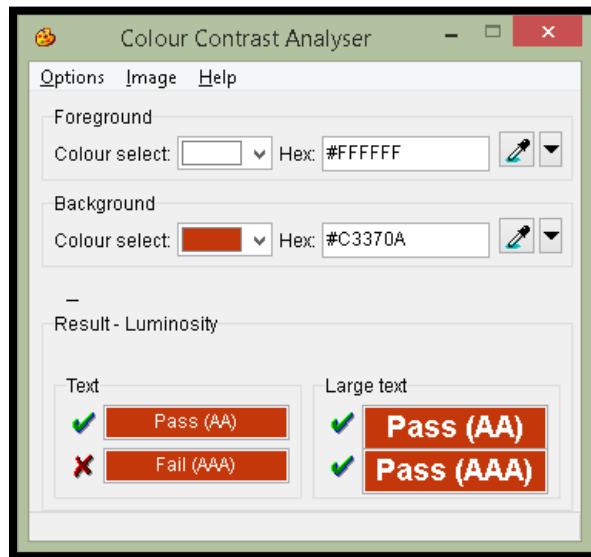


Figure 69 "Berlin" template/Theme fails the Colour Contrast Analyzer.

The “Main Event” template/Theme uses a lot of red which is a barrier to those with red/green colour blindness. The template/theme also uses all capital letters for all

¹⁰ Colour Contrast Analyzer, The Paciello Group:
<http://www.paciellogroup.com/resources/contrastanalyser/>

placeholders and a bold version of the font in the content area of all slides. It fails the Colour Contrast Analyzer on the grey text with white background.

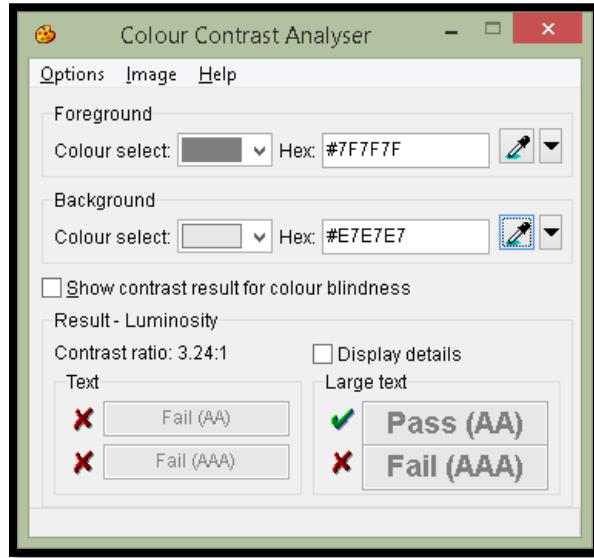


Figure 70 "Main Event" template/Theme fails Colour Contrast Analyzer.

The “Basis” template/Theme has a lime green colour with white text for the Title slide and subsequent slides have the lime green border with lime green text.

This design fails everything in the Colour Contrast Analyzer.

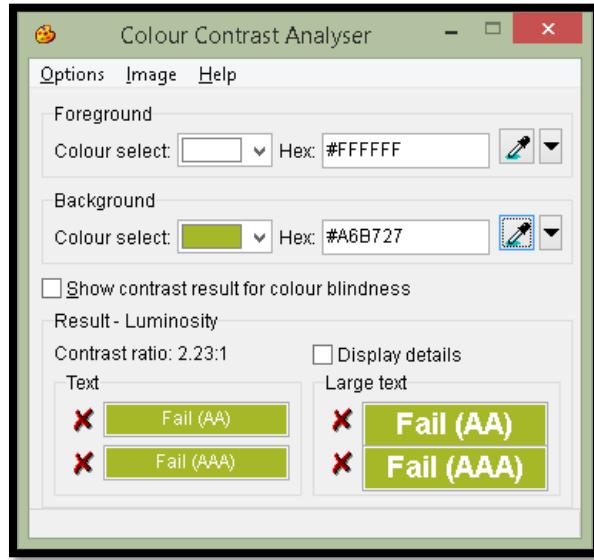


Figure 71 "Basis" template/Theme fails the Colour Contrast Analyzer.

Most of the recommendations for working with PowerPoint are to start with your own Slide Master. By creating your own Slide Master, the Slides can be synchronized with your

brand. You can also choose colours and designs that compliment your presentation rather than distract from it.

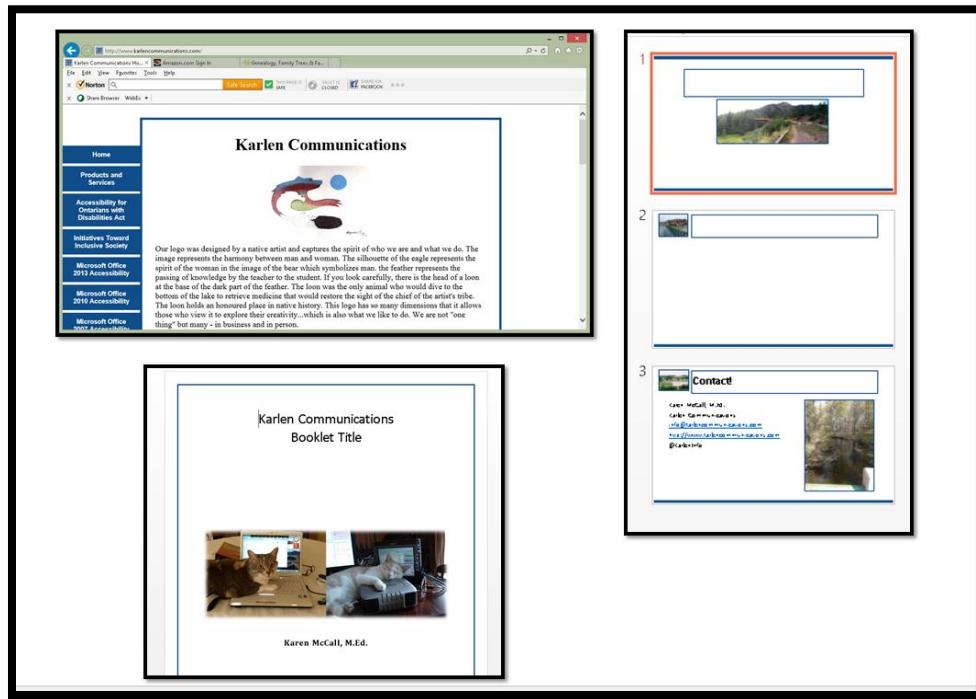


Figure 72 Karlen Communications web page, Word template and PowerPoint template.

With PowerPoint, although someone using a screen reader or Text-to-Speech tool might be able to avoid the eye candy, those with learning, cognitive, print or visual disabilities cannot. Colour, fonts and Tab Order are among the most significant barriers to content when working with PowerPoint.

Graphics and Colours

One of the areas of accessibility and readability to watch for is the use of graphics with some slide Themes. If you are using graphics, they should not be overwhelmed by the presentation Theme.

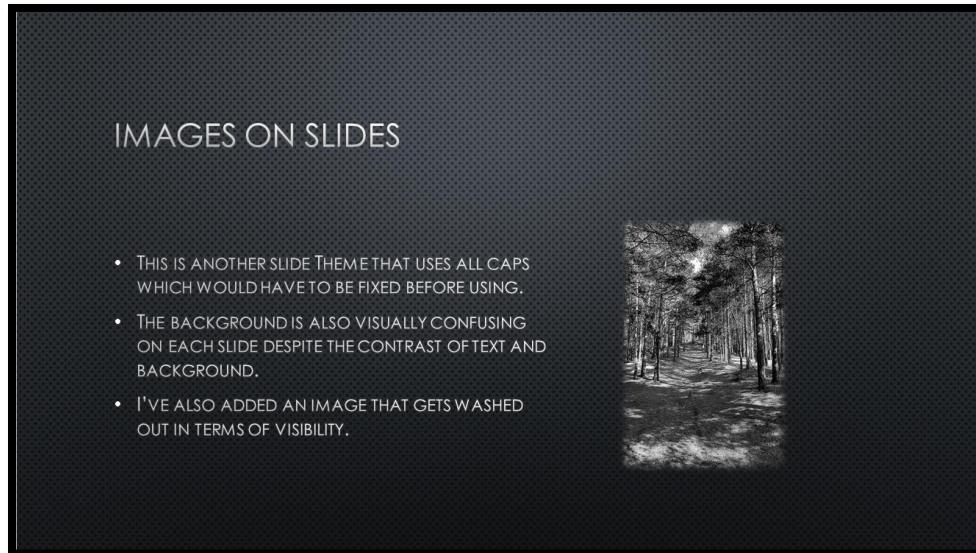


Figure 73 PowerPoint Theme with greyscale dotted background, all caps and visually busy greyscale image.

Checking Link Colours

Before you get too far into formatting and adding new slide templates, check the contrast of the link colours. This is often one area that causes accessibility issues. The contrast between the link colour and the background colour or design makes the links unrecognizable.

The following image shows the presentations used to demonstrate lack of colour contrast (and use of red) with links on slides. The “Berlin” presentation the link colour makes the link text unreadable. The “Main Event” presentation which is the middle one in the picture, uses all caps and a light red link colour; and the “Basis” slide template uses a colour that also makes the link unreadable.

