

Basics of PDF Accessibility

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Handouts

exploreaccess.org/handouts/



Alternative Ways of Navigating

- Screen readers:
Voiceover, JAWS/Fusion, NVDA
- Magnification Software
- Braille display
- Voice recognition software
- Keyboard only navigation
- Other mouse alternatives



Why PDF?

- PDF stands for Portable Document Format
- Often used to maintain specific look of a document
- **Advantage:** Will open across several devices and platforms 👍
- **Disadvantage:** If not designed with access in mind, can be completely inaccessible to screen reader users 👎



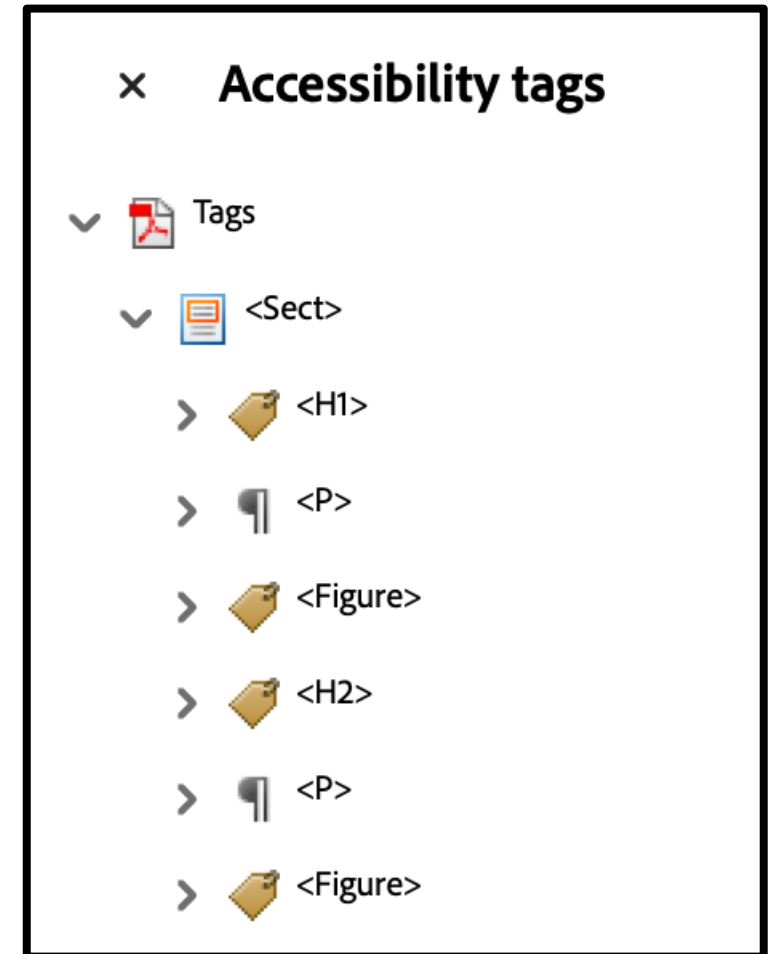
What Makes a PDF Accessible? (1 of 2)

- PDFs must meet the same accessibility standards as other documents:
 - Good contrast
 - Clear, readable fonts of at least 12-point size
 - Proper heading structure
 - Meaningful link text
 - Alt text for images.
 - Well-structured tables



What Makes a PDF Accessible? (2 of 2)

- Tagging layer:
 - Screen readers rely on the tag layer to interpret the document's structure and content.
 - Ensuring PDFs are generated correctly from the source will help ensure they are tagged.



