

Assess the Accessibility

Of

PowerPoint Documents



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## Introduction

This tutorial provides step-by-step instructions on how to determine the accessibility of PowerPoint Presentations.

### Tools

The list below contains links to the applications used in this tutorial to assess PowerPoints:

- [Colour Contrast Analyser \(CCA\)](#)
- [Microsoft PowerPoint](#)

### Further Assistance

If the PowerPoint Presentation being assessed does not meet one or more of the accessibility criteria described below, please consult with the campus office serving students with disabilities for assistance in obtaining an accessible version. Providing this access in a timely manner is critical for student success.





## Text Access

Allows users to enable text-to-speech functionality so that the text may be read aloud.

### What to do

Listen to the text

### Tool(s) to use

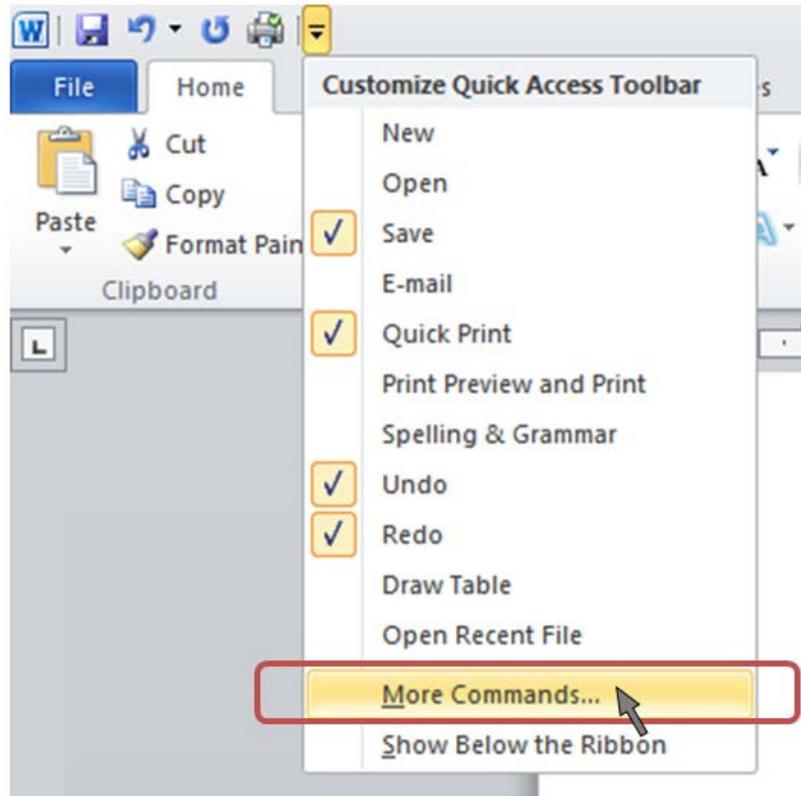
Microsoft PowerPoint for PowerPoint presentations (.ppt, .pptx) and compatible formats (.rtf)

### How to use

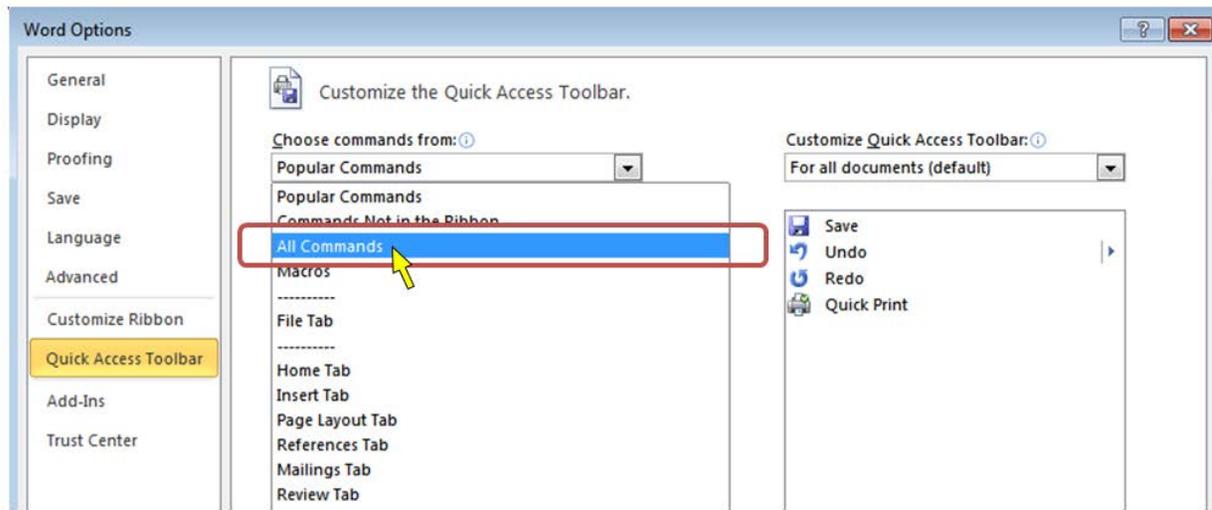
1. Open the document in Microsoft PowerPoint.



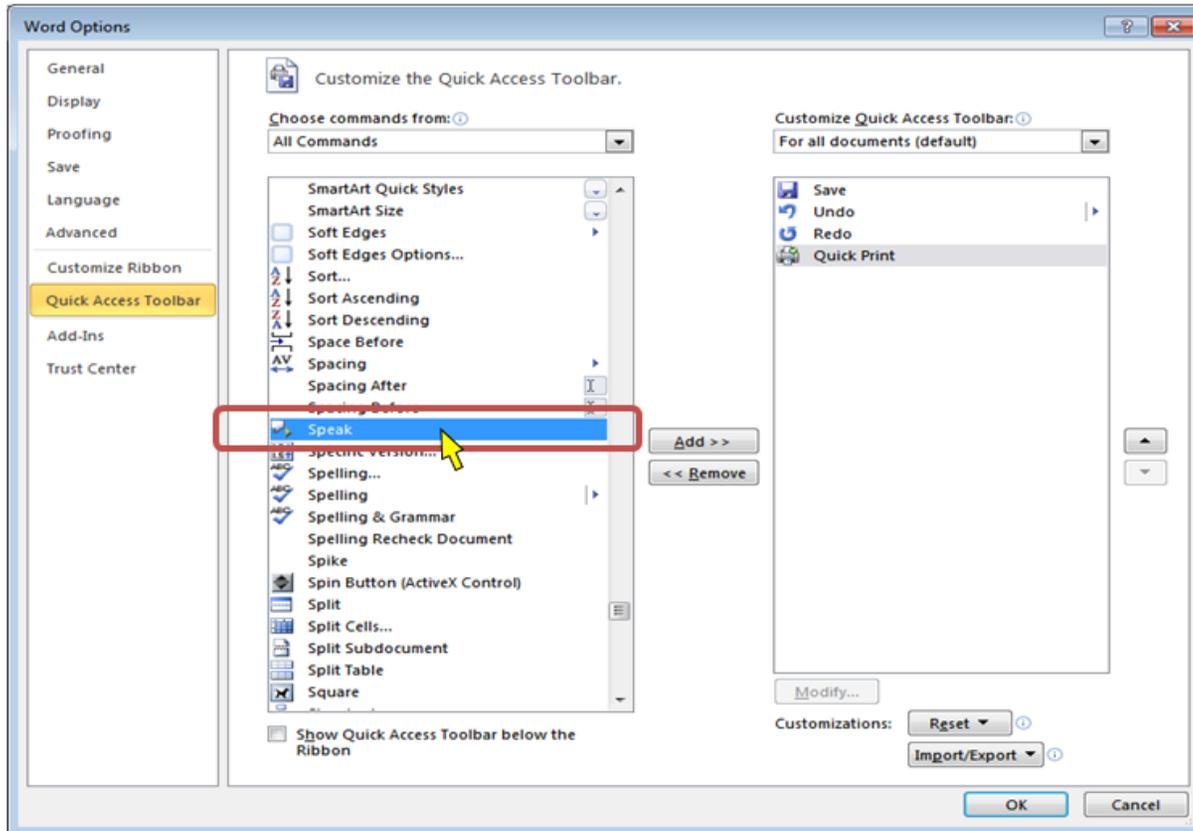
2. Select **More Commands...** from the **Custom Quick Access Toolbar**.