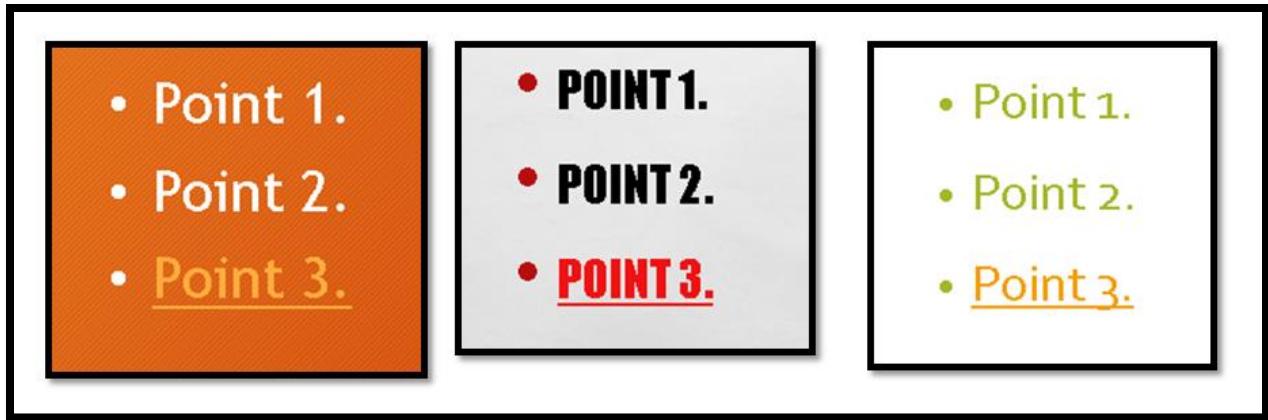


Figure 74 Three link samples from previous Slide Masters.

The links in all three slide templates/Themes fail the Colour Contrast Analyzer.

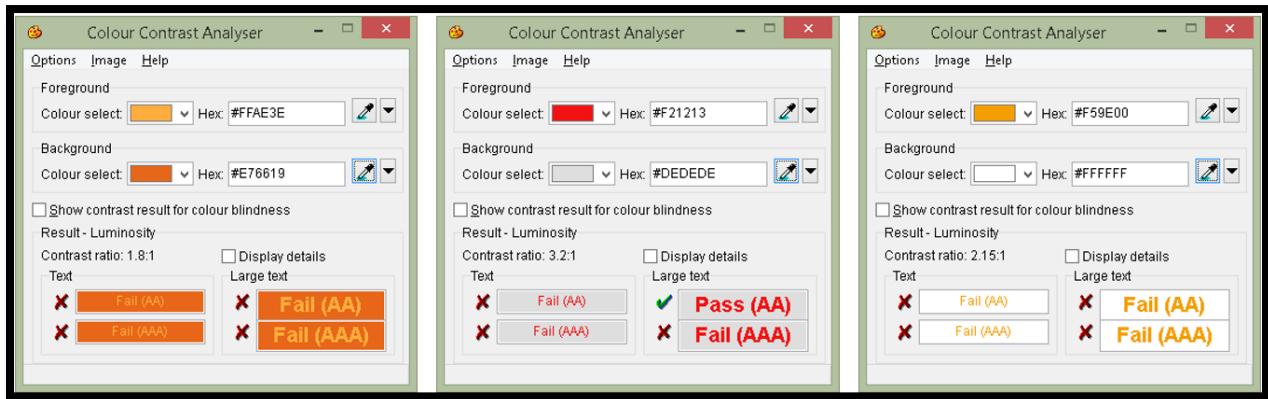


Figure 75 All 3 slide templates/Themes fail the Colour Contrast Analyzer for their links.

Even though the general accessibility and readability of content for these slide templates/Themes create barriers to the content, we are going to take one of them and demonstrate how to change the link colour and create a new Theme.

We'll use the "Basis" template/Theme for the demonstration as there is a white background and the change will be more effective.

To change the link colour for a template or Theme:

1. In the Slide Master View press Alt + M, T, which opens the Theme Colour Gallery.
2. Press C to choose Customize Theme Colour.
3. Open the Hyperlink colour palette and choose a good contrasting colour for links in presentations using this Theme.
4. Change the name of the colour Theme from "Custom 1" to match the name of the template.

- a. For example I might call this “Accessible Basis” or “Basis – Accessible” depending on how I want Themes displayed in the Theme Colour Gallery.
 - b. By keeping the original name, this set of Theme Colours will be in the list alphabetically. It would mean that all of my “accessible” Themes wouldn’t be under “A.” It is a strategy.
5. Tab to and activate the OK button.



Figure 76 Themes Colour Gallery.

As you can see from the previous image, I have a couple of custom Theme colours with modifications already.

Press Alt + H to move to and open the colour palette for the Hyperlink colour.

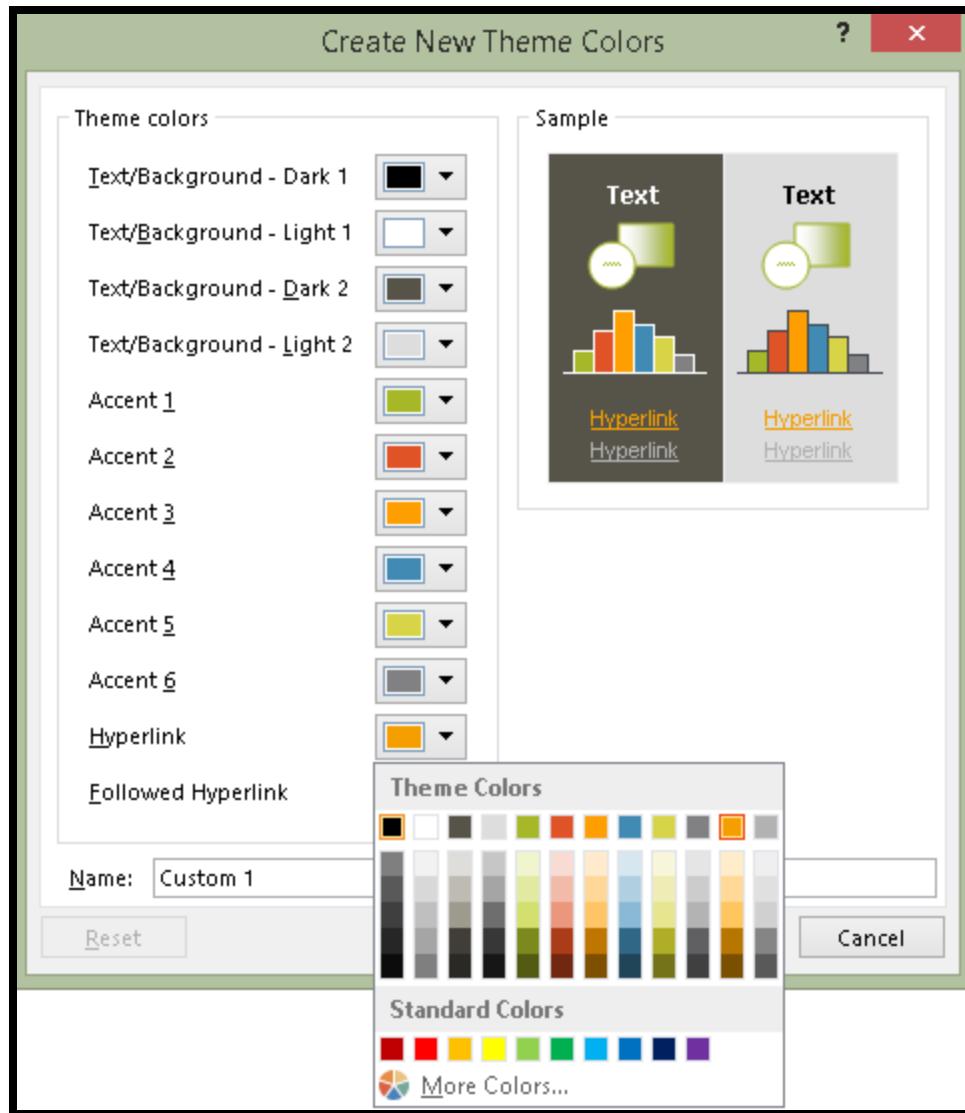


Figure 77 Create New Theme Colour dialog with Hyperlink palette open.

I'm going to choose one of the blue colours. If I wanted to use a darker colour or different colour than is shown here, I can press M for More Colours and either use the palette or RGB values to choose the colour.

I know that we depend on links being blue with underline so I make sure that links on slides are blue so that they are easy to find visually.

