U.S. Department of Defense Section 508
Connecting Individuals with Information

PowerPoint Accessibility Guide

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## Slide Layout and Formatting

Structural Tags

Structural tags are unseen labels for the type and structure of content in your PowerPoint presentation (slide titles, bulleted and numbered lists, tables, figures, etc., as well as their order and hierarchy). Structural tags allow people with disabilities to navigate your document through the use of assistive technologies (AT) such as screen readers. Always insert tables, charts, and lists using the built-in tools provided in PowerPoint.

Slide Layout

Choosing the correct layout slide for each slide will ensure that the content is accessible to Assistive Technology (AT).

To add a new slide to the presentation:

1) Select the *Home* tab on the PowerPoint toolbar then click on the *New Slide* dropdown arrow.
2) Select the slide layout template that matches the type of layout you would like for your slide.
3) The first slide in your presentation should always be the Title Slide. You always have the option to move and resize placeholders on your slides to match the layout you are going for.
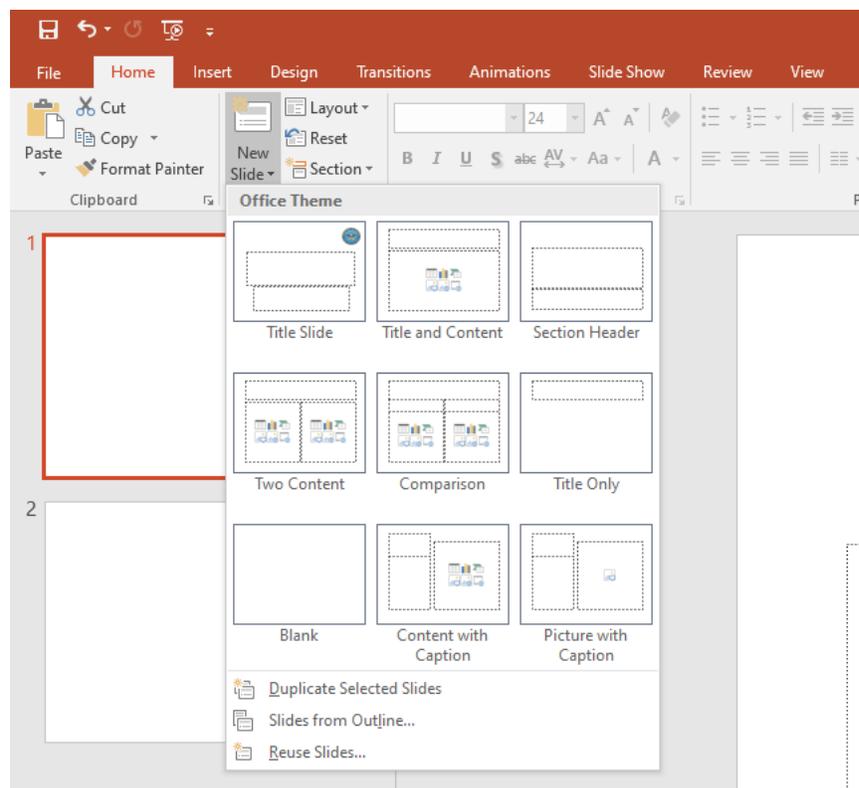
You may change the layout of an existing slide at any time by choosing the *Layout* dropdown arrow on the *Home* tab.
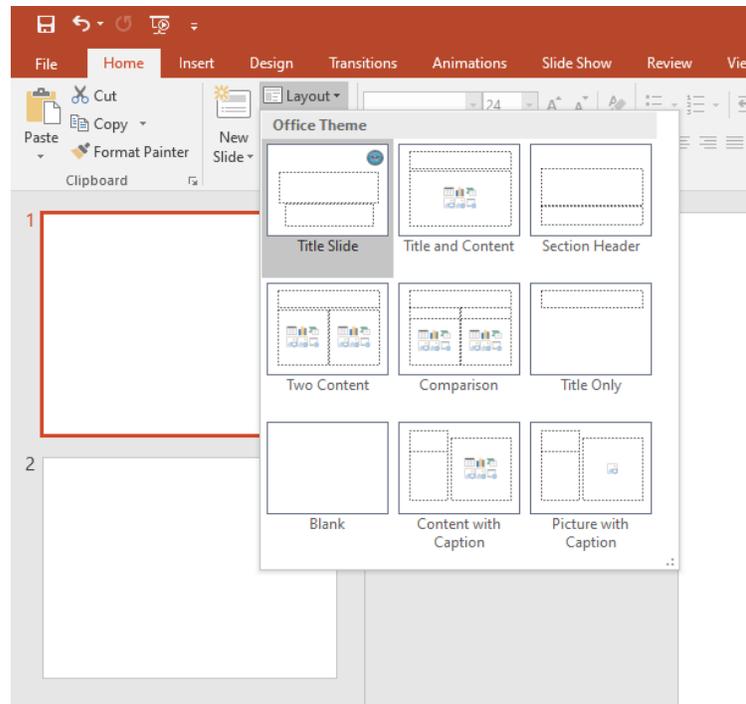
Title Holder

Always use the Title Holder to create a title for each slide. Each slide title should describe the content of the slide. If the content spans multiple slides, repeat the title and add "continued" after the title.