Common Barriers: PDF

- No tags
- Images missing alt text
- Missing heading structure
- Incorrect reading order
- Some content missing tags
- Improperly tagged tables
- Scanned PDFs that are an image of text
- PDF forms without correct labeling



Screen Reader User Experience

How a Screen Reader Works

Reading a Document



How a Screen Reader Works: Reading a Document

[How a Screen Reader Works: Reading a Document\(YouTube\)](#)

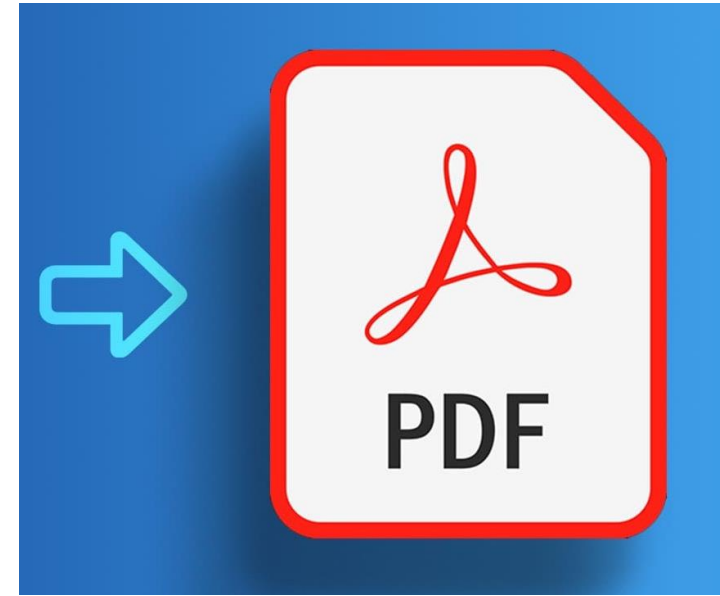
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Creating an Accessible PDF from Source Document – Microsoft Word and PowerPoint

- Follow best practices for accessibility in creating the original document
- Be sure to Save as PDF rather than Print to PDF.
- On a Mac, select the radio button that is labeled “Best for electronic distribution and accessibility”
- If you have Acrobat Pro DC, use the Create PDF Add-On.



Creating an Accessible PDF from Source Document – Other Applications

- **Adobe InDesign** can also be used to create an accessible PDF.
- **Google Docs:** File downloaded as a PDF is accessible
- **Google Slides:** Exports are untagged and therefore inaccessible.
- **Other applications:** Exporting to PDF will have mixed results.

