DOCUMENTS AND WEB ACCESSIBILITY

Presentation By
Jesse Armijo

OUTLINE OF PRESENTATION

- Accessible Documents
  - Microsoft Word
  - Microsoft PowerPoint
  - Microsoft Excel
  - Adobe Acrobat Pro PDF

- Website Accessibility
  - Laws
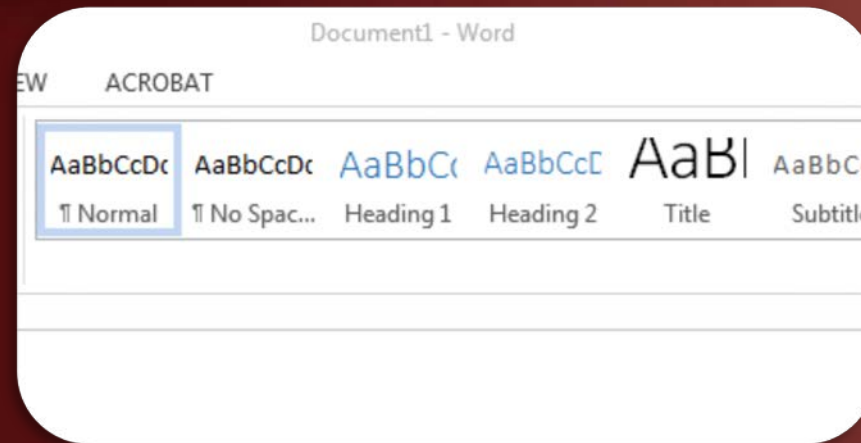 - Issues and Fixes
  - Accessibility Evaluation Tools

MICROSOFT WORD

USE APPROPRIATE DOCUMENT STYLES

- When creating a Word document, remember to use heading and paragraph styles in order to create a structure for the document.

- Most individuals just create different font sizes or use **BOLD**.

DOCUMENT STYLES CONT.

- This will allow AT, like screen readers to move through a Word document with ease, from left to right.

- When exporting to either a PDF or HTML, the Word document will retain its structure.

- The goal is to keep the document clean and have a structure that goes from one heading to the next.

LISTS AND COLUMNS

Lists and columns can be used to break up and simplify content for individuals with cognitive disabilities.

Using these tools also provides the proper mark up for assistive technology.
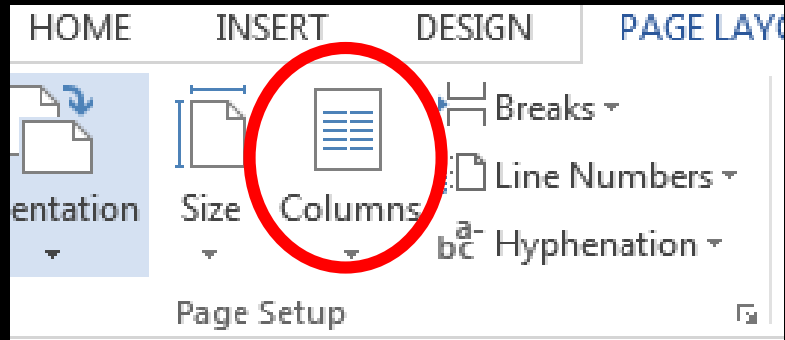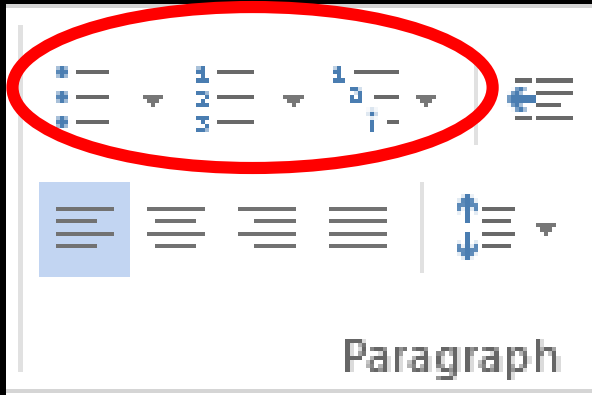
HAVE SHORT HEADING TITLES

- Try and keep heading titles under 20 words or within the first line.

Test Document

By Jesse Armijo

Keeping Accessibility in Mind with Document Creation
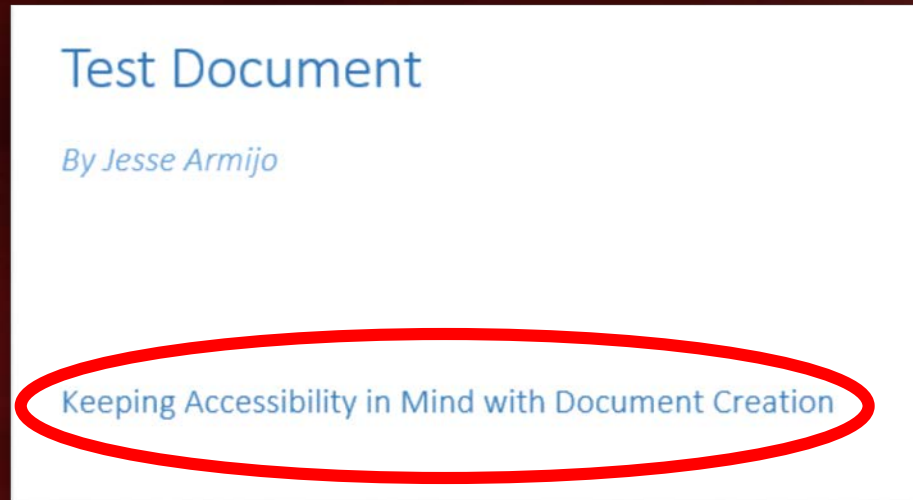
- The above title only has 7 words. Keep it short and sweet.

USE APPROPRIATE NAMES FOR HYPERLINKS

- More often than not, you'll see a link that just says: **CLICK HERE.**

- Screen Reader users will not know what they are clicking into and this can cause confusion.

Click here for links to accessible documents.

VS.

Accessible Documents
Click Here

Describe the Link

ALTERNATIVE TEXT

- Alternative Text is important because it will let individuals who are blind or visually impaired, know what the content is of a non-text graphic.

- Without Alternative Text, screen reader users will not know that there are any graphics on the page.