In instances where an image or table takes up the entire area of the slide, a slide title may still be included behind the content for users of AT.

Use of Color and Contrast

Do Not Use Color As the Only Means to Convey Meaning or Information
In order to use color accessibly, ensure that text is also present for users who may have vision impairments or color blindness.
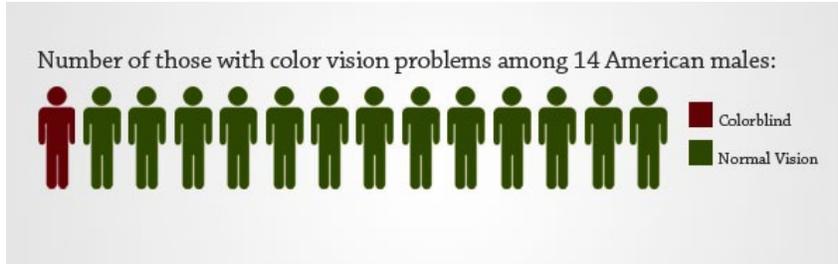
Table 1: Example of a Status Layout Table Using Color and Text

|	
Project A	**ON TIME**
Project B	**AT RISK**
Project C	**LATE**

Create the Required Color Contrast

Having a high level of contrast between foreground and background results in more people being able to see and use the content.

Example of a non-compliant chart where the two colors used are the same contrast level:

The same chart as viewed by someone with the most common form of color blindness:
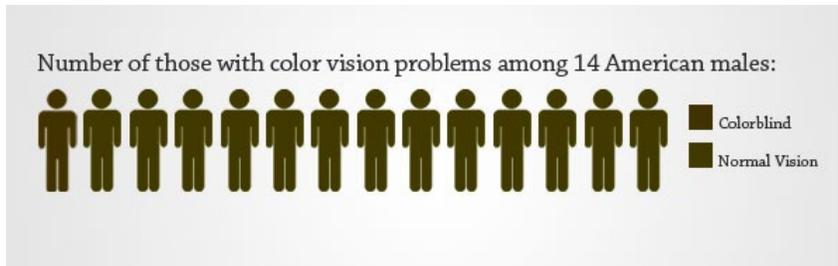

Compliant version with a fill patten added:

Compliant version as viewed by a user with color blindness:

The last chart demonstrates how adding a fill pattern is better than relying on color to convey meaning. In this chart we also added text that states the same information gained from the chart.

To check to see if your color contrast is high enough:

1) Select the chart, image, or shape
2) Select the Picture Format or Chart Design tab
3) Select the Color button > Change Color Saturation to Saturation: 0% or Change Color to a gray color palette
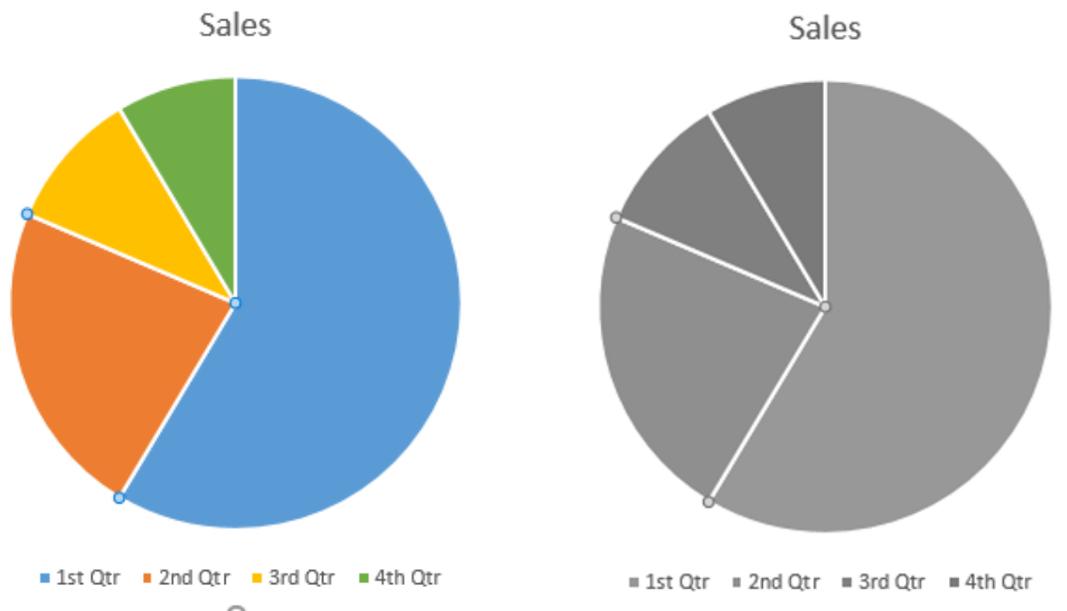
As you can see from the gray image, at least 2 of the pieces of the pie chart look the same indicating a higher contrast is needed. Adding data lables to the inside of the chart instead of using a legend would also make this chart more accessible, as shown below.
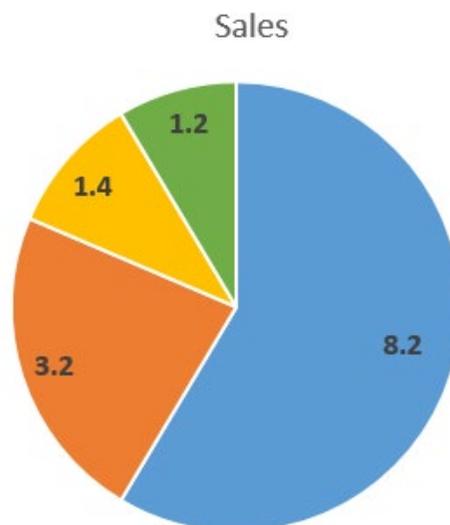
There are many online color contrast checkers that you can use that will tell you if your colors pass the accessibility contrast ratio of 4.5:1.