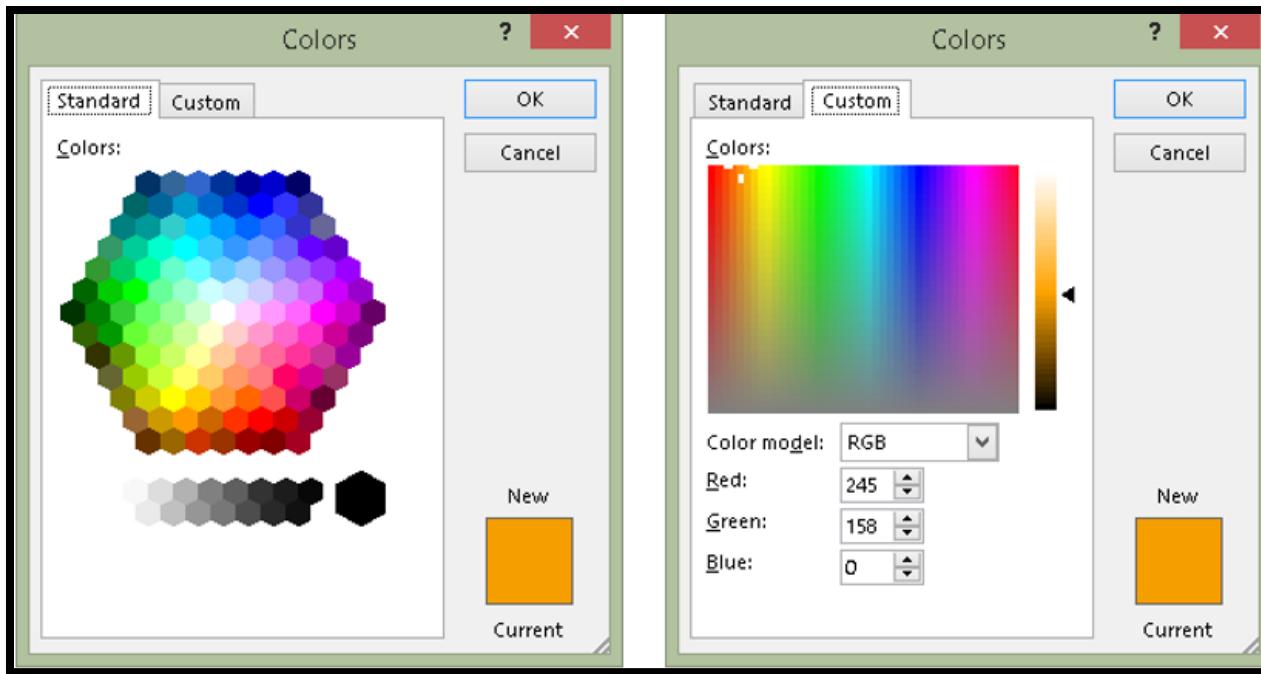


Figure 78 More Colours options for setting a Theme Colour.

Once I choose the blue colour I want and rename the Theme Colour (I called this one "Sample Hyperlink"), I can apply it to any slide presentation.

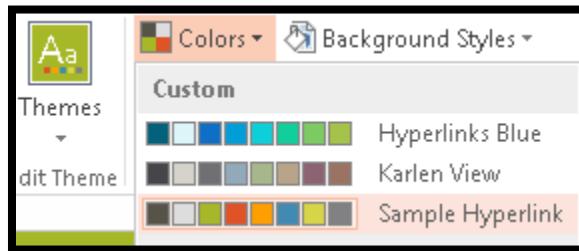


Figure 79 "Sample Hyperlink" Theme Colours in Theme Colours Gallery.

Your links for slide presentations using this Theme will now be more visible and therefore more accessible and usable. If you want to save this as a template as well, apply the Sample Hyperlink Theme Colour and then press F12, give the template a name and then choose PowerPoint Template from the Files of Type list. It will be placed in the Custom Office Templates folder on your computer.

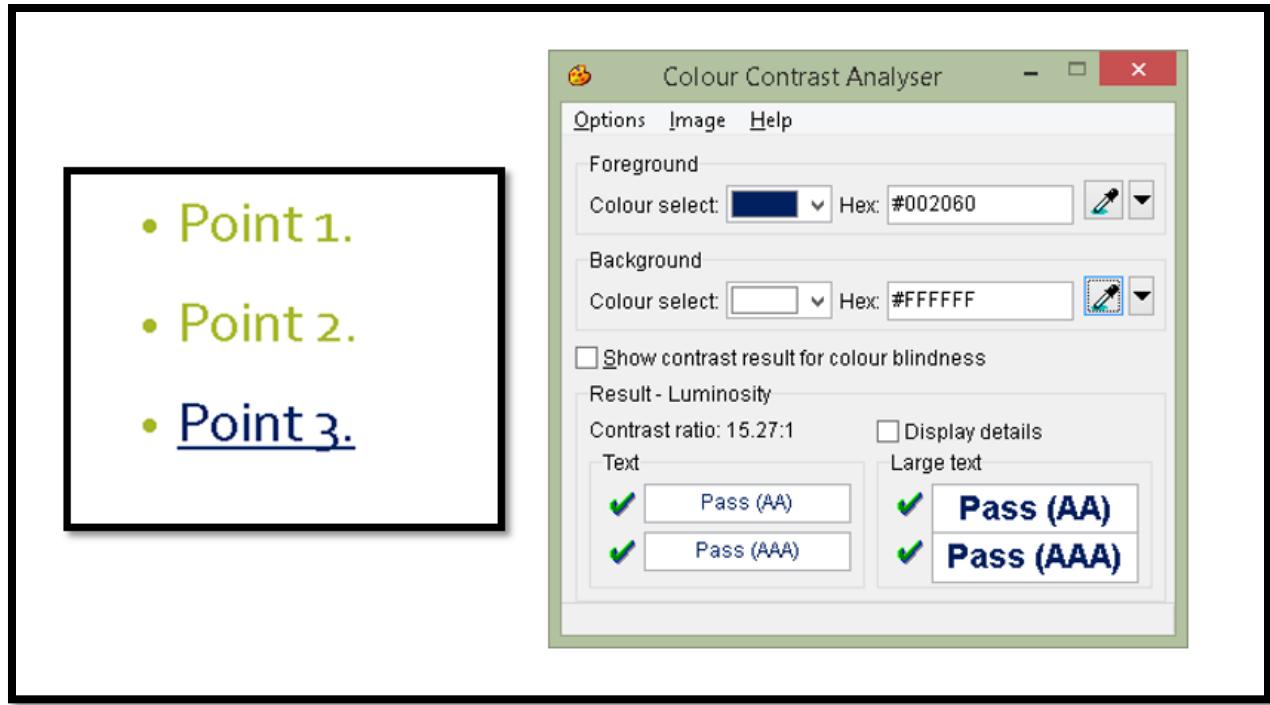


Figure 80 Colour Contrast Analyzer for blue link text.

Adding Accessible Slide Placeholders

There is an updated tutorial on how to “Add Accessible Placeholders to PowerPoint Presentations” document attached to this PDF document.

Outline View

An easy way to check the accessibility of a basic PowerPoint presentation is to look at it in the Outline instead of Thumbnail view.

The following image shows Outline View for a presentation I did on access to specialized public transport in rural communities.

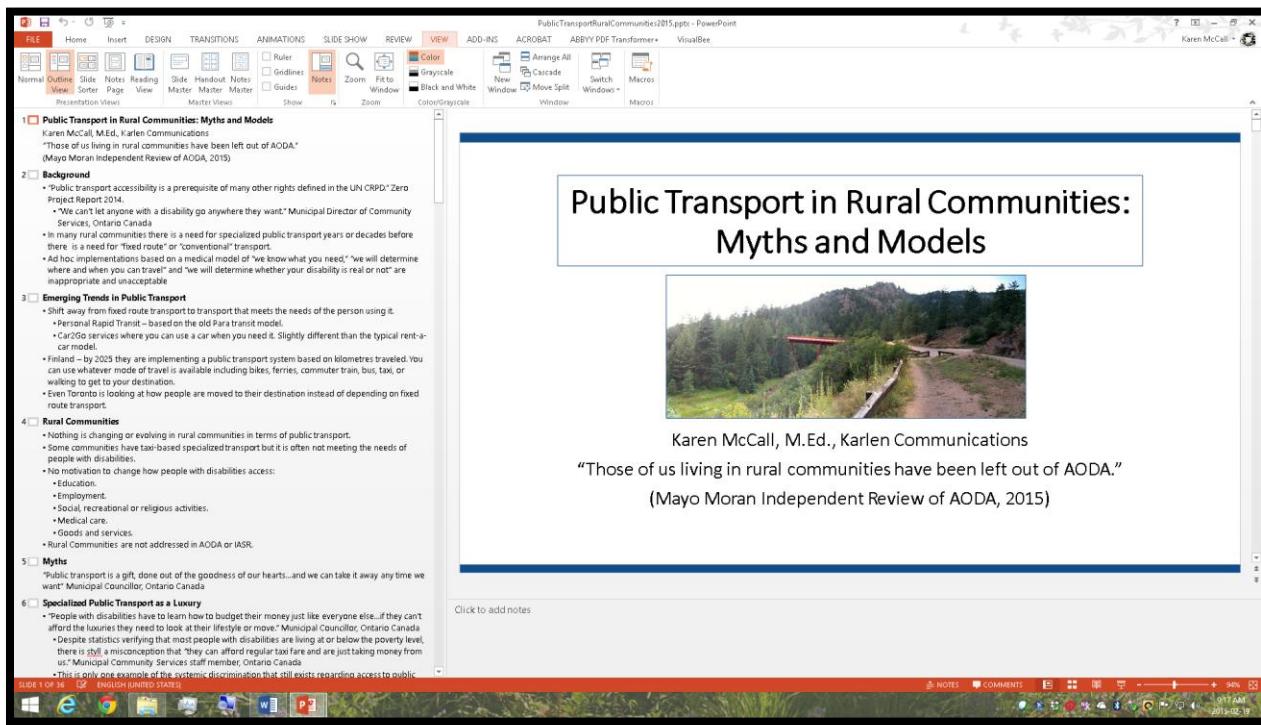


Figure 81 Slide presentation in Outline View.

