# **Word and PowerPoint Accessibility Checkers**



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## **Accessible Document Design**

When we talk about using any automated Accessibility Checker, we have to keep in mind that they are automated checkers and cannot determine logical document structure (the flow of the document so that its content makes sense) and they cannot "see" that text that has been directly formatted should really be a Heading.

Any check of any document for accessibility requires a human to know, understand and be able to remediate content for accessibility.

Accessible document design begins with "design" of the content and choosing the correct layout, structural elements and formatting for the content.

Automated accessibility checkers can only check for machine identified syntax/elements such as missing Alt text, missing heading levels, too many spaces between words or paragraphs and/or parts of a table like Table Header Row identification for column and row titles. They usually don't check for colour contrast in a way that allows you to fix the colours, but might flag the use of colour for text so that you can check it for good contrast.

We, as document authors (and remediators) have an integral role to play in digital content accessibility.

There are free resources on accessible document design and how to use tools in Word and PowerPoint if you are using adaptive technology or the keyboard at the <u>Karen McCall</u> <u>School on teachable</u>. This is also where you can purchase Karen's online courses or books. There is a free set of resources for Office content at this location.

### **Accessibility Checker Standards**

Microsoft is moving toward WCAG 2.x conformance as the base standard for the accessibility checkers.

When a PowerPoint or Word document is converted to tagged PDF, the standard being used is ISO 32000 (PDF) and ISO 14289 (PDF/UA). ISO 32000 sets out the technical specifications for developers of software who implement tagged PDF in chapter 14. PDF/UA (Universal Access) provides further technical specifications on how developers can implement the underlying Tag Set that is outlined in chapter 14.

As document authors, we must remember that the ISO PDF standards have nothing to do with the content in a document. They are technical specifications for the developers of the software tools that convert Office content to tagged PDF. As document authors, we don't need to read the ISO specifications. We do need to know, understand, and put into our workflow, the elements of accessible digital content.

For example, the automated tools might be able to identify a paragraph of text using the <P> Tag, but they cannot verify that an attribute for a Tag such as a change in language,

<sup>&</sup>lt;sup>1</sup> Karen McCall School on teachable: <a href="https://karen-mccall.teachable.com/">https://karen-mccall.teachable.com/</a>

whether pieces of text or characters are to be interpreted as strong or emphasis. This is the work of those of us who remediate PDF documents or check our own documents for accuracy once we convert them to tagged PDF. The upcoming ISO standards for PDF and PDF/UA will put more of a burden on PDF remediation professionals and lessen our reliance on the automated tools.

### The Accessibility Checker Rules

I recommend monitoring the Microsoft web page containing the <u>Rules for the Accessibility Checkers</u><sup>2</sup>. Since the rules are being aligned with WCAG and best practices for good document design, this is where you'll find detailed information about what is being checked for in specific Office applications.

There are four categories of rules:

- Errors.
- Warnings.
- Tips.
- Intelligent Services. These are things to look at if you have the ability to automatically generate Alt text turned on or if you have PowerPoint Designer turned on.

#### **Errors**

The following items will be flagged as errors in Word and PowerPoint:

- No Alt text on images (Word and PowerPoint).
- Tables specify a Table Header row (Word and PowerPoint).
- All slides have titles (PowerPoint)
- Images or objects are inline with the text (Word).
- Document access is not restricted/protected (Word and PowerPoint).

#### Warnings

The following will be flagged as warnings in Word and PowerPoint:

- Table has a simple/uniform structure (Word and PowerPoint).
- Good contrast between text and the background (Word and PowerPoint)
- Closed captions are included for audio and video/multimedia (PowerPoint).

• Slide titles for each slide are unique/no duplicate slide titles (PowerPoint).

### Tips

The following will be flagged as tips on how to improve the accessibility of the document in Word and PowerPoint:

- Logical reading order of placeholders and objects on a slide (PowerPoint).
- Layout tables are structured for easy navigation (Word). DO NOT use tables for design layout! Just Say NO!
- Documents use Heading Styles (Word).

