U.S. DEPARTMENT OF LABOR

Creating Section 508 Conformant Microsoft 365 PowerPoint Presentations

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1.0	4/7/22	Section 508 Program Office	Initial version

Contents

Introduction

The Department of Labor is committed to providing information that is accessible and usable by people with and without disabilities. Creating accessible documents enables people with disabilities to access the same information as those without disabilities. Accessible documents can be understood by all users.

Purpose

This guide is intended to help DOL employees and contractors create accessible Microsoft PowerPoint presentations that are conformant with the Section 508 standards, requirements and best practices. Additionally, accessible Microsoft PowerPoint presentations can be exported to an Adobe PDF document with little work necessary to make it accessible in PDF format.

Document Properties

The document title, author, and language need to be set as part of the document properties.

Set Title and Author

1. Select **File**
2. Select **Info**
3. Select **Properties**
4. Select **Advanced Properties**
5. Select **Summary** tab
6. Enter document **Title** (not the file name)
7. Enter document **Author** as 'United States Department of Labor' or 'AGENCY NAME - United States Department of Labor'.
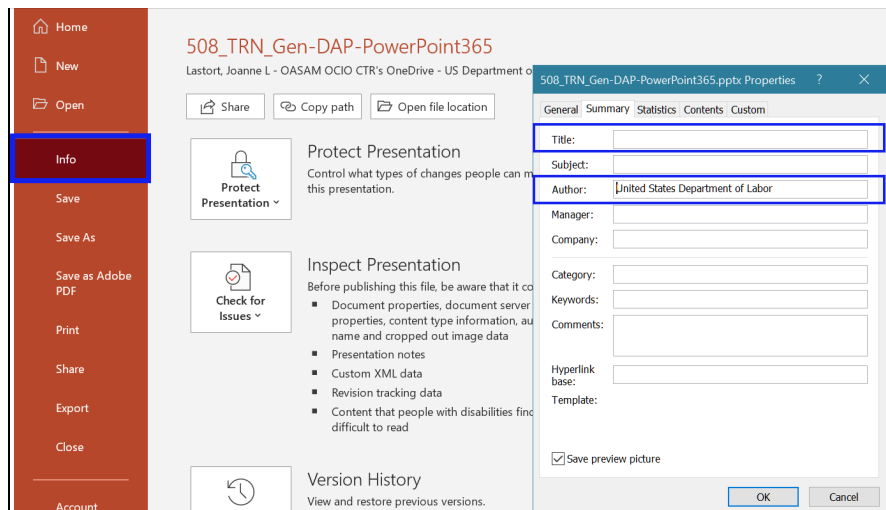8. Select **OK**

Figure 1. Info pane, Document Properties window

Set Document Language

1. Select **Review** tab
2. Select **Language**
3. Select **Language Preferences**
4. Verify desired language is **<preferred> (**Office authoring language and proofing)
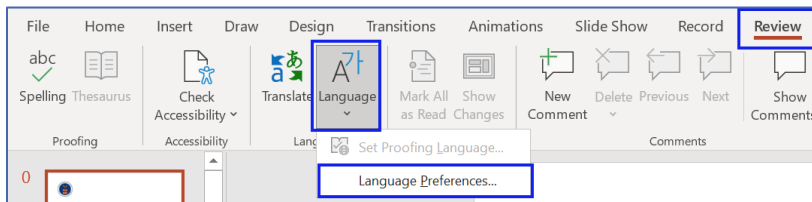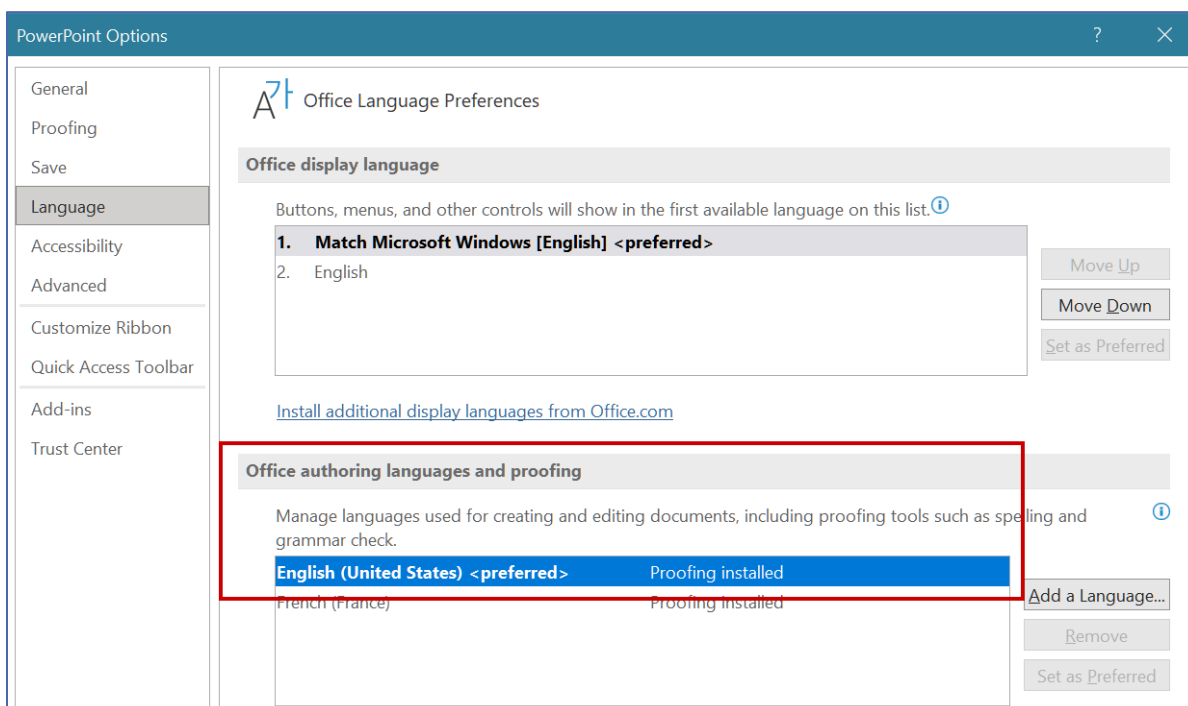5. Select **OK**

Figure 2. Review tab, Language button

Figure 3. Language option, preferred authoring and proofing language

Built-in Slide Layouts (Templates)

Built-in slide layout templates are designed so the reading order is the same for people with vision and for people who use assistive technology such as screen readers. They also contain all the formatting, such as theme colors, fonts, and images. Accessibility benefits:

*   A shape or a logo placed on a slide master, will appear on all the slides automatically
*   Alt text added to an image or logo, will not need to be added again when the layout is used
*   The Reading Order of the content will be correct (unless something is added during editing)

Using Layouts

When adding a new slide, you can select a built-in layout.