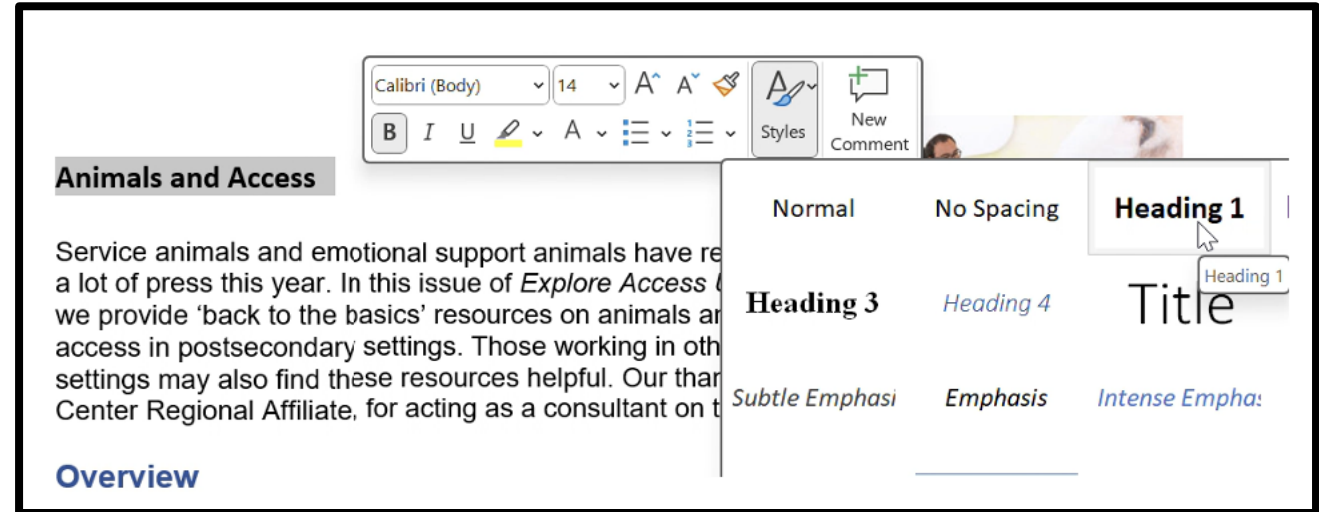
Accessible Source Document: MS Word

Using Headings to Provide Structure

- Headings provide structure to your document.
- Using normal text and applying styles such as larger size, different color, or bolder text does not create a true heading.
- Don't use headings when you don't need a true heading.

