Karlen Communications
Accessible Word and PowerPoint 2013

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Contact Information

This how-to guide is designed to support workshops on accessible Word and PowerPoint documents. This document does not include everything you should know about creating accessible documents, but it is a starting point.

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Word 2013

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

- Create templates for individual documents.

- Use Themes so that if someone can't use the colours you've chosen they can use their own or a different Theme.

- Use heading styles and custom heading styles.

- 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.

- Provide a table caption.

- Identify table header rows [these are NOT headings.]

- Provide Alt Text for images and objects whenever possible.

- Caption tables, images and equations.

- Use contextual links supported by footnotes or endnotes.

- Do not use Content Controls to create fillable forms/document parts.

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

Take advantage of Themes in Microsoft Office. This will let students swap out a Theme that is not accessible or usable to them and use one that is.

Templates and Themes

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

The first step is to create a template.

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. Make sure that the template will be saved in the correct templates folder. In Office 2013, a folder is created in the Documents folder called "Custom Office Templates" which is where all of your own templates will be stored.

With Office 2013 you can save templates to any storage device. If they are not in the Custom Office Templates folder they will not be easy to find and use again.

Using the Template

For those who are jumping ahead, this is how you use a template. If you are using adaptive technology, there is no first character navigation in the New documents area of the File/Backstage area. The keyboard command to locate your own templates is Alt + F, E for File/Backstage area, Personal. This is why I suggest you pin the template to the list of recent documents (instructions to follow).
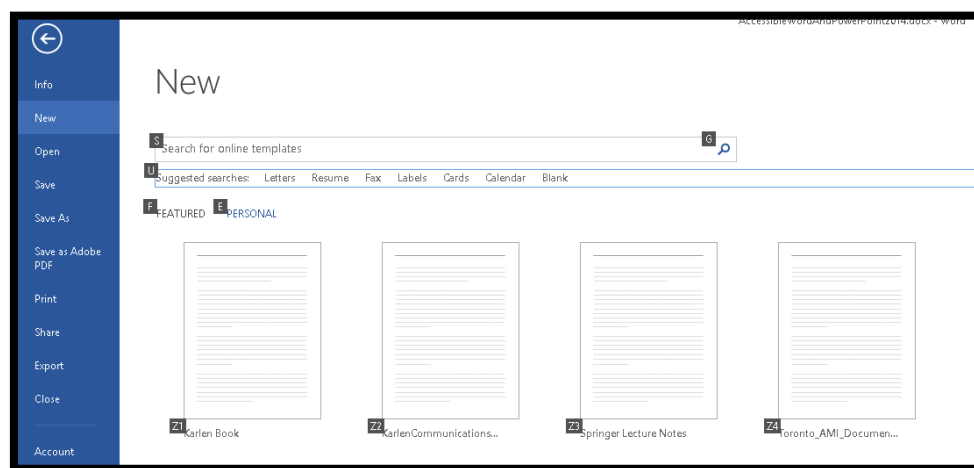

Figure 1 New document area in File/Backstage area showing Personal templates.

Although each template has a number or keyboard command you can use to access it, there is no description read to you, not even the name of the template.

Pin a Template to List of Recent Documents

I find the best way to use templates in Word 2013 is to pin them to the list of recent documents list and then open a copy.

To open a copy of a template from the list of Recent documents:

1. Press Alt + F, R for File/Backstage area, Recent documents.

2. Press Tab to move to the first file in the list. You might have to press Tab twice before you see focus move or hear the first filename.

3. Use the Down Arrow to find the document template you want.

4. Press the AppKey to open the context menu. This is the same as doing a right mouse click.

5. Choose "Open a Copy" from the list of options.

6. A copy of the template will open ready to use.

7. Make sure you give the new document a name.

If you locate the template in the list of recent documents and press Enter on it to open it, you will be editing the template itself and not using the template as the foundation for a document.

Themes

Once you have saved the template and it is still open, you are now ready to modify the styles for headings and text.

There are four parts to a Theme:

- The Theme itself.

- Theme Fonts.

- Theme Colours.

- Theme Effects.

I recommend that you modify and name the Theme Font and Theme Colour and save them separately before saving the Theme itself.

You can use Themes to mix and match colours, fonts or effects:

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

- Press Alt + P, 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.

We'll look at modifying Theme Fonts and a Theme Colour in the PowerPoint section of this handout. The process is the same for both applications.
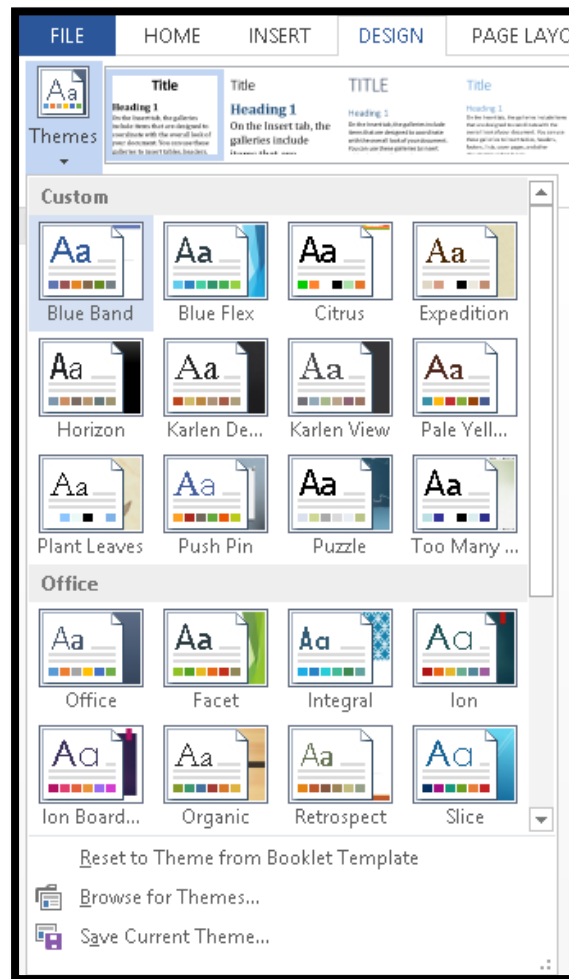

Figure 2 Themes Gallery in Word.

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

Once you have the fonts and colours set for the template, while the template is open, just before you close it, press Alt + P, T, S to save the current Theme.

Your new Theme will appear in the Themes Gallery for all Office applications.

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. This is like painting a door on a wall…it looks like a door but it really isn't and you can't use it for anything but decoration.

To create a more accessible document use proper heading styles and custom heading styles based on existing ones.

Do not move from a Heading 1 to a Heading 3 without having a Heading 2 between them. Make sure your Heading levels are in sequential order.

To apply a heading style:

- Select the text to be formatted with the heading style.

- Press Ctrl + Alt + the number 1 for a heading level 1.

- Press Ctrl + Alt + 2 for a heading level 2.

- Press Ctrl + Alt + 3 for a heading level 3.

There is a how-to guide on creating keyboard commands for Headings 4 through 6 included in these workshop notes, or you can download it from the Karlen Communication website.

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 document. Anyone can use the Navigation Pane in Word to navigate by Heading: Alt + W, K. this is a toggle that shows or hides the navigation Pane. Press Alt + W, K to show or hide the Navigation Pane.
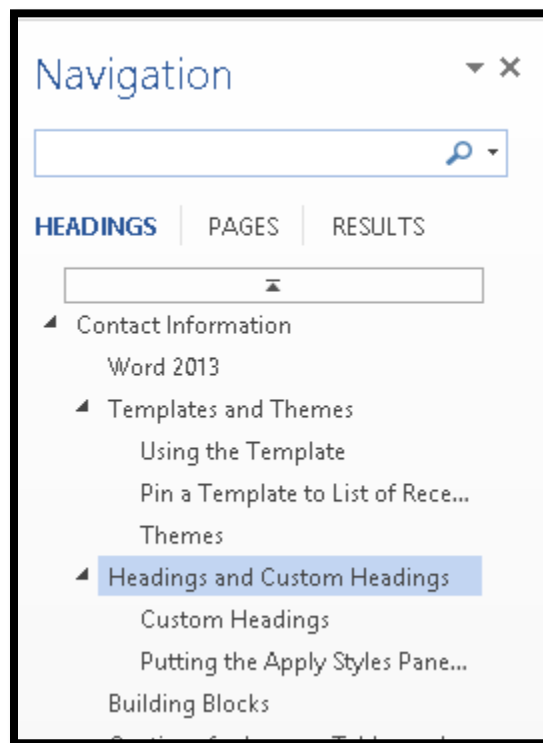

Figure 3 Navigation Pane showing Headings in document.

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.

Open the Styles Pane as it is faster than going through the ASP. To do this press Alt + H, F, Y.