Images and Graphics

Adding Alt Text to Non-text Elements

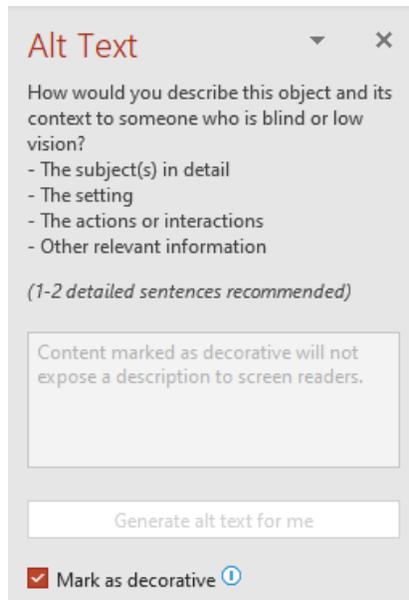Screen readers cannot infer meaning from images and other objects, therefore, you:

1) Must add descriptive text to images and other objects
   a. Add Alt-Text to images and other objects **OR**
   b. Add a caption **OR**
   c. Add information in surrounding text or in an appendix.
2) Must place objects in line with text so that AT can read them in the proper reading order, unless the object is marked as decorative

If adding Alt-Text to images and other objects, you must add:

1) Text that describes the purpose and/or function for interactive objects, including images used as links
2) If the object includes embedded text, the Alt-Text must match the text verbatim
3) If the image does not convey any information or is redundant due to surrounding text, the image must be marked as decorative

To enter alt text to an image or other non-text element:
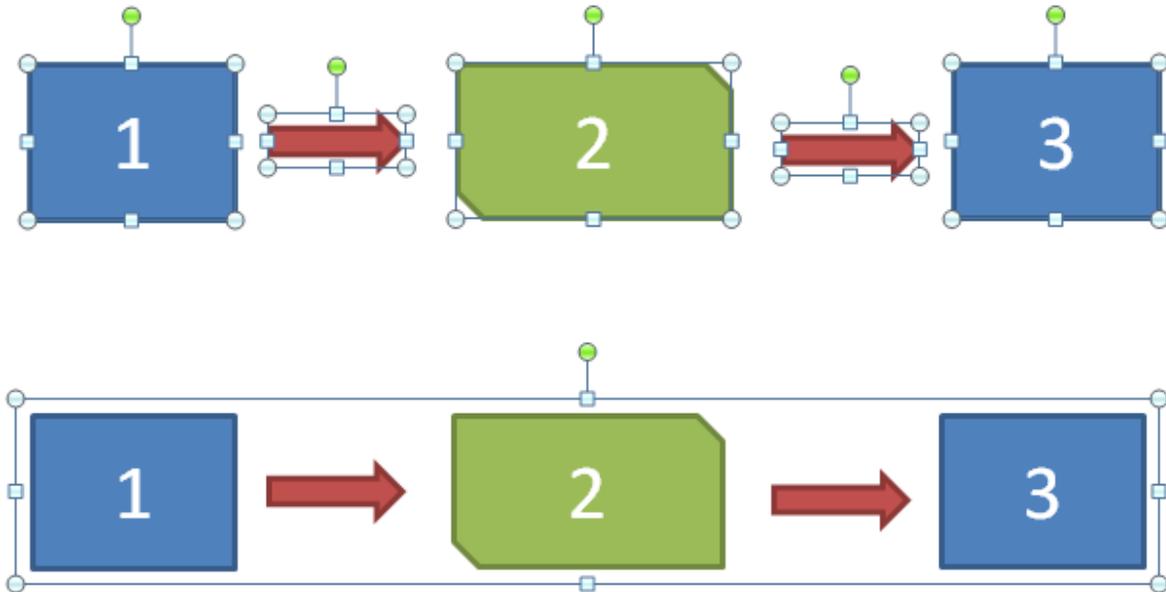
1) Right-click on the image
2) Select *Edit Alt Text…* from the menu
3) In the *Alt Text* pane, enter a description of the information conveyed in the image
4) If the image is decorative, check the box *Mark as decorative*