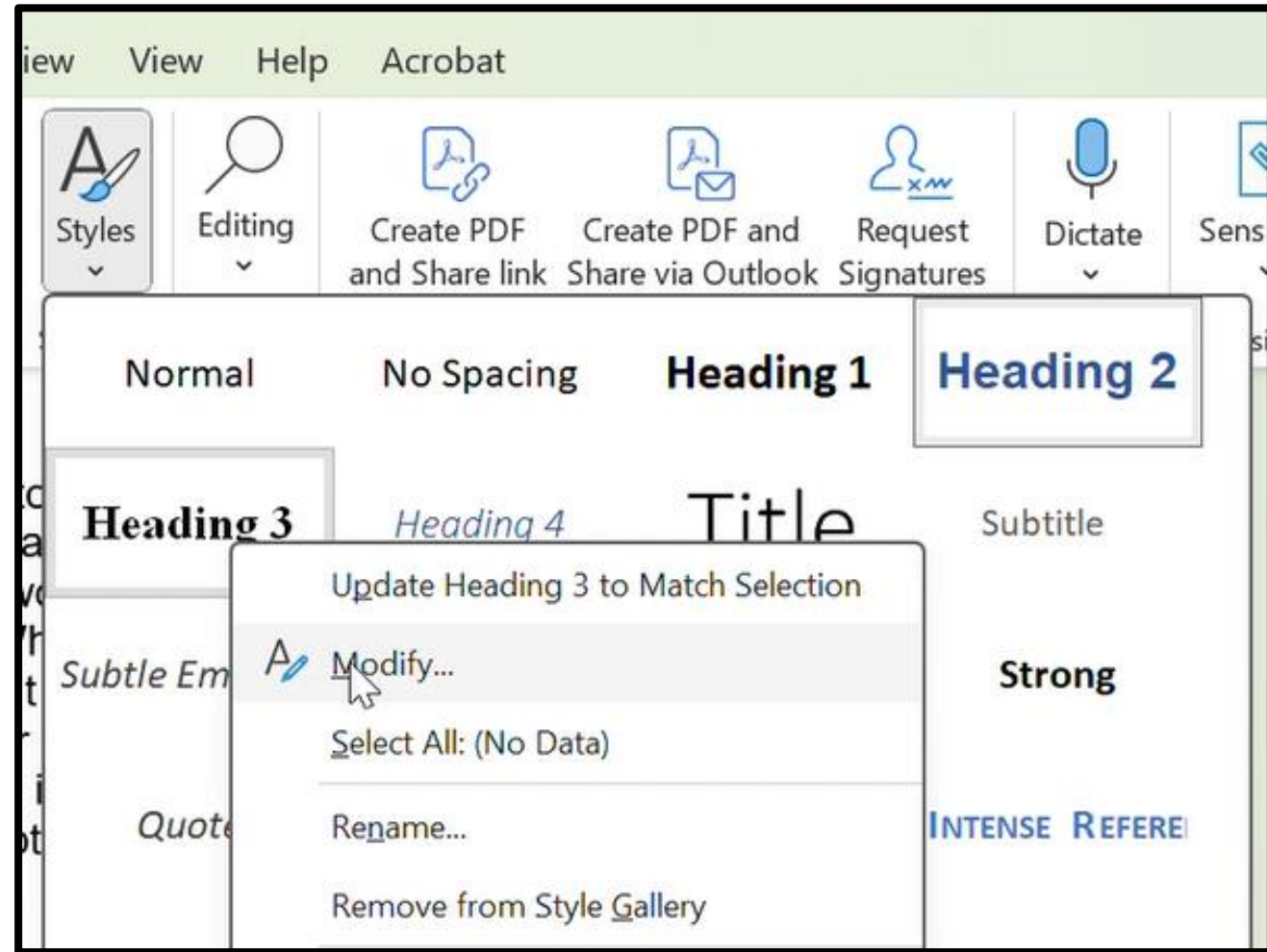
How to Add Headings

- Highlight the text
- Click on the appropriate heading
- Or use keyboard shortcuts
 - PC: Control+Alt+1
 - Mac: Command+Option+1



Modify Headings

- Modify a heading by:
 - Right clicking on the heading in the styles group and choosing modify OR
 - Change the heading in your document and choosing Update Heading to Match Selection



Alternative Text:

**a text description of an image
(or other non-text content)**

Also called:

alt text, image description

Why Use Alt Text

- Without alt text, a screen reader user will not know what an image is.
- Images often convey important information.
- The screen reader will just say “graphic”