1. Select **Home** tab
2. Select **New Slide**
3. Select layout with number and type of content placeholders needed
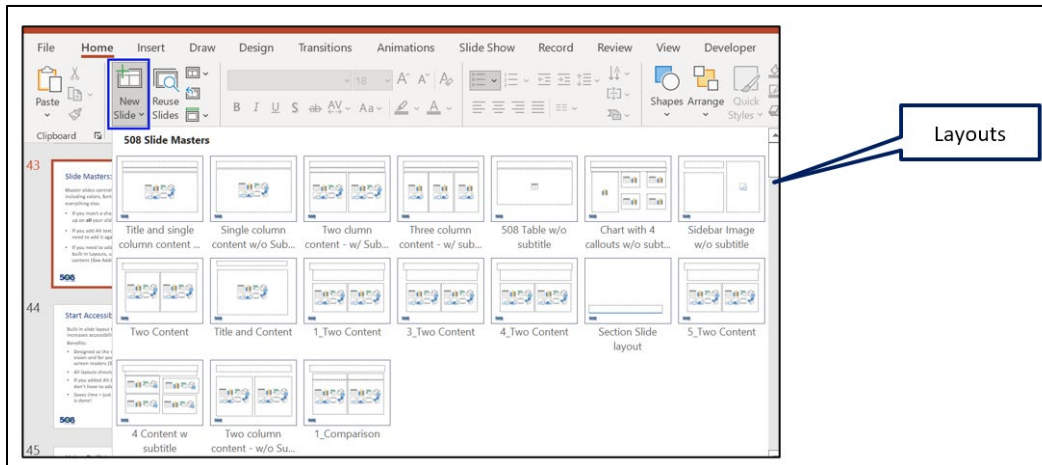

Figure 4. Example of Layouts

Slide Master View

The built-in Layouts can be viewed and edited in the Slide Master view. New layouts may also be added. To access the Slide Master view:

1. Select **View** tab
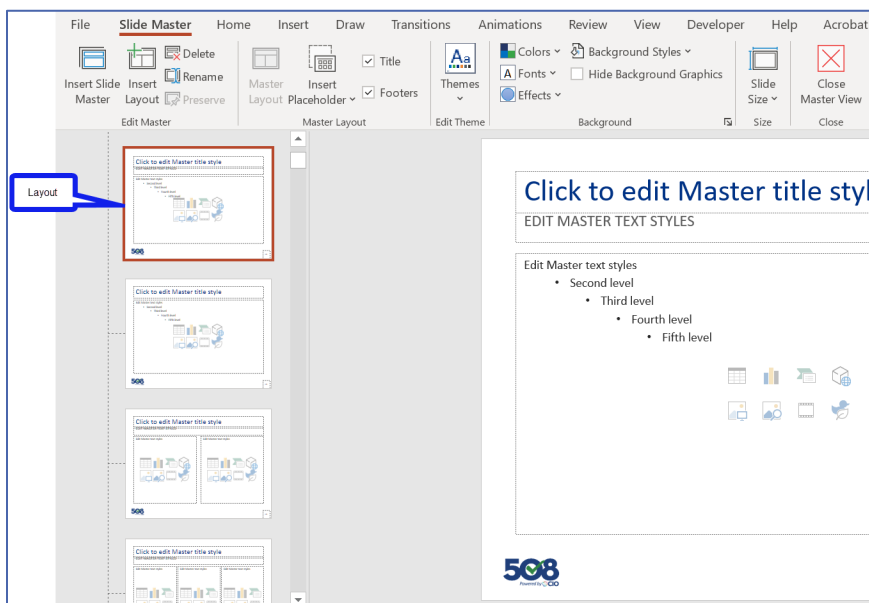2. Select **Slide Master**

Figure 5. Slide Master Layouts

Slide Titles

Slide titles are more than visual. They are a specific object type. They can be seen in the Slide Master view and in the Reading Order pane.
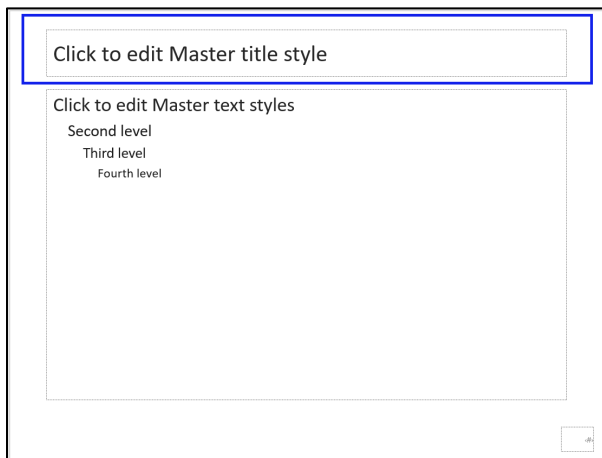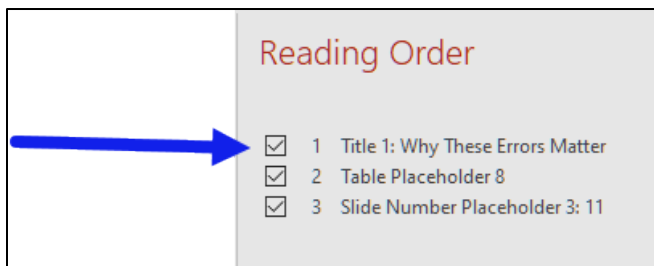

Figure 6. Example of Slide Title

Figure 7. Reading Order pane showing title

Individuals who use screen reader software can use slide titles to navigate. They can quickly scan through a list of slide titles and go right to the slide they want. The slide titles function like a table of contents does in Word. Using unique slide titles allows all user to understand what is on each slide. Avoid using the same title for slides that have spill-over information. Simply include additional information such as 'Slide Title 1 of 2' or ' Continued'.

Add Slide Titles

If a layout without a slide title is selected, a title can be added.

1. Select **Review** tab
2. Select **Check Accessibility**
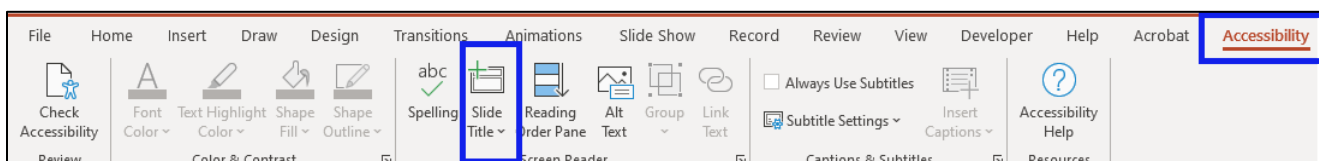
(The Accessibility tab will be displayed)