#### **Intelligent Services**

The following flags for Intelligent Services tools are flagged in Word and PowerPoint:

• Check the suggested Alt text (Word and PowerPoint).

## Launching the Accessibility Checker

The Office Accessibility Checkers 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.

I also use the Accessibility Checker to quickly find places in a document I'm working on where I've added an image but not surrounding text. One way to quickly find those places in a document you are writing is to not add the Alt Text, look at the Accessibility Checker and quickly move to a specific place where you need to add content. Often I work with an outline and image placeholders for topics I come across that I wasn't expecting to add to a tutorial. This is an easy way to find places that need additional content.

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 the Down Arrow to move to Accessibility Checker and press Enter.



Figure 1 Word Accessibility Checker under the Info tab.

The Accessibility Checker is now also in the Review Ribbon. The keyboard command is a bit easier: Alt + R, A, number 1.



Figure 2 Accessibility Checker in the Review Ribbon.

An even easier way to access the Accessibility Checker is available in Office 365 subscription (January 2019). The Accessibility Checker is always running in the background in the Status bar while you work. This is turned on by default. At any time you can activate it from the Status Bar, review any problems you've created and close it again to return it to the Status Bar. To get to the Status Bar using the keyboard, press F6 until it gains focus, then use the Left and Right Arrow keys to find the Accessibility Checker then press Enter. As shown in the following image, you get up to date information on any problems or you are told you are still good to go.



Figure 3 The Accessibility Checker in the Status Bar checking your work as you go.

If you don't see the Accessibility Checkers running in the background, go to File, Options, Ease of Access and check the check box to have the Accessibility Checker run in the background. The keyboard command is Alt + F, T, E for the Ease of Access Category and then Tab to the check box and press Spacebar to check it. This is a global setting so once checked, the Accessibility Checkers will run in the background of all Office 365 subscription desktop applications you use and/or that they are available in.



Figure 4 Word Options dialog showing the Ease of Access category and the check box to run the Accessibility Checker in the background.

## **Accessibility Checker in Word**

The Accessibility Checker opens to the right of the document in the Accessibility Check Pane and gives you the results of its review of the document.



Figure 5 Accessibility Check of a document with a lot of issues.

The preceding image shows the results of an accessibility check for a document that I did a year ago. 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. Additionally, the Footnote web addresses have been flagged as needing Alt text. The links without Alt text are no longer flagged by the Accessibility Checker. This is an illustration of how the Accessibility Checker rules are changing to align more with WCAG 2.x.

The Accessibility Checker in Word no longer checks for sequential Headings. The non-sequential Headings flagging was a warning rather than an error. This criteria has been dropped by the ISO PDF committees as well. The "argument" put forth by the ISO PDF

committees is that "we can't force people to create documents with sequential Headings. Document authors have the right to create inaccessible content."

For the example Accessibility Check, I went to the images and added Alt Text to them. The following image shows the up-to-date Accessibility Check. As you identify issues and remediate them, the Accessibility Checker updates in real time so you can see any remaining issues.

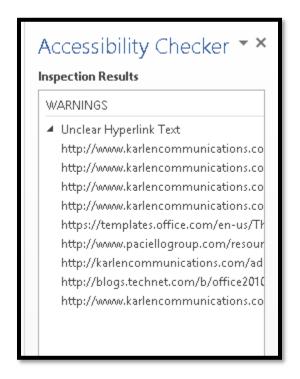


Figure 6 Updated Accessibility Check for the document.

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.

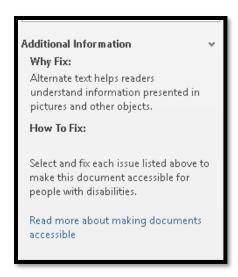


Figure 7 Additional information at bottom of Accessibility Check Pane.