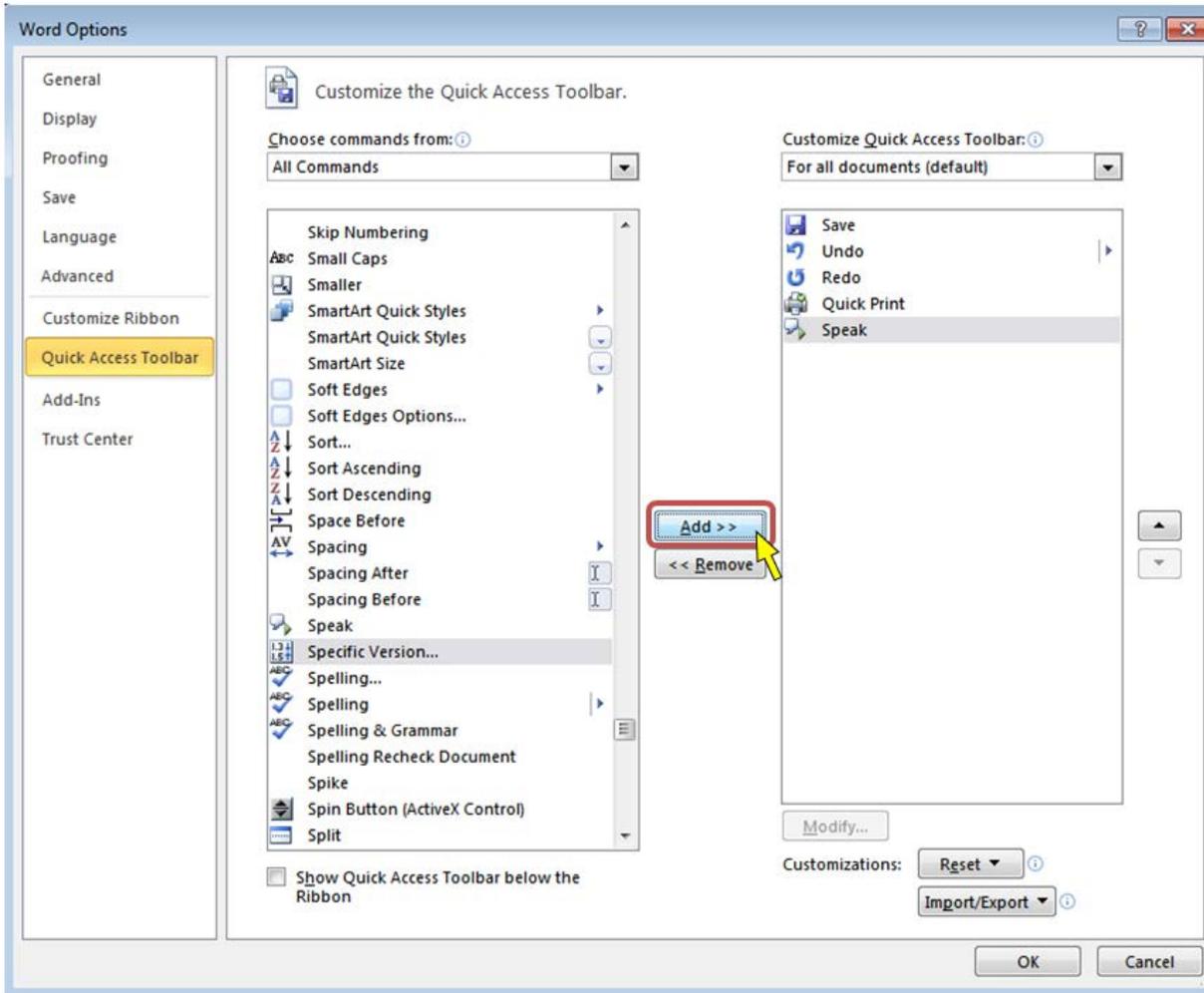
3. Select **All Commands** from the **Choose commands from:** dropdown menu.



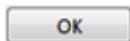
4. Select **Speak** from the list of commands on the left



5. Select the **Add >>** button



6. Select the **OK** button

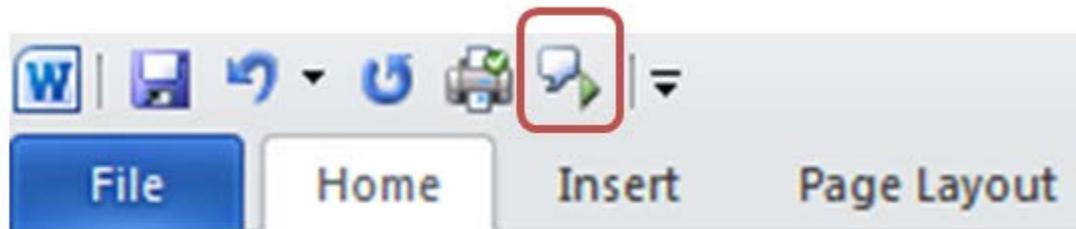


7. Select the text in the slide to be read aloud

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes.

**Note:** If the text is selectable letter by letter, then this is a good indication that the text is digital. ✓

8. If needed, enable the computer's sound and adjust it to a safe volume level to listen to Word speak the text aloud.
9. On the Custom Quick Access Toolbar, select the **Speak selected text** icon to hear the text read aloud.



## What is the Result?

- ✓ If the text can be heard using the Speak function in Microsoft PowerPoint, then it is digital text that assistive technology may be able to access for the reader.
- ✗ If the text is not selectable or cannot be read aloud by a text to speak application, such as the Speak function in PowerPoint, then the text in the material is not digital and assistive technologies may not be able to access information in the document.

## Reading Order

Reading order corresponds to visual layout.