This is unacceptable.
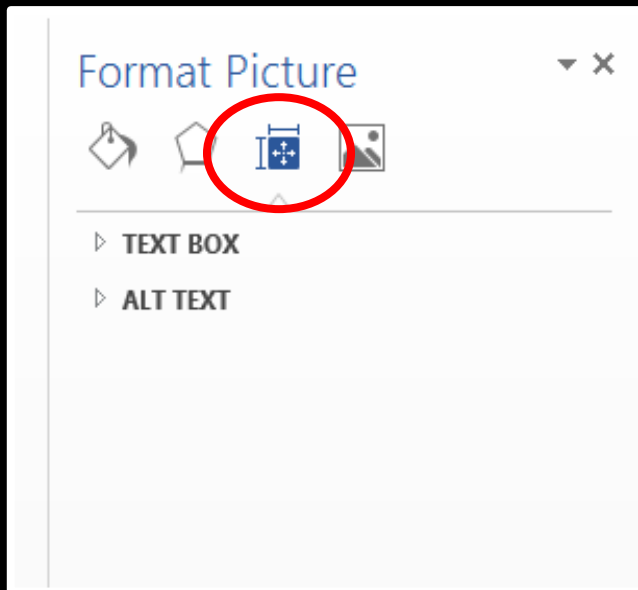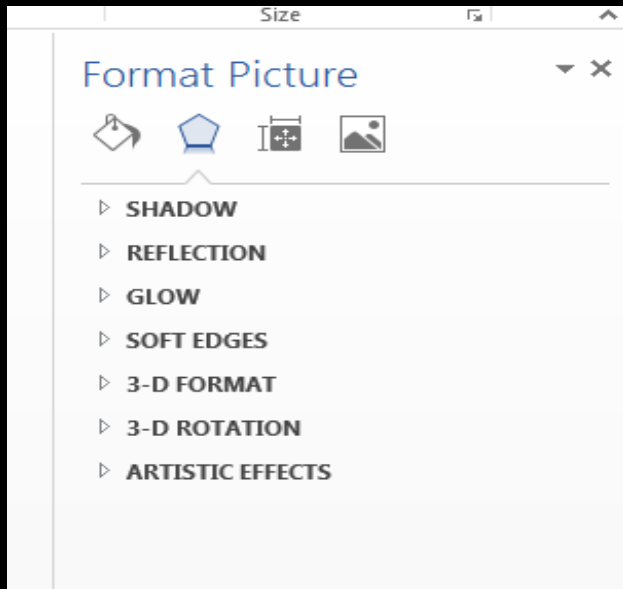
HOW TO ADD ALTERNATIVE TEXT

STEP 1 - Right click your picture and select the option at the bottom of the screen called **FORMAT PICTURE**.

STEP 2 - Select the third option, which is highlighted to left. Under this option, open the tab that says **ALT TEXT**.

ALTERNATIVE TEXT CONT.

STEP 3 - Once the Alt Text is selected, you will see two options to choose. **TITLE** and **DESCRIPTION**.
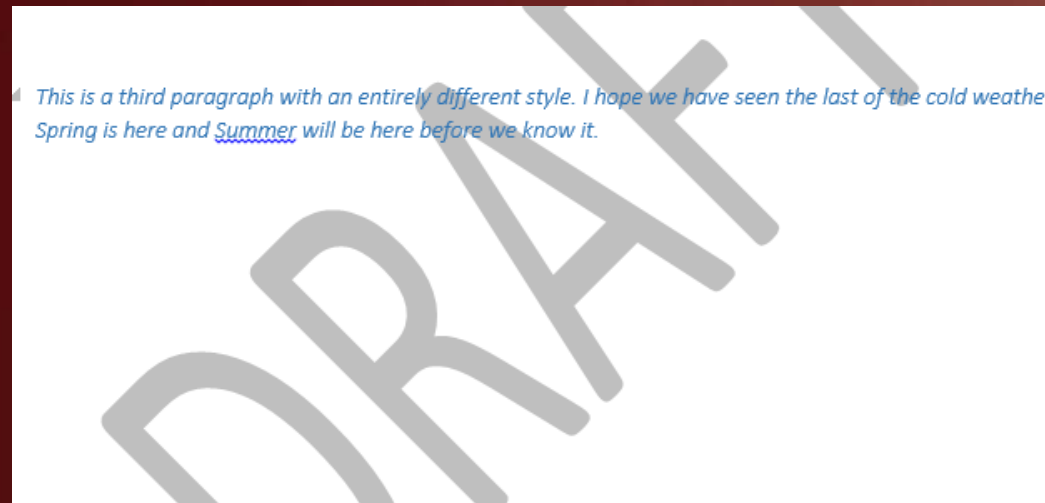
STEP 4 - Add the Alternative Text to the **DESCRIPTION**. Text entered in Title field will not transfer over when you export to a PDF or HTML.
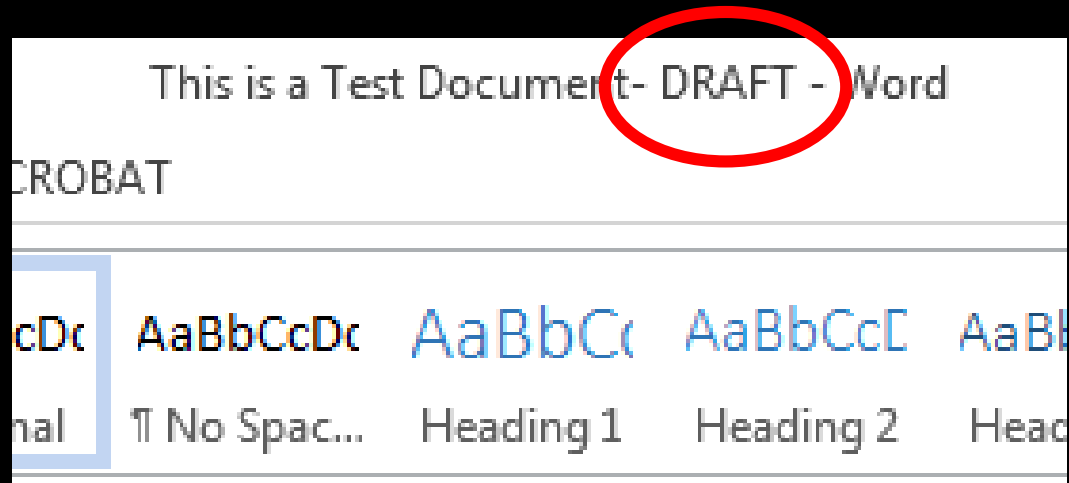
AVOID BLANK CHARACTERS

- Avoid adding any extra spaces to the Word document. This also includes extra paragraphs or tabs.

- If these are left in the Word document, this can cause screen reader users to hear the word "Blank" which can cause confusion.

- Formatting is key to avoid this confusion and adding correct indentation where applicable.

WATERMARKS

- When creating documents, you will also want to be wary of using watermarks.

- Watermarks can be troublesome to individuals with visual impairments or cognitive disabilities.