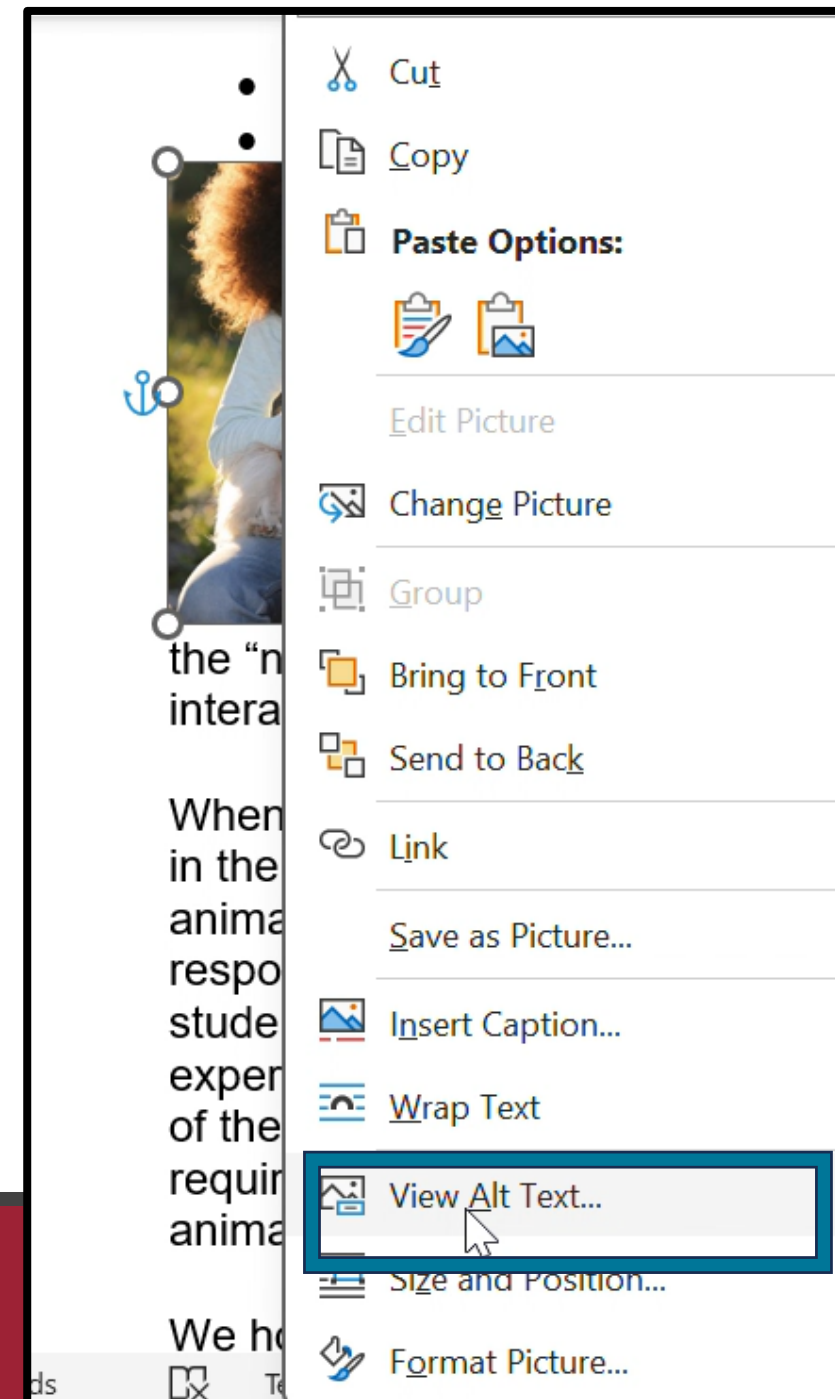
Sample Alt Text

A Pomeranian wearing glasses looks down at an open book.



How to Add Alt Text (1)

- Right click on the image
- Choose View Alt Text



How to Add Alt Text (2)

- Write the description in the box that appears to the right of the document.
- Describe what is in the image.
- No need to say “image of” or “picture of”



Alt Text

How would you describe this object and its context to someone who is blind or low vision?

- The subject(s) in detail
- The setting
- The actions or interactions
- Other relevant information

(1-2 detailed sentences recommended)