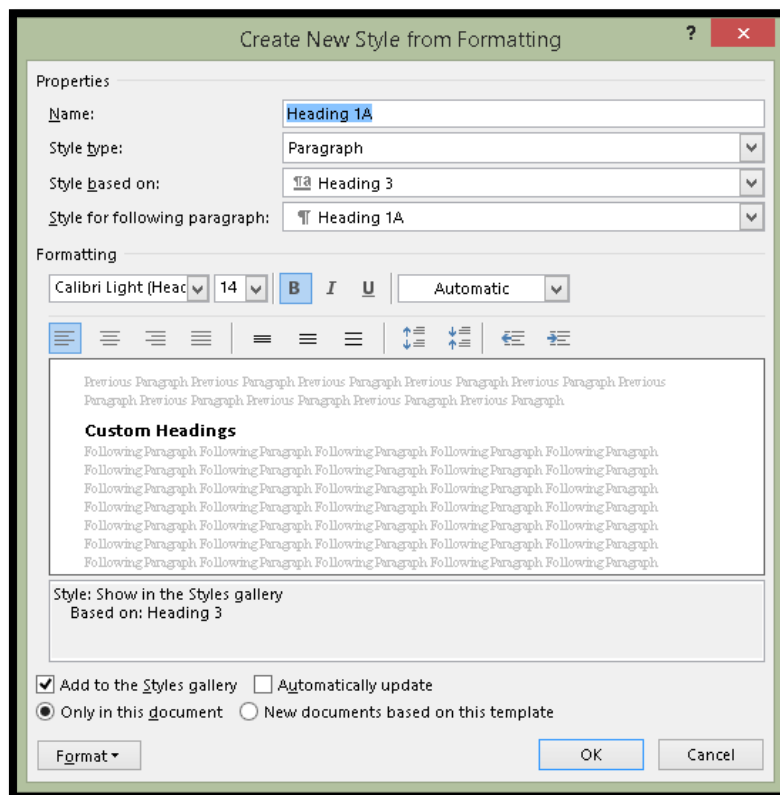In the Styles Pane activate the New Styles button. This opens the New Style dialog.

Figure 4 Create New Style dialog for "Heading 1A."

Don't check the automatically update! This will add a new style for EVERY one-off formatting you need in subsequent documents creating a "dog's breakfast" of formatting that is impossible to sort through and use.

I usually call an additional Heading 1 style Heading 1A because you can display styles in alphabetical order and using this naming convention makes it easy to see where Heading 1A is and what it looks like. Custom Headings with names like "Large Blue Text" are meaningless to anyone but you and probably you won't remember that this is a Heading 1 when you revise the document next year.

Putting the Apply Styles Pane SP on the Quick Access Toolbar

Again, for those who want to jump ahead and are asking how to know what style is being used on the currently selected text, here is how to see the current style in use.

If you used the style drop down list in Word 2003 you probably miss it in Word 2013. Word 2013 does have the Quick Styles Gallery; however, it is sometimes faster to use the keyboard. The ASP or Apply Styles Pane as it is known is also easier to glance at and verify the formatting for the selected text.

In Word 2007, Ctrl + Shift + S will still put focus on the Apply Styles Pane but now it is a floating pane over the document. Sometimes this is difficult to work with.
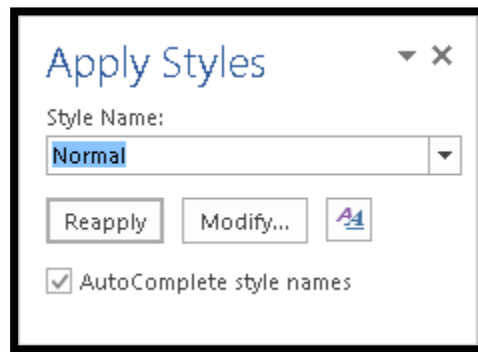

Figure 5 Apply Styles Pane.

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

1. Press Alt F, + T to open the Word Options dialog.

2. Choose the Quick Access Toolbar category by pressing Q.

3. Press Tab to move into the list of possible commands.

4. Choose Commands not in the Ribbon.

5. Find "Style" with no other verbiage associated with it. It is the first Style item in the list.

6. Press Alt + A to add it to the Quick Access Toolbar.

7. Tab to and press Enter on the OK button.

Figure 6 Apply Styles Pane in the Quick Access Toolbar.

Items on the Quick Access Toolbar can be accessed by pressing Alt + a number. On my computer, the Apply Styles Pane is Alt +4.

Other tools you might want to put on the Quick Access Toolbar are:

- Select Table which is in the Popular Commands.

- Send to Microsoft Office PowerPoint which is in the Commands not in the Ribbon.

Building Blocks

Building blocks replace the "AutoText" in previous versions of Word. Microsoft Office comes with a separate file that can be accessed by Office applications that contains the pre-formatted gallery items as well as preformatted text or content.
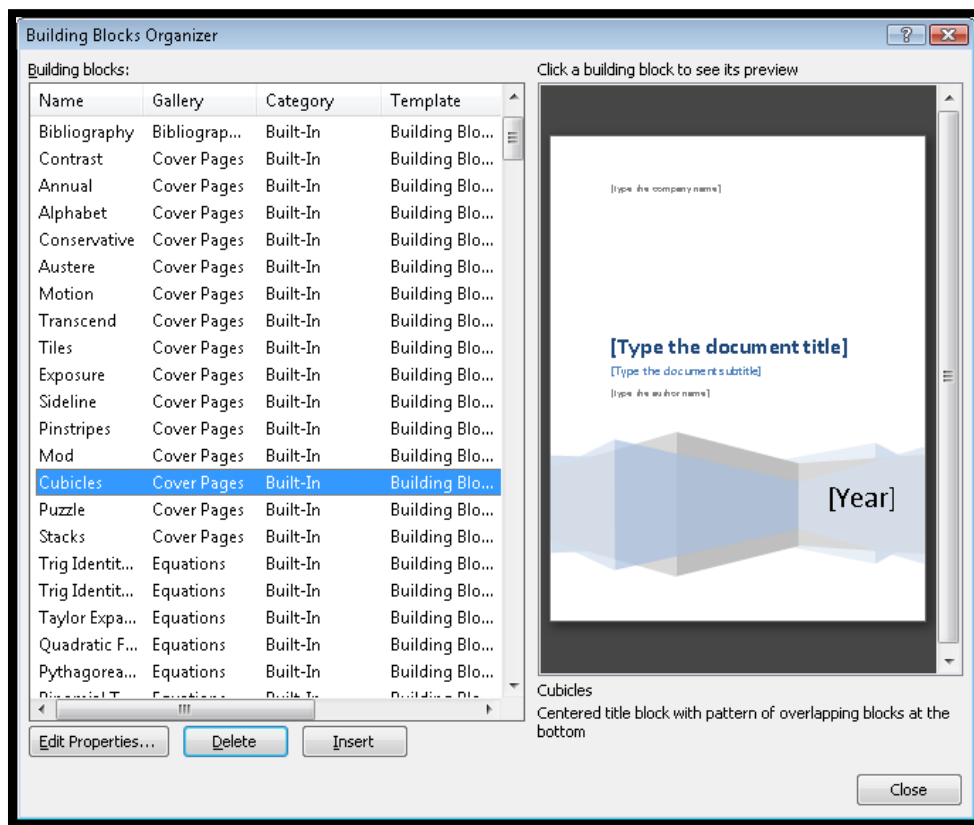

Figure 7 Building Blocks Organizer.

You can access or create building blocks by pressing Alt + N, Q, B to open the Building Blocks Gallery or Alt + N, S to Save parts of your document to the Quick Parts Gallery/Building Blocks.

When you create building blocks you can choose whether formatting is retained or will match the current document.

You can create cover page building blocks, static content building blocks such as copyright or contact information, and include images with Alt text and captions as building blocks.
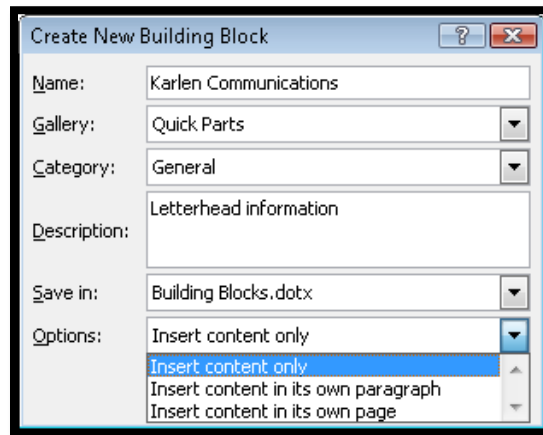

Figure 8 Create New Building Block dialog.

Captions for Images, Tables and Equations

Whenever possible, any image, table or equation in a document must have a caption. This helps keep document authors "honest" in not using tables for design layout.