This is a third paragraph with an entirely different style. I hope we have seen the last of the cold weather Spring is here and Summer will be here before we know it.
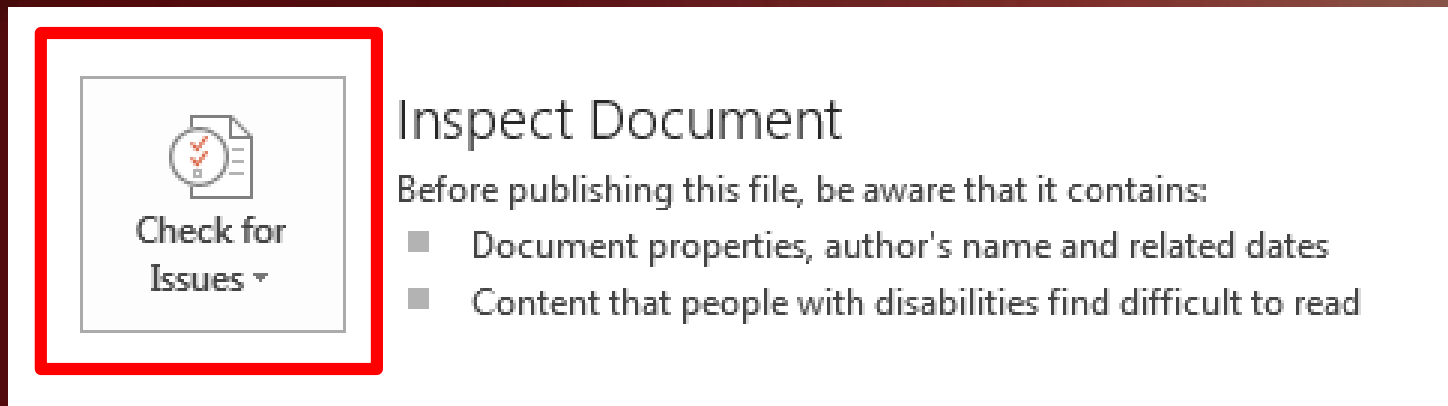
WATERMARKS CONT.

Instead of adding a watermark to the entire document, the creator can simply put the words **DRAFT**, **CONFIDENTIAL**, **URGENT**, etc. as the document title or heading.

ACCESSIBILITY CHECKER

- Microsoft Word also comes with a built-in accessibility checker for document creators.

- After the document is complete, run it through the accessibility checker and see if it catches any errors.

ACCESSIBILITY CHECKER CONT.

Once the Accessibility Checker is on, it will scan the whole document for warnings. It will show
you the warnings on the right
panel.

When you click on one of the issues,
it will send you to where they are
located on the page, and allow
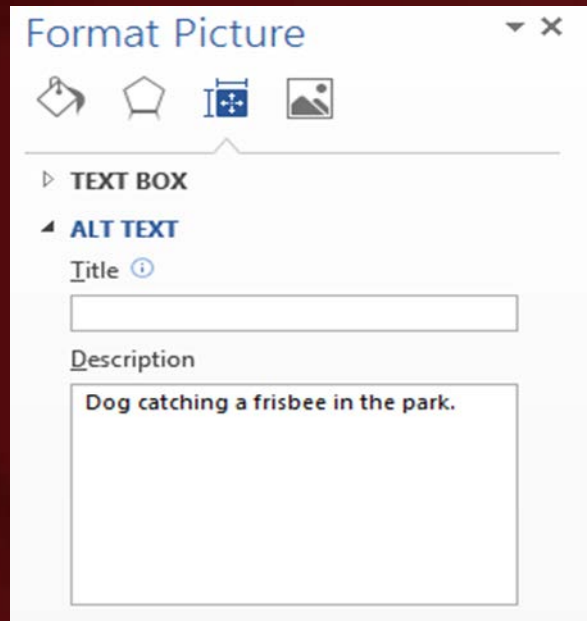the creator to fix them.

Accessibility Checker

Inspection Results

WARNINGS

▲ Repeated Blank Characters
    4 Characters
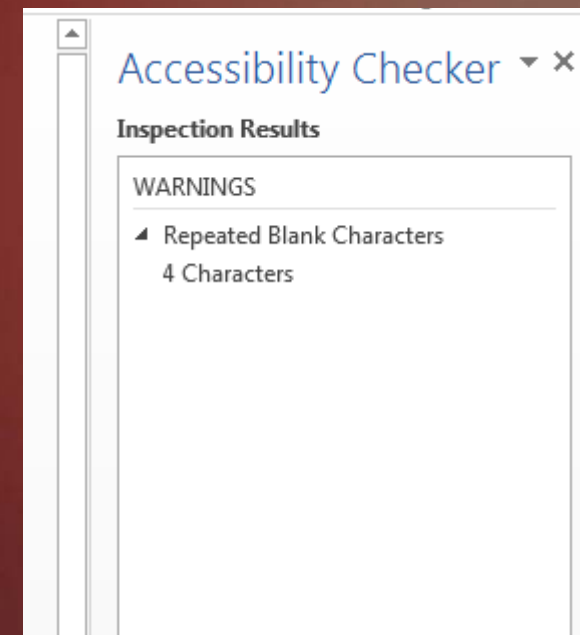
This is a good way to check accessibility, but it is always a good rule of thumb to do a more comprehensive check.

SIMILAR ISSUES THAT MAY ARISE WITH POWERPOINT

- **Alternative Text**: Can also be fixed by adding a description for each photo or graphic.

- **Hyperlinks**: Make sure to use appropriate names for hyper-links, to avoid confusion for screen reader users.

Format Picture

TEXT BOX

ALT TEXT

Title ⓘ

Description

Dog catching a frisbee in the park.

Click here for links to accessible documents.

VS.

Accessible Documents

Click Here

GIVE EACH SLIDE A PROPER TITLE

- Keep them concise and to the point. Try to keep it on one line if possible.

- An individual, who is using a screen reader, will navigate through the PowerPoint and use the titles as a way to find the right content.

Assistive Technology for Hearing

DATA TABLES

Name	Favorite Food	Favorite Color
Charlie	Enchiladas	Orange
Sophia	Spaghetti	Purple

- Can present content in an organized way.

- Make a simple data table.

- NEVER draw a table.

- Remember to include alt-text for the table.

READING ORDER

- Someone using a Screen Reader will have these items on a slide read back to them.

- You will want to make sure the items are read back in the order that you want.