Figure 8. Accessibility tab, Slide Title button

3. Select **Slide Title**
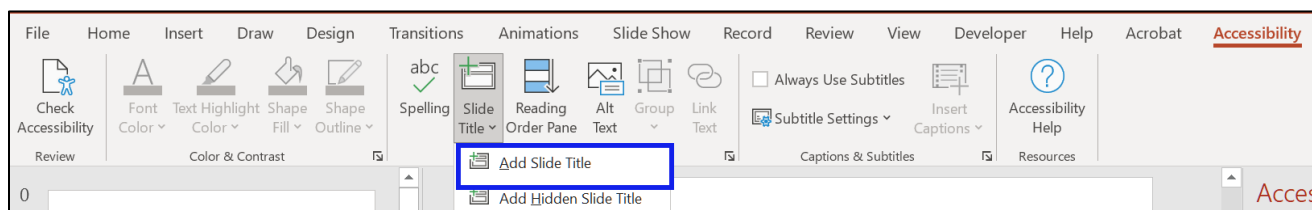4. Select **Add Slide Title**
5. Enter text for title

Figure 9. Accessibility tab, Add Slide Title
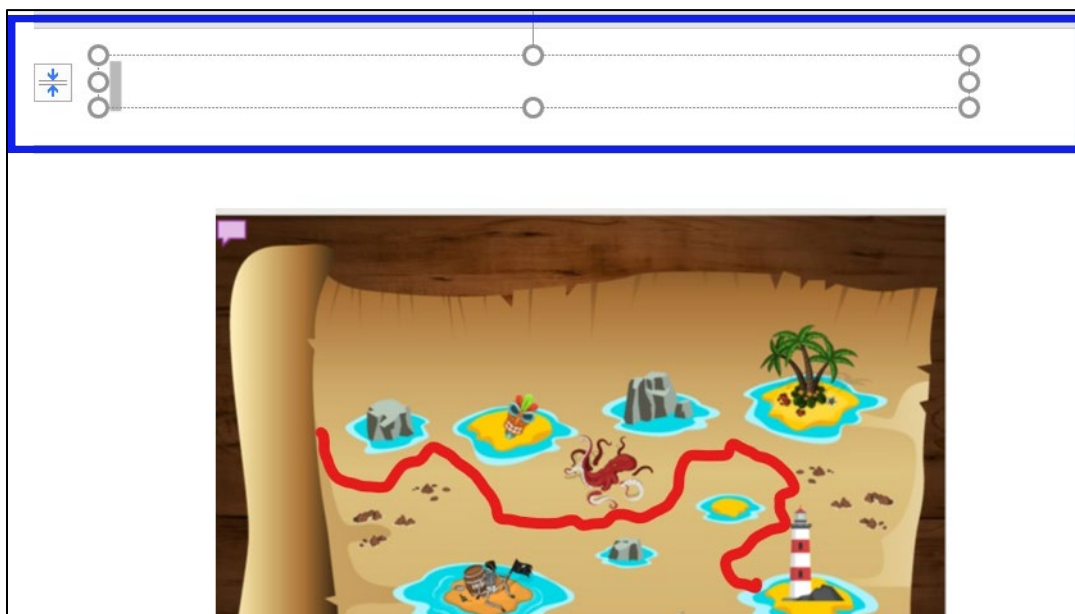
Figure 10. Example of adding slide title

Hidden Slide Titles

Sometimes an author does not want a slide title. All slides must have titles so people using screen reader software will know it's there, but there is an option to hide the title from sighted users.

1. Select **Review** tab
2. Select **Check Accessibility**

(The Accessibility tab will be displayed)

Figure 11. Accessibility tab, Slide Title button

3. Select **Slide Title**
4. Select **Add Hidden Slide Title**
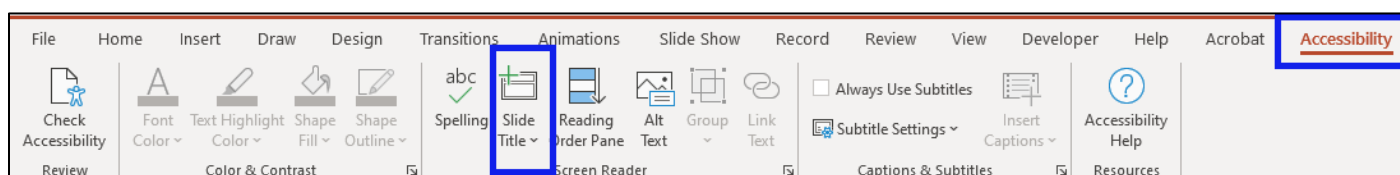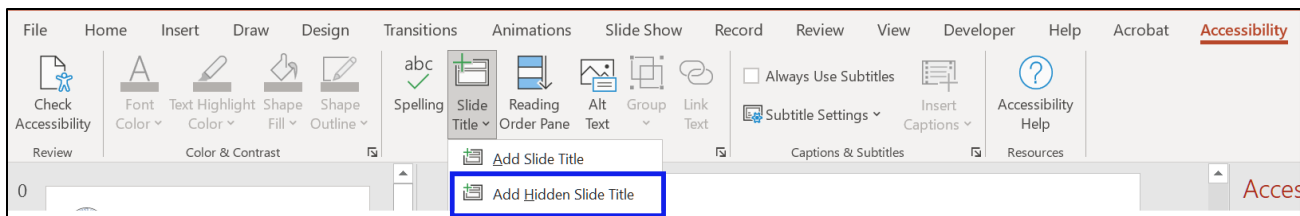
Figure 12. Accessibility tab, Add Hidden Slide Title

The hidden title field will appear above the slide.

5. Enter the hidden slide title text
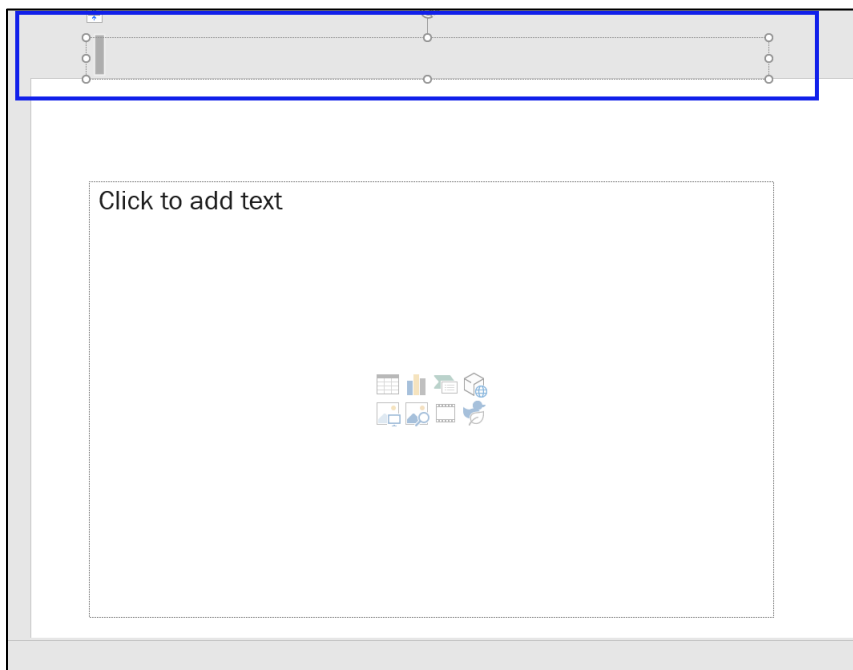
Figure 13. Example of adding hidden slide title

Slide Numbers

Slide Numbers must be added using the **Header & Footer** button instead of manually typing slide numbers. Adding slide numbers this way inserts a slide number placeholder. Note that adding slide numbers will place them out of order in the Reading Order, so the Reading Order will need be to be fixed.

1. Select **Insert** tab
2. Select **Header & Footer**
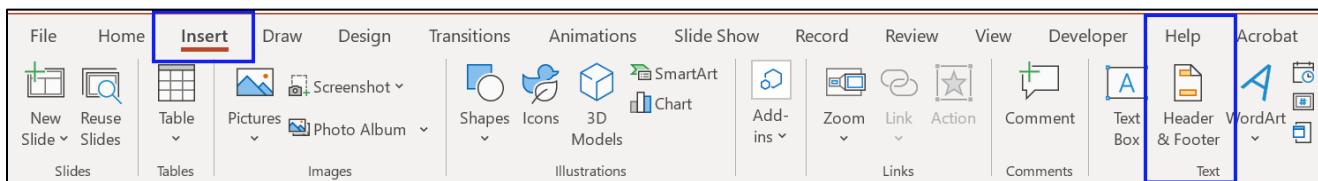
Figure 14. Insert tab, Header and Footer button

3. Select **Slide number**
4. Select **Apply** or **Apply to All**
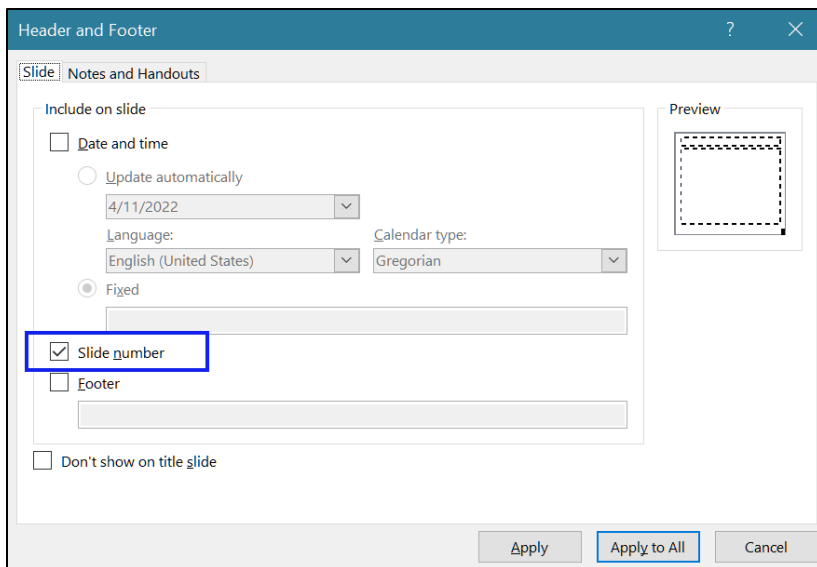
Figure 15. Header and Footer, slide number

Lists

The **List** style must be used. Do NOT manually type characters (e.g., hyphens) or inserting icons.