To add a caption to an image, table or equation

1. Select the image, table or equation.

2. Press the AppKey [lower right of the keyboard to the immediate left of the Ctrl key].

3. Choose Insert Caption which opens the Insert Caption dialog.

4. You can either type or copy and paste text into the caption edit area.

5. Image and equation captions should be below the image or equation.

    a. Captions for tables should be above the table to let those reading the document know what to expect once they enter the table.

6. Tab to and activate the OK button by pressing Enter. If the information in the Caption dialog is correct, you can press Enter once you type or paste the text.
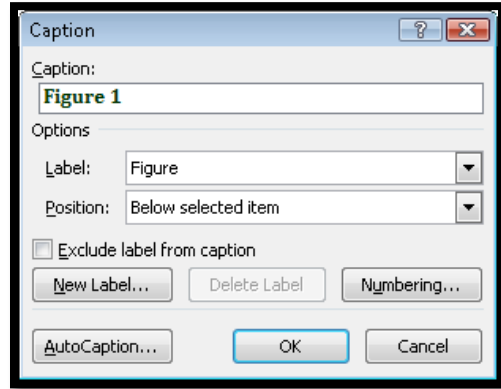
Figure 9 Insert Caption dialog.

Alt Text for Images, Objects, Tables and Equations

All images, objects tables and equations must have Alt text or alternative text "briefly" describing the element. Adaptive technology has buffers that scout ahead gathering content, and while reading this to the person using a tool such as a screen reader, will continue to move forward gathering information and then rendering it. If there is too much information in Alt Text, the adaptive technology and/or the application might crash. In tagged PDF document where an entire page or half page of information has been inserted as Alt text for an image, these documents cannot be opened if adaptive technology such as screen readers are running.

Having said this, equations need to be written out in long hand. It is preferable that they be written out just before or just after the equation or as a separate document. For example "4 times 5 divided by 2 plus open bracket 6 minus 4 close bracket."

You might want to use a combination of the Design Science MathType software with the Equation Editor in Word to produce a more accessible rendering of mathematical or scientific equations.

Unlike regular text in a document, you cannot go through Alt Text character by character if there is something you don't understand. You read all of it or none of it.

To access the Alt Text option in the Format Picture Pane:

1. Select the image, object or equation.

2. Press the AppKey and choose Format Picture from the context menu.

3. Press Shift + Tab to move up one level to the icons for formatting pictures, objects, tables or equations.

4. Press the Right Arrow Once to land on the layout icon and press Enter.

5. Press tab to move into the two Layout options: text Boxes and Alt Text.

6. Press Enter on Alt Text which opens the Alt text options.

7. Tab into the Title edit area. I usually leave this blank.

8. Tab into the Description area and type or paste your Alt Text.

   a. At this point I usually press Ctrl + A to select all of the Alt text, Press Ctrl + C to copy it, Press Ctrl + Spacebar then C to Close the Format Picture Pane and, since my image is still selected, add the same text as a Caption.

9. If you use a mouse or do not use a screen reader, you can leave the Format Picture Pane open to add Alt text to other images. You will need to refocus on the Layout icon for each picture.

With the ability to add alt text to tables, what is a good use of the Caption and Alt Text? The Caption of a table lets you tell people what type of data they can expect to find in the table. Alt Text can provide information about the structure of the table such as whether there are merged columns or rows, split columns or rows and any other information that might help in navigating the table.
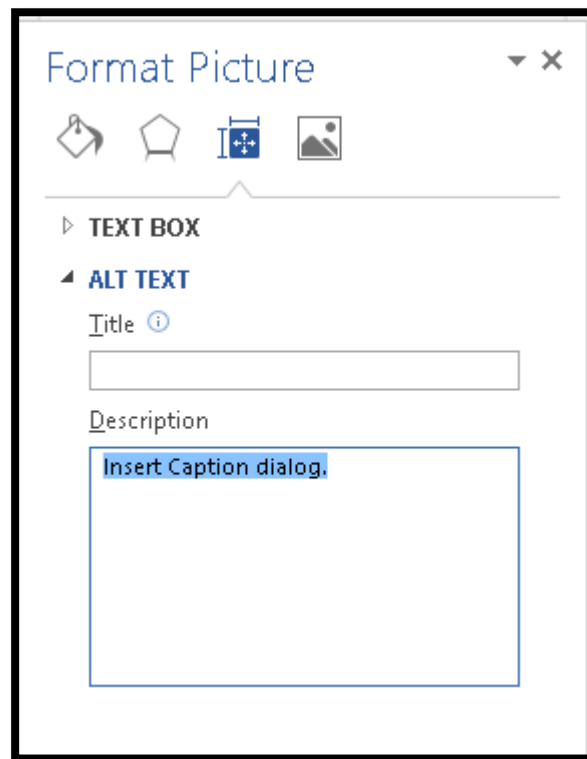

Figure 10 Alt Text option under Layout in the Format Picture Pane.

Tables

It is important not to use tables for design layout! It is also important to insert tables and not to draw them.

To insert a table press Alt + N, T. You can either use the traditional table dialog found at the bottom of the Table Gallery or use the Table Gallery.
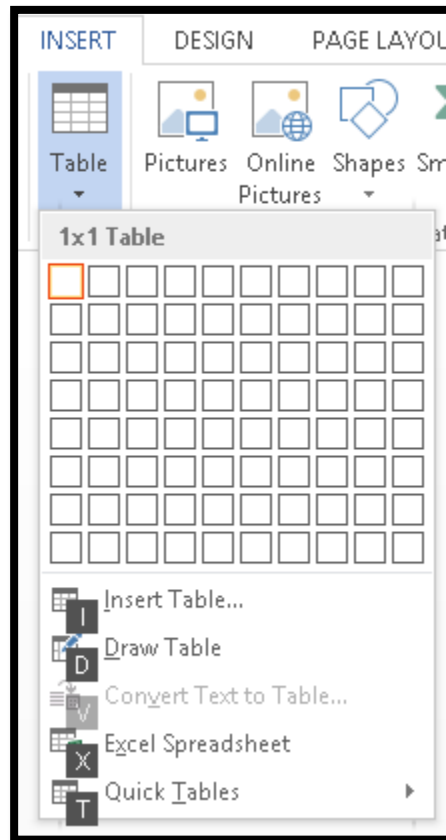

Figure 11 Insert Ribbon with Table Gallery open.

The following are critical elements to creating a more accessible data table:

- In the Table Properties dialog, Rows tab, do not allow rows to break across pages. [Select the table first.]

- In the Table Properties dialog, Rows tab, allow the header row to repeat on subsequent pages if the table spans more than one page. [Select the row or rows before you do this.]

- In Table Properties, Cell, activate the Options button and use Cell Margins to add space around text in cells rather than the Enter key. [Select the row or column before you begin this process.]

- Select the table press the AppKey and add a Caption to the table.