To avoid the spaces at the bottom of pages or between Headings and text, use the ability to modify a Style and add space below it. Don't position content at the top of the next page by pressing the Enter key. A better way to do this is to select the text you want at the top of the next page and launch the Paragraph dialog (Alt + H, P, G). When the Paragraph dialog opens, move to the Lines and Page Breaks tab.

Press Alt + B to move to and check the "Page Break Before" check box or click it using the mouse.

Tab to and activate the OK button.

The selected text is moved to the top of the page. If you use this tool consistently, you'll find it easier to move content back to the previous page if you add content.

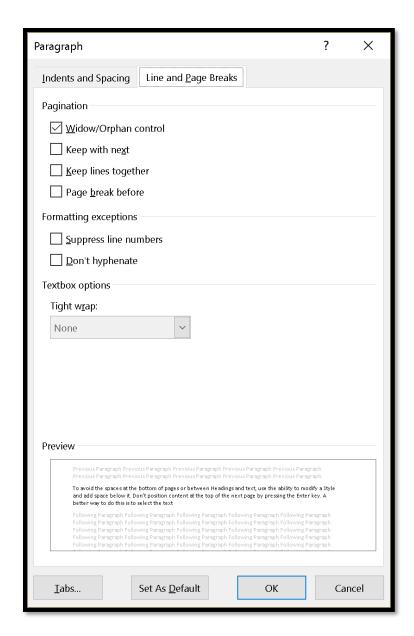


Figure 8 Paragraph dialog showing Lines and Page Breaks tab and "Page Break Before" check box.

## **Accessibility Checker in PowerPoint**

There are some strategies you can use to keep content out of the Accessibility Checker in PowerPoint.

First, if you have slides with images that are decorative/Artifacts, you can use the Slide Master view to create a new slide layout that has an accessible Content or Text placeholder for text and then place your image on the slide. Images and/or shapes on the slide master won't be seen by adaptive technology so are by default "decorative/Artifacts."

If you do add an image to a slide, make sure you do it within the Content placeholder. In doing this, it won't show up in the Accessibility Checker as a slide needing a manual check

on the logical reading order. Always use the default Title or Content placeholders on slides. If you need to have both content and an image, use the Two Content slide layout from the Home Ribbon, Insert Slide Layout (Alt + H, letter I).

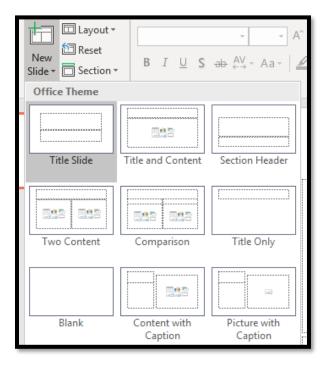


Figure 9 Insert Slide Layout from the Home Ribbon in PowerPoint.

The following image shows the results of the Accessibility Checker if you do not put an image in a Content or Picture placeholder. You will be flagged to check the logical reading order on the slides identified.

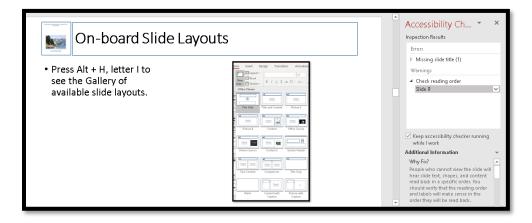


Figure 10 Picture copied and pasted onto a slide while NOT in a Content Placeholder.

If you use the Two Content slide layout and put the text in one Content placeholder and the image in the other, you will not have to check the logical reading order on the slide. You add the image to the Content placeholder by either clicking on the Picture icon in the

Content placeholder or by pressing Enter to go into edit mode for the Content placeholder and then going to the Insert Ribbon (Alt + N) and choosing to either insert a Picture (Alt + N, P) or Insert a Picture from File (Alt + N, F).

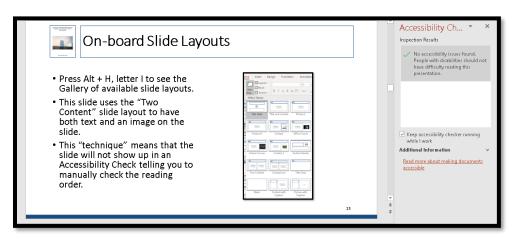


Figure 11 Clean Accessibility Check once image was put into Content placeholder.