1. Select the text you would like to make into a list
2. Select **Home** tab, **Paragraph Section**
3. Select list type
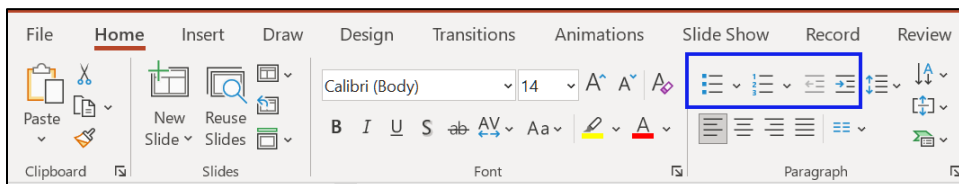
Figure 16. List Type options

Tables

PowerPoint is meant for presentation, not for complex data in tables. Tables must be simple, with 1 row of headers – the first row.

Creating Tables

Create tables in PowerPoint using the built-in function.

1. Select **Insert** tab
2. Select **Table**
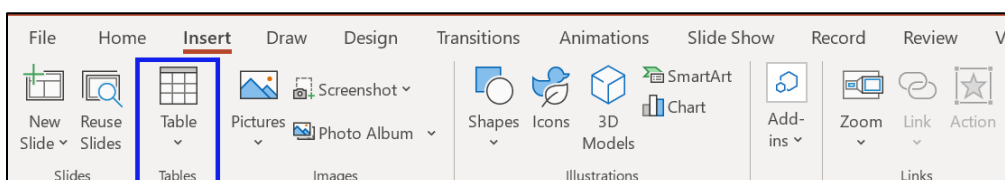
Figure 17. Inset tab, Table button

3. Select **number of columns**
4. Select **number of rows**
5. Select **OK**
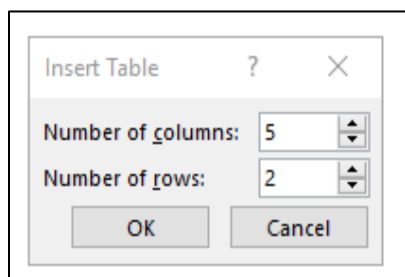
Figure 18. Insert Table window

Table Header Row

Tables in PowerPoint need to have a header row designated so that screen reader software will read the header with the data in each cell.

1. Select **Home** tab
2. Select the table
3. Select **Table Design** tab
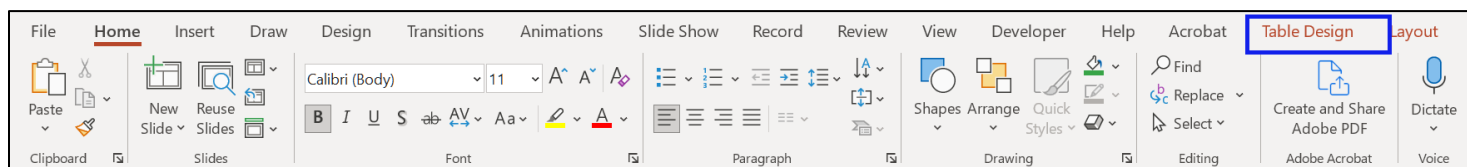
Figure 19. Table Design tab

4. Check **Header Row** checkbox (in the **Table Style Options** section)
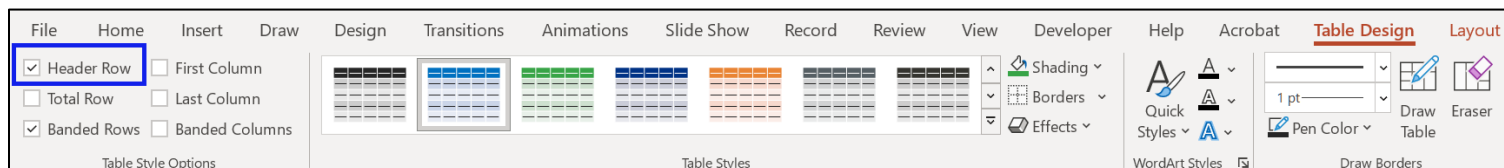
Figure 20. Table Design tab, Header Row check box

Table Accessibility Requirements

- Title should NOT be in the table; it should be above it
- Must have a header row
- No blank rows or columns
- No split cells or merged cells
- No nested tables

Alt Text (Alternative Text)

Screen reader software reads text aloud. It can't read images. When the software gets to an image, it tells the user that it is an image. Then it announces the alt text that was entered by the document author. If there is no alt text, the user has no idea what the image or if they are missing essential information.

Alt text must be manually entered. The amount of information and detail given depends on the meaning and purpose of the image and the context in which it is used. For example, to describe a technique to use during a storm using an image of a single-family home with plywood over the windows, the Alt text 'House with boarded up windows' tells the intended purpose of the image more than just using the word 'House'.
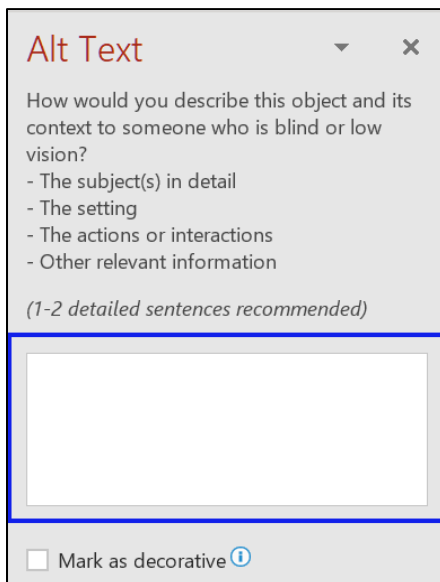
Alt Text Essentials

Alt text must be added for all images, including grouped images, and all non-text elements that convey information. Decorative images should be marked as decorative.

- **Concise:** 250 characters or less. Alt text should be short, like a tweet.
- **Meaningful**: Alt text is not necessarily a description. It should indicate the meaning or purpose.
- **Context**: Alt text can dependent upon the context of the document.
- **Not Redundant**: If the text on the page has the same information as the image, the image should be decorative. (See Decorative Alt Text)

How to Add Alt Text

1. Select the image
2. Right-click (or Shift + F10)
3. Select **Edit Alt Text**
4. Enter text in the field

Figure 21. Alt Text pane

Content that Requires Alt Text

- Images, pictures, photographs
- SmartArt
- Charts and graphs
- Graphics
- Logos
- Department/Agency seals*

Note: Alt text for DOL seal should be 'United States Department of Labor seal' (without quotes)

Decorative Alt Text

If an image adds no meaning or essential information, a person using a screen reader does not need to know about it. It should be marked as decorative so the screen reader software will not announce it.