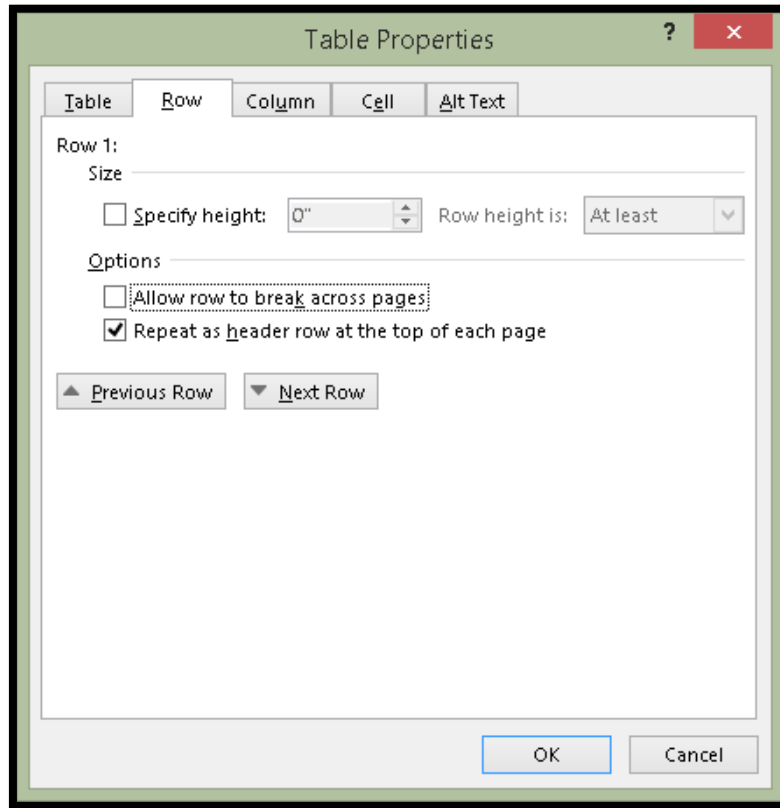- Select the table and add Alt text to the table.
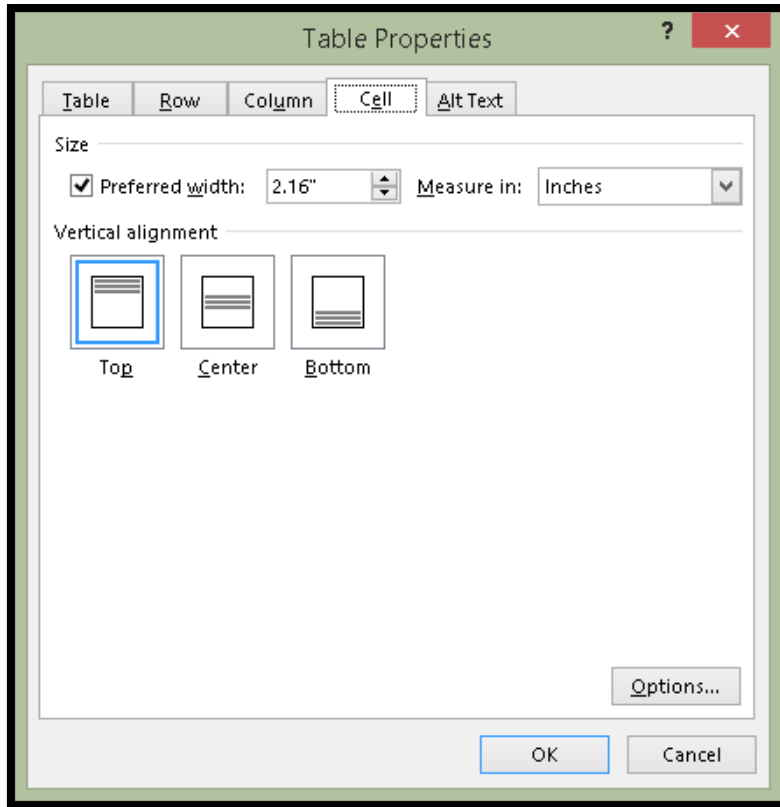
Figure 12 Table Properties dialog showing Row tab.

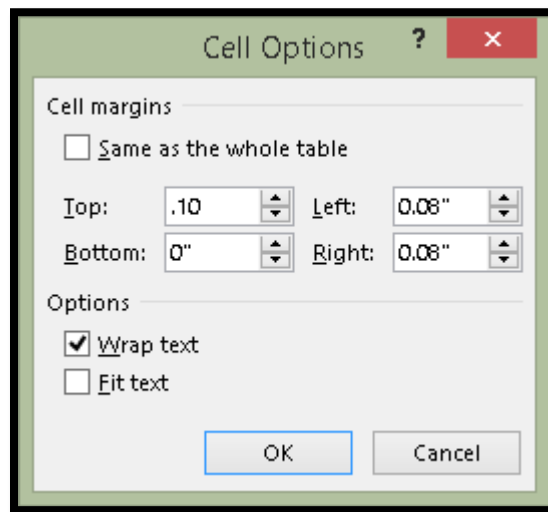Figure 13 Table Properties dialog showing Cell tab.

Figure 14 Cell Options dialog from the Table Properties Cell tab.

Text Boxes and Content Controls Are Not Accessible!

Text boxes are not accessible to adaptive technology. They are document elements that float above the text layer of documents. Adaptive technology such as screen readers can only see the text layer of a document. Consider walking through the woods and having access to all of the elements that are immediately around you such as flowers, trees, dirt, grass, water, snow, ice, stones, other people, pets and animals and some insects. What you do not have immediate access to are clouds, birds that are flying, planes and other objects in the "layer above you." This is similar to the text layer versus the object layer of a document.

There is a keyboard command available if you are using JAWS that can be used to get a list of objects but this is no guarantee that the object can be accessed and if it can be, the content is read or identified separate from the text layer of the document. So, think of yourself in an airplane looking at the ground but not really connected to it. You are either in the text layer or bouncing from object to object but you can't do both at the same time.

Also remember that people using screen readers are only one part of the population with disabilities and the goal is to create more accessible documents for people with disabilities in general using different types of adaptive technology. People with learning or cognitive disabilities who are using TTS or Text-to-Speech for example have documents read to them and text boxes will not be seen by TTS tools but most TTS tools do not have the ability to list objects.

You can accomplish the same look and feel of a text box using paragraph borders.

To mimic a text box:

1. Type in a paragraph of text. We do this so that we can easily check the look and feel of our formatting.

    a. If you don't have a paragraph of text handy, type "=rand ()" and insert the number 1 between the brackets. When you press the Enter key one paragraph of random text will be created. You can use other numbers for more paragraphs. The text is from the Microsoft Help documentation.

    b. Type "=lorem()" and insert the number 1 between the brackets to create one paragraph of characters that roughly represent one paragraph. When you press the Enter key the paragraph will be created. You can create more than one paragraph of placeholder text.

2. Select the paragraph.

3. Open the Styles Pane by pressing Alt + H, F, Y.

4. Choose to create a New Style.

a. I usually modify the existing Quote style as it is already in the Styles Gallery but is often formatted not to be easily readable.

5. Name the new style "Important" if you decided to create a new style.

6. Now you can use the Format button in the New Style or Modify Style dialog to add the decorative border to the paragraph.

7. Choose paragraph in the Borders and Shading dialog rather than Text.

8. Once the border is added, go back to the Format button and choose Paragraph. You can indent the paragraph from the left and right to make it stand out.

9. Choose to add this style to documents created using this template but do not automatically update the styles.
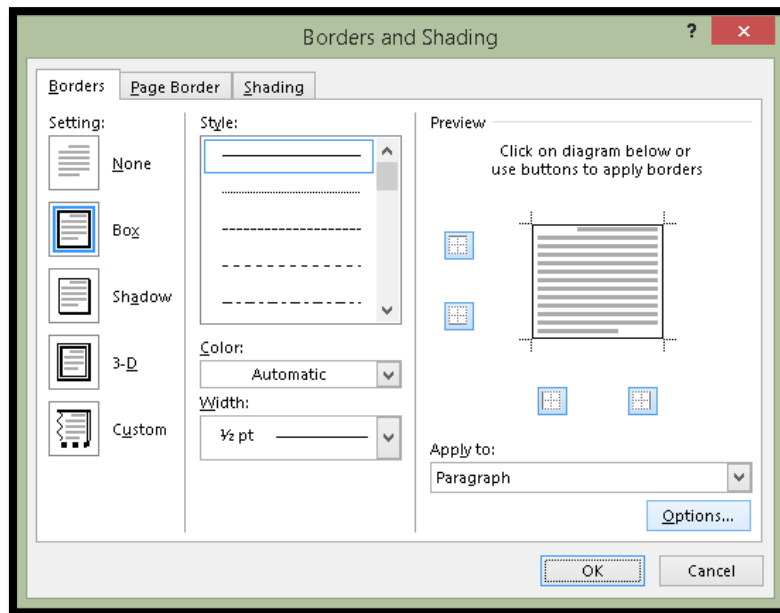

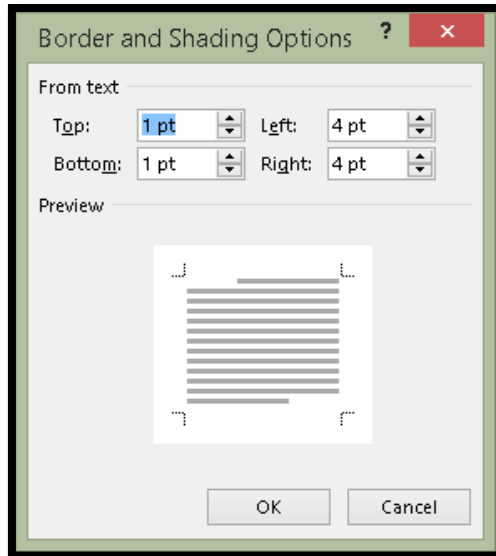Figure 15 Borders and Shading dialog.
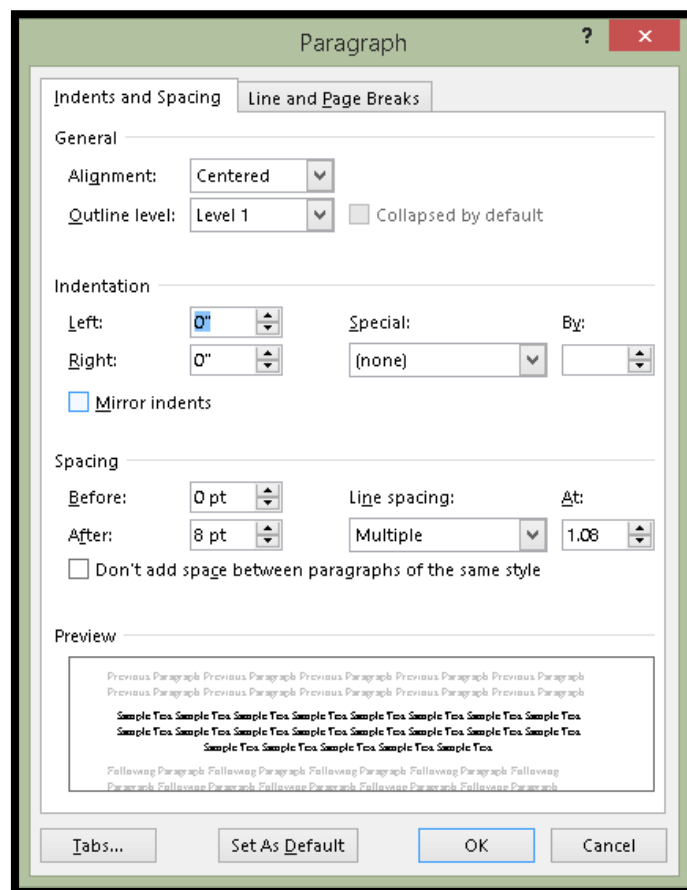
Figure 16 Border Options dialog.