Grouping Images

Multiple associated images must be grouped as one object. You can then add alt text that describes the whole picture instead of each piece of the puzzle.

To group multiple associates images as one object:

1) Hold the Shift key and click on each object, or drag your mouse around all objects
2) On the *Picture Forma*t tab, select *Group*
3) Ensure all objects should have one solid line around them
4) Right click on the the outline and select Cut
5) Right click in the empty space you just created and choose *Picture* under *Paste Options*.
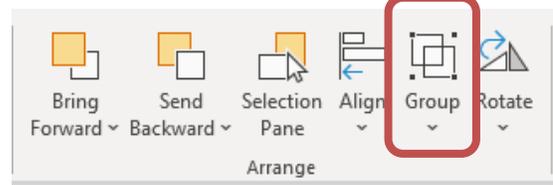
You may now add alt text to your new image.

Charts and Graphs

Chart Requirements

Every chart must have a title, a legend, and axis labels (if applicable). Generally, PowerPoint adds these automatically when you follow the steps for creating charts and graphs. To add or edit chart elements:

1) Click once anywhere in the chart. This activates the following two chart Tools tabs on the PowerPoint toobar: Chart *Design* and *Format*
2) Select the *Chart Design* tab, then select *Add Chart Element*
3) Select the element to add or edit

Concept Maps, Flow Charts, and Algorithms

Because AT does not recognize text within shapes and sometimes has troubles reading data in charts and tables, it is a good idea to include a layout or summary with complex charts. Concept maps, flow charts, and algorithms that are c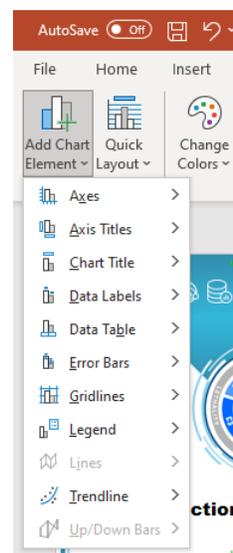reated using shapes with text inserted must be grouped and converted into an image (see "Grouping images" above). Alt text should then be entered in the form of a summary of the data presented (the key take-away) or enter an outline following the image. You may also hide it behind the image where sighted users can't see it. The image can then be given an empty alt text so AT will read the outline and skip the image.

The next three pages show some examples of outlines and a summary.

Create a summary for your chart
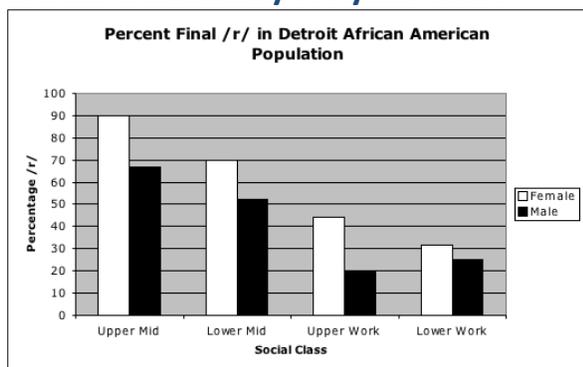
Alt-text = "Bar chart for data comparing men vs. women across classes. See summary below" (If the summary is short you can insert it into the alt-text instead of having it follow the chart).

Summary

The numbers show that /r/ dropping becomes more common in lower classes (lower percentages of final /r/), but that women consistently preserve more /r/'s then men across social classes.

That is, women are more likely than men to approach standard English across social classes.