Decorative Content Examples

Content is decorative if:

- It is a shape, such as a 'line, a rectangle, or circle'
- It is used to make things look more interesting
- If there is text on the page that has the same meaning

How to Make Images Decorative

1. Select image
2. Right-click (or Shift + F10)
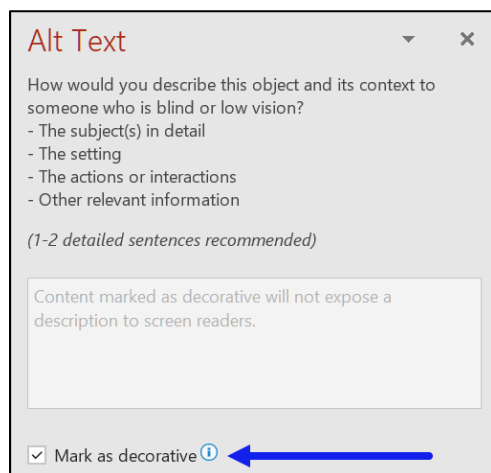3. Select **Edit Alt Text**
4. Check **Mark as decorative** check box

Figure 22. Alt Text pane, Decorative

Grouping Multilayered Graphics

Multi-layered graphics and SmartArt must be grouped into one image and have one for this image. Note that there is a limit to how many objects can be selected. To group multi-layered images:

1. Select images to group
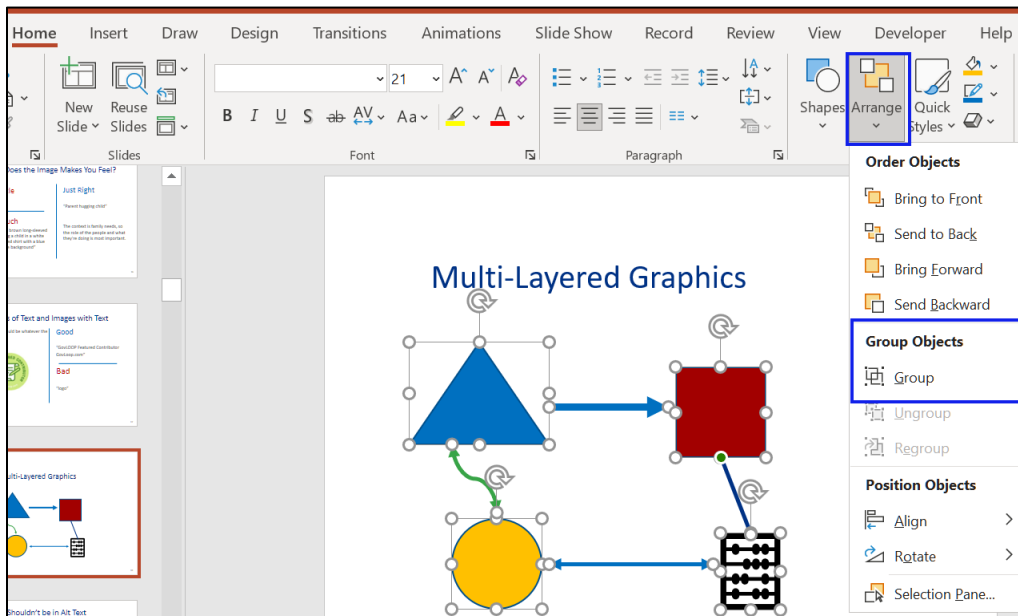2. Select **Home** tab
3. Select **Arrange**
4. Select **Group**

Figure 23. Example of Multilayered Graphics

Complex Images

It is common to develop organizational charts, concept maps, flowcharts, processes, etc. to better explain concepts in the presentation. However, these complex images create major barriers for people using screen reader software.

Barriers Caused by Complex Images

*   It is impossible to indicate direction between people, concepts, steps, etc.
*   There are a large number of shapes and lines, each needing alt text
*   All the images need to be ordered correctly to make any sense

The best method for condensing elements and articulating key points from visual graphics to create a screenshot of the graphics to create one image, upload the image, and add alt text to describe the image. Another benefit to this method is that the image can be reused or shared. Snag-It is a great tool to use. However, if you don't have it, Windows has a built-in tool, called Snip and Sketch (also called the Snipping Tool or Snippy).

Creating Screen Shots with Snipping Tool

You can use the Snipping Tool either of 2 ways. To bring up and take a screen shot without opening it first, use the Keyboard shortcut. Otherwise, open it using the **Start** menu.

Keyboard Shortcut: Press the **Windows logo** key plus the **Shift** key + the '**s**' key.

Figure 24. Keyboard Shortcut

Start Menu:

1. Select **Start** button on the taskbar
2. In search bar, enter 'Snipping Tool'
3. Select **New** to take a new screenshot (The down arrow provides different 'snip types' options)
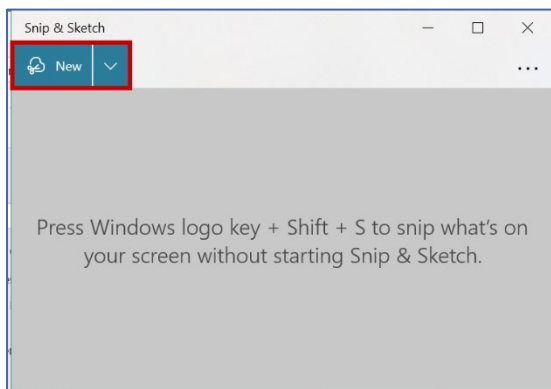

Figure 25. Snip and Sketch window

Create Screenshot

With the Snipping Tool open:

1. Click and drag over the image that you want to screenshot
2. Once a screenshot is taken, the image will appear the window
3. Tools to edit the image at the top
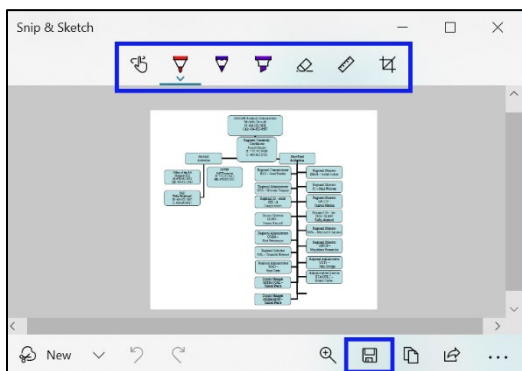4. Select the 'Save' icon to create a file name and location for the image

Figure 26. Snip and Sketch window, Save

Insert Created Image

1. Delete objects
2. Select Insert
3. Select image file

Color

Color Contrast

The color contrast ratio between the text and the background is important. If it is too low, some people will not be able to read the text. The Section 508 color contrast standards require a minimum ratio of 4.5:1. Below is an example of low color contrast.
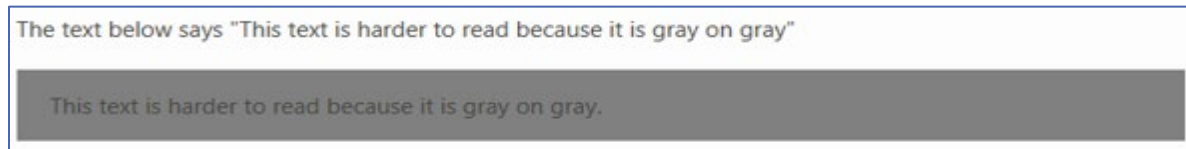

Figure 27. Color contrast example

To test color contrast, you can use an on-line tool, such as the Color Contrast Checker. Just enter the foreground (text) and background colors in either hexadecimal or RGB format. The contrast ratio is displayed. To change the ratio, click on the slider bar.