- As the document creator, make sure the content is displayed properly for individuals with visual impairments.
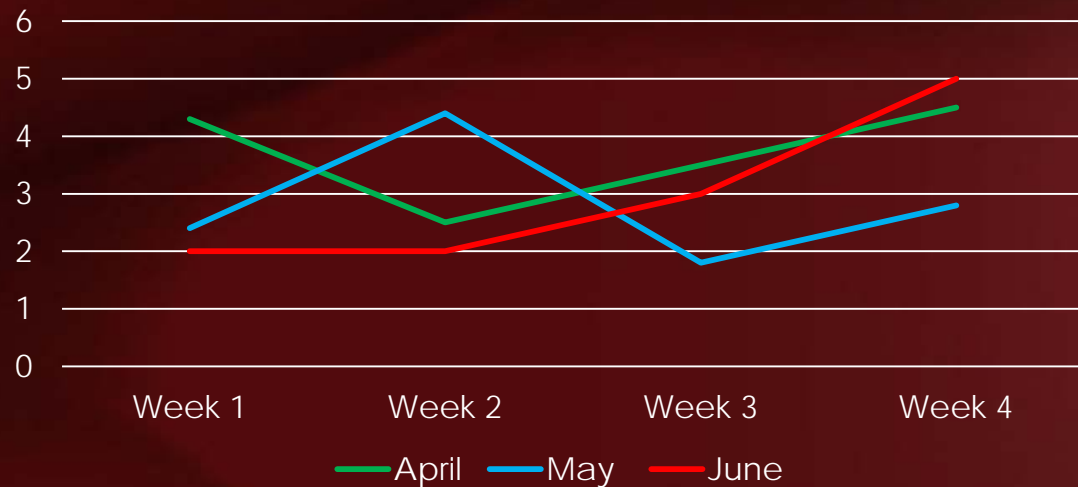
VIDEO CLOSED CAPTIONS

- All video and audio components need to have closed captioning or audio description.

- For any embedded audio, a transcript should also be provided to the user.

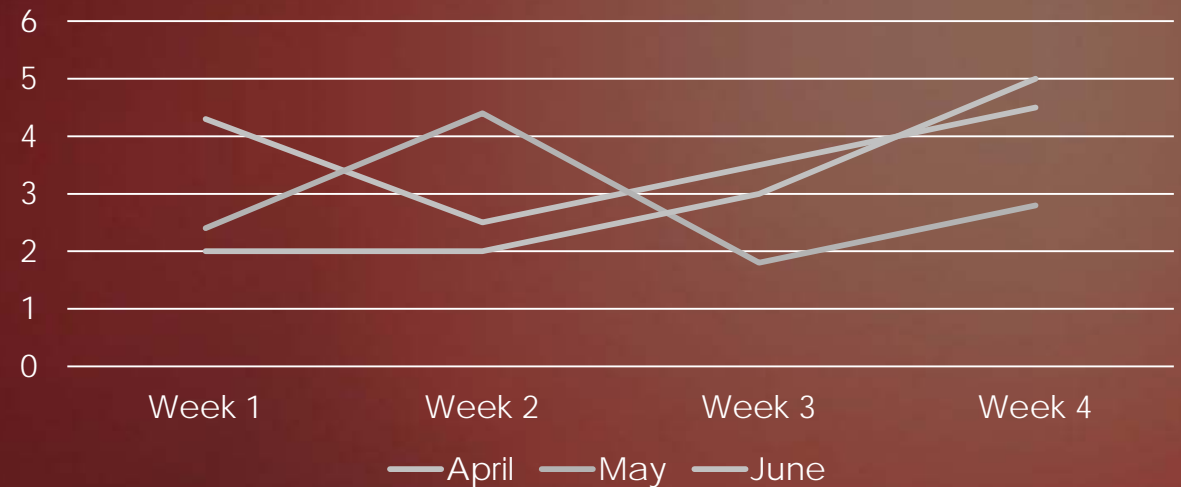- More on this topic to follow in later slides for website accessibility.

DON'T USE COLOR TO CONVEY MEANING

Sales for 2016 — Line chart with Week 1–Week 4, values 0–6, series April (green), May (blue), June (red)

Sales for 2016 — Line chart with Week 1–Week 4, values 0–6, series April, May, June (all gray)

OTHER ISSUES TO BE AWARE OF

- Color choices for PowerPoints.

- Fill in the document properties of the PowerPoint. This will include the title, subject, and author.

- Double check the font size, especially if the PowerPoint will be displayed on a projector.

- Avoid complex or automatic slide transitions when possible. This can be troublesome for cognitive disabilities.

- Use simple language on the slides. Keep it clear and concise.

- You can also use the ACCESSIBILITY CHECKER for this program.

SIMILAR ISSUES THAT MAY ARISE WITH EXCEL

- Remember to add Alt-Text to any graphics you may be including in the excel spreadsheet.

- Keep color in mind when forming your spreadsheet. Use high contrast colors. Try printing in Black/White to see how it reads.

- Make sure to use appropriate names for hyperlinks, to avoid confusion for screen reader users.

- Add document properties that include the subject, title, and author of the spreadsheet.

NAME THE SPREADSHEET TABS

- Give each spreadsheet tab a name so it can be identified by the user. This will also make it easier for a screen reader user to navigate through the workbook.

- Do not leave blank sheets in the spreadsheet. Delete them before completion.
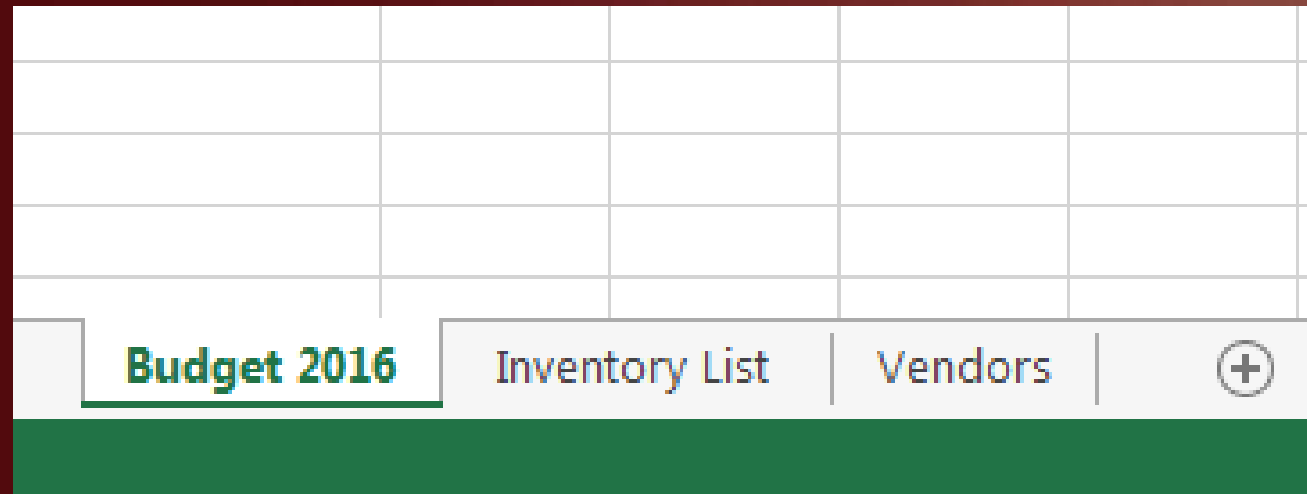
TITLES FOR COLUMNS

- Keep your titles in the first row and column for each new category.