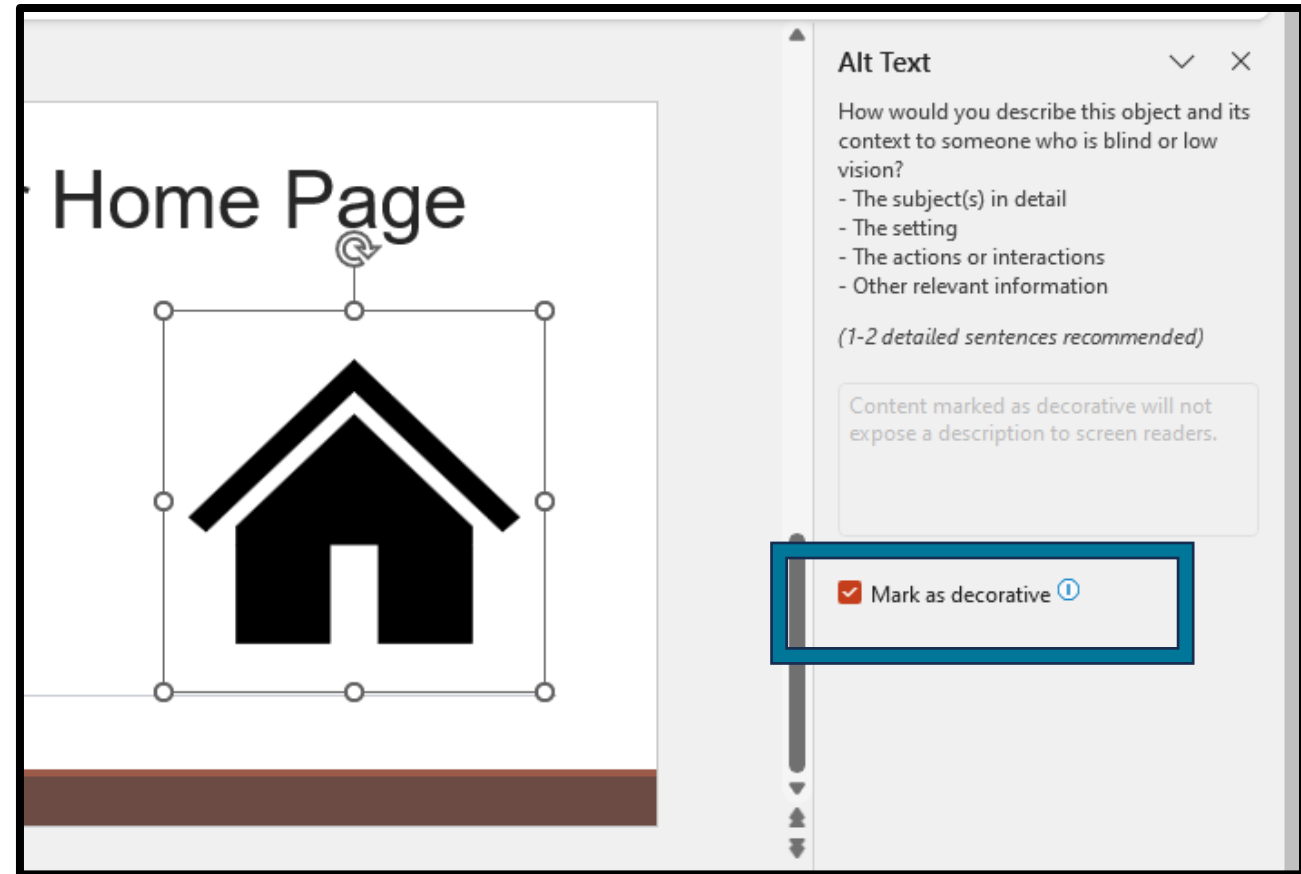
Generate alt text for me

☐ Mark as decorative ⓘ

Powered by Office Services

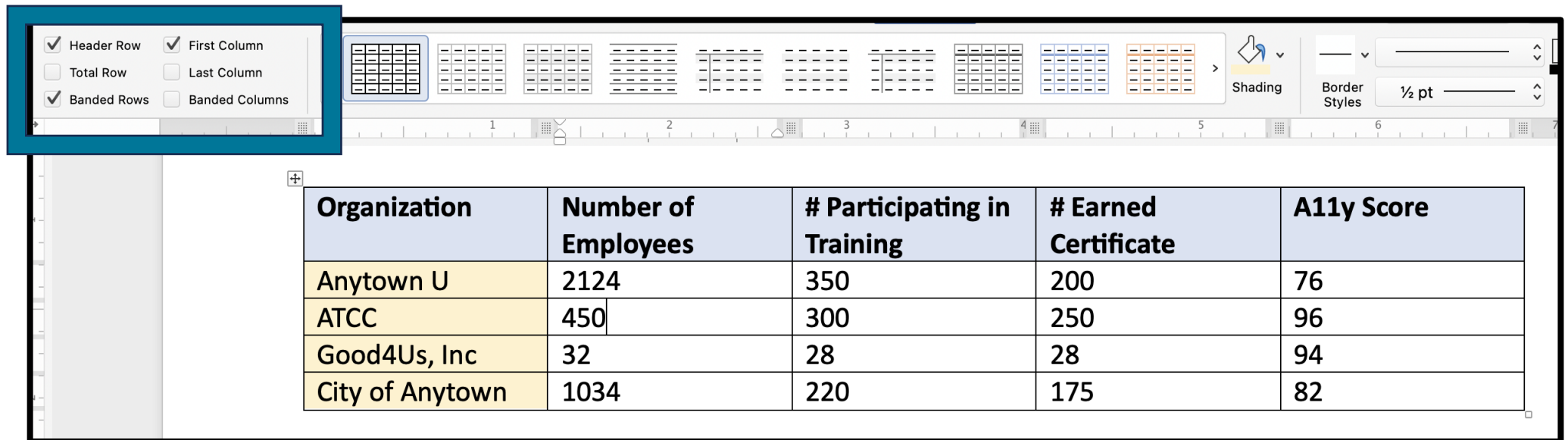
Purely Decorative Image

- Images that do not add anything to the content
- Images that are redundant to the content
- Images that are visual separators