Figure 28. Color Contrast Checker

Another tool, which needs to be installed by your tech team, is the desktop Colour Contrast Analyzer. It works with any program on your computer – Microsoft PowerPoint, Word, Excel, Outlook, etc. Enter a foreground (text) and background color in RGB or hexadecimal format (e.g., #FD3 or #F7DA39) or choose a color using the dropper tool to select the foreground and background.
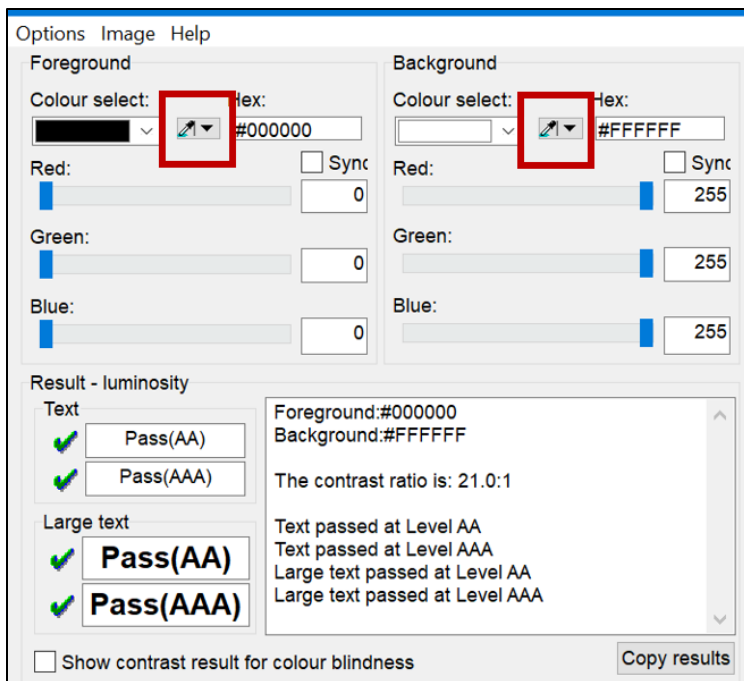
Figure 29. Colour Contrast Analyzer

Color Conveying Meaning

Section 508 requires that when color is used to indicate meaning, direction or other information, that same meaning must be provided in a way that does not use color. The project status report pictured below uses **both color and text** to indicate the status. Someone who is colorblind (or blind) would not need to see the color to what the status of the projects was

Figure 30. Example of Accessible Color

Hyperlinks

Screen reader users can scan a list of links. The links in the list are only the text of the link, so there is no context included. This is why links like "Click here" are not descriptive enough. Links should provide a clear and accurate description of the link destination. You can put the URL in plain text in parentheses next to the meaningful hyperlink.

Accessibility Requirements

Links should:

- Use key words
- Be short and meaningful
- Make sense if it has no context
- Be in a different color than the surrounding text
- Be underlined
- NOT be a URL (the URL can be in text next to the meaningful link text)

Adding Hyperlinks

1. Place the cursor where the hyperlink will be inserted
2. Right-click (or Shift +F10)
3. Enter the meaningful text in **Text to display**
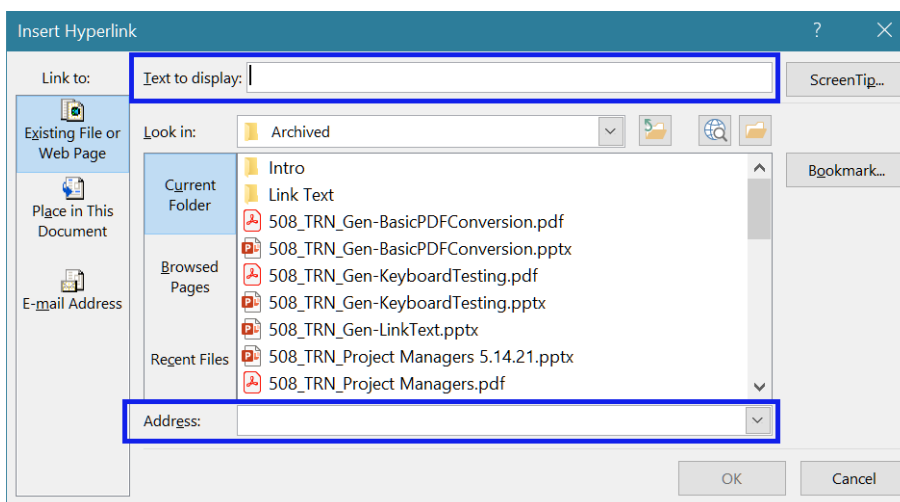4. Enter URL in **Address**
5. Select **OK**

Figure 31. Insert Hyperlink window

DOL Standards

The following DOL standards and best practices are required to increase accessibility, usability, and readability of information. Using underlines only on hyperlinks helps people find them and recognize them. Italics are hard for some people to read, and so is text that is smaller than 12 points. Left-aligning headings and text is easier for all people to read.

1. Only use underlines on hyperlinks
2. Do not use italics or underlines for emphasis. Make text bold instead
3. Left-align headings and text
4. Use only one heading 1
5. Do not use more than 2 fonts
6. For body text, use a minimum font size of 12 points

Fonts

Currently, Section 508 does not specify the requirements for choosing an accessible typeface. However, the following fonts are unofficially recommended:

- **Calibri**
- **Helvetica (Microsoft Sans Serif)**
- **Verdana**
- **Arial**
- **Franklin Gothic Book**

Using these fonts will promote ease of reading for most users. Sans-serif fonts are especially easy to read because they are generally more legible.

Reading Order

Screen readers read the elements of a slide in the order in which they are listed in the Reading Order pane. The Reading Order pane by default lists content in the order it was added to the slide, which might be very different from the order in which things appear. To make sure everyone reads the contents in the order you intend, it's important to check the reading order
To open the **Reading Order** Pane**:**

1. Select **Review** tab
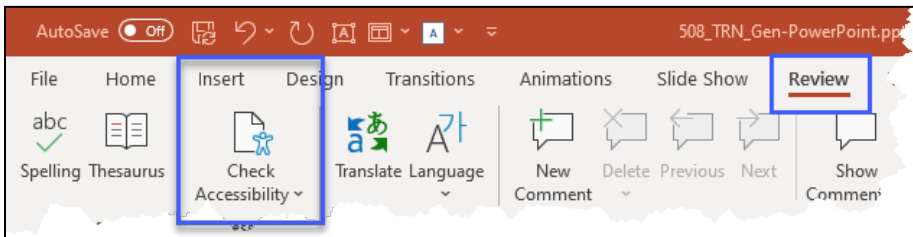2. Select **Check Accessibility**
3. Select **Reading Order** Pane

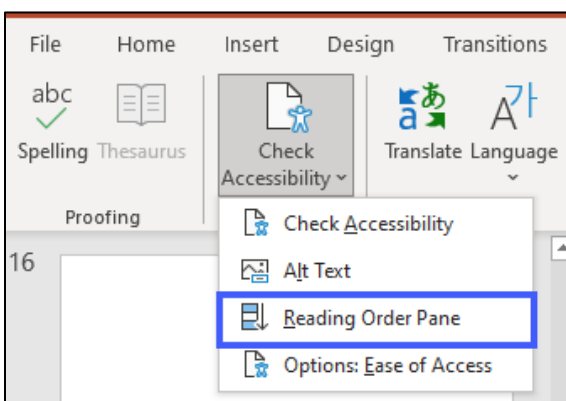**Figure 32. Review tab, Check Accessibility button**

Figure 33. Reading Order option

The Reading Order pane contains a list of all the objects on your slide. The title should be first, then the content in the correct reading order, and the slide number placeholder last (if present).
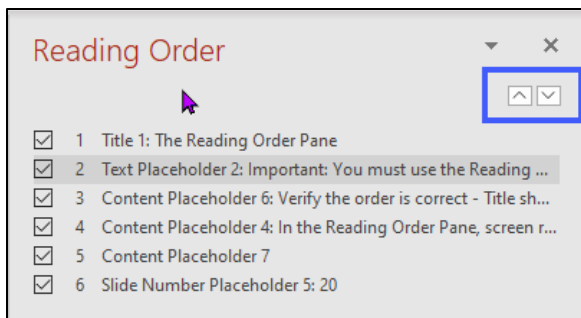
Figure 34. Reading Order Pane

If any content is out of order:

1. Select the item
2. Use the up and down arrows to arrange the content in the correct order

The Accessibility Checker

The **Accessibility Checker** helps you find and fix accessibility issues, just like **Spell Check** lets you know about potential spelling errors. The **Accessibility Checker** works in Microsoft Word, Excel, and PowerPoint. It displays a report of the issues it finds, and it explains why each issue might create a problem for someone with a disability. It also recommends how to fix the issue.