Figure 17 Paragraph dialog.

Now you can select paragraphs and apply the Important or Quote style (depending on what you decided to do) for a uniform and accessible note to the reader.

> **Note:** if you are creating forms in Microsoft Word, do not use the new Content Controls as they are not accessible. Use the older form controls which will let you provide ToolTips and other helpful information for those using adaptive technology.

Clear Formatting!

One of the barriers to accessibility is the formatting that often comes with repurposing content from one document to another 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 do this in Word 2007:

- 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 some of the formatting but not all of it. For example it might remove bold, italic or underline but not line spacing.

- Set the Copy and Paste options in the Word Options dialog to match the destination formatting or to paste text only.

To set the Cut, Copy and Paste options in Word to help eliminate formatting:

1. Press Alt + F, letter I to open the Word Options and then choose Advanced.

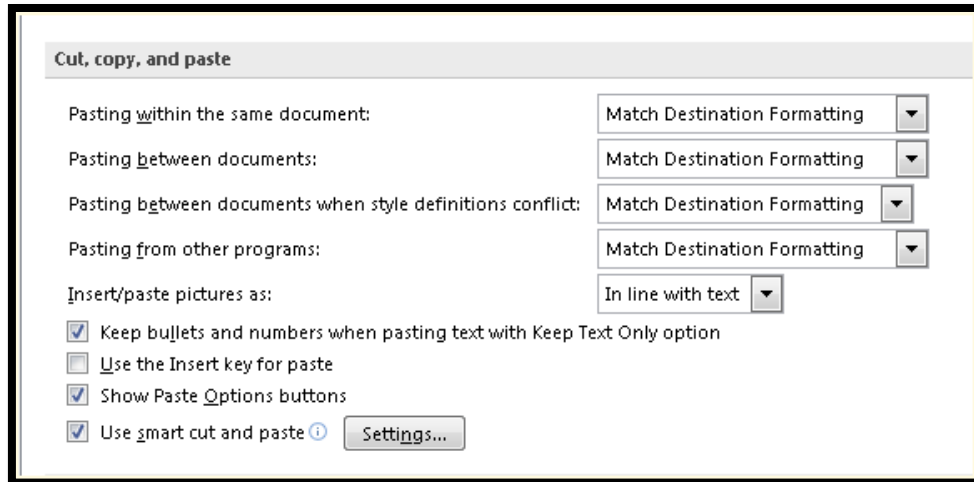2. Press Alt + W when in the list of Advanced settings twice to land on the list for "Pasting within the same document."

Figure 18 Copy and Paste options.

Lists

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

Do not press the Enter key 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.

For this document template I modified the List Paragraph Style to have 10 points of space after each bulleted or numbered item to provide a bit more spacing between instructional steps.

You can modify the List Paragraph style to affect the spacing between all bulleted or numbered lists in a document or select individual lists of bulleted or numbered items to affect the spacing of individual lists. Use the List Paragraph style to uniformly format any paragraphs under a bulleted or numbered list item. This will not preserve the list but will ensure that your document uses styles to have a uniform look and feel.

PowerPoint 2013

You have a lot more flexibility in PowerPoint 2013 to make more accessible templates. Unlike PowerPoint 2003 where it was difficult to insert an accessible text placeholder, you can do this in PowerPoint 2007 using the Slide Master tools.

An accessible PowerPoint presentation includes:

- Correct Tab Order of content.

- Decorative images in background on Slide Master.

- Text 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.

One of the most common accessibility problems is the mistaken belief that PowerPoint is a word processor. Slides are for brief speaker prompts not essays.

Slide Masters

It is always a good idea to create a custom slide template that can be used for various presentations. Just as we created a template in Word, we can create or add to templates in PowerPoint.

- To access the Slide Master View press Alt + W, M.

- To return to the Normal slide view press Alt + W, L.

Slide Master shows you all the possible slide choices for a presentation. Just as with Word, once you create your template, you can save it as a Theme, or you can begin the process by using the Theme you created in Word.

To choose an existing Theme for your template, press Alt + G, TH.,

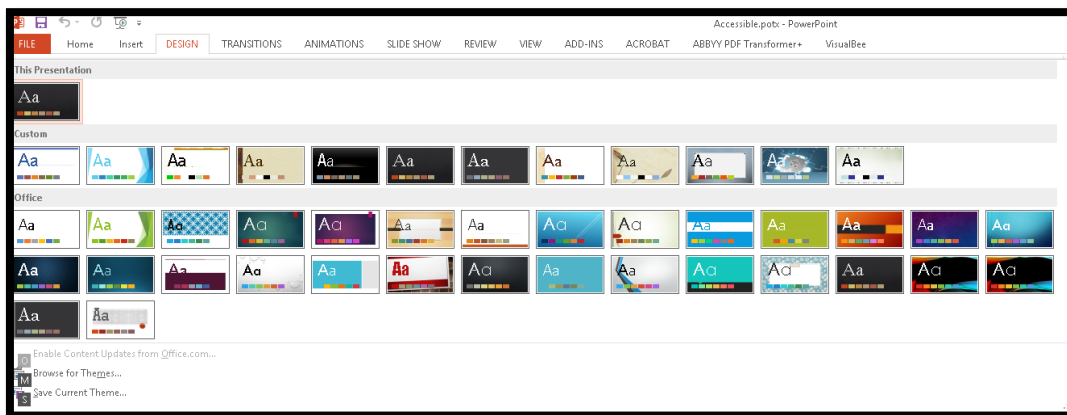If you are doing a one-off presentation, you can also choose Alt + G, H.

Figure 19 Themes Gallery in PowerPoint.

If you want to start from scratch and build a Theme based on your template you can use fonts, colours and effects from the Themes installed on your computer.

- To use a different Theme Font press Alt + M, T, F.

- To use a different Theme Colour palette, press Alt + M, T, C.

• To use different Effects press Alt + M, T, E. You can't modify any of the Effects nor can you see what they look like. I include this information just to be complete.
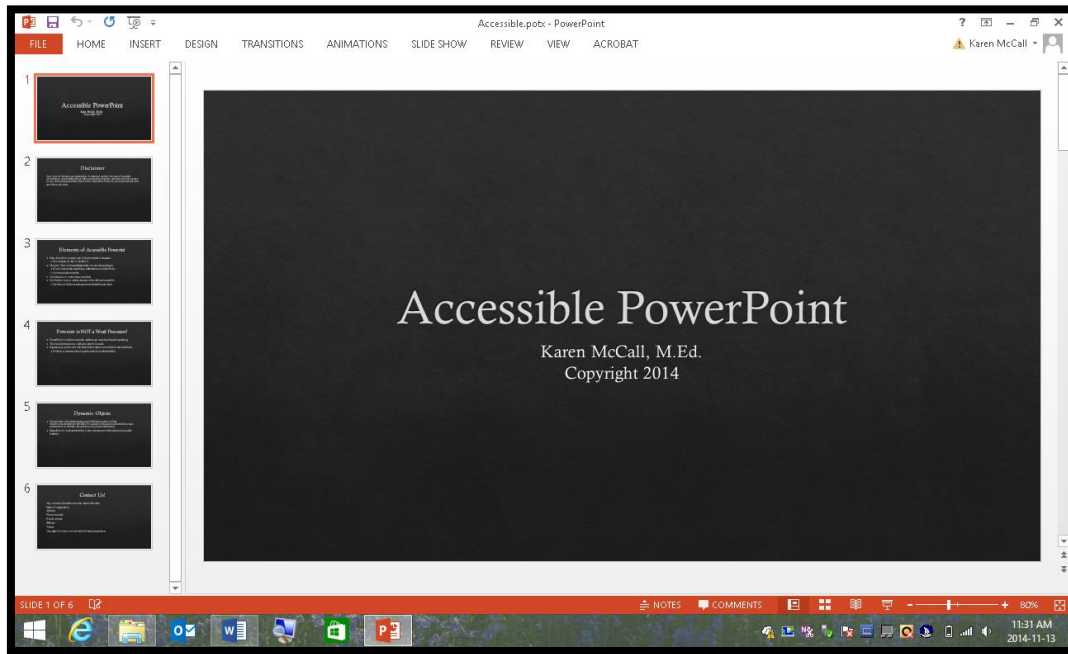

Figure 20 Accessible template in PowerPoint.