All of the text shown in the Outline View will be exported to text when the presentation is saved as an RTF or Outline document.

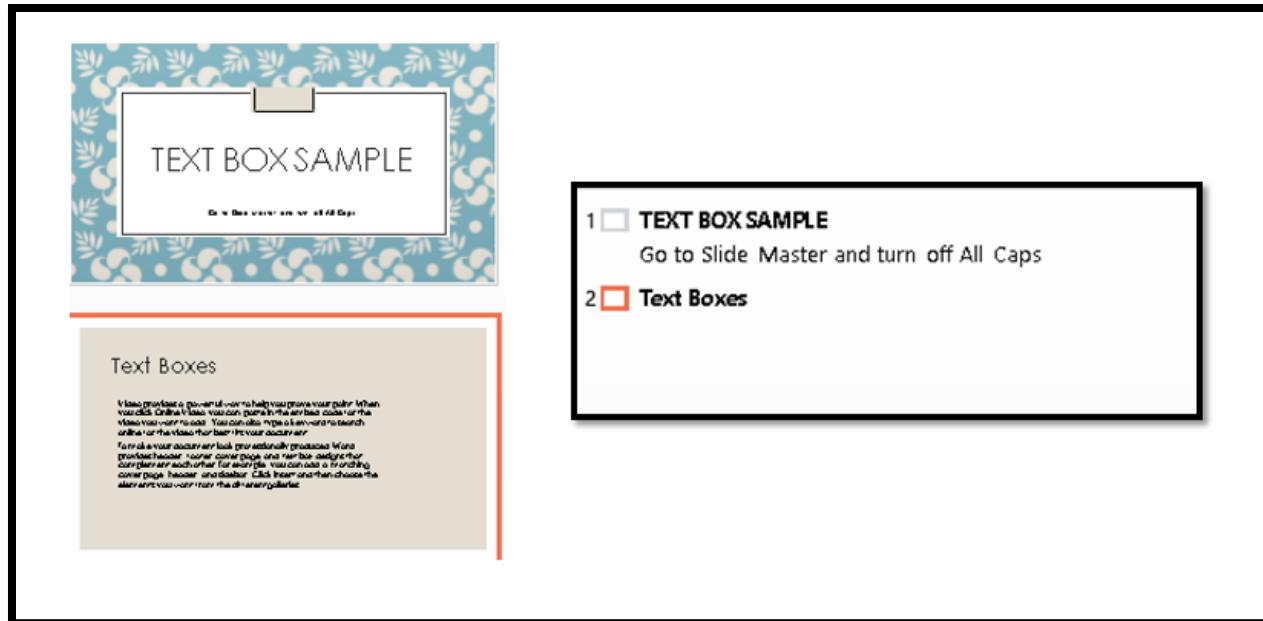


Figure 82 Thumbnail and Outline Views of Text Box content on a slide.

While Text Box content might show up in the Thumbnail view as shown in the previous image, it does not show up in the Outline View.

Likewise, when a SmartArt graphic is added to a slide, it will show up in the Thumbnail View but not the Outline View as shown in the following image.

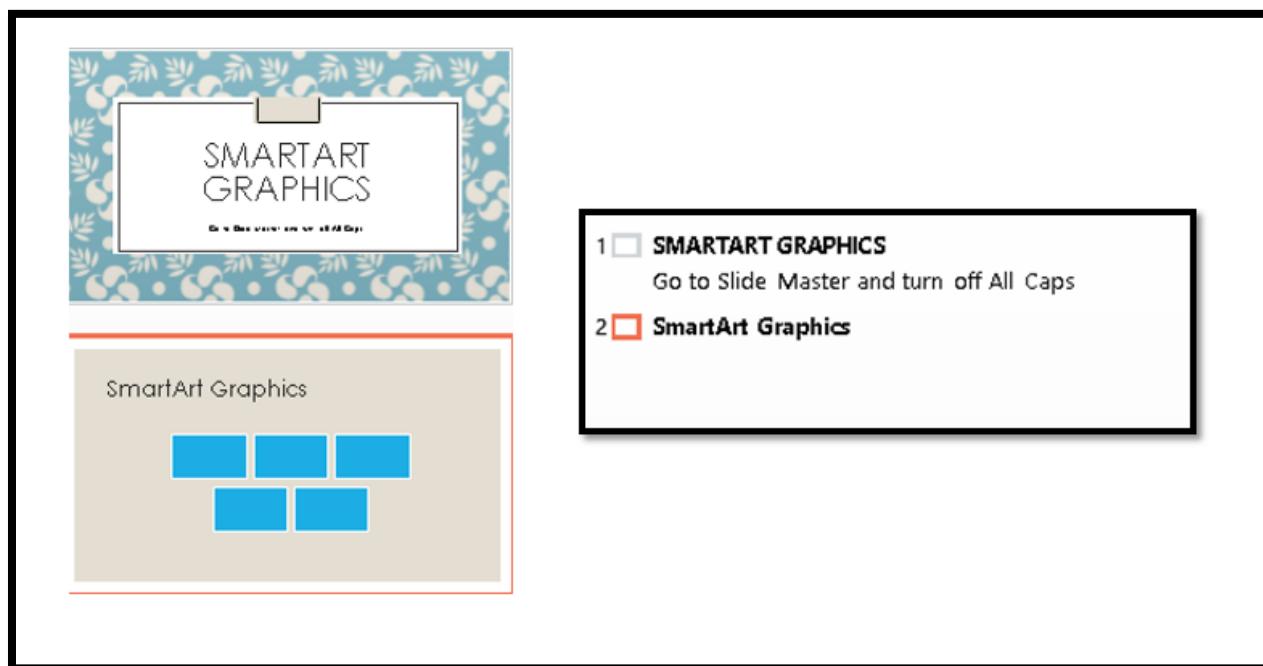


Figure 83 SmartArt Graphics in Thumbnail and Outline Views.

You can set PowerPoint to always show you the Outline View instead of the Thumbnail View which will save time in switching back and forth between views of the presentation.

1. Press Alt + F, T for File/Backstage area, and go to the advanced category by pressing A.
2. Press Alt + letter O to move to the list “Open all documents using this view.”
3. Choose “Normal, Outline, Notes and Slide,”

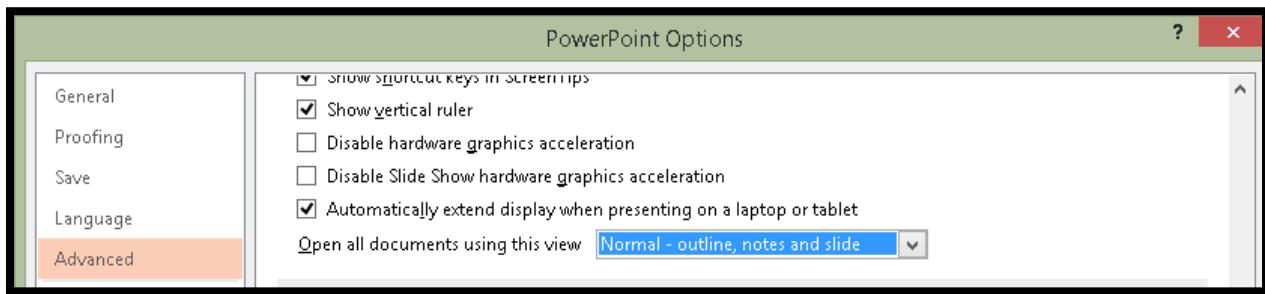


Figure 84 Set PowerPoint documents to open showing Outline View.

All presentations will now open showing the Outline View instead of the Thumbnail View.

Alt Text for Objects and Using the Notes Area

Any object on a slide must have Alt Text with the exception of Title, Text or Content Placeholders.