All slides MUST have a title. This is done through the default Slide Title placeholder which is at the top of every slide except the Title Slide and the Section Break Slide. The Slide Title is a navigational tool for those who use screen readers or Text-to-Speech tools. You can still have your slide design, but make the text in the Slide title placeholder the same colour as the background. If you want to have an image cover the entire slide, make sure it covers the Slide Title placeholder that you've added the title for the slide in.



Figure 12 Slide Title behind an image that covers a slide, still accessible.

Remember to use good colour contrast for presentations! Just because there is a template or Theme available in PowerPoint, doesn't mean it would pass the WCAG colour contrast checkpoints! I recommend using the <u>Colour Contrast Analyzer by the Paciello Group</u>.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Colour Contrast Analyzer by the Paciello Group: https://developer.paciellogroup.com/resources/contrastanalyser/

### **PowerPoint Designer**

PowerPoint Designer is turned on by default. You may have noticed it when you've added an image to a slide and you see a Pane open to the right of your slide with some suggestions for slide layout. PowerPoint Designer is part of the Intelligent Services tools that are turned on by default in Office 365 subscription desktop applications.

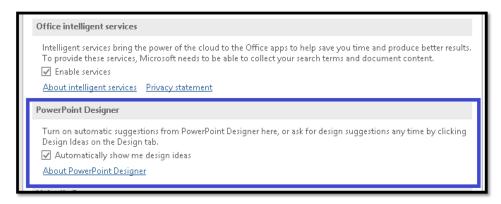


Figure 13 PowerPoint Designer check box in PowerPoint Options dialog, General category.

For those of us who are not graphic designers, this can be a useful tool. The caveat is that it can also create inaccessible content on slides. The following image shows some of the layout options when a single image is added to a slide. If you are using PowerPoint Designer, you don't have to resize your images, they are done automatically when you choose a layout.



Figure 14 Example of one image on a slide with suggestions from PowerPoint Designer.

If you add more than one image or type of image (portrait, landscape or panorama), you will get different options for arranging the images on the slide.



Figure 15 Two pictures on a slide, one portrait and one landscape with suggestions from PowerPoint Designer.

You can use PowerPoint Presenter for other content such as tables. BUT, you may not always be able to then create the logical reading order on the slide. For example, in the following slide example, the table looks "spiffy" but if you go to the Selection Pane (Alt + H, S, L, P) you'll find that the first thing someone using the keyboard and/or adaptive technology will land on is the background image for the "title" area of the slide.



Figure 16 Table on a slide with design using PowerPoint Designer.

If you do put the objects/placeholders on the slide in their logical reading order, the content disappears.

Not all the options available using PowerPoint Designer will create an accessible slide or presentation. You cannot use PowerPoint Designer in Slide Master view which is a HUGE disadvantage.

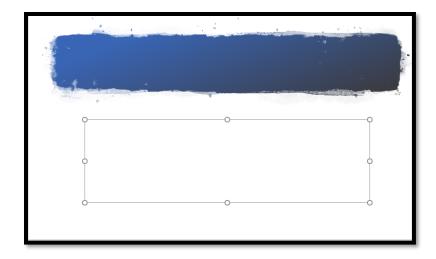


Figure 17 Slide with correct reading order showing no text.

Likewise, if you choose a design that has rounded images and other decorative objects, you will get errors in the Accessibility Checker saying that things like "freeform 1" and "rectangle 2" have no Alt Text. However, you are not able to add Alt text to these elements and they will remain inaccessible. As of the current (May 1, 2019 Office Insider update), this has been fixed.