### What to do

Check the reading order

### Tool(s) to use

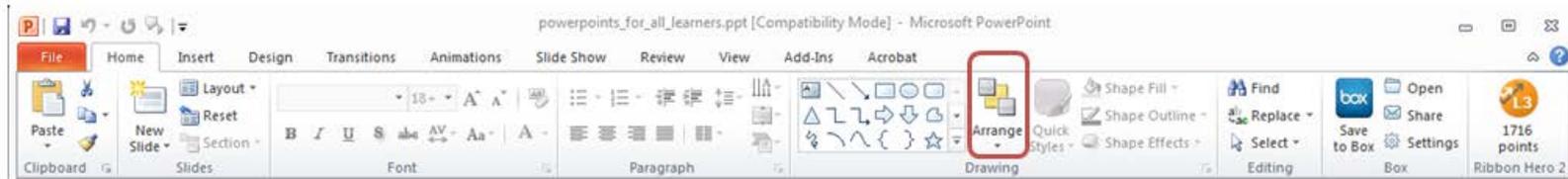
[Microsoft PowerPoint](#) for PowerPoint presentations (.ppt, .pptx) and compatible formats (.rtf)

### How to use

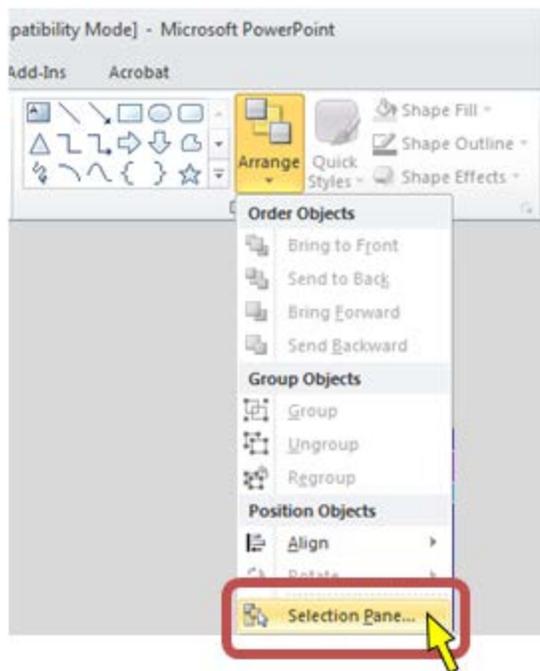
1. Open the presentation in Microsoft PowerPoint



2. In the **Drawing** group on the **Home** ribbon, select the **Arrange** dropdown menu



3. Choose **Selection Pane...**

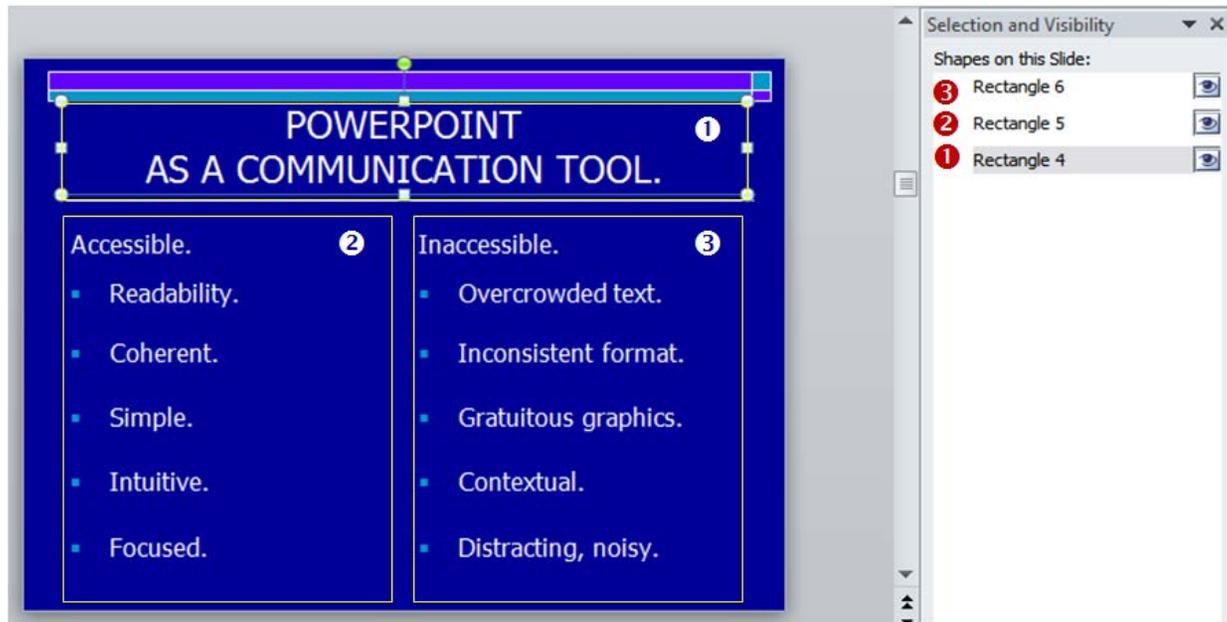


4. Select each item in the **Shapes and Visibility** pane.

**Note:** The item in the bottom of the list should correspond with the first group of content on the slide. The item in the top of the list should correspond with the last group of content. This may seem counterintuitive but it is the way the reading order is organized.

**Note:** The circled numbers are not part of Microsoft PowerPoint; they are placed on the screenshot to illustrate the order of content on the slide. The number depicts that the Title area is read first, and the column on the right is then read, followed by the second column read third.





## What is the Result?

- ✓ The PowerPoint presentation has proper reading order if the content of the slides are in the logical order intended by the author. The visual order should generally start at the top left of the slide and end at the bottom, right.
- ✗ The PowerPoint presentation does not have proper reading order if the content of the slides are not in logical order.

## Structural Markup and Navigation

The document includes structural markup such as headings and lists that can be used for navigation by assistive technology.

### What to do

Assess the structure of the document by looking for headings, lists and tables.

### Tool(s) to use

[Microsoft PowerPoint](#) for PowerPoint presentations (.ppt, .pptx) and compatible formats (.rtf)