Use the checker more as a guide rather than a hard-and-fast rule; just because the checker says the slide deck is accessible, doesn't mean the slide deck is fully accessible. The Accessibility Checker cannot find all the issues. Some issues can only be found by a person. For instance, the checker can tell if there is no alternative text (Alt text), but only a person can tell if the alternative text (Alt text) makes sense.

Using the Accessibility Checker

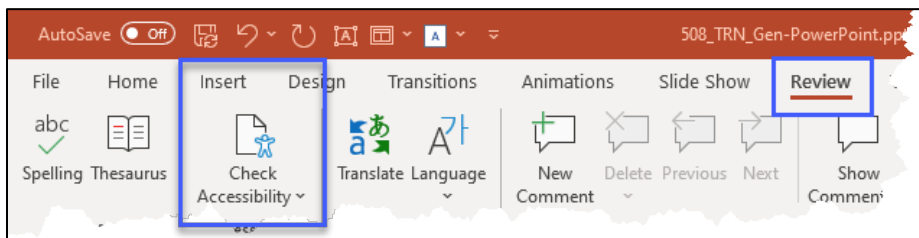1. Select Review tab
2. Select Check Accessibility

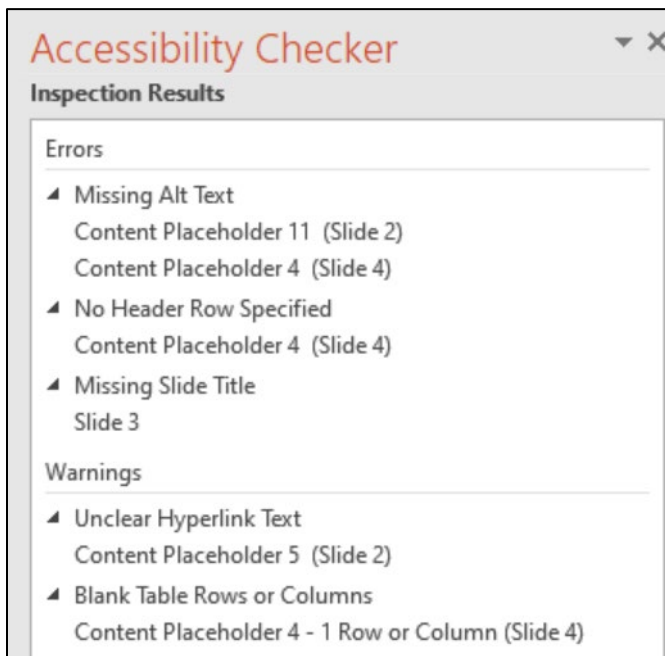**Figure 35. Review tab, Check Accessibility button**

Figure 36. Accessibility Check Results

Errors the Accessibility Checker CAN Find

Examples include:

- Missing Alt Text
- Tables with no header rows
- Blank rows or columns in tables
- Unclear hyperlink text
- Slides without titles
- Duplicate slide titles
- Reading Order (see Note)

Note: Since the Reading Order must be checked manually, it will be reported as a reminder. The order may be correct, but the checker cannot determine that. For more information, see the Reading Order section.

Why Errors Matter

Error	Reason
Missing Alt Text	Alt text helps people who can't see the image to understand what's important in images and other visuals. (See Alt Text)
Tables without header rows	Screen reader software needs header rows to be able to announce the header cell with the data (See Table Header Row)
Blank rows	Users don't know if the rows are missing data or not. (See Table Accessibility Requirements)

Error	Reason
Unclear hyperlink text	Most URLs are difficult to understand. (See Hyperlinks)
Slides without titles	Titles tell the user what the slide is about.
Duplicate slide titles	Titles tell the user what the slide is about. Each one should be unique. (See Slide Titles)

Fixing Missing Slide Titles

If any slides are missing titles, there will be a **Missing Slide Title** error with the numbers of the slides that need titles.
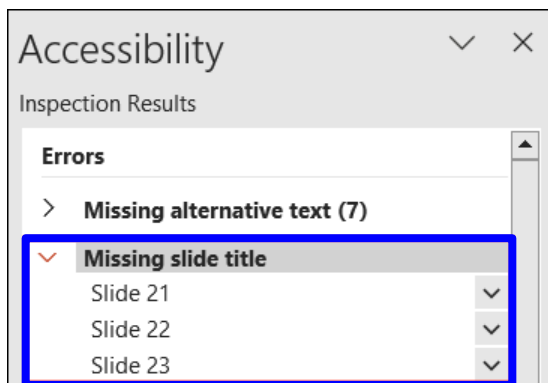

Figure 37. Accessibility Checker Results, Missing slide title error

1. Select a slide number
2. Select the drop-down arrow to the right of the slide

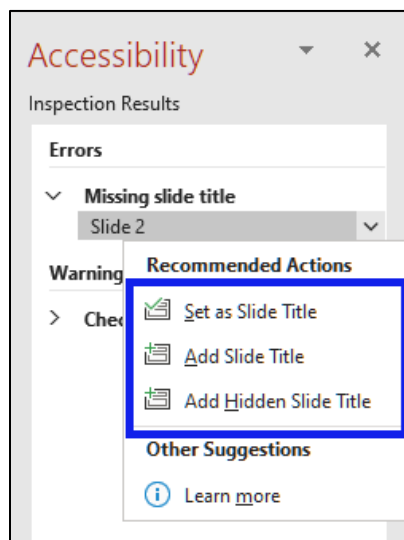Depending on the slide content, there will be three options.

Figure 38. Recommended Actions

Set as Slide Title

Text on the slide will be selected. You can set it as the title or select other text as the title.
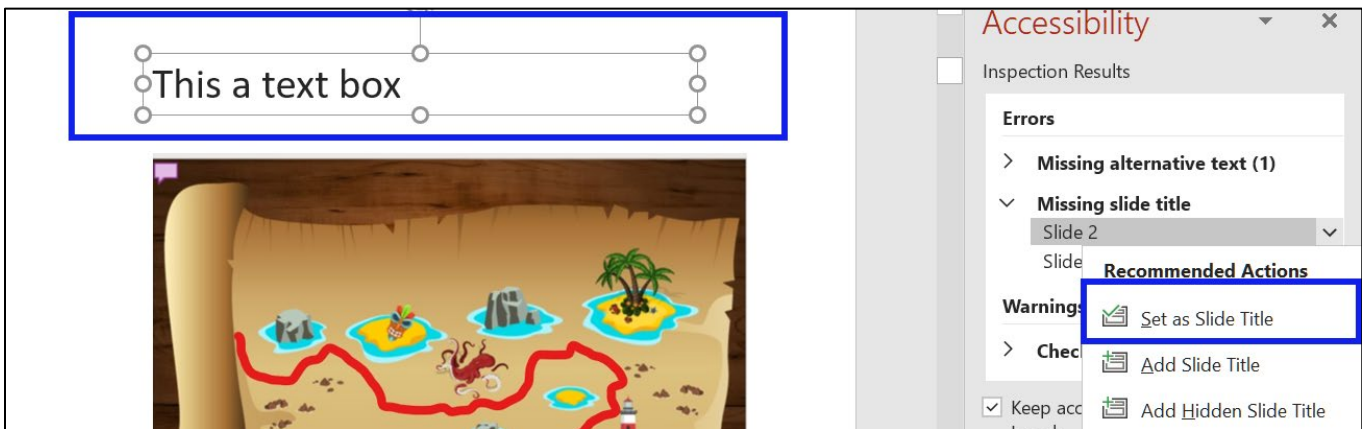

Figure 39. Example of Setting Text as title

Add Slide Title

If there is no text that can work as a title, one can be added.