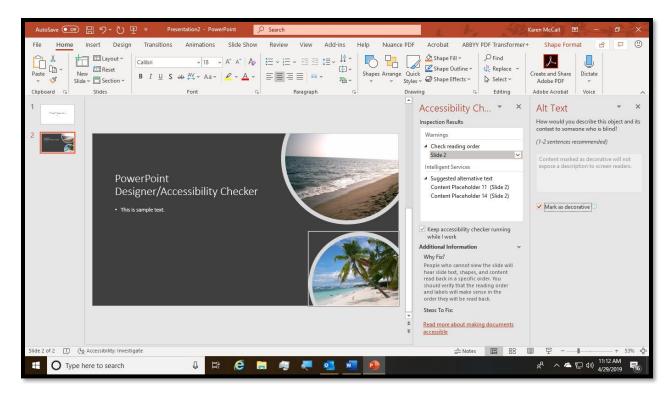


Figure 18 Two freeform objects on a slide that are marked automatically as Artifacts/decorative.

If someone is on the Normal slide view, the adaptive technology will identify these but not if you convert the presentation to tagged PDF. This is such a new tool that the adaptive

technology hasn't caught up with it ye. Also be aware that the ability to mark something as decorative/Artifact is NOT backward compatible with previous versions of PowerPoint. you will still need to verify the logical reading order and that flag cannot be passed or removed from the Accessibility Checker. One new thing that PowerPoint Designer is doing is adding a Content placeholder to the slide!

There is a lot more you can do to create more accessible PowerPoint presentations.

## **Checking Accessibility and Alt text for Images**

There are some new tools to assist document authors in crafting Alt Text for images and adding Alt text while in the Accessibility Checker Pane.

### **Automatically Generate Alt Text**

First, with an Office 365 subscription, in the desktop applications, there is a tool to automatically generate Alt text. It is found in the Options dialog under ease of Access. The keyboard command is Alt + F, T, E for Ease of Access and then Alt + G for Automatically Generate Alt Text.



Figure 19 Options dialog, Ease of Access settings, Automatically Generate Alt Text check box.

If you do choose to have Alt text automatically generated, you may see a flag for this in the Accessibility Checker.

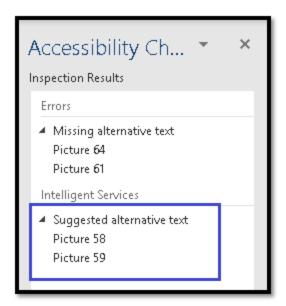


Figure 20 Office Accessibility Check flagging automatically generated Alt Text as needing human review.

This is a reminder to go and check to make sure that the Alt text that is generated is what the image is about. For example, after two years, when I add an image like the following one, the "machine learning" still says it is an "image of a cell phone" or an "image of a cell phone with text."

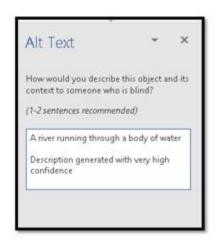




Figure 21 Alt Text Pane (right) showing suggested Alt Text and image in the document (left).

It is always a good idea to check any automatically generated Alt Text If you don't, part of the automatically generated Alt text includes a disclaimer stating that the Alt text was machine generated.

### Mark an Image as Decorative/Artifact

While you are in the Alt Text Pane, you can mark an image as decorative. In PDF terminology, these are Artifacts. They are called "decorative images" in the WCAG. The

language can be confusing, but the result is the same, adaptive technology ignores the images that are marked as decorative/Artifacts as they have no meaningful contribution to the surrounding content. A good example of images that are decorative are those used in newsletters to fill space.



Figure 22 Alt Text Pane showing both the Generate Alt Text button and the Mark as Decorative check box.

### Fix Missing Alt Text in the Accessibility Checker

New as of January 2019 for Office 365 subscription is the ability to add Alt text to images or mark them as decorative while you have the Accessibility Checker Pane open. For images without Alt text, there is an arrow to the right that gives you a drop-down context menu of what you can do.