### How to use

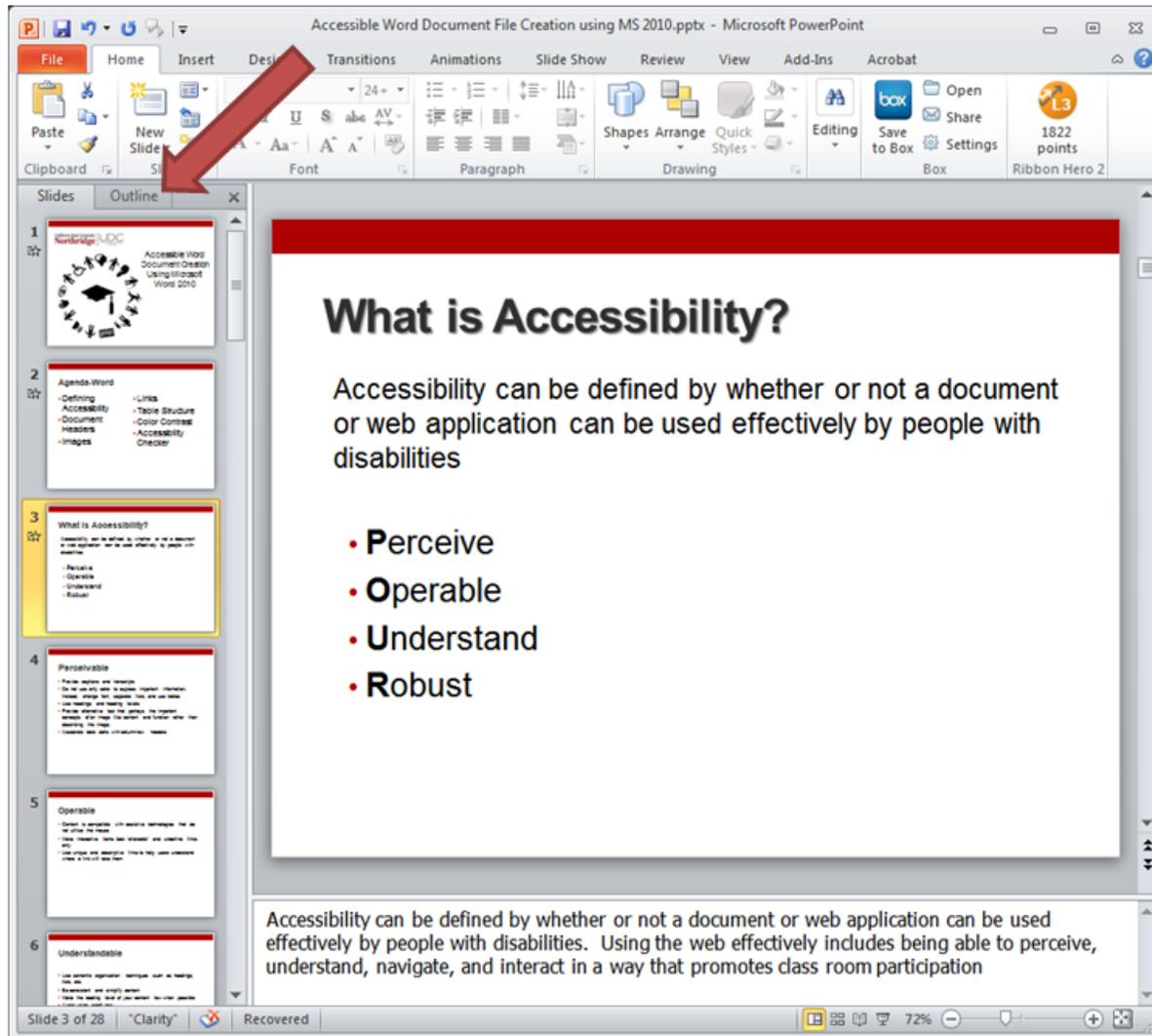
1. Open the presentation in Microsoft PowerPoint





2. In the pane on the left, select the **Outline** tab.





3. Verify that the text in each slide is also in the **Outline** pane



Accessible Word Document File Creation using MS 2010.pptx - Microsoft PowerPoint

File Home Insert Design Transitions Animations Slide Show Review View Add-Ins Acrobat

Paste New Slide

Clipboard Slides

Font Paragraph Drawing

Editing

Save to Box

Open Share

Settings

Box

Ribbon Hero 2

1822 points

Slides Outline

- Denning
  - Accessibility
    - Document Headers
    - Images
  - Links
    - Table Structure
    - Color Contrast
    - Accessibility Checker
  - What is Accessibility?  
Accessibility can be defined by whether or not a document or web application can be used effectively by people with disabilities
    - Perceive
    - Operable
    - Understand
    - Robust
  - Perceivable
    - Provide captions and transcripts
    - Do not use only color to express important information. Instead, change font, separate lists, and use tables
    - Use headings and heading levels

## What is Accessibility?

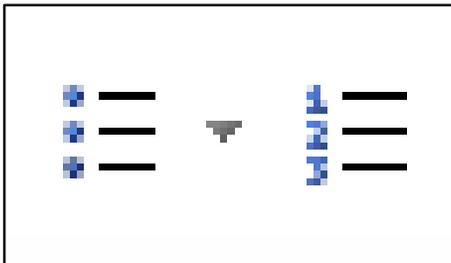
Accessibility can be defined by whether or not a document or web application can be used effectively by people with disabilities

- **Perceive**
- **Operable**
- **Understand**
- **Robust**

Slide 3 of 28 "Clarity" Recovered 72%

## What is the Result?

- ✓ The document has structural markup that can be used for navigation if the heading levels and list styles are used throughout the document.
  - Each slide has a title that displays in the outline.
  - The text of each slide displays in the outline.
  - Lists are structured using the bullet and/or number list function(s)



- ✗ The document does not have a proper structural markup if:
  - The document contains what looks like titles and lists, but the corresponding structure is not used.
  - The text in the slide does not appear in the outline

## Tables

Data tables include markup that identifies row and column headers.

### What to do

If the Power Point being assessed does not meet one or more of the accessibility criteria described below, please consult with the campus office serving students with disabilities for assistance in obtaining an accessible version. Providing this access in a timely manner is critical for student success.



# Hyperlinks

Allows users to understand a link's destination and what the name of the resource is that they are linking to.

## What to do

Verify that links have a recognizable meaning and are functional.

## Tool to use

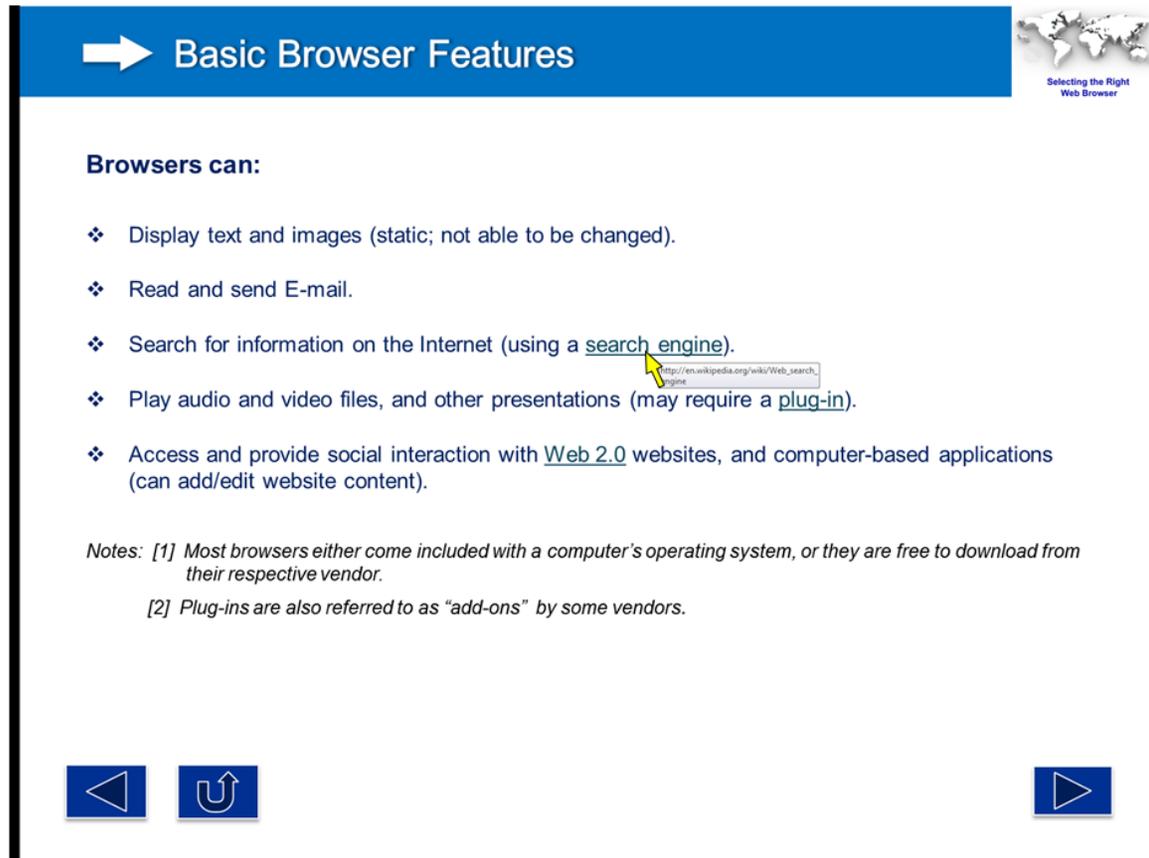
[Microsoft PowerPoint](#) for PowerPoint presentations (.ppt, .pptx) and compatible formats (.rtf)