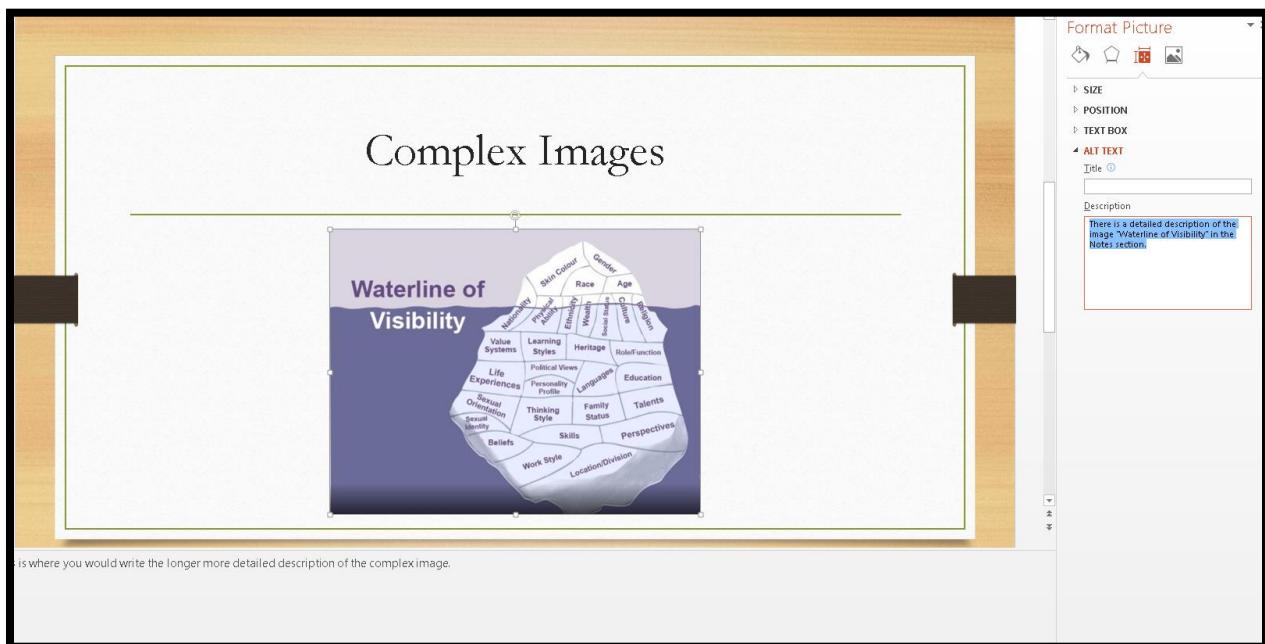


Figure 85 Complex image on slide with Format Picture Pane open and text in Notes area.

If you are not using the Notes area to provide detailed notes or a script for your presentation, you can use it to transcribe audio or video content or to describe complex images on slides. Remember that adaptive technology has buffers and the Alt text cannot be an essay or really long description of the image or object.

Each slide must have a Title using the default Title Placeholder.

The image used on the preceding slide is shown below to demonstrate its complexity.

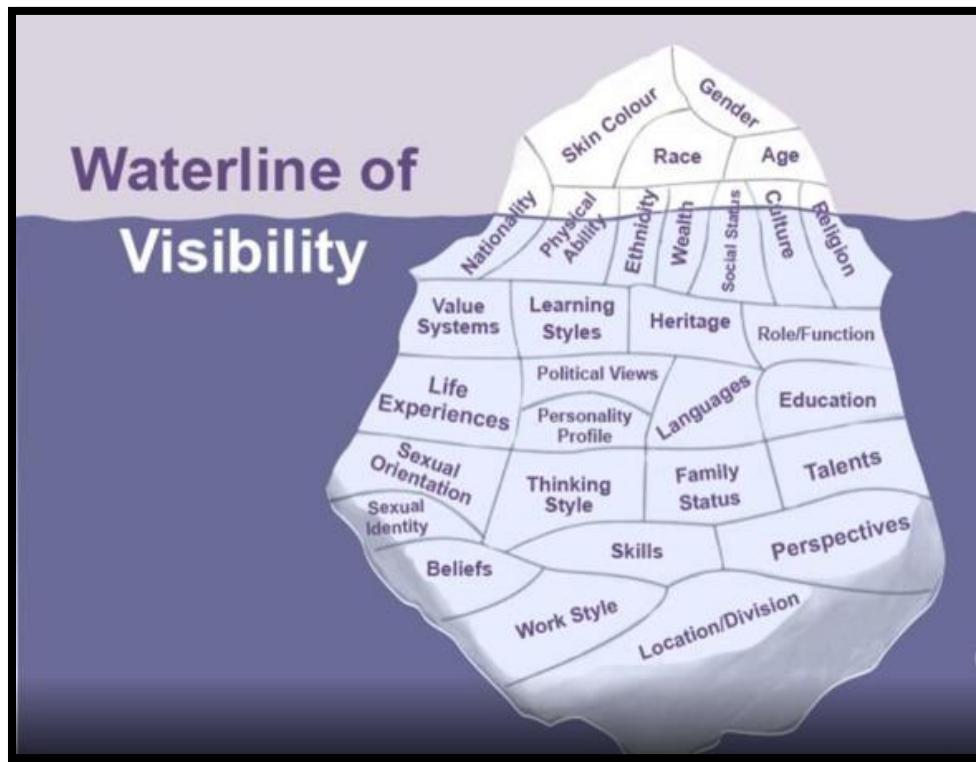


Figure 86 Waterline of Visibility showing the various components of ourselves that are visible and hidden.

The “Waterline of Visibility” is from the article “[The Diversity Iceberg](#).¹¹”

The “Waterline of Visibility” is represented by an iceberg with a small number of characteristics above the waterline (visible) and many more beneath the waterline (invisible). It is an image that can be used to discuss cultural diversity.

If you are using the Notes area for descriptions, you will need to let people know this and to send the PPTX file not a Slide Show. This is why we think about how we are going to distribute our presentations BEFORE we start adding content and bling.

¹¹ The Diversity Iceberg, California State University blog:
<https://csuchicodc.wordpress.com/2012/02/06/the-diversity-iceberg-3/>

Adding Alt Text to Images Objects and Tables on Slides

PowerPoint 2013 uses the Format Picture Pane as do other Office 2013 applications to add Alt text to images.

If you are using adaptive technology, the best strategy is to close the Format Picture Pane once you've worked on an image. I find that sometimes the Panes steal focus from where I'm working in documents and presentations.

To add Alt text to images, objects and tables in PowerPoint:

1. Select the image, object or table.
2. Press the AppKey or use a right mouse click.
3. Choose Format Picture which is at the bottom of the list in the context menu.
 - a. The keyboard command is letter O.
4. The Format Picture (or Format Object) Pane opens to the right of the slide.
5. Focus is on the Effects tools.
6. Press Shift + Tab once to move up to the buttons level.
7. Press the Right Arrow once to land on the Size and Properties Grid.
8. Press Tab to move into the Size and Properties Grid. Focus will be on Size.
 - a. You are not imagining things, this is the "Layout" button in Word's Format Picture Pane.
9. Use the Down Arrow to locate the Alt text option and press Spacebar to open the options.
10. Press Tab to move to the Description edit area and either type or copy and paste the description for the image, object or table.
11. Press Ctrl + Spacebar C to open the context menu for the Pane and Close. The Pane.

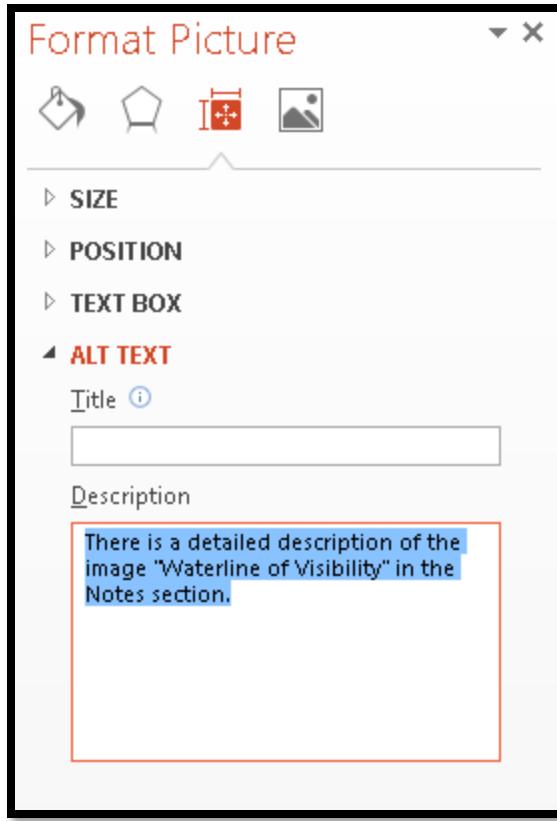


Figure 87 Format Picture Pane showing Alt Text for image.

If you are mouse dependent, you may be able to leave the Panes open and continue working. It may also help if you are using multiple monitors to stack Panes you are working with.

Using the Selection Pane to Order Content on Slides

In the case of PowerPoint slides, the order in which the title and text placeholders are tabbed to is the order in which they are read or accessed by someone using a screen reader. For tagged PDF it may also affect the logical reading order of the resulting tagged PDF document.

In PowerPoint you can reorder the text placeholders or objects on a slide by using the Selection Pane.

To reorder objects/content on a slide:

1. Press Tab to move to the first object on the slide.
2. It will then have handles around it.
3. Press Alt + J, A, P to open the Selection Pane from the Picture Tools, Format Ribbon.

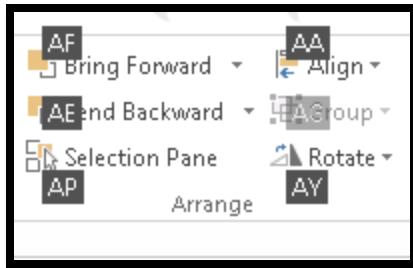


Figure 88 Selection Pane from the Picture tools, Format Ribbon, Arrange Group.

The Selection Pane opens to the right of the slide.

The logical reading order or the Tab Order of the objects on the slide will appear from bottom to top which is a bit counter intuitive since you expect that the first item in the Selection Pane will be the first item on the slide. It is the reverse. The objects are tabbed to from the bottom up. So the Title Placeholder will be the item "Title" in the Selection Pane.

The Selection Pane has up and down arrow buttons so you can move an object up or down in the Tab Order or logical reading order on the slide.