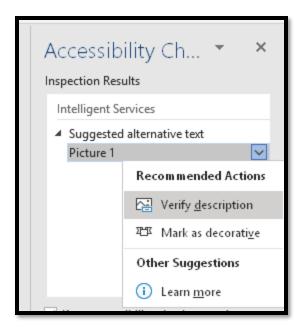


Figure 23 Accessibility Checker showing context menu for adding Alt text to an image.

## **Making Grouped Objects More Accessible**

The accessibility barrier created by grouped objects is that some shapes and connectors do not have the capability of adding Alt text. The process for accessing grouped objects is as follows:

- 1. Tab to the grouped objects on the slide
- 2. If you are using a screen reader or Text-to-Speech tool you will hear the Alt text if it has been added to the group as a whole.
- 3. Press Tab again to move to the next object or placeholder on the slide.
- 4. You now enter the grouped object and are moving from individual shapes, connectors and components of the grouped objects. There is no context or logic to the order in which you encounter them.

To optimize grouped objects or shapes and connectors on slides, create your objects and then select them all and group them using the right Click and Group from the context menu.

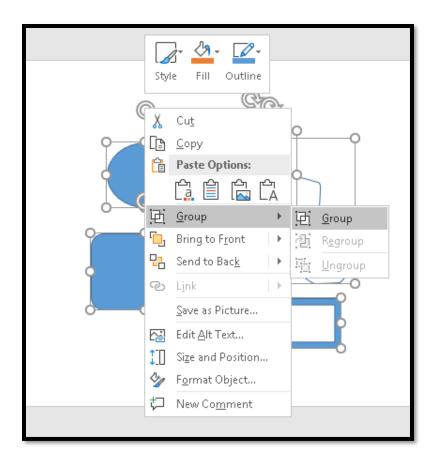


Figure 24 One the shapes are added, group the objects into one container.

Select the entire group which now has a grouping border around it and copy it to the Clipboard (Ctrl + C or right click and choose Copy).

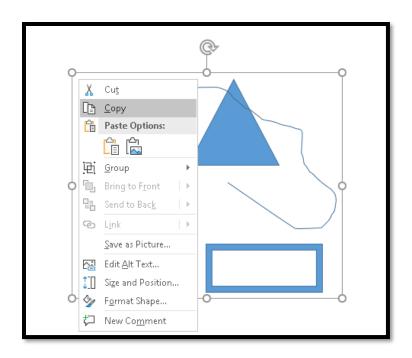


Figure 25 Copy the Group to the Clipboard.

Then delete the grouped object from the document, presentation or spreadsheet. Then place your cursor where you want the grouped object to be and either right click or press the AppKey. Choose Paste as Picture from the choices in the Paste Options toolbar.

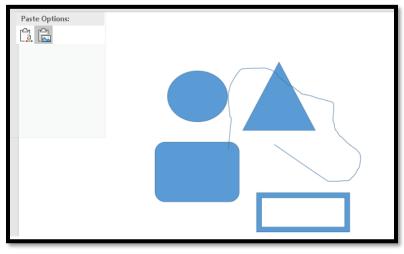


Figure 26 Use the Paste Options to Paste as Picture, then add the Alt text.

Once the image is pasted, add the Alt text. This will save you a lot of time if you convert the content to tagged PDF. You won't have each part of the group being tagged as individual <Figure> Tags requiring Alt text. You will also lessen the frustration for those who use adaptive technology as they read your content. If you think the grouped object will change over time and don't want to recreate it, you can always save it as a stand-alone "document" and edit it as needed, then repeat the process.

## **Appendix A: Contact Information**

For more information on EnableXpress, EnableAccess or DocMD document remediation tools and services for making your documents accessible, please contact us!

E-mail: <a href="mailto:sales@openaccesstech.com">sales@openaccesstech.com</a>

Website: <a href="https://www.openaccesstech.com/">https://www.openaccesstech.com/</a>

Open Access Technologies 4 Main Street Hollis NH 03049 United States

■Phone: (866) 971-8922

Mailing Address: P.O. Box 55 Hollis NH 03049 United States