- This is important because screen readers will read from left to right.

A	B	C	D
Test Title #1	Test Title #2	Test Title #3	Test Title #4

BE SURE TO REMOVE BLANK ROWS AND COLUMNS

- Since screen readers will read an Excel Spreadsheet from left to right, the document creator will want to delete any extra rows and columns.

- If this isn't done, the screen reader will keep reading a bunch of blank cells which can cause confusion.

C	D	E	F	G
Test Title #3	Test Title #4			
data	data			
data	data			
data	data			
data	data			
data	data			
data	data			

BLANK CELLS WITHIN THE SPREADSHEET

- In addition to having blank rows and columns, you will want to make sure you don't have blank spaces where data should be.

- Even if there is nothing to report, indicate this with either "**No Data Reported**" or "**Cell Left Blank**" to avoid confusion for screen readers.

C	D
Test Title #3	Test Title #4
45456	545613
17864	45644
312313	1231231
Cell Left Blank	No Data Reported

DENOTE THE END OF THE SPREADSHEET

- When you finish creating your spreadsheet, be sure to indicate that the document is finished with a simple indicator like "**End of Document**."

- This will alert the screen reader user that there is no more data to be reported and the spreadsheet is finished.

Month One	43431	4564563	1231234
Month Two	789646	56453	3431434
Month Three	643417	43313543	12354
Month Four	1231234	45313545	123453
Month Five	994564	884638	47348
End of Document			

SIMILAR ISSUES THAT MAY ARISE WITH PDF

- Most times, you will be creating a PDF from a Word document. It will help if your Word document source is already accessible, which will limit the amount of items that need to be fixed.

- These items can be Alt-Text, Color Contrast, etc.

- There is a way to make a document accessible once it is in Adobe Acrobat PDF.
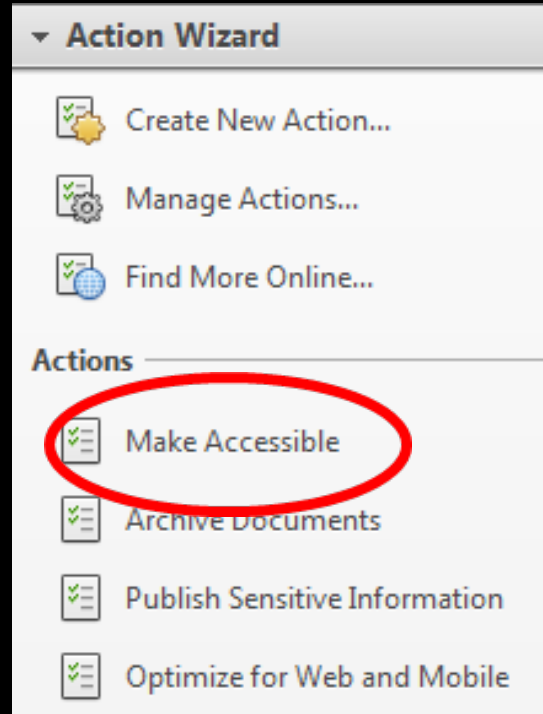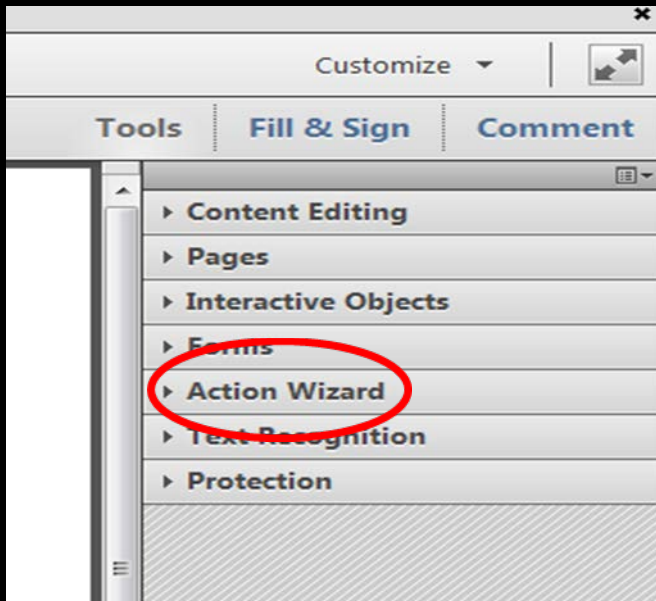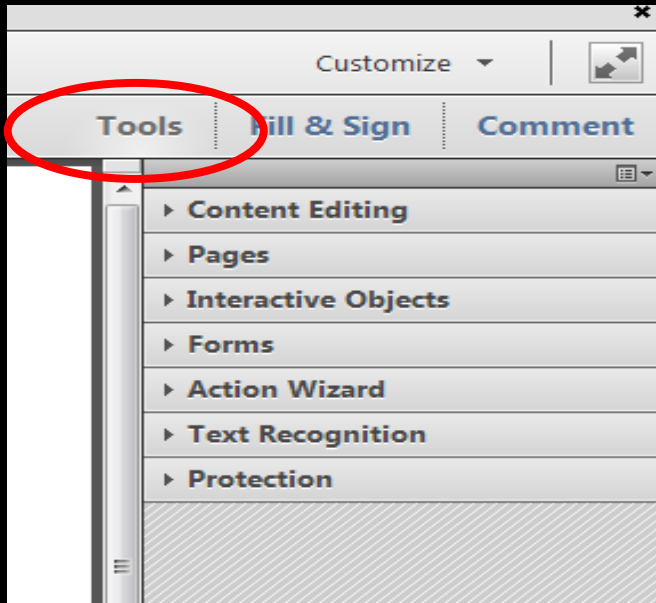
MAKING A PDF ACCESSIBLE

STEP 1- On the right side of the PDF, select the **TOOLS** button, which will bring a menu of different choices.

STEP 2- From the menu, you will want to select the **ACTION WIZARD** option, which will open up more choices.

STEP 3- Select the button that is marked, **MAKE ACCESSIBLE**. This will bring up a checklist to make the PDF accessible for individuals with disabilities.

MAKING A PDF ACCESSIBLE CONT.

STEP 4- You will hit the **START** button and then follow each step toward adding accessibility features to the document.

STEP 5- **Document Description** will allow you to add a title, author, subject, and keywords.