As you Tab through the objects, the corresponding item will be identified in the Selection Pane.

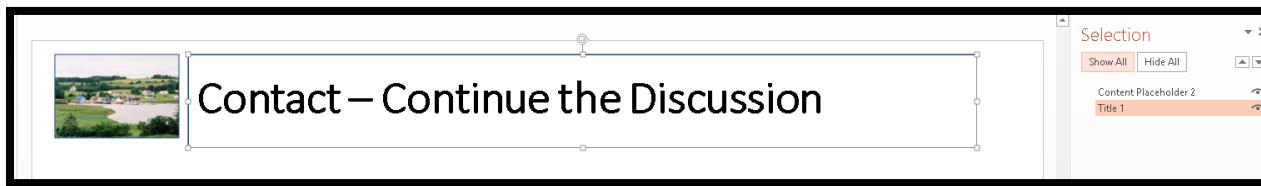


Figure 89 Title Placeholder highlighted in Selection Pane and on slide.

The slide used in the preceding image has the Title Placeholder, a Content/Text Placeholder and a decorative image that I put on a slide master so it will not show up in the Selection Pane and is not available to adaptive technology. It is a decorative image.

The following image is of a slide with a Title Placeholder, Text/Content Placeholder and an image. The Selection Pane was used to order the content on the slide.



Figure 90 Slide with 3 "objects" and the Selection Pane open to the right of the slide.

To reorder objects/placeholders on slides, select the object placeholder and use the Up and Down Arrows to place it in the order you want the content accessed, moving from bottom (first read) to top (last read).

To close the Selection pane once you are finished, put focus in it and press Alt + Spacebar, C. This opens the context menu and chooses Close.

When you are working in Slide Master View and are adding additional Content or Text Placeholders, make sure you check their order before you save and start using the template/slides.

The arrangement of the objects/placeholders on a slide will affect the order in which the Tags are created in a PDF document. The tagging tools will follow the “logical” order you placed the content onto the slides. If you do not correct the Tab Order, you will need to repair this in Adobe acrobat. In addition someone reviewing your PowerPoint presentation with adaptive technology will not be able to read slide content in a logical or meaningful order.

Note: if you are going to have slide numbers on slides, add them last. This lets you arrange content on slides in their Tab Order. Once the page numbers are added (Alt + N, S, N), they will appear in the Selection Pane in the top position or the last thing tabbed to on a slide.

Tables on Slides

When using a table on a slide, use the tools in PowerPoint to insert a table. Although we can't use the tools to create <TH> Tags, if we use non-standard tables, images of tables, or drawn tables, these will represent barriers to accessibility in the presentation and any subsequent tagged PDF documents you will need from this presentation.

Note: tables will need to be copied and pasted into the outline or RTF document if this is the alternate format needed by participants. If you've used the proper table structure the table should convert nicely to Braille or DAISY format.

To insert a table onto a slide press Alt + N, T to open the Table Gallery. You can use either the Column and Row Gallery or the Insert Table item on the sub-menu.

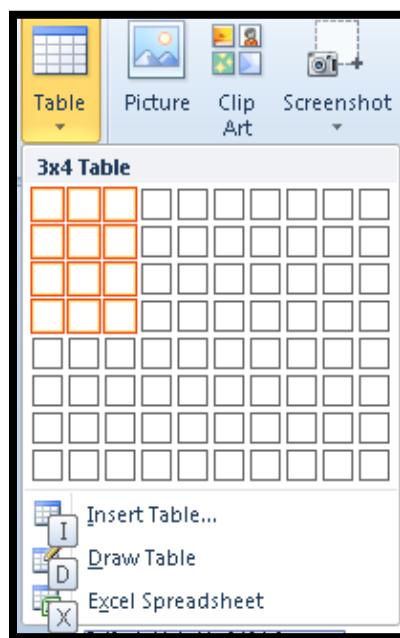


Figure 91 Insert Table on slide showing cells in the table Gallery selected.

Once the table is inserted onto the slide you can add the data. As with other types of documents, tables should not be used for layout on a slide. Tables should always be used to display data effectively.

Salesperson	First Quarter	Second Quarter	Third Quarter
Barnaby	500	575	800
Olivia	600	550	750
Zoie	550	500	775
Cloe	575	600	825

Figure 92 Table inserted on slide through the Insert Ribbon.

Don't used grouped objects to create the illusion of a table. Use the proper table structure. If you use grouped objects to create the illusion of a table, they will all need Alt Text as individual images both in the PowerPoint and subsequent tagged PDF documents. This means that the information will not be presented in table format to someone using adaptive technology such as a screen reader. It will be presented as individual bits of content.

If you are using colour in tables, make sure there is a good contrast so that the data is readable. As expected, the "Wood" colour palette resulted in a Colour Contrast Analyzer failure.

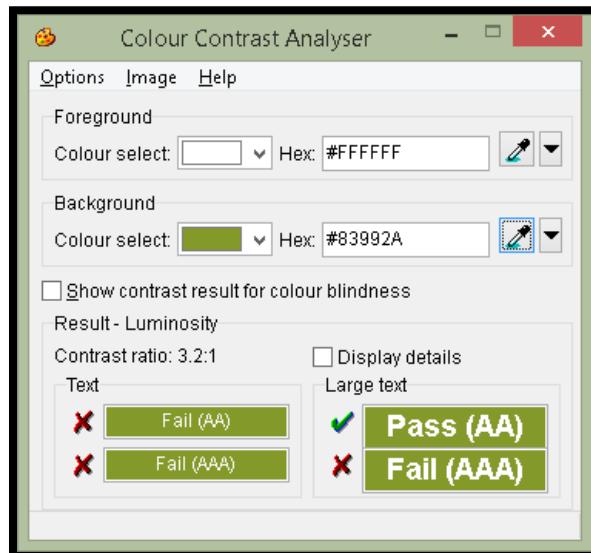


Figure 93 Text in title row of table fails the Colour Contrast Analyzer.

Tables in PowerPoint don't necessarily have the same level of keyboard access as tables in Word do. For this reason, it is important to create tables in PowerPoint properly and to use them for small amounts of data.

Links in Presentations

As with links in Microsoft Word, it is preferred that links be contextual rather than the full web addresses. The following is an example of a list of full web addresses from the JAWS screen reader. A person using a screen reader or Text-to-Speech tool has to listen to every character of those links to figure out where the link will take them. We can't use first character navigation because everything starts with the letter "H."

The following image is of a list of non-contextual links for a slide from the JAWS screen reader.

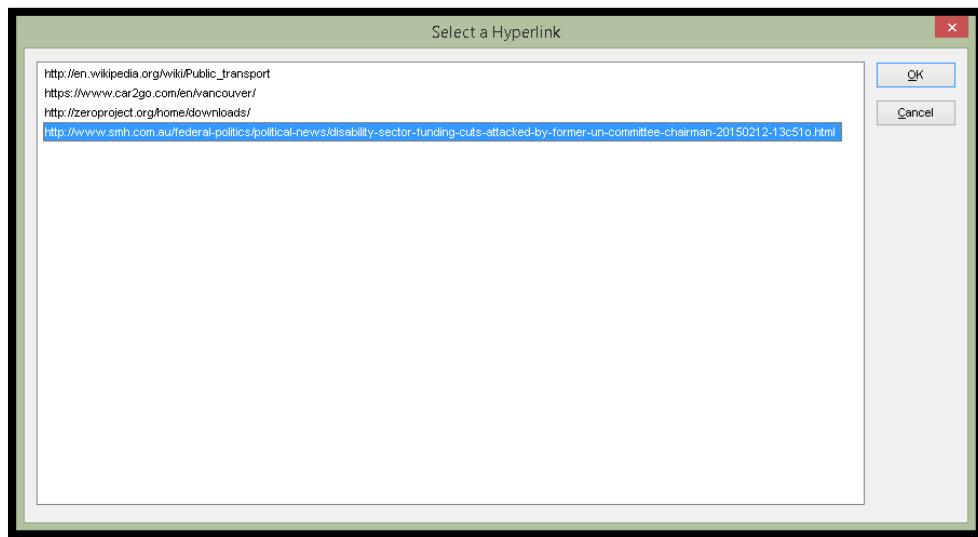


Figure 94 Non-contextual links in a PowerPoint presentation.

If the PowerPoint document is to be saved and distributed as an Outline for distribution in Braille or Large Print, you will need to provide contextual links as full web links in the RTF document. It is a good idea to put the long URL or web address in the Notes area for the slide.

You don't want to play around with the size of text used for links. In some presentations I've seen five or six font sizes on one slide in one text placeholder which is visually distracting and detracts from the message you are giving the audience. Your audience will be spending time concentrating on reading varied font sizes rather than listening to you explain what the points on the slide mean.

While I support the use of contextual links for documents, slide presentations are something different. Generally you want the audience to be able to go out on their own while you are speaking to take a look at something you might be pointing out on a slide.

Having the long web addresses for the slides and then adding Alt text to them if you convert the presentation to tagged PDF is a better way to go in this instance.

If you do use contextual links, use the Notes area or have a separate slide at the end of the presentation with the long web addresses on it for those who might want them.

I find having the long web addresses as the last point on the slide where you are talking about a website or resource stops participants from asking for the long web address while you are speaking. As you are giving the presentation, make sure you read out the long web address on a slide slowly for those who cannot see it. Do not use abbreviations, acronyms or jargon. Make sure that the web address is understandable for those entering the information in a web browser as you speak.