1. Select a slide number
2. Select the drop-down arrow to the right of the slide
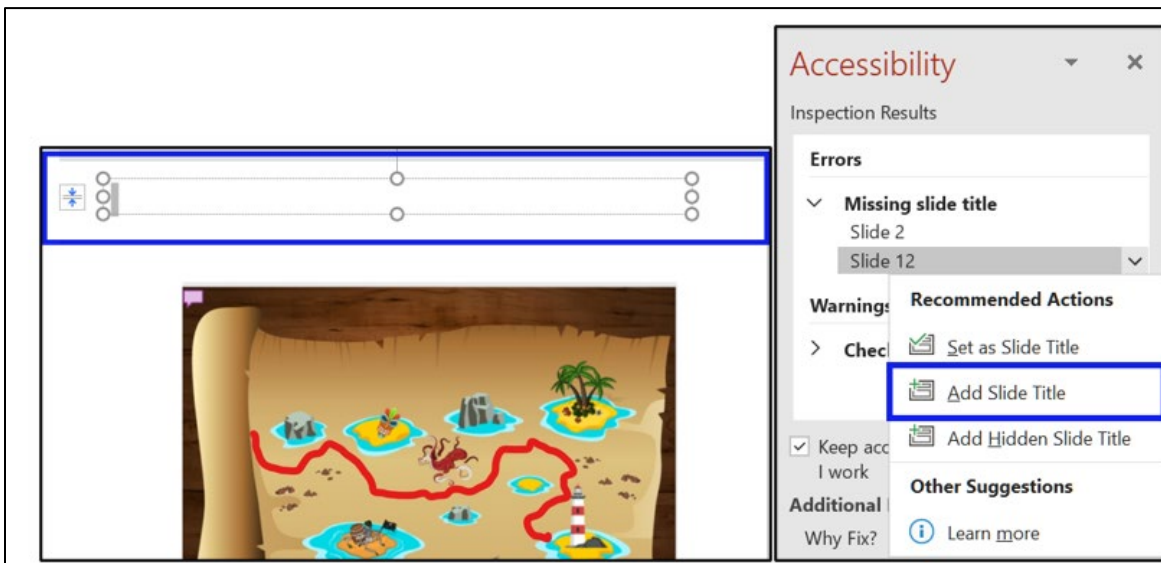3. Select **Add Slide Title**
4. Enter text for the title

Figure 40. Example of Adding Slide title

Add Hidden Slide Title

If a visual title is not appropriate, add a hidden slide title. Remember all slides must have titles, whether visible or hidden. People using screen reader software rely on slide titles to know what the slide is about.

1. Select a slide number
2. Select the drop-down arrow to the right of the slide
3. Select **Add Hidden Slide Title**
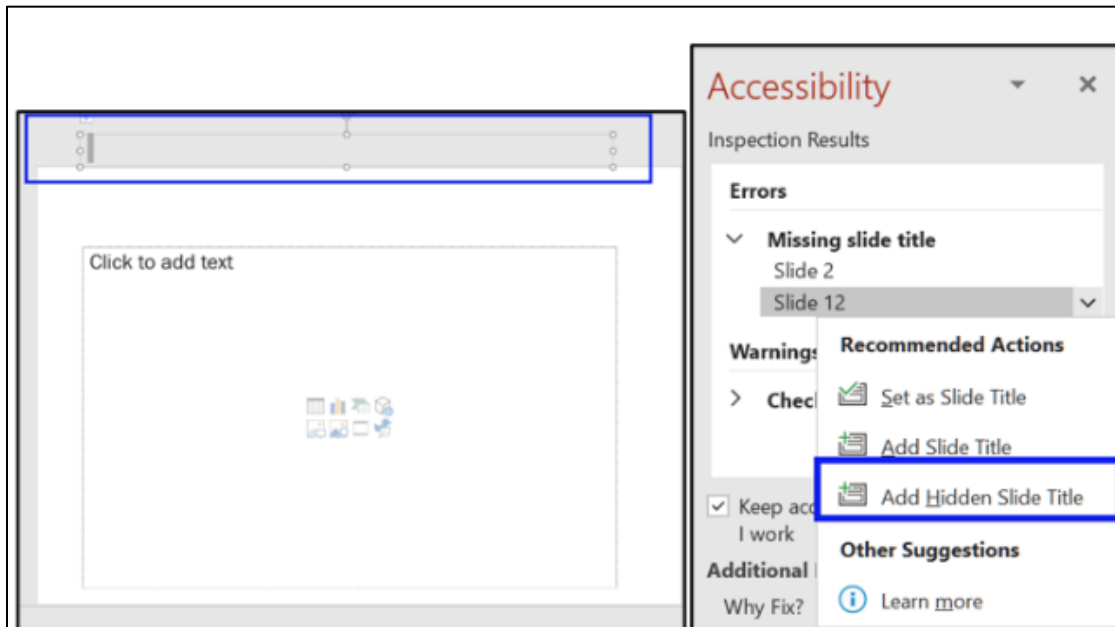4. Enter text for the title

Errors the Accessibility Checker can NOT Find

Accessibility checkers cannot decide if . . .

- Alt text makes sense
- Table structure is simple
- Hyperlink text is meaningful
- Color only is not the way to convey meaning
- Slide reading order is logical
- Color contrast between text and background is sufficient

Creating a PDF

To save accessible features made in a PowerPoint document to a PDF document, you must save a PowerPoint document properly. To complete this action users, need to have Adobe Acrobat DC (not Reader) installed on their device.

Do NOT use Save as Adobe PDF! You will lose your accessibility.

Set Preferences

It is important to be sure the preferences are set correctly. This only needs to be done once.

Figure 42. Acrobat tab, Preferences button

1. Select **Acrobat** tab
2. Select '**Preferences**'
3. Verify the following check boxes are **Checked:**
   - **Create Bookmarks**
   - **Add Links**
   - **Enable Accessibility and Reflow with tagged PDF**
   - **Convert Speaker Notes**
4. Select **OK**

Figure 43. PDF Preferences window
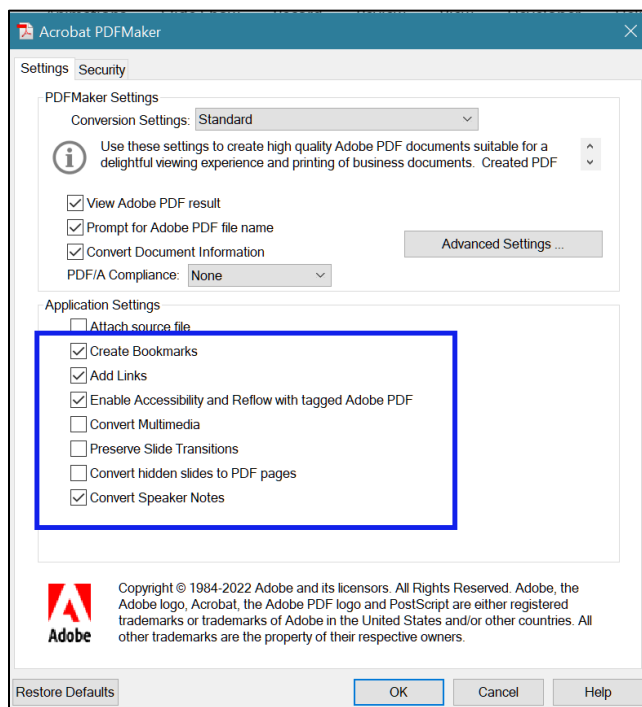
Create PDF

1. Select **Acrobat** tab
2. Select **Create PDF**

Figure 44. Acrobat tab, Create PDF button