STEP 6- **Recognize Text using OCR** will scan the entire document for readable text, therefore making sure it can be read by a screen reader.
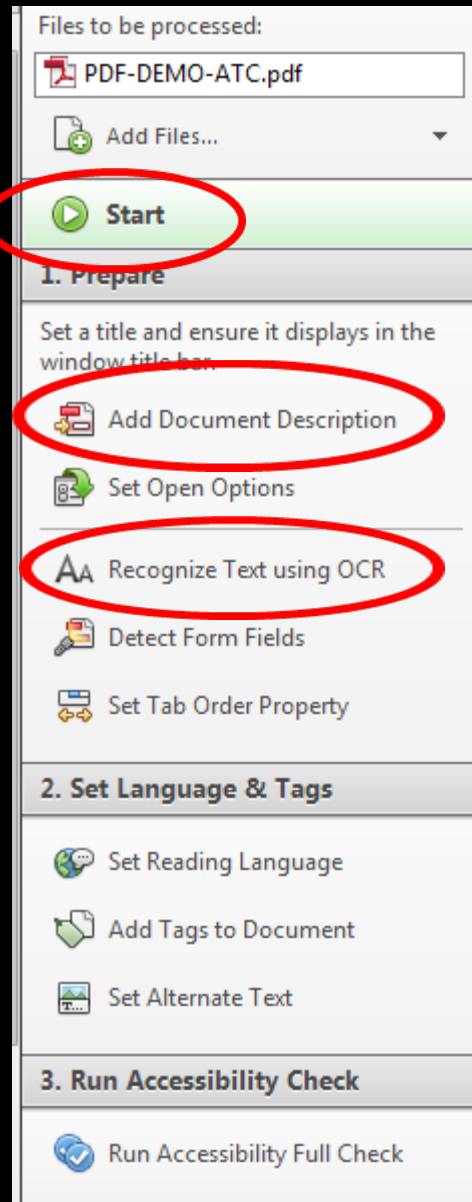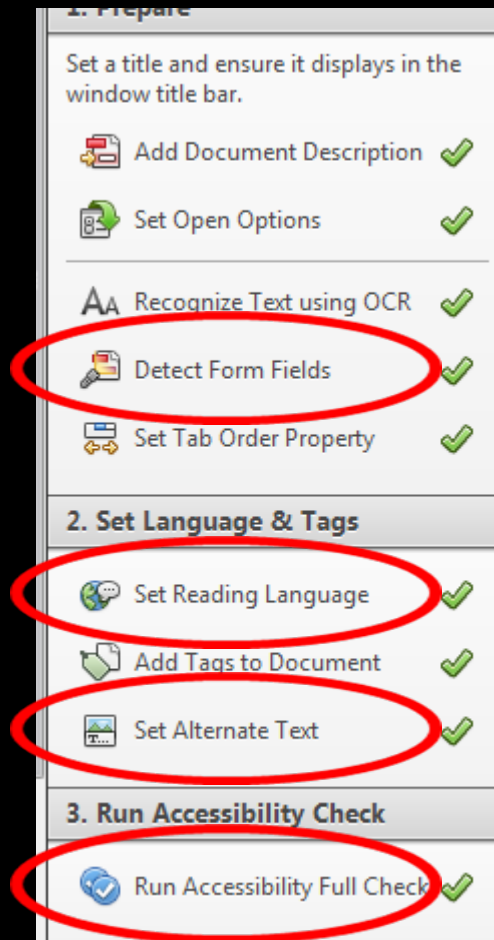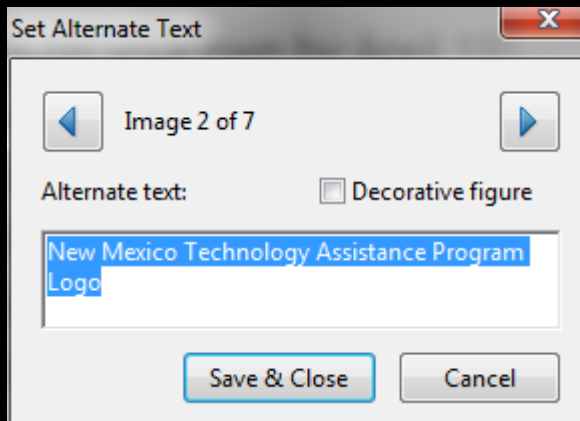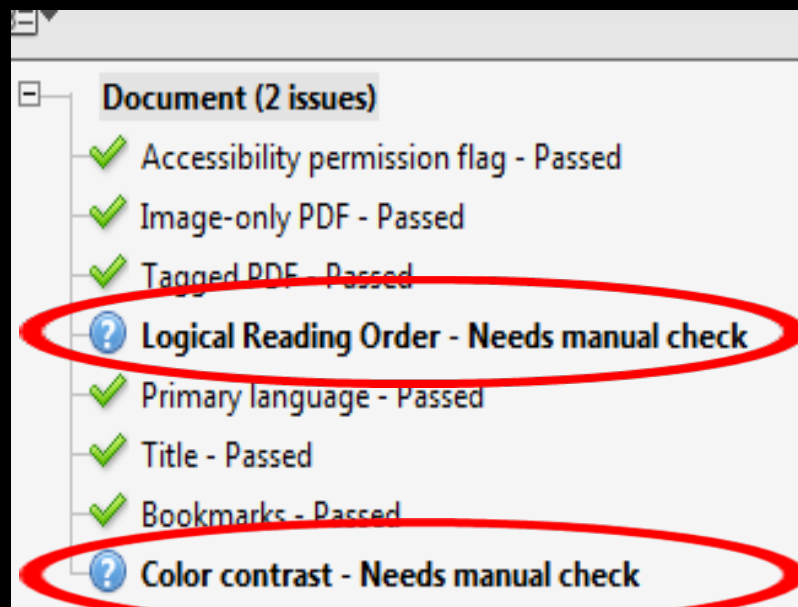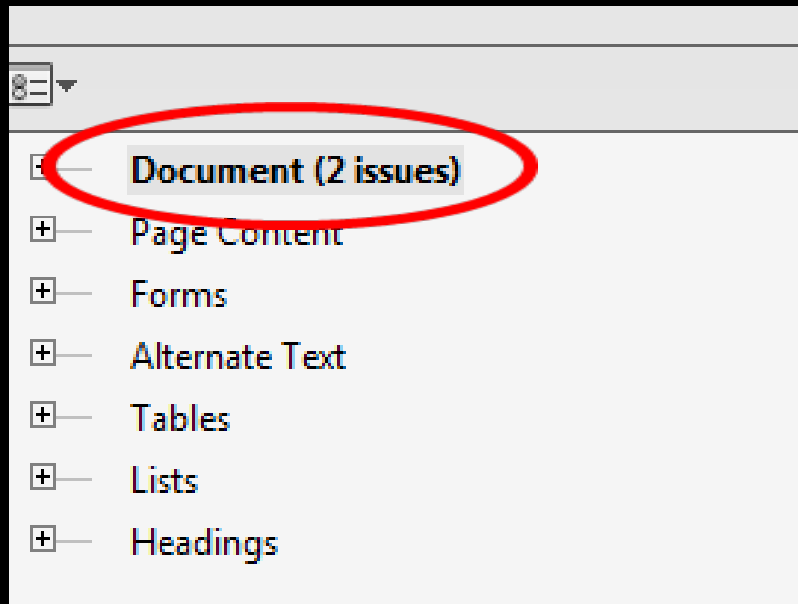
MAKING A PDF ACCESSIBLE CONT.