Create an outline of your chart
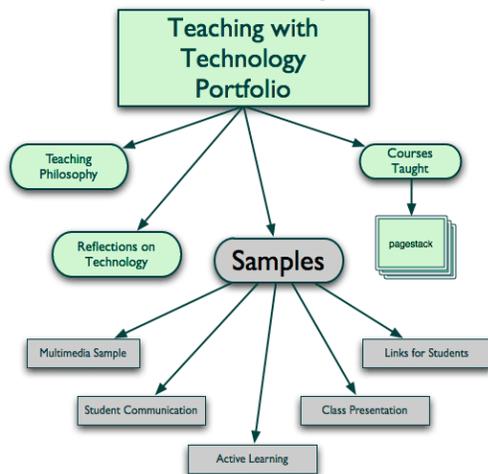
Alt-text = "Concept map – See outline after image". Again, you can also enter the outline into the alt text for the chart/image.

Teaching with Technology Portfolio

1. Teaching Philosophy
2. Courses Taught (can include course descriptions and syllabi)
3. Reflections on Technology
4. Samples
   a. Multimedia Sample
   b. Student Communication
   c. Active Learning
   d. Class Presentation
   e. Links for Students
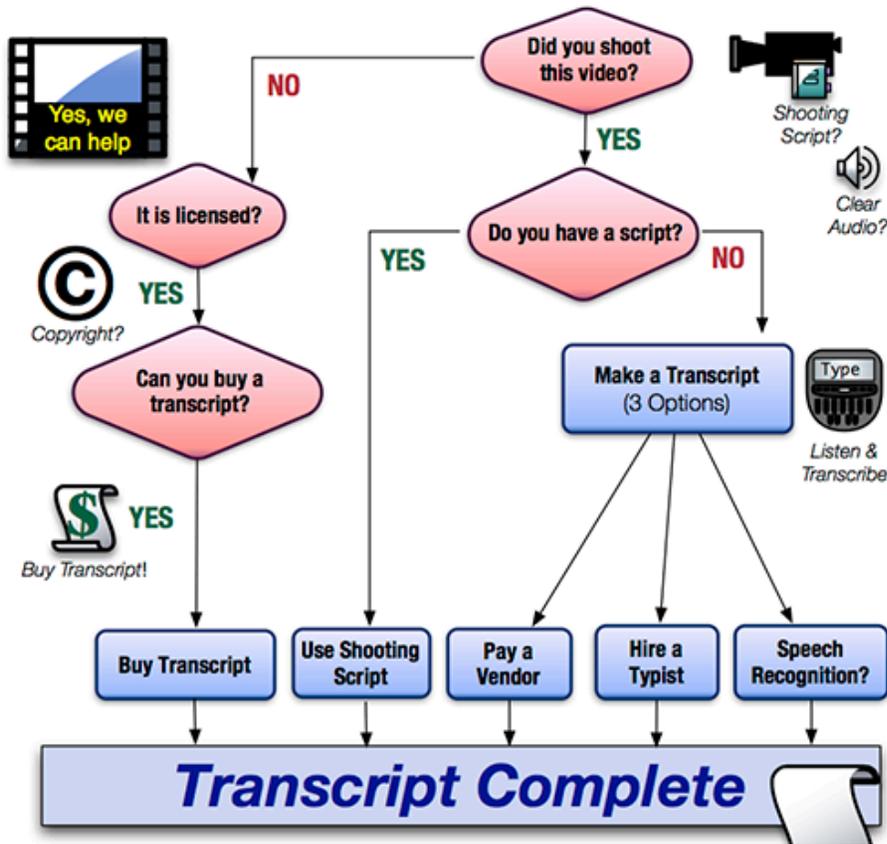
Alt text = "Flow chart with title: I need a Caption. See outline after image"

Outline Description

Title: "I Need a Caption"
Top of chart begins Q: "Did you shoot this video?"
1. If "No" to shooting video, then Q: "Is it licensed?"
    a. If "Yes", then Q: "Can you buy a transcript?"
        i. If "Yes", then "Buy Transcript," then "Transcript Complete"
2. If "Yes to shooting video, then Q: "Do you have a script?"
    a. If "Yes" to script, then "Use Shooting Script," then "Transcript Complete"
    b. If "Not" to script, then "Make a Transcript (3 Options)"
        i. "Pay A Vendor" then "Transcript Complete"
        ii. "Hire a Typist" then "Transcript Complete"
        iii. "Speech Recognition?" then "Transcript Complete"