We can change the fonts used in a presentation by pressing Alt + G, V, F. This opens the Theme Font Gallery from which we can choose a different font for the presentation.
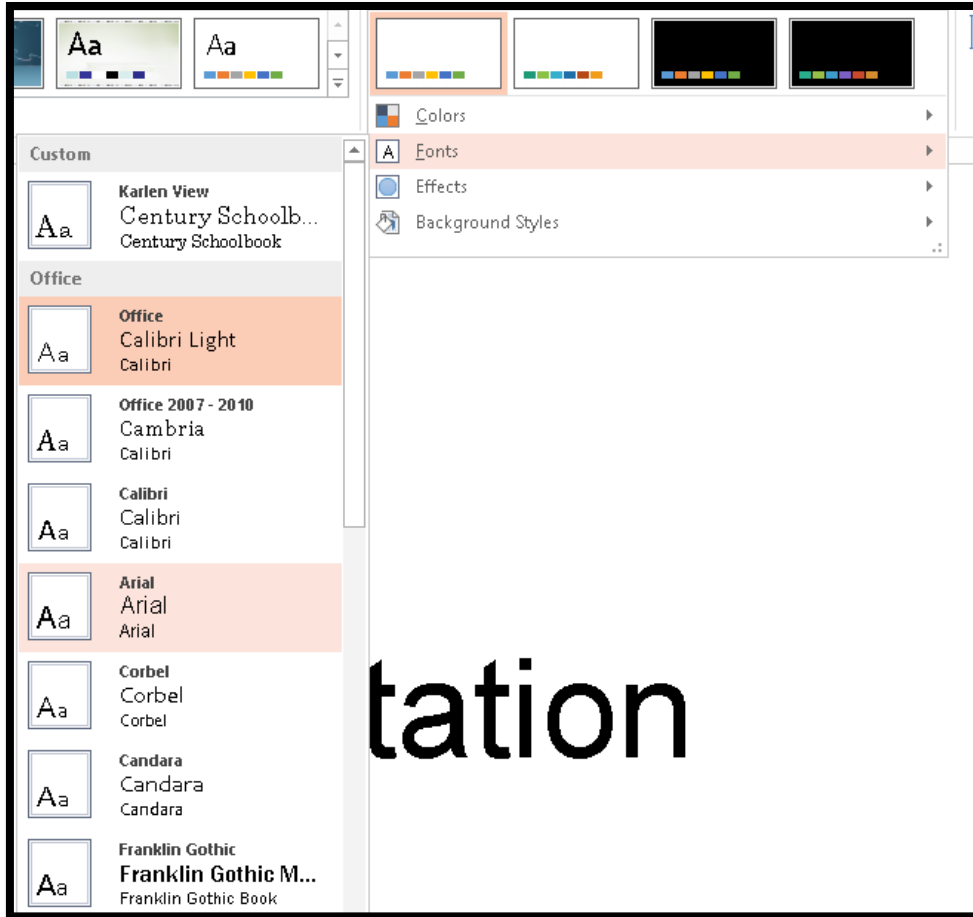
Figure 21 Theme Fonts Gallery.

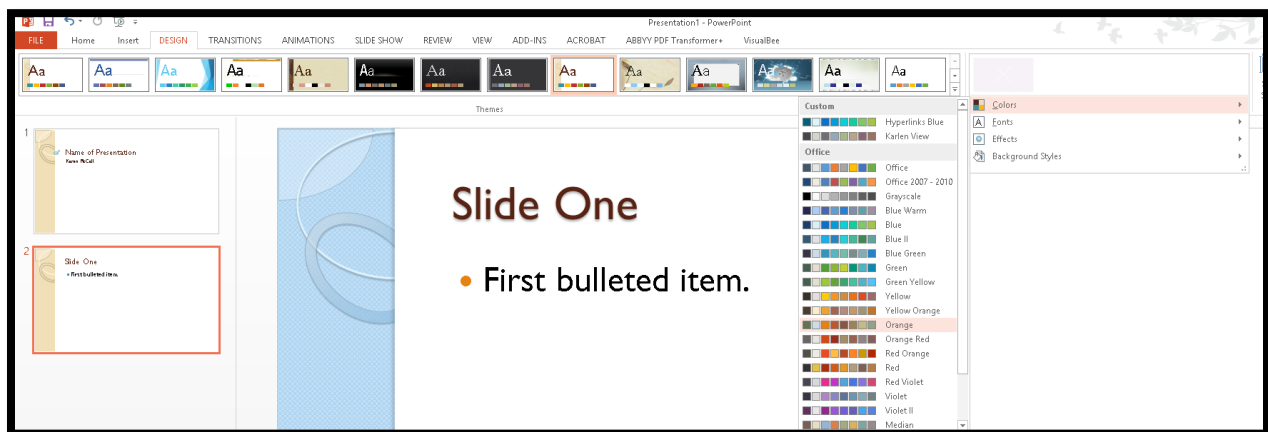We've can change the Theme Colour as well by pressing Alt + G, V, C.

Figure 22 Theme Colour Gallery.

The preceding image shows the default colours of the Theme while the slides themselves show the changes that will be applied if a specific Theme Colour is chosen.

If you want you can press Alt + G, V and use the Down Arrow to locate Background to change the Background of a slide or presentation. As shown in the following image, you might then have to modify text colours for good contrast.
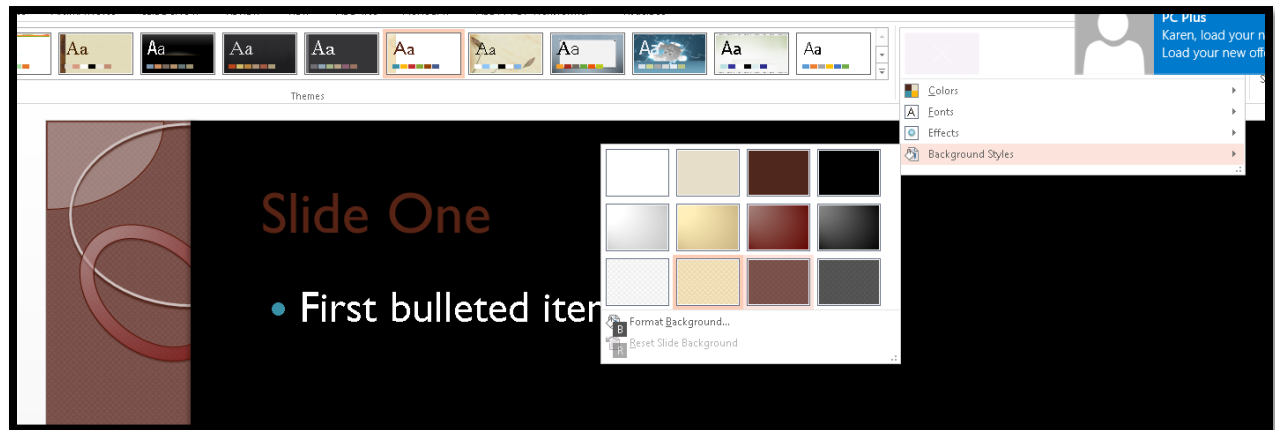

Figure 23 Background Gallery open with a darker background highlighted.

Changing Slide Size

PowerPoint 2013 has a new widescreen Normal Layout by default. If you are using an older PowerPoint Template you can easily adjust it to the new widescreen mode.
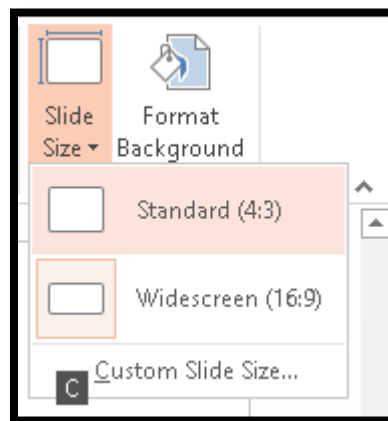
Press Alt + G, S.