STEP 7- You have the option to scan the document for any **FORM FIELDS**, to turn it into a fillable form.

STEP 8- Next, you can set the **READING LANGUAGE**. This will indicate in which language the screen reader will read the text.

STEP 9- Next, you can add **ALTERNATIVE TEXT** to any graphics on the page.

STEP 10- Once you reach the final step, **RUN ACCESSIBILITY FULL CHECK**.

MAKING A PDF ACCESSIBLE CONT.

STEP 11- When the **ACCESSIBILITY CHECK** is complete, it will pull up a report for any known issues. Remember, it might not pick up every issue.

STEP 12- On my test document, it picked up issues that need to be checked in the original document. I will have to manually go back and make these changes to make it accessible.

READING ORDER

- The **Touch Up Reading Order** button will allow you to properly order how the document will be read back by a screen reader.

- It will also allow you to label items as headings, text, figures, etc.

- Sometimes Adobe PDF puts the text in a strange order. Always good to do a second check and make changes if necessary.
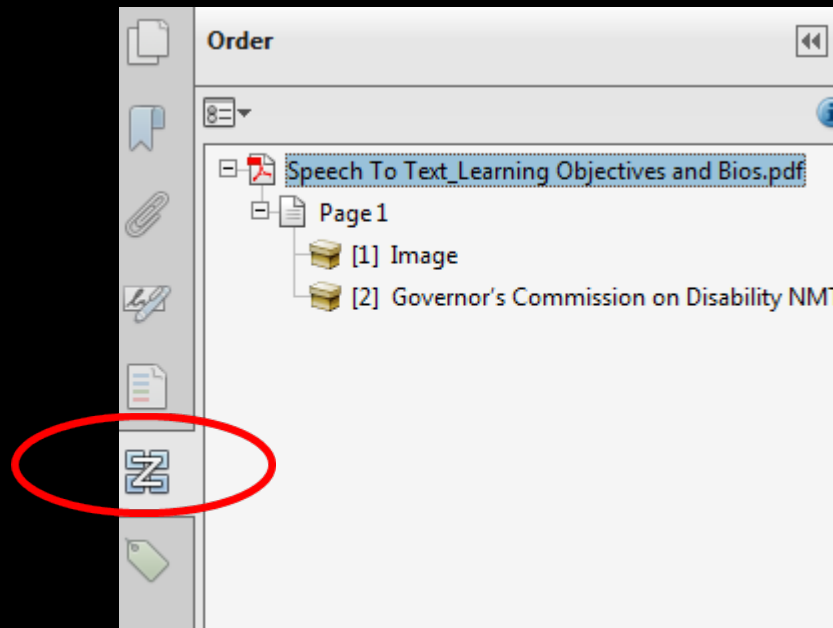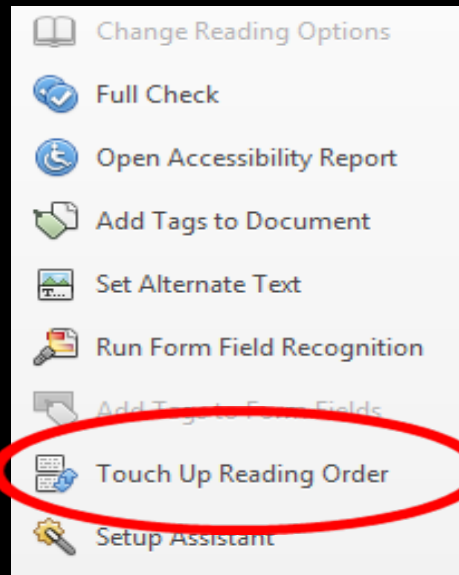
FINAL THOUGHTS ON PDF

- Remember to check for color contrast on your document. This may have to be a manual fix.

- If you are scanning a document into a PDF, be sure that it has readable text. If not, you may have to create the PDF from the original document or manually add in the text.

- Check the reading order of the PDF, this goes back to how it was originally formatted in Word. If there are fillable fields, check the TAB order of the fields.

WEB ACCESSIBILITY

WHY THIS IS IMPORTANT

- The Internet is one of the ways we get most of our information nowadays.

- According to the Annual Disability Statistics Compendium, written by the University of New Hampshire's Institute on Disability, as of 2014, there are **313,890,422** people living in the community, in the U.S.

- Of those 313,890,422 individuals, **12.6%** reported one or more disabilities, which adds up to **39,674,679**.

- Those **39,674,679** individuals may have difficulty accessing websites if they aren't accessible.

THE LAWS: WCAG 2.0

- According to the World Wide Web Consortium, WCAG stands for Web Content Accessibility Guidelines.

- These 12 guidelines are meant for web developers, web accessibility evaluators, web tool developers, and anyone who needs a standard for web accessibility.

- The guidelines are based on four principles that ensure web content will be accessible.

WCAG 2.0 CONT.

Perceivable

- Web content must be presented to web users in ways they can **perceive**.

Operable

- Navigation of the website must be **operable** by the user.

Understandable

- The web content and format of the website must be **understandable** by the user.

Robust

- Web content must be **robust** to be viewed with different facets of Assistive Technology.

WCAG 2.0 GUIDELINES

Perceivable

- Text Alternatives
- Time-Based Media
- Adaptable
- Distinguishable

Operable

- Keyboard Accessible
- Provide Enough Time to Access Content
- Seizures
- Provide Ways to Navigate Content

WCAG 2.0 GUIDELINES CONT.

Understandable

- Readable
- Predictable
- Input Assistance (help users avoid and correct mistakes)

Robust

- Maximize compatibility with a variety of current and future technologies. This includes AT.

SECTION 504 OF THE REHABILITATION ACT

- According to WebAIM, Section 504 is a civil rights law that states, "No otherwise qualified individual with a disability in the United States… shall, solely by reason of her or his disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

- This includes government agencies, federally funded projects, K-12 schools, and post secondary education.

SECTION 508 OF THE REHABILITATION ACT

- The United States Access Board states that Section 508 of the Rehabilitation Act requires that Federal Agencies that use electronic or information technology, are required to make it accessible for employees and the public, that is comparable to what's provided to individuals without disabilities.