Create an outline for your algorithm
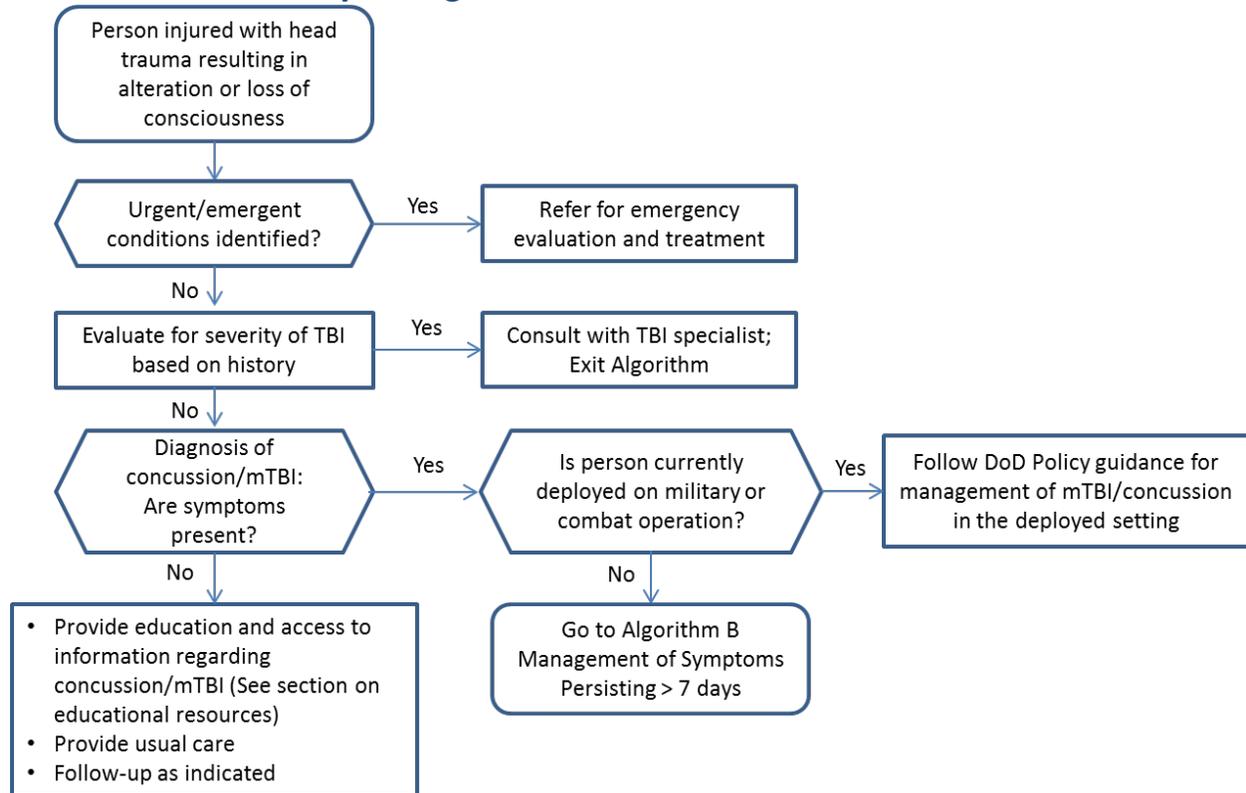
Alt-text = "Clinical algorithm diagram – Outline to follow"

Outline Description

1. Person injured with head trauma resulting in alteration or loss of consciousness
2. Urgent/emergent conditions identified?
    A. If "Yes", refer to emergency evaluation and treatment
    B. If "No", Evaluate for severity of TBI based on history
        I. If "Yes", consult with TBI specialist; Exit Algorithm
        II. If "No", Diagnosis of concussion/mTBI: Are symptoms present?
            i. If "Yes", Is person currently deployed on military or combat operation?
                a. If "Yes", follow DoD policy guidance for management of mTBI/concussion in the deployed setting
                b. If "No", go to Algorithm B Management of Symptoms Persisting > 7 days
            ii. If "No", Provide education and access to information regarding concussion/mTBI (See section on educatioinal resources). Provide usual care. Follow-up as indicated.

Tables

To create a table that is accessible to AT you need to keep in mind that a screen reader will read a table from left to right and top to bottom. It helps when thinking of a layout for your table to read the data yourself in this way to see if it makes sense.

Use Built-In Features to Create Data Tables and Layout Tables

Data tables are those tables where the information in a cell requires information from a row and/or column header to adequately describe the cell's content. If a table is used for placement of text and objects, then it is a layout table. Layout tables should not have a header row and/or column.

When you create a data table

You must use the built-in table feature rather than creating the appearance of a table by using tabs or spaces. Keep tables simple (avoid merged or split cells). Identify the header and or column row.

Go to Insert > Tables

To create a data table:

1) Insert the number of columns and rows you need for your data table.
2) Avoid merged or split cells.
3) Only type headers into the first row or column and identify the header row or column.
   a. Click in any cell within the table and select the Table Design tab > be sure there is a check in Header Row and/or First Column depending which have your headers.
   b. If you are using only the first row as column headers, click any cell in the first row and select the Layout tab > select the "Repeat header rows" button.
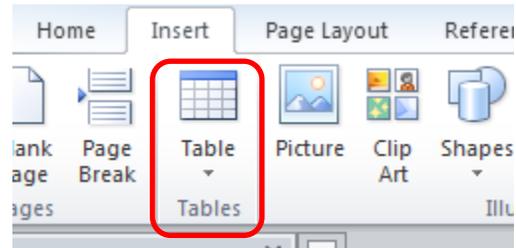
When creating layout tables

Layout Tables create a structure that screen readers and AT can use to read information in the correct order (left to right then top to bottom). Layout tables should not have a designated header row or column.