Figure 24 Change Slide Size Gallery.

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 on your screen and through a projector to ensure that the content of your

slides is still readable once you apply the fill or texture. Consider the following combination:
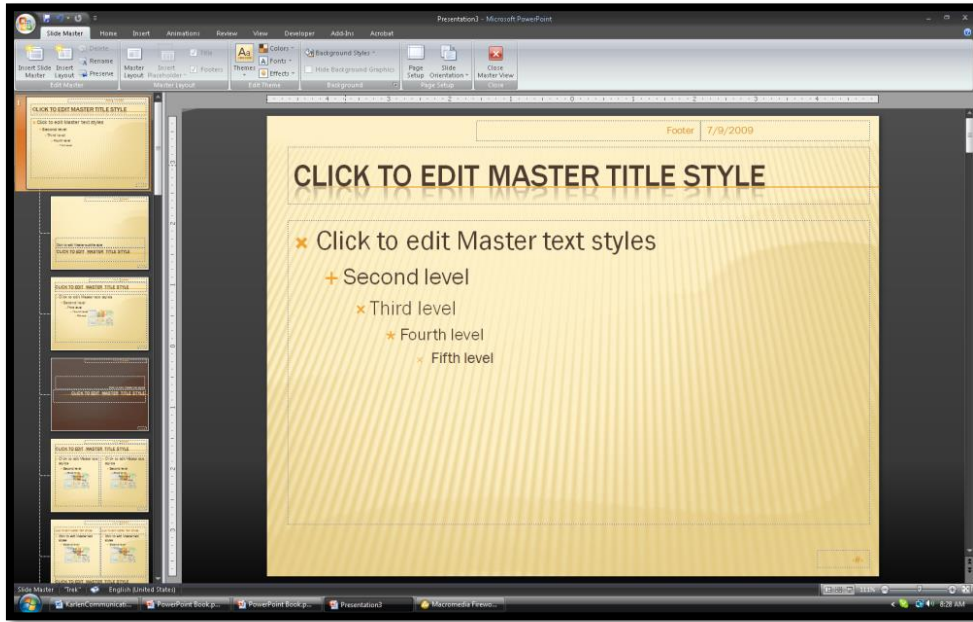

Figure 25 Slide background with readability issues.

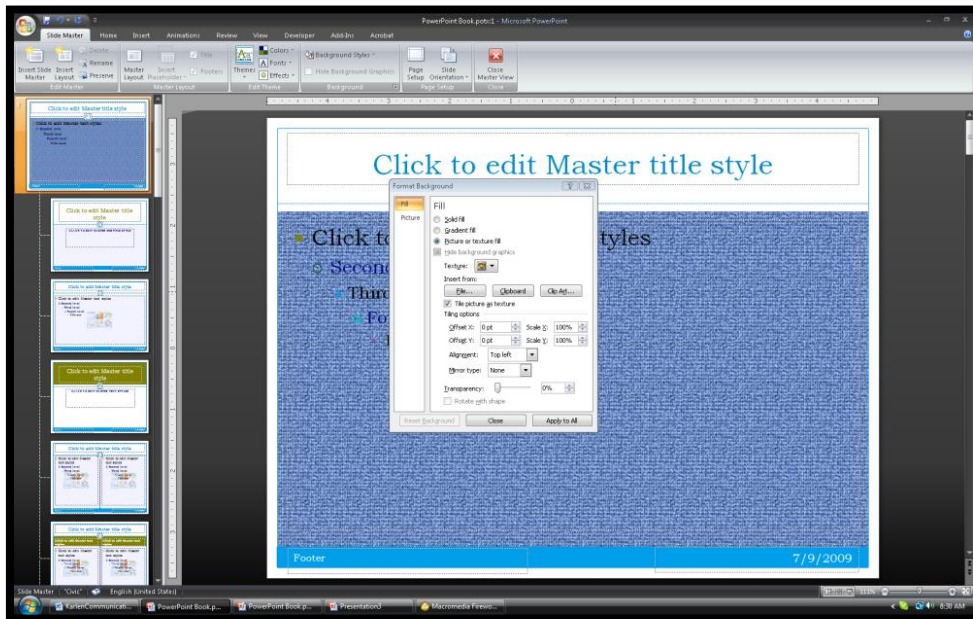Of course you can always make content so unreadable that they will have to listen to you!

Figure 26 Using background formatting textures.

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.

To change the link colour:

1. In the Slide Master view press Alt + M, T, C.

2. Choose Create New Theme Colours.

3. Open the Hyperlink colour palette and choose a good contrasting colour.

4. Change the name of the colour Theme from "Custom 1" to match the name of the template.

5. Tab to and activate the OK button.

Your links will now be more visible and therefore more accessible and usable.
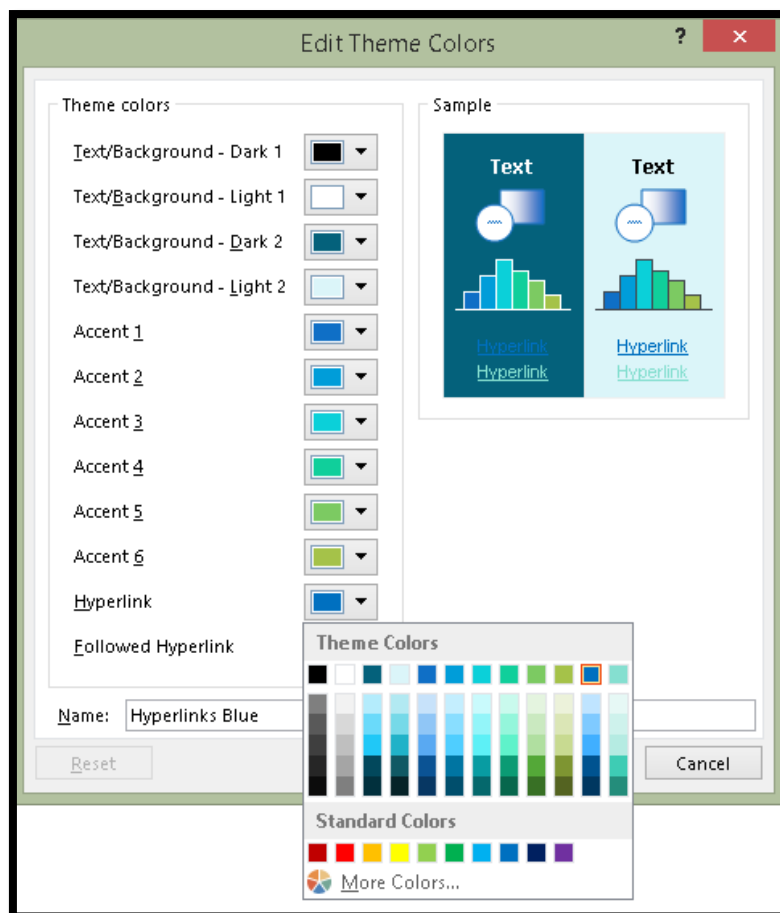

Figure 27 Changing the colour of Hyperlinks in a Theme Colour.

Adding New Content Slides

You can anticipate the types of slides you'll need and if you find that there is a slide layout you didn't think of, you can easily come into the Slide Master view and create one. In this sample we'll create a paragraph based slide rather than using the bullets based slide and then deleting the bullets.

To add accessible Text or Content Placeholders to a Slide Master:

1. Go into Slide Master View by pressing alt + W, M.

2. In the Thumbnails view to the left of the slides, find the Slide Master with only the Title Placeholder and press the AppKey.

3. Choose Duplicate Slide.

4. This will create another slide with this layout and a different name.

5. Press the AppKey on this new slide and choose Rename Slide.

6. Change the name of the slide layout to something like "Single Paragraph."

7. Press F6 to move focus to the slide itself.

8. Press Alt + M, A to open the Add Placeholder Gallery.

9. Choose "Text for only text content or Content if you want the option to add other types of content." Both of these Placeholders will create an accessible slide.

10. Use the mouse to draw the text placeholder. Sorry, this is entirely mouse driven.

    a. You could use an existing Content Placeholder on the slide and simply resize and reformat it.

11. Select the bullets under the first bullet.

12. Do not select the text for the first bullet or you'll delete the author prompts.

13. Delete the sub-levels of bullets.

14. Select the prompt text and press Alt + H, U for the Bullet Gallery.

15. Choose "None."

    a. This should put the text against the edge of the Placeholder. If it doesn't, select the text and open the Paragraph dialog. Then put the indentation to 0.