## How to use

1. Open the PowerPoint document



2. Browse through the document and look for links.



The screenshot shows a presentation slide with a blue header bar containing a white arrow pointing right and the text "Basic Browser Features". In the top right corner, there is a small world map icon with the text "Selecting the Right Web Browser". The main content area lists "Browsers can:" followed by five bullet points, each starting with a blue diamond symbol. The first bullet point is "Display text and images (static; not able to be changed).". The second is "Read and send E-mail.". The third is "Search for information on the Internet (using a [search engine](#)).", where a mouse cursor is hovering over the link, showing a tooltip with the URL "http://en.wikipedia.org/wiki/Web\_search\_engine". The fourth is "Play audio and video files, and other presentations (may require a [plug-in](#)).". The fifth is "Access and provide social interaction with [Web 2.0](#) websites, and computer-based applications (can add/edit website content).". Below the list, there are two notes: "[1] Most browsers either come included with a computer's operating system, or they are free to download from their respective vendor." and "[2] Plug-ins are also referred to as 'add-ons' by some vendors." At the bottom of the slide, there are three navigation icons: a left-pointing triangle, a circular arrow, and a right-pointing triangle.

**Basic Browser Features**

**Browsers can:**

- ❖ Display text and images (static; not able to be changed).
- ❖ Read and send E-mail.
- ❖ Search for information on the Internet (using a [search engine](#)).
- ❖ Play audio and video files, and other presentations (may require a [plug-in](#)).
- ❖ Access and provide social interaction with [Web 2.0](#) websites, and computer-based applications (can add/edit website content).

Notes: [1] Most browsers either come included with a computer's operating system, or they are free to download from their respective vendor.  
[2] Plug-ins are also referred to as "add-ons" by some vendors.

3. Manually check the links by selecting them.

4. Verify that the link goes to the expected destination.

## What is the Result?

- ✓ All users may be able to use the links included in a document if they are understandable and work properly.

The hyperlinks in a document are operable and understandable if:

- The links go to their appropriate destination.
- The link text for the link clearly states where it will lead. A link labeled “Word doc” does not tell a person where it is linking to, especially when taken out of context of the text around it.

Below is a list of links that do not have meaningful names:

“Click here”

“Next document”

“New document”

“here”

“Link”

- Links are well labeled if the link text is understandable when extracted from the surrounding text.
- Many users navigate a page by listing the links without the surrounding text.

✘ Users may not be able to use the links included in a document if they are not understandable or do not work as expected. Hyperlinks are not useful to users if:

- Links are broken
- Links do not have meaningful text
- Link text is “Click here”, “About”, “More Info”, “More”, etc.
- Links do not look different from its surrounding text

## Color as Information

When information is conveyed using color, a second technique is necessary for users that cannot perceive colors.

### What to do

Look for content that conveys meaning through the use of only color.

### Tool to use

[Microsoft PowerPoint](#) for PowerPoint presentations (.ppt, .pptx) and compatible formats (.rtf)

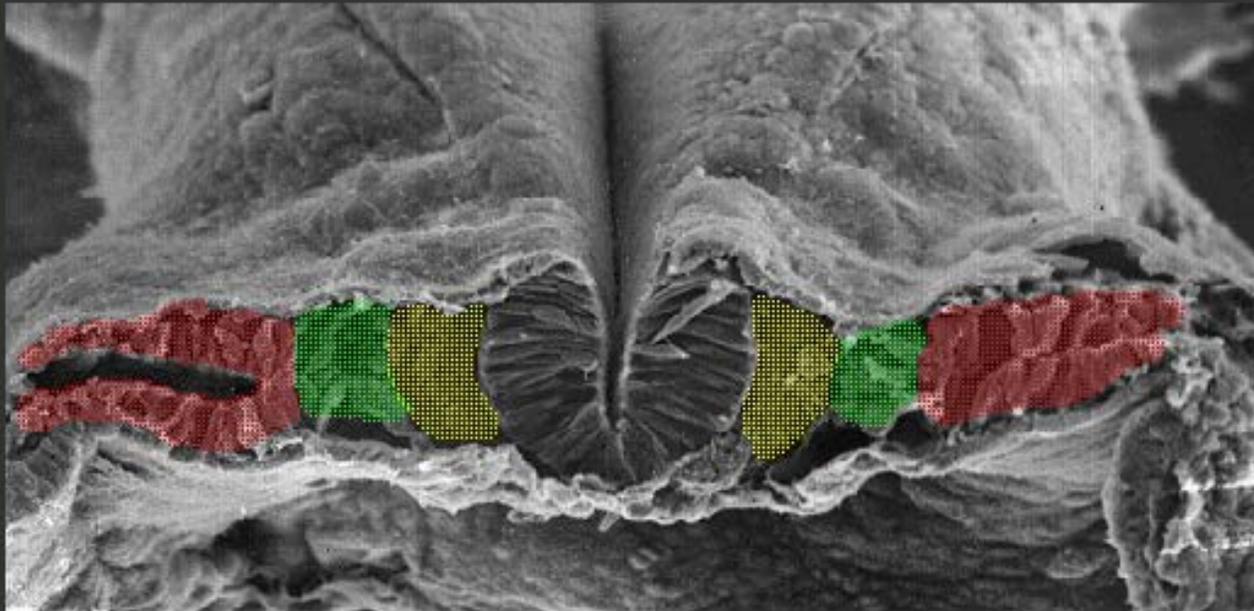
### How to use

1. Open the PowerPoint document





2. Read through the content and look for instructions or descriptions that require readers to interpret colors. In the screenshot below, the Intraembryotic mesoderm section with the paraxial, intermediate and lateral plate portions being differentiated with color only. Paraxial is yellow, intermediate is green, and lateral plate is red.



... illustrates that the intraembryonic mesoderm differentiates into **paraxial**, **intermediate**, and **lateral plate** portions.

## What is the Result?

- ✓ Users may visibly perceive information and instruction when alternative distinguishing features are used such as:



- The use of **Strong**, larger, or italic font is used in combination or instead of color
- The use of symbols, such as asterisk (\*) or pound (#), is used in combination or instead of color.
- The use of an underline or pattern is used in combination or instead of color.