Example - Table 2: Layout Table

Session 1	Technical Team	30 min. presentation
Session 2	Science Team	45 min. presentation

Reading Order

Reading order is very important to users using AT. If the reading order is off, which happens frequently in PowerPoint, the slide content will not make sense.

To check the reading order of each slide

On the *Review* tab select the dropdown arrow on the *Check Accessibility* button and choose *Reading Order Pane*. Select each item in the Reading Order pane to see if the oder is correct. The order can be changed by dragging items to their correct place or selecting the item to move and using the up and down arrows at the top of the list.

You can also take the check mark off of items that you want to mark as decortive on the slide so that screen reader software skips the content.

Miscellaneous

Fonts

Use fonts that are easy to read such as Ariel, Tahoma, or Calibri. The minimum font size in PowerPoint 14 if bold or 18 if regular. This does not apply to reference slides or other slides that are meant to be accessed after the presentation.

Flashing, Flickering, or Animation

Do not use flashing, flickering, or animated text as this can cause siezures in some people. Slide transitions should not be used. Animation should be avoided at all times with the axception of "On-click" text animation. On-click is when a new line of text appears in the presentation when you click your mouse instead of advancing to the next slide.

Hyperlinks

To set hyperlink text:

1) Type the text in your document that describes the destination, function, and/or purpose.
2) Select the text (highlight) in your document that you want to be a hyperlink
3) Go to Insert > Link > Insert Link…
    a. If "Existing File or Web Page," type or copy the accurate URL in Address field.
    b. If "Place in this Document," click on the appropriate line in "Select a Place in this Document."
    c. If "Create a New Document," type in the document name in "Name of New Document."
    d. If "Email Address," type a valid email address in "E-mail address."
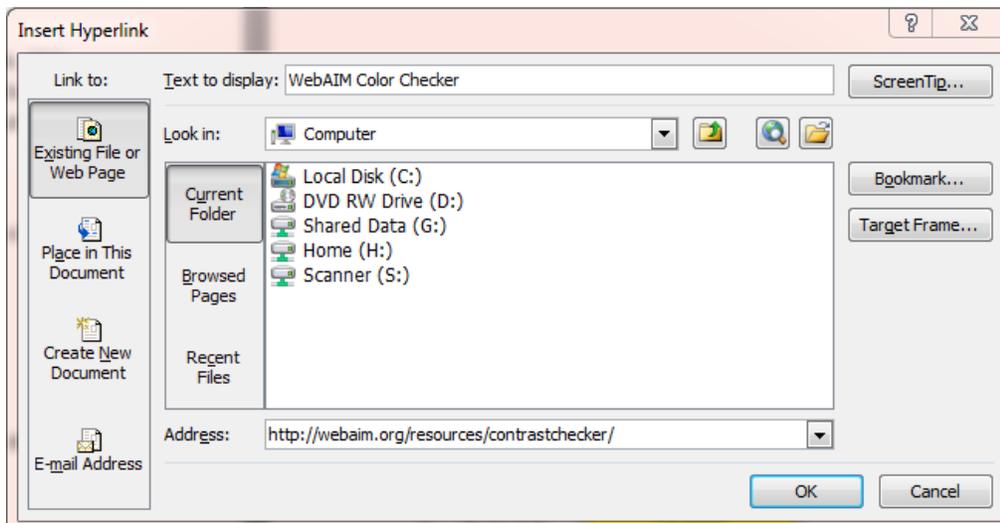
Create Accessible Embedded Files

If you embed an audio-only, video-only or multimedia file that contains meaningful information into your presentation, you must also provide additional information so that individuals with disabilities have comparable access to the information.

Table 3: Table Identifying Type of File and Additional Document Required

| Type of File	Also include:	What is this?
Audio-only	Accurate and complete transcript	A transcript is a text version of exactly what is being said in the audio-only file.
Video-only	Accurate and complete text description	A description is a text version of what is being shown in a video-only file.
Multimedia (audio and video)	Accurate and complete synchronized captions and audio descriptions	Captions are a time-synchronized text version of exactly what is being said and/or a description of the relevant sounds in the multimedia file. Audio descriptions are time-synchronized descriptions of what is being shown in the multimedia file.