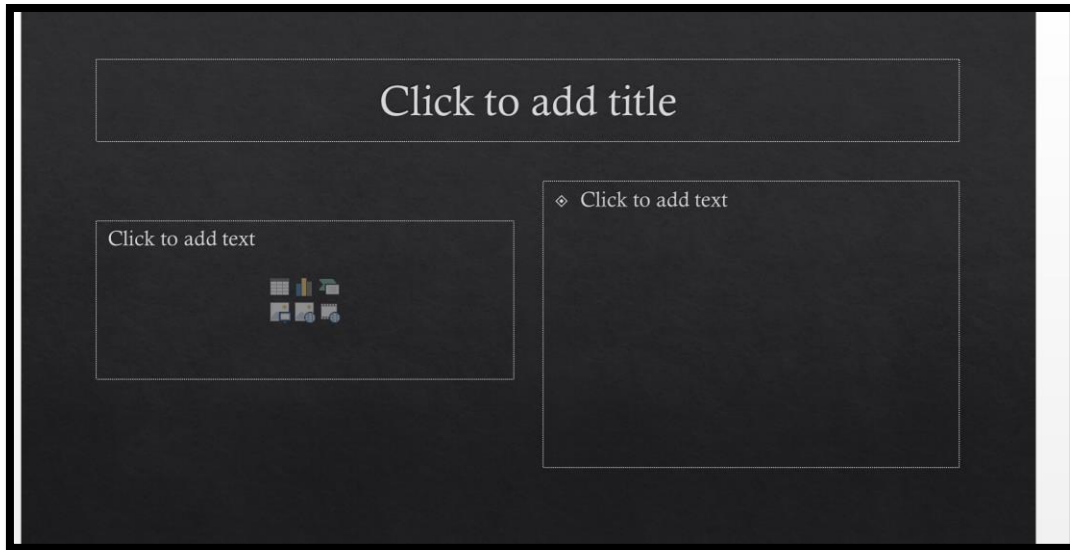16. Tab to and activate the OK button.

Figure 28 Slide with two accessible Placeholders

Correct Tab Order of Slide Objects

As you build new slide layouts and if you add objects to slides, you need to ensure that all of the objects are in the order in which you would read them. In PowerPoint this is the order in which you would Tab through the objects.
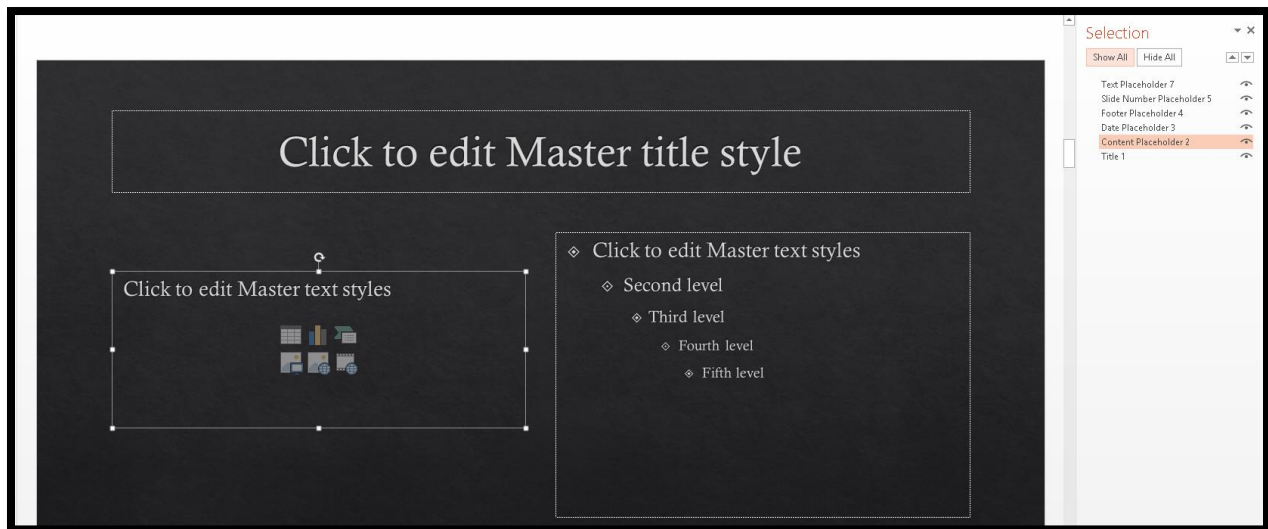

Figure 29 Selection Pane showing Tab Order of objects on a slide.

We use the Selection Pane to modify the order of objects on slides:

1. Select any object on a slide.

2. Press Alt + J, A, P to show the Selection Pane.

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.
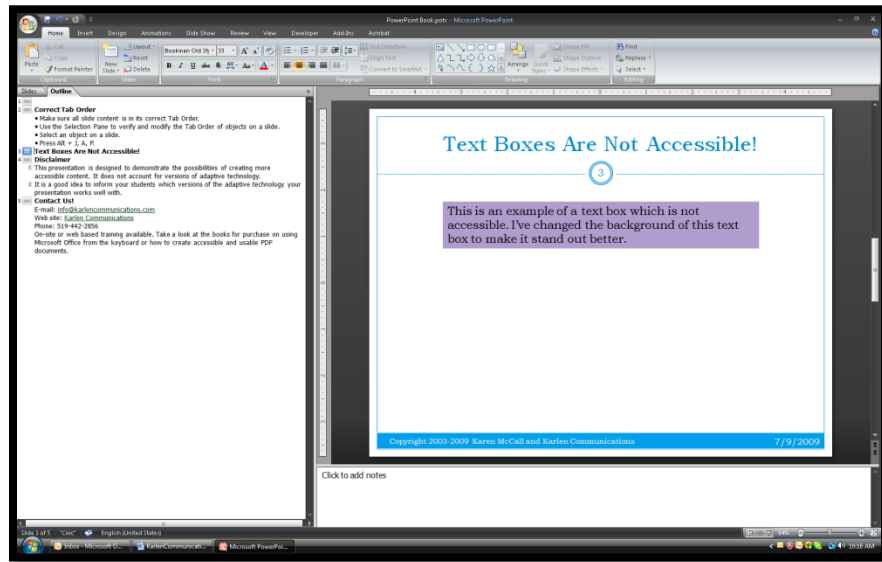

Figure 30 Text box and Outline view showing inaccessible content.

The keyboard command is Alt + W, P, letter O.

If you want to return to thumbnail View, press Alt + W, L for Normal. Either view does not affect your ability to work with or edit slide content, it is simply a choice of how you view the information in the Pane to the left of the slides.

Alt Text for Objects and Notes Area

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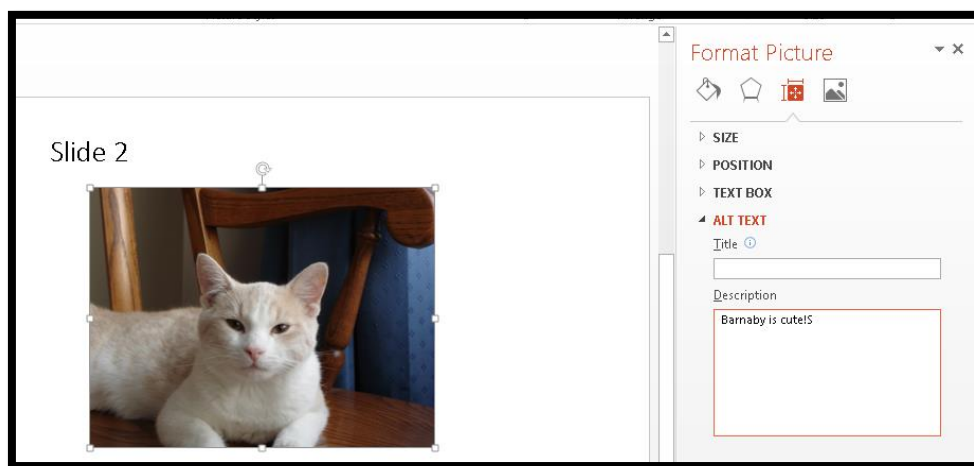

Figure 31 Alt Text area of Format Picture Pane.

The process for adding Alt text is the same as in Word. See the notes on Alt Text in the section of this document on Word for more details.

The keyboard command, once you select an image, is to press the AppKey and choose format Picture.

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.

> **Note:** Unlike Word, the ability to assign size to an image in PowerPoint 2013 is also in the Format Picture Pane.

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.

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 their adaptive technology some parts of a slide may not be accessible that are accessible with a current version. We are talking about Office 2013 in this document so if your students are using this, they will be using current or recent versions of their adaptive technology.

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. They must also have access to the linked files or content in order to be able to access it.

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. The best solution is to use the Windows Snipping Tool or the Screen Clippings Tool in Microsoft OneNote to capture the slide and create a single image for a slide and then provide Alt text for it. There is a document on how to do this as part of the hand-outs for this workshop or you can download it for free from the Karlen Communications website.