Using any of these alternatives may be beneficial to users who are colorblind.

- ✗ Users may not be able to visibly perceive information and instruction if they are color dependent. Users with colorblindness may not be able to use the document because there are no alternatives to color available.

## Color Contrast

High contrast helps users distinguish between text and the background on which the text appears. Tools can test for the proper contrast ratio of 4.5:1 provided between the text (foreground) and its background.

### What to do

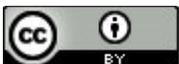
Analyze the color contrast between text and its background.

### Tool(s) to use

[Colour Contrast Analyser](#) (CCA)

### How to use

1. Open the PowerPoint document.





2. Open the Colour Contrast Analyser.



3. Scan the page for text with color combinations other than black text with white backgrounds (and vice versa)

## Jeopardy!

The Students	The Journey	The Law	Anything Goes
<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>
<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>
<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>

<http://www.merlot.org/merlot/downloadFile.htm?fileName=Nanabek%2fIntroductory+Inclusion+jea.gm.pptx>

- Using the CCA's **Foreground Colour Sampler**, select the color of the text by placing the cross hair in the center of the letter.



# Jeopardy!

The image shows a Jeopardy! game board with four columns: 'The Students', 'The Journey', 'The Law', and 'Anything Goes'. The 'The Students' column has a '\$100' value with a crosshair cursor. A 'Colour Contrast Analyser' window is overlaid on the '\$100' value, showing a contrast ratio of 21.0:1 and 'Pass(AAA)' results for both 'Text' and 'Large text'.

The Students	The Journey	The Law	Anything Goes
\$100	\$100	\$100	\$100
\$200	\$200	\$200	\$200
\$300	\$300	\$300	\$300
\$400	\$400	\$400	\$400
\$500	\$500	\$500	\$500

- To analyze the contrast, use the **Background Colour Sampler** and place the crosshair just outside of the letter previously selected.

# Jeopardy!

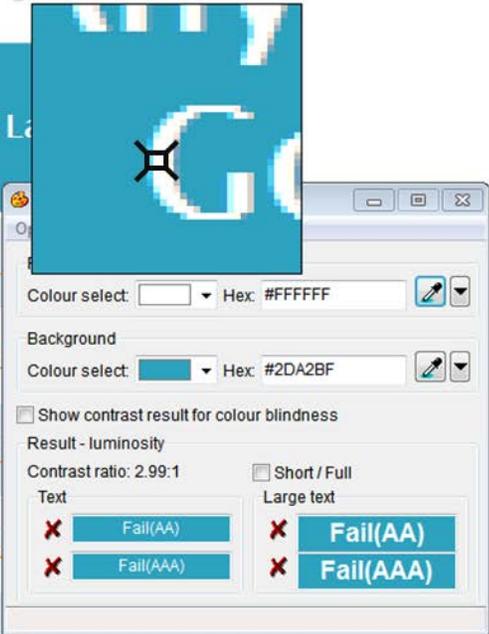
The image shows a Jeopardy! game board with four categories: 'The Student', 'The Journey', 'The Law', and 'Anything Goes'. The board is a grid of clues with values ranging from \$100 to \$500. A 'Colour Contrast Analyser' window is overlaid on the '\$100' clue in the 'The Student' category. The tool shows a contrast ratio of 1.8:1, which is below the required 4.5:1 for AA and 7:1 for AAA. The tool also indicates 'Fail(AA)' and 'Fail(AAA)' for both 'Text' and 'Large text' settings.

The Student	The Journey	The Law	Anything Goes
<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>
<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>
<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>

**Note:** Use the Colour Contrast Analyser. Do not assume that the contrast is accessible without using a color contrast analyzing tool. Sometimes, the contrast between text and background may appear like it should pass a color contrast test, but when tested, failed due to low contrast.

# Jeopardy!

The Students	The Journey	The Land
<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$300</u>	<u>\$300</u>	<u>\$300</u>
<u>\$400</u>	<u>\$400</u>	<u>\$400</u>
<u>\$500</u>	<u>\$500</u>	<u>\$500</u>



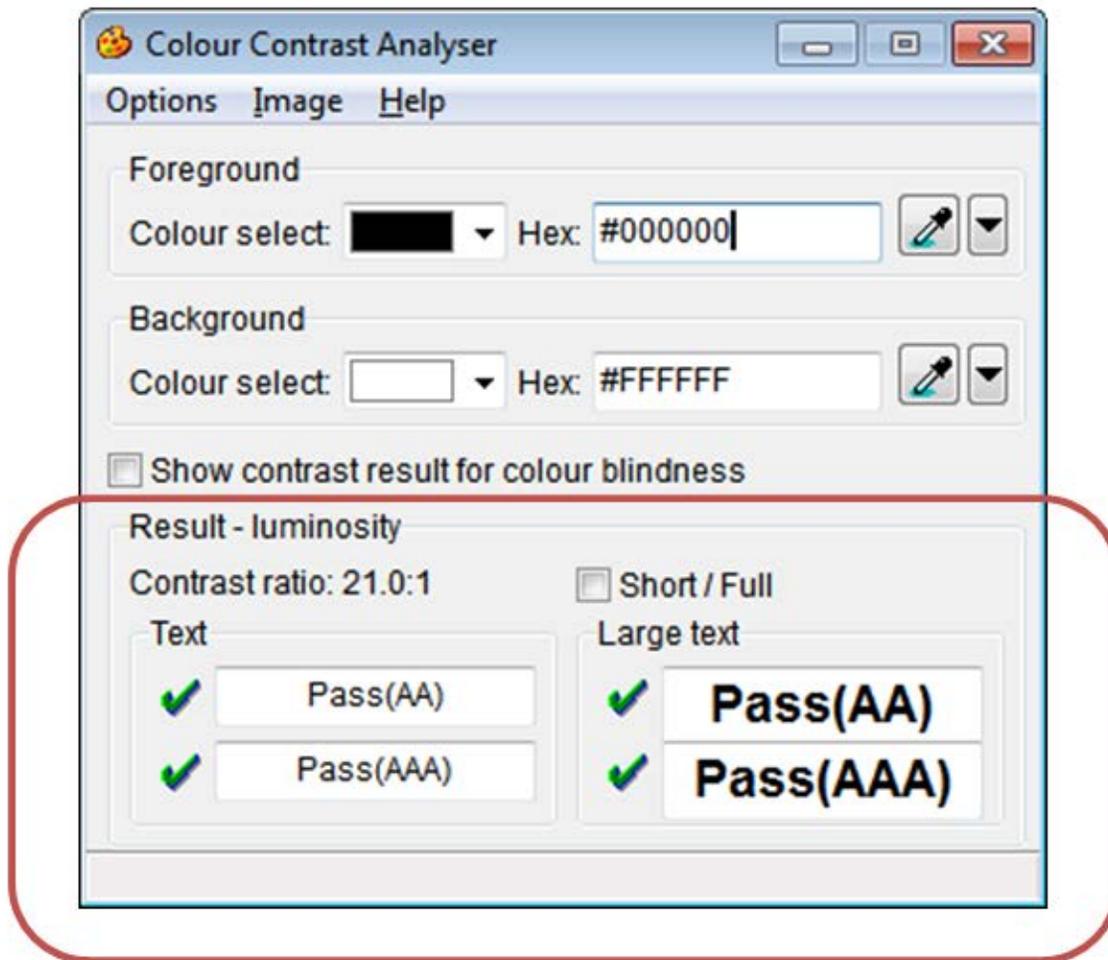
The image shows a screenshot of a Jeopardy! game board. The board has a teal header with three columns: "The Students", "The Journey", and "The Land". Below the header are five rows of dollar amounts: \$100, \$200, \$300, \$400, and \$500. A color contrast checker tool is overlaid on the board, showing a contrast ratio of 2.99:1. The tool has two sections: "Text" and "Large text". Both sections show "Fail(AA)" and "Fail(AAA)" results, indicating that the contrast is not sufficient for accessibility.