- In other words, everyone is entitled the same access.

POSSIBLE WEBSITE ACCESSIBILITY ISSUES

- Alternative Text for photos and graphics.

- Low contrast text color. Foreground and Background.

- Inability to read Word or PDF documents on a website, with the use of a screen reader.

- Lack of accurate or any Closed Captions.

- Scrolling Text or scrolling windows

- Website Formatting.

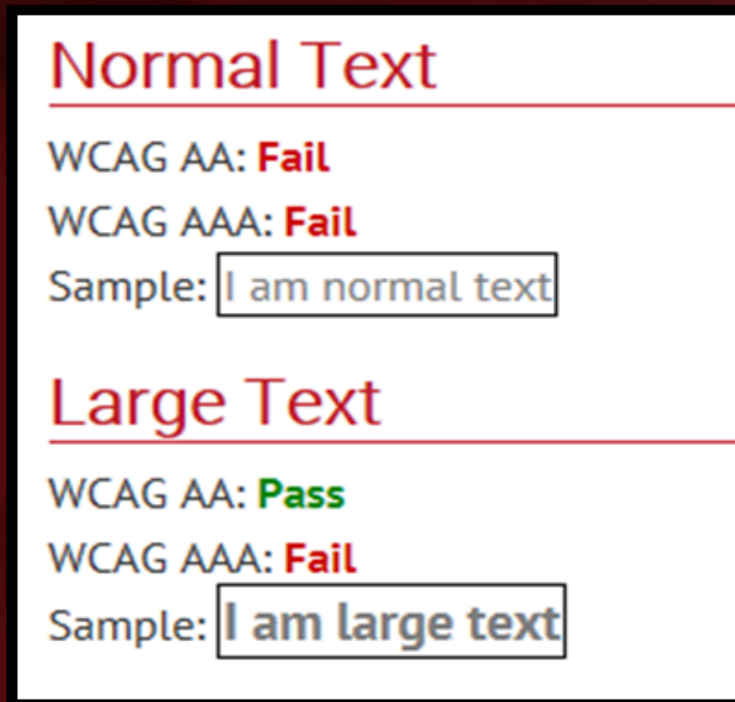# WEBSITE ACCESSIBILITY FIXES

Alternative Text

- Can be fixed by adding Alt-Text to any image button, logo, linked image, or regular photo. If the content of the particular image can be found in a nearby body of text, a null or empty alternative text should be added.

Low Contrast Text Color

- This can be fixed by increasing the overall contrast between the text and the background color. The smaller the text, the more contrast is needed to add clarity and depth to the text.

CHECKING FOR COLOR CONTRAST

WebAIM Color Contrast Checker
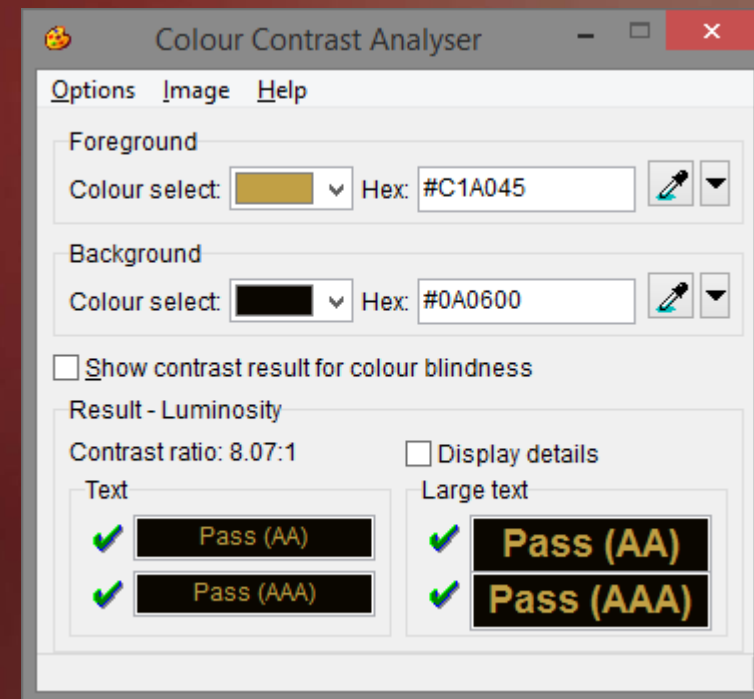
The Paciello Group Colour Contrast Analyser

WEBSITE ACCESSIBILITY FIXES CONT.

Readable Documents

- Documents can be made readable by screen readers by following the accessibility guidelines listed earlier in the PowerPoint.
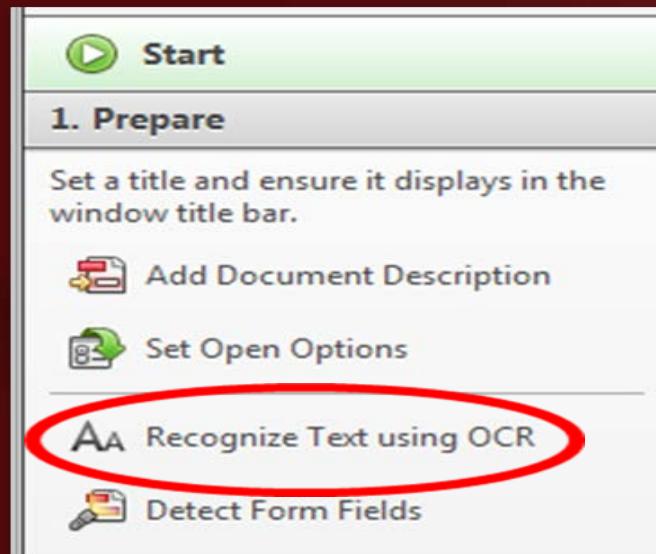
Closed Captions

- In YouTube, Closed Captions can be added 3 different ways: Uploading a transcript, typing in or pasting a transcript and then having it auto-sync to the video, or typing in the captions as you watch the video.

CAPTIONING SOFTWARE

- Captionate

- Caption Wrap

- MAGpie

- Softel Swift

- Captioning within Vimeo

- Video Editing Suites like Final Cut, Adobe Premiere, Avid, Sony Vegas, Windows Movie Maker, iMovie.

WEBSITE EVALUATION TOOLS

- **WAVE**: http://wave.webaim.org/

- **Functional Accessibility Evaluator 2.0**: https://fae.disability.illinois.edu/anonymous/?Anonymous%20Report=/

- **AChecker**: http://achecker.ca/checker/

- **Accessibility Valet**: http://valet.webthing.com/access/url.html

ATAP ICT TRAININGS

- Here are some additional webinars on Microsoft Word, PowerPoint, and website accessibility.

- http://www.ataporg.org/ICTWebinars/Default.aspx

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