Alternative Accessible Version

Federal agencies goal should be to produce one accessible document for everyone. However, there may be times when this is not feasible, so we are required to create an alternative version that is accessible, up-to-date, and has equivalent content.

Add a Title, Subject, Company, and Author to the document Properties

Go to File > Info

1) Enter the document title
2) Enter a brief description of the subject
3) Enter the company the document was created by
4) Enter the authors name
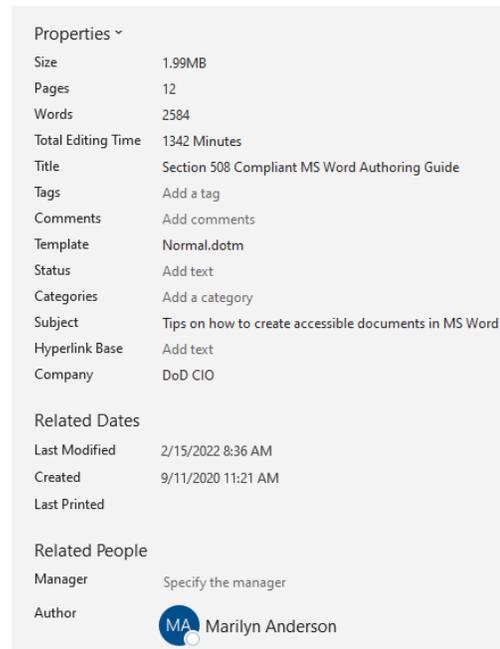
Properties ˅

Size	1.99MB
Pages	12
Words	2584
Total Editing Time	1342 Minutes
Title	Section 508 Compliant MS Word Authoring Guide
Tags	Add a tag
Comments	Add comments
Template	Normal.dotm
Status	Add text
Categories	Add a category
Subject	Tips on how to create accessible documents in MS Word
Hyperlink Base	Add text
Company	DoD CIO

Related Dates

Last Modified	2/15/2022 8:36 AM
Created	9/11/2020 11:21 AM
Last Printed	

Related People

|	
Manager	Specify the manager
Author	MA Marilyn Anderson

Check Your Work

Does every slide have a title and all text is visible in Outline View?	
When tabbing through each slide, is the reading order correct?	
Do all non-text elements have alt text?	
Does the document utilize recommended fonts and font size?	
Do all tables have a logical reading order, left to right and top to bottom?	
If color is used to convey meaning, is an alternative method also used?	
Is the contrast between foreground text and background easy to read?	
Have the documents properties been filled out?	
Does the document pass an accessibility check?	

The Accessibility Checker

To check the accessibility of your document at any time, on the Review tab under the Accessibility group, either:

1. Select the Check Accessibility button – this will open the Accessibility Inspection Results on the right side of your screen. If you leave this pane open while working in your document, you'll be able to see any errors that arrise. The list of errors must be corrected and the list of warnings need a manual check.

2. Select the dropdown arrow on the Check Accessibility button and choose any of the following:
   a. Check Accessibility – this will perform the same function as step 1 above.
   b. Alt text – this will open the Alt Text pane where you can add alt text to any image or object that conveys information through other means than text. Select any image or object in the document to check its alt text or to add alt text.
   c. Reading Order Pane – this will open the Reading Order Pane that will display each element on the slide in the order in which it will be read. From here you can change the reading order or make elements as decorative so screen reader software will skip decorative elements.
   d. Options: Accessibility – from here you can choose to keep the accessibility checker running while you work or have Word generate automated alt text for you as well as other options. Keep in mind the automated alt text will attempt to describe the image, but alt text should describe the purpose or the image or the information it is conveying, not a description of the image itself.
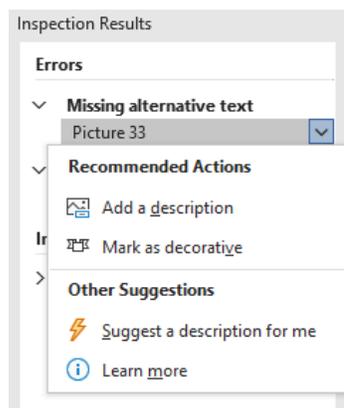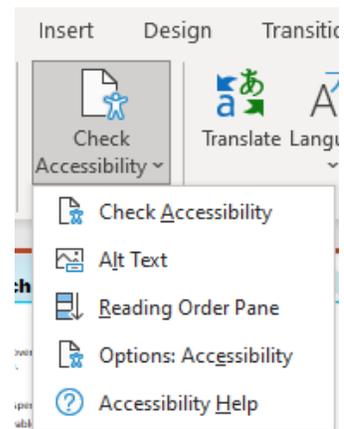
Errors can be fixed by selecting the dropdown arrow next to the item in error and choose one of the recommended actions, such as "Add a description" or "Mark as decorative" for alt text.