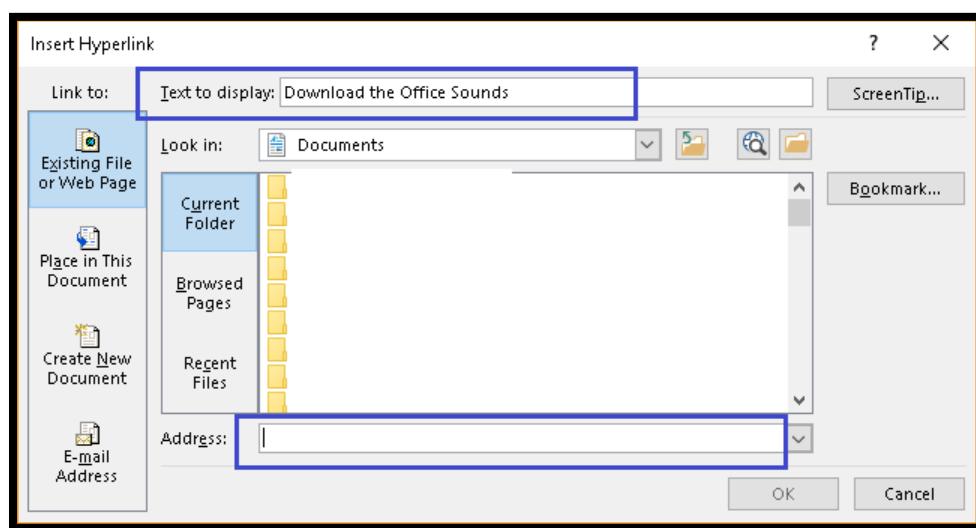


Figure 95 Insert Hyperlink dialog showing Text to Display and area to paste web address.

If the presentation is converted to tagged PDF you can add Alt text to the <Link> Tag for those of us using adaptive technology.

Bulleted Lists

Use the Bullets and Numbering Galleries on the Home Ribbon to either change the bullets or switch to numbering. Do not use different bullets on each slide! Keep your design simple but effective. Sometimes more is just awkward and unprofessional looking.

Just as with Word, you don't use the enter key to create space between bulleted points in a PowerPoint slide presentation. Instead use the Paragraph dialog to add space below each bulleted item.

If you've put too much content into a slide and are readjusting the line spacing so that text doesn't overlap, choose "single" line spacing in the Paragraph dialog rather than "Multiple" which PowerPoint will do by itself when you ask it to cram too much content into one text placeholder.

Better yet, distribute the content to other slides so that it isn't unreadable.

For slides without a huge amount of content on them, you can easily adjust the spacing between bulleted or numbered points.

To adjust the spacing between bulleted items, select the entire list and press Alt + H, P, G to open the Paragraph dialog from the Home ribbon. If this sounds familiar, it is the same keyboard commands used in Word to open the Paragraph dialog.

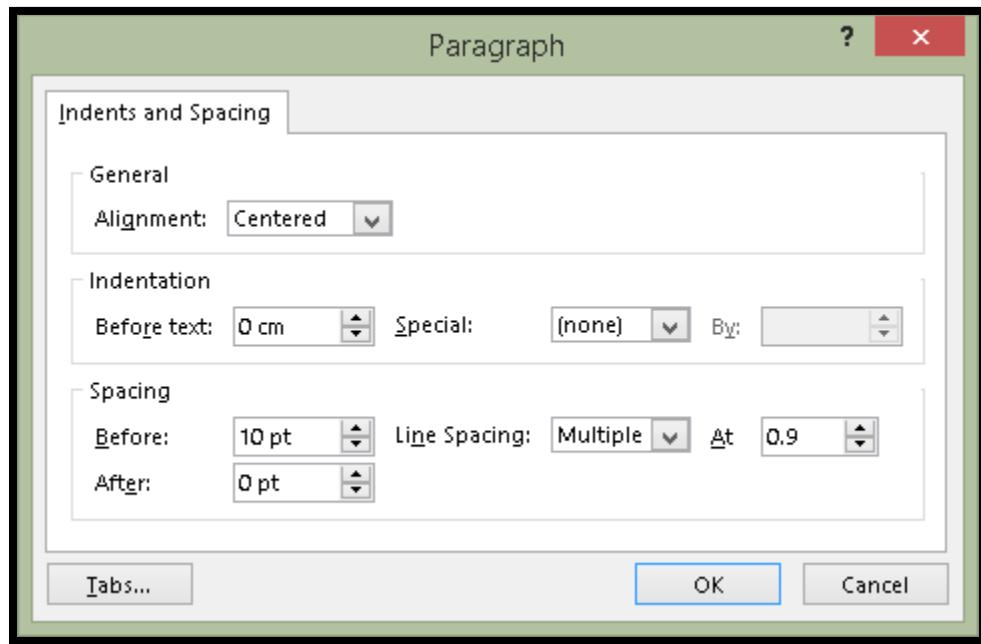


Figure 96 Paragraph dialog in PowerPoint.

In the Paragraph dialog above I've used 20 point spacing which gives the typical amount of space between bulleted items that a press of the Enter key would.

Bulleted Lists

- This means that VoiceOver will not work with Microsoft Office for Mac...nor will it work with iWorks tools.
- The impact is two-fold: people who depend on screen reading or TTS tools cannot use robust word processing, presentation, or spreadsheet tools; and, people trying to create more accessible documents that can be accessed cross-platform cannot create truly accessible documents.
- With the advent of VoiceOver and its evolution, it is hoped that all developers involved, those from Apple Microsoft, and Adobe will work together to improve the accessibility of Microsoft Office for Mac and the ability to create a tagged PDF document as robust as you can in the Windows environment.

Figure 97 Bulleted list on a slide spaced using the Paragraph tools.

As with Word, we added the spacing after each bulleted item. We know that the first bulleted item has enough space around it because it is the first one in the text placeholder and the text placeholder is positioned by default to allow space between the title placeholder and the text placeholder or content on the slide.

By using the spacing between the bulleted list items the list is not broken. This means that the content will be read as one list of three bulleted items rather than three lists of single items. This will convert nicely to a List structure in a tagged PDF version of the presentation.

If you have a single piece of content on a slide, using bulleted text might not be the best way to present it. You can turn off the bullets by selecting the text in the text placeholder and pressing Alt + H, U for Home Ribbon, Bullets, and choosing “None” from the Bullets Gallery. You can then resize the text placeholder and position it where you want on the slide.

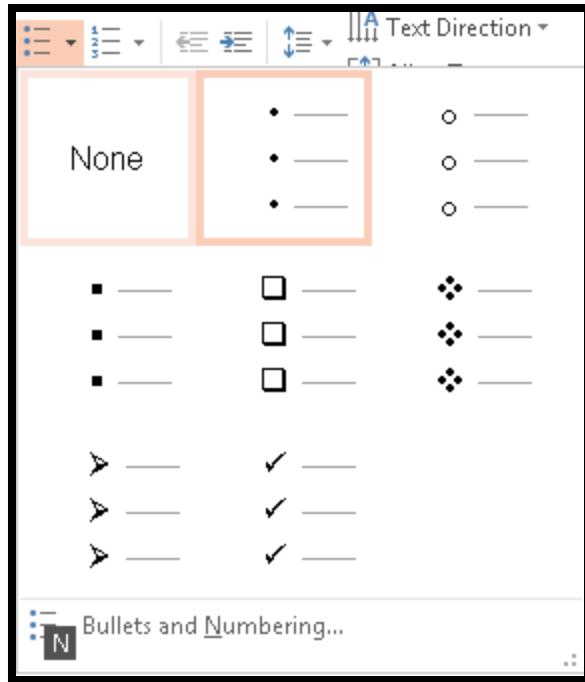


Figure 98 “None” chosen from the Bullets Gallery in PowerPoint.

You can create a slide template with a text placeholder that is not formatted for bullets or numbering by using the Slide Master to do this.

In finishing this section on the amount of slide content and using bullets and numbering, I have to discuss a trend that seems to be around the presentation world. It is that you should only have one bullet point on a slide and only one.

Having sat through a couple of presentations with this concept, I find it dizzying and counterproductive. I found myself not paying attention to the speaker but rather seeing a whirl of text or an image go by at the speed of light creating a blur and taking my mind off of the presentation itself.

While not writing an essay on a slide, slides do replace index cards we used to use for public speaking so can have four or five bullet points on them depending on the amount of content for each bullet point.

The skill in writing and designing a PowerPoint or other slide based presentation is balancing the text with the speaking and being able to hold the interest of the participants.

I also find with the “one bullet point per slide” that the speaker is often distracted as they have to continually advance slides and aren’t as focused on their presentation.

Slide Numbers

There is a tool for adding slide numbers that will automatically create a “Slide Number placeholder” that is more accessible than a text box with a number plunked into it.

Using the tool for adding slide numbers will also ensure that the numbering of slides in the presentation is consistent and sequential as you add or remove slides.

You'll find this tool under Insert, Slide Number or by pressing Alt + N, S, N.