6. Review the results of at the bottom of the CCA.

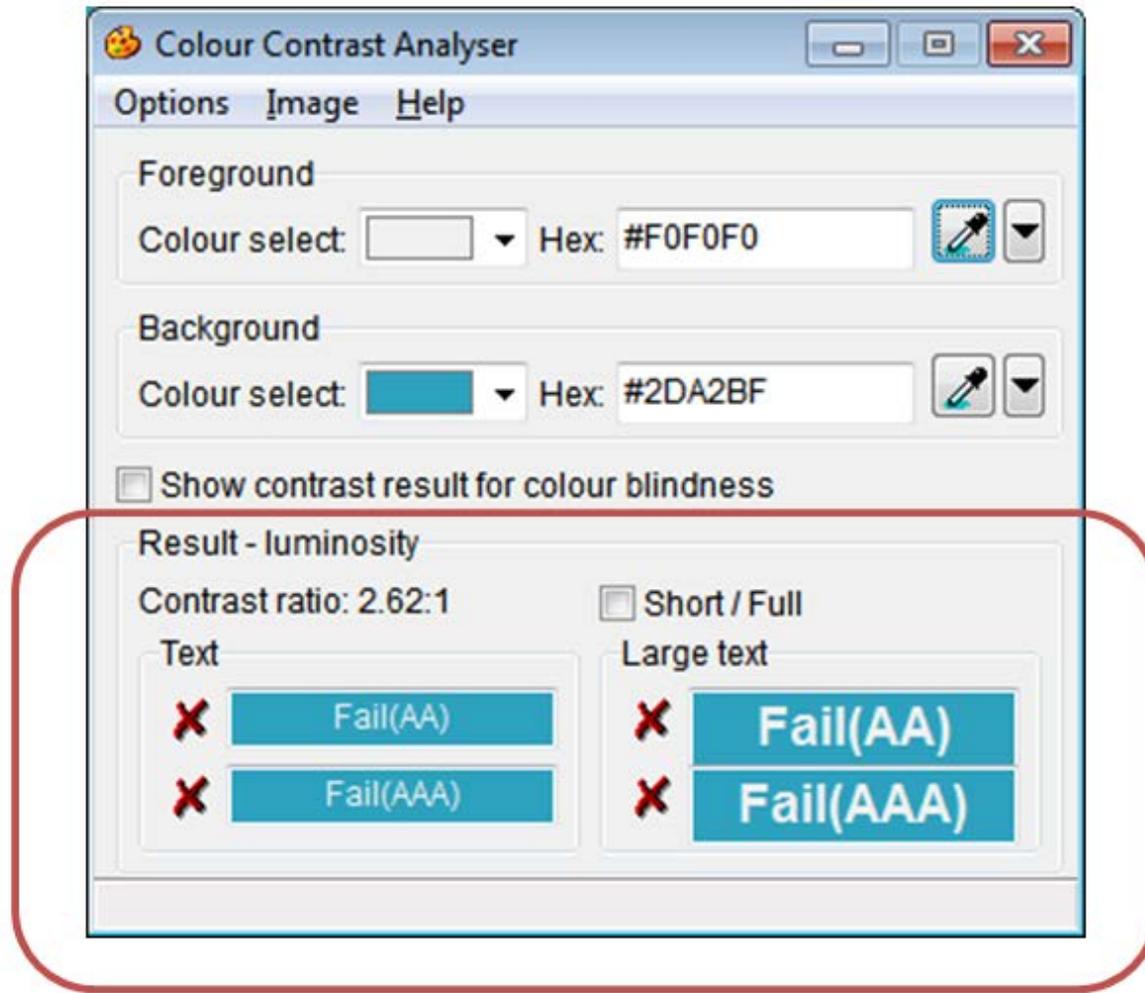
## What is the Result?

- ✓ If there is a green check mark next to the word **Pass (AA)**, then the text and foreground color combination has a high enough contrast that is suitable for most people.





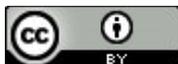
- ✗ If there is a red x next to the word **Fail (AA)**, then the text and foreground color combination does not have a high enough contrast and people with color blindness may not be able to read the text.



# Jeopardy!

The Students	The Journey	The Law	Anything Goes
<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
<u>\$200</u>	<u>\$200</u>	<u>\$200</u>	<u>\$200</u>
<u>\$300</u>	<u>\$300</u>	<u>\$300</u>	<u>\$300</u>
<u>\$400</u>	<u>\$400</u>	<u>\$400</u>	<u>\$400</u>
<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>

<http://www.merlot.org/merlot/downloadFile.htm?fileName=Nanabek%2fIntroductory+Inclusion+jea gm.pptx>





## Images

Meaningful images should be described for all users. As authors, consider what message the image is meant to provide. If it is meaningful, a brief description of the intended information should be provided.

### What to do

Check the images in the document for alternative text or a description of the image in the surrounding text.

### Tool(s) to use

[Microsoft Word](#) for Word documents (.doc, .docx) and compatible formats (.txt, .rtf, .wps, .wpd)

### How to use

1. Open the PowerPoint document

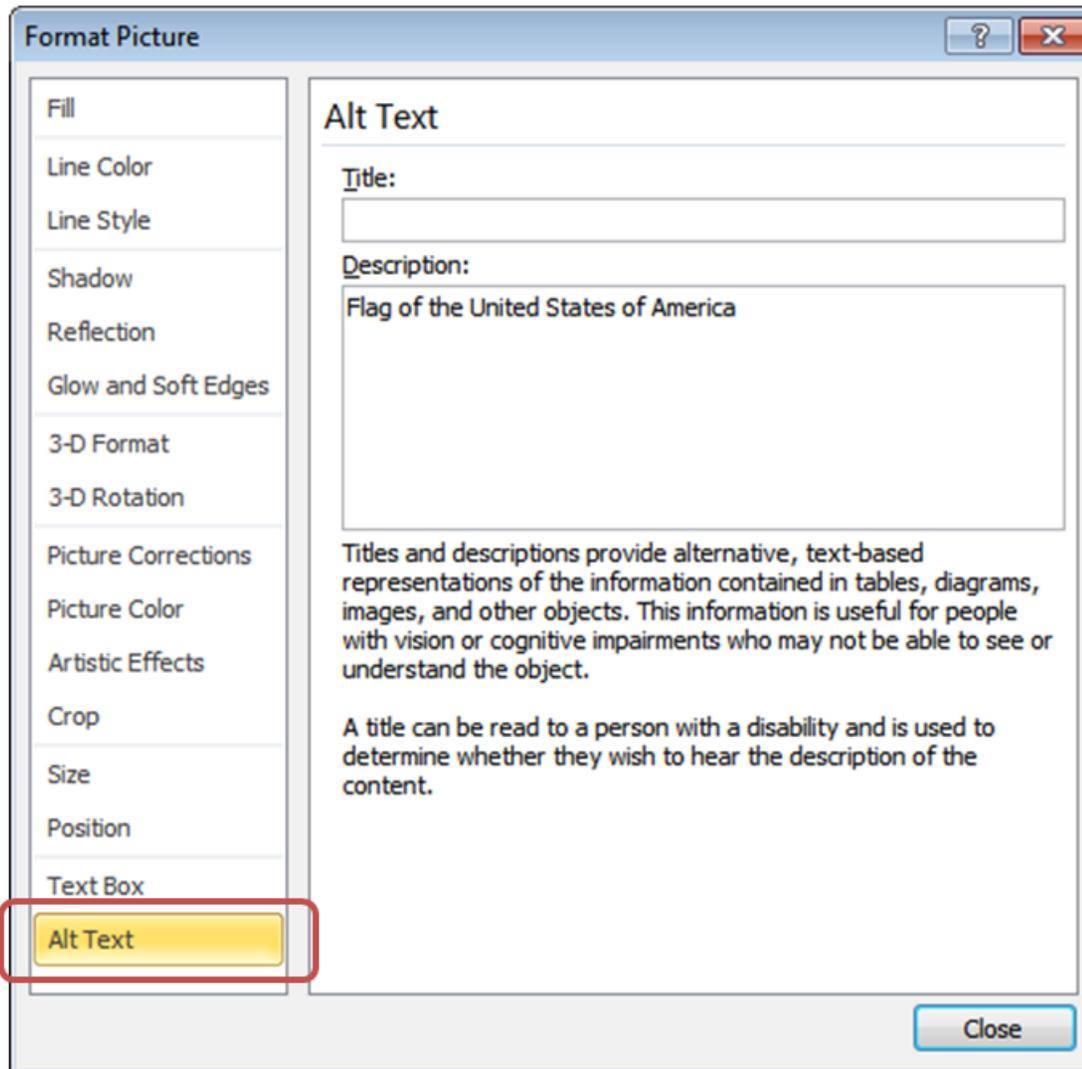




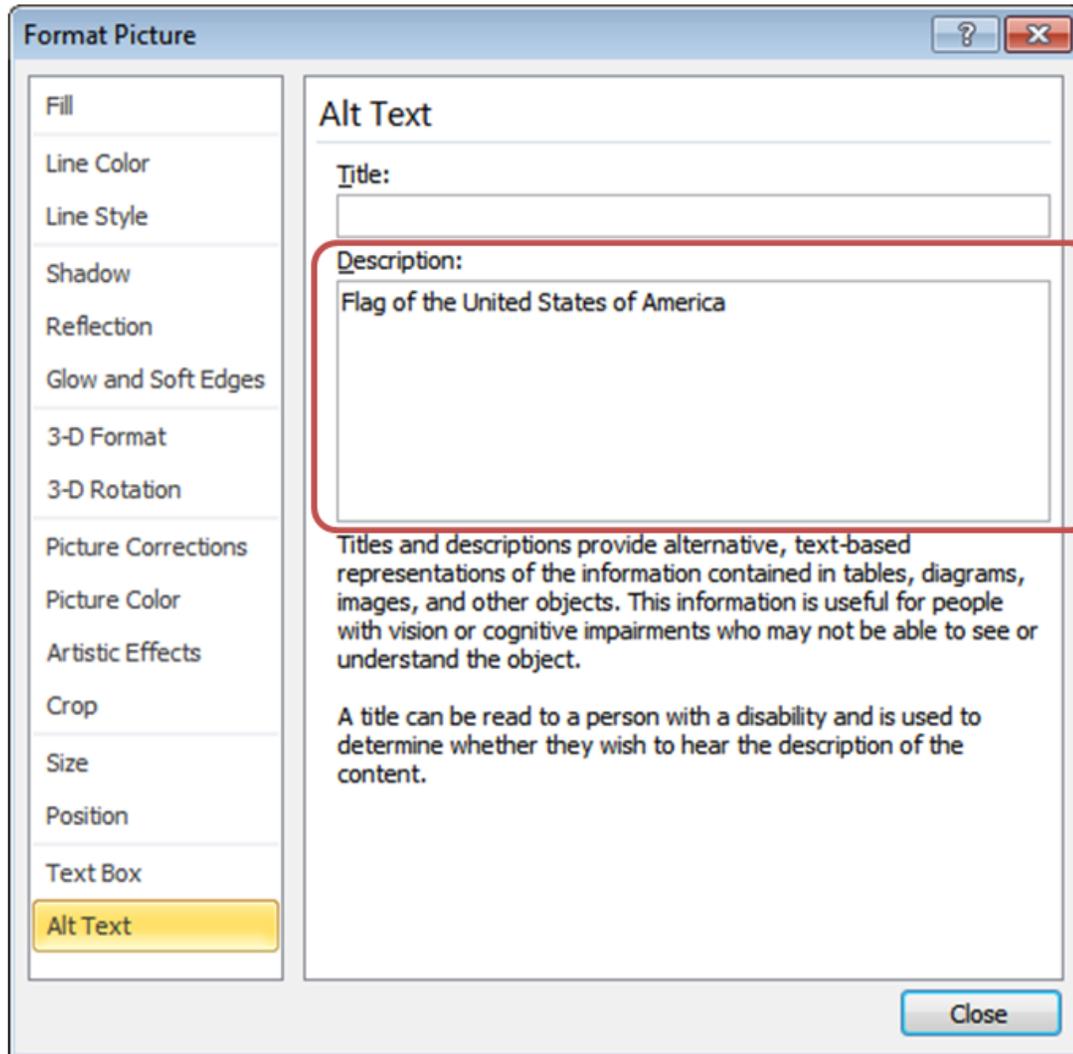
2. Right click on the image and select **Format Picture...**, **Format Object...** or **Format Shape...** at the bottom of the shortcut menu.



3. Select **Alt Text** in the menu to the left to displays the alternative text for this image.



4. Read the alternative text in the **Description:** field





## What is the Result?

✓ If the **Description:** section of Alt Text contains a short description of the image's function, meaning or content, then the document has appropriate alternative text. The image has proper descriptions if:

- The alternative text description is short and meaningful. The image may be described to assistive technology users.
- Complex images, charts, and graphs are described in surrounding text for all users to read. Complex images may also be supplemented with a link to additional information.
- Decorative images do not have alternative text descriptions. These images may be ignored by assistive technology which decreases the amount of non-important information the user of assistive technology will hear.

**Note:** The following images do not need to have alternative text descriptions: ✓

- decorative images
- unimportant images
- important images that are described in a paragraph above or below

✗ The document does not have proper alternative text if:



- The **Description:** field is blank.
- The **Description:** field does not have a short description of the image's function, meaning or content.
- The **Description:** field contains a web address (unless the image is of a simple, high level web address)