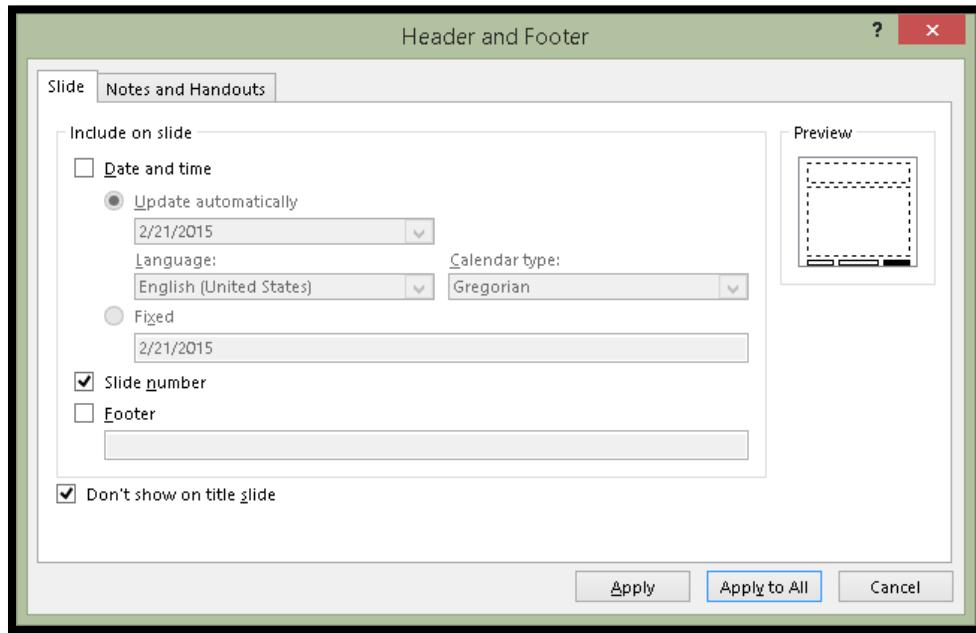


Figure 99 Header and Footer dialog.

Check the check boxes for Slide Numbers and “Don’t show on title slide.” The keyboard commands are Alt +N and Alt + S respectively to move to and check these check boxes.

Then choose to have page numbers a;;apply to all slides in the presentation. The slide numbers won’t be on the first slide but will be on all the rest. The advantage of using this method is that if you reorder your slides, the numbering will reorder itself automatically unlike those Text Boxes you used to use!

Using the Accessibility Checker in PowerPoint

The Accessibility Checker in PowerPoint can help identify elements you may have overlooked such as Alt text on images or tables.

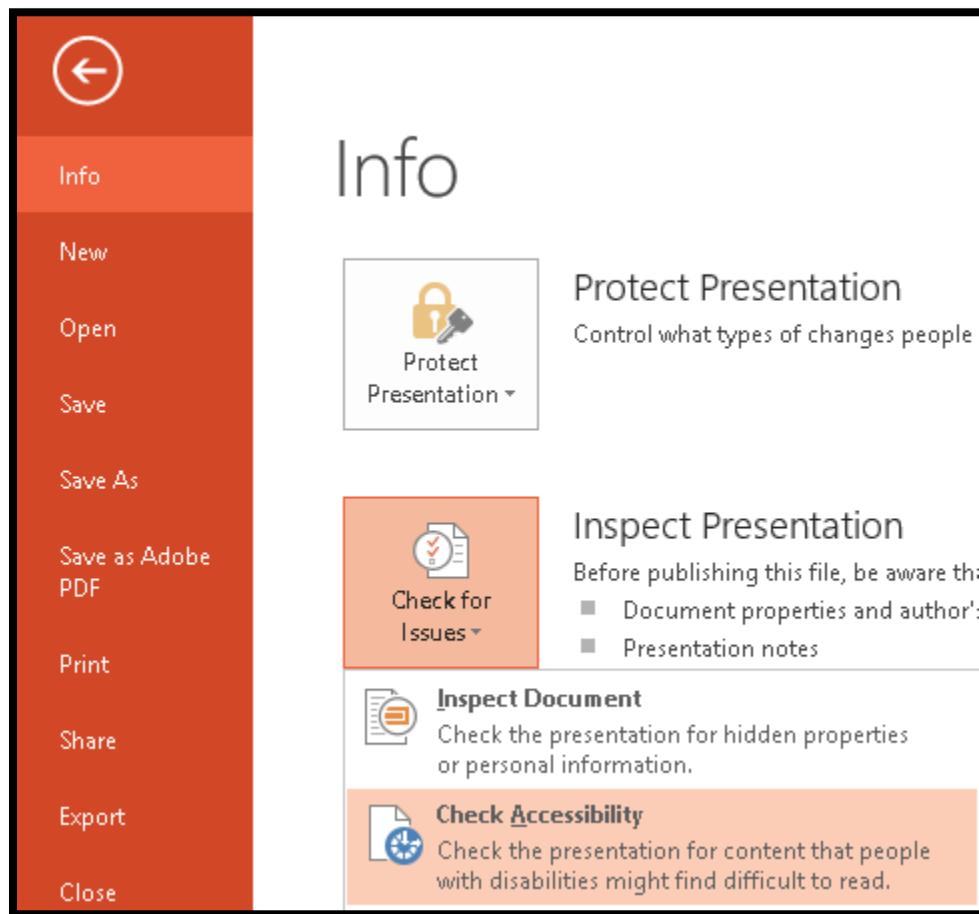


Figure 100 Accessibility Checker in PowerPoint.

To access the Accessibility Checker press Alt + F, letter I, letter I for File/Backstage area, Information (Info) and Inspect Document.

Press the Down Arrow to get to Check Accessibility or press A. The Accessibility Checker opens to the right of the slide area.

The Accessibility Checker is also on the Review Ribbon. The keyboard command is Alt + R, A, number 1 for Review Ribbon, Accessibility Checker.

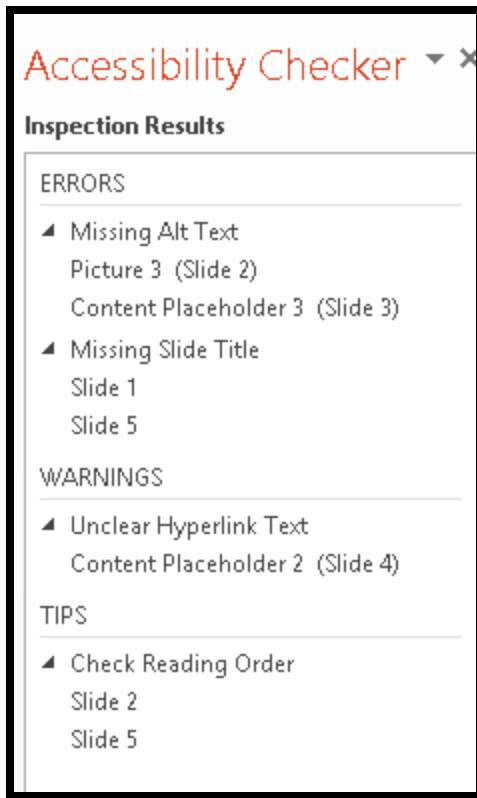


Figure 101 Accessibility Check for a PowerPoint presentation.

In the preceding Accessibility check, there are some problems that I need to fix. The image on slide 2 has no Alt Text and the Title Slide has no content, Slide 2 has no Title and I need to check a Hyperlink on Slide 4.

As you make the repairs, the Accessibility Checker automatically updates to reflect the changes.

Animations and Transitions

Most tips on general PowerPoint presentations advocate that transitions and animations NOT be used. This is important in terms of accessibility. Timing the advancement of slides and having content fly in or out can cause readability barriers.

As with any PowerPoint presentation, avoid the use of animations and transitions.

If there are audio or video files embedded in the presentation, turn off their ability to play as the slide advances. For those using screen readers or Text-to-Speech tools, having an audio or video file begin in competition with their adaptive technology when they don't know where the embedded multimedia is, is a barrier to accessibility.

Other Accessibility Considerations for Presentations

The accessibility of a slide presentation also depends on how it is distributed.

If a presentation is packaged as a slide show with no ability to control the flow of the slides using the keyboard, it is not accessible.

If the slides contained linked content to other documents or slide elements such as Excel or Word content, this content is not seen by adaptive technology in slide show mode.

Additionally, if you expect people to be able to access this content, all embedded files must travel with the PPTX file and be accessible if the presentation is on an Internet or Intranet site. This will let people who need to explore the content in Word or Excel the ability to do so.

If the presentation is packaged as a slide show with no ability to access captioning or a transcript for any audio or video content, the slide show is not accessible.

If someone is using an older version of PowerPoint and their adaptive technology some parts of a slide may not be accessible that are accessible with a current versions of both.

Current versions of the JAWS screen reader do provide recognition and access to linked content from Excel or Word, however this content is not accessible if only the slide show view is distributed. They **MUST** have the actual slides to explore.

If you create grouped objects on a slide, they will be tabbed to individually. Adding Alt Text to the global frame for grouped objects or SmartArt does not mean that each element will be identified. In fact, there is no way to add Alt text to each element of a grouped object that would make sense to someone who can't see it or to parts of SmartArt objects. There is a tutorial document on the Karlen Communications website on "Adding Accessible Images to Documents." I've also added it to this PDF document as an attachment for easy reference.