Other Elements

- Link names should be meaningful out of context.
- Lists should use bulleted list tools within MS Word.
- Tables should have designated header rows

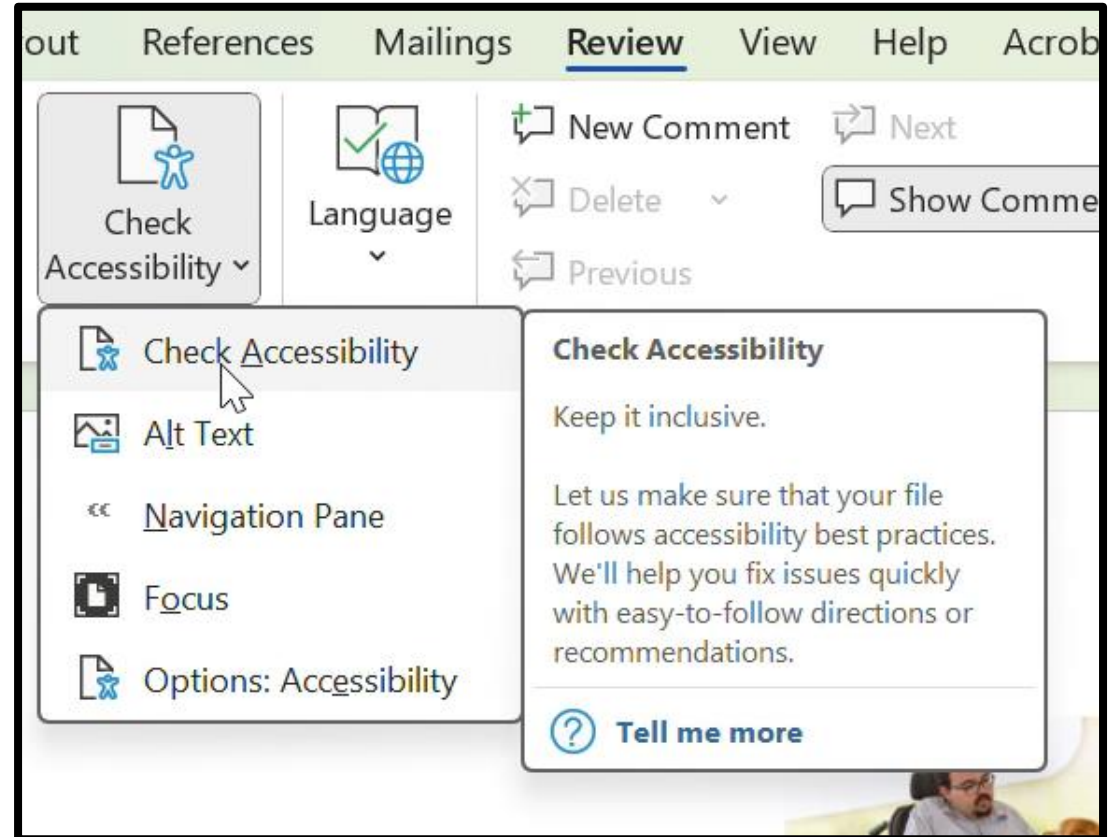


The screenshot shows the Microsoft Word interface with the 'Table Design' ribbon active. A table is displayed with five columns: 'Organization', 'Number of Employees', '# Participating in Training', '# Earned Certificate', and 'A11y Score'. The first row is highlighted in blue, indicating it is the header row. The 'Table Design' ribbon shows various table styles, and the 'Shading' and 'Border Styles' options are visible. A blue box highlights the 'Table Design' ribbon, and a yellow box highlights the 'Header Row' checkbox in the 'Table Design' ribbon's 'Table Properties' group.

Organization	Number of Employees	# Participating in Training	# Earned Certificate	A11y Score
Anytown U	2124	350	200	76
ATCC	450	300	250	96
Good4Us, Inc	32	28	28	94
City of Anytown	1034	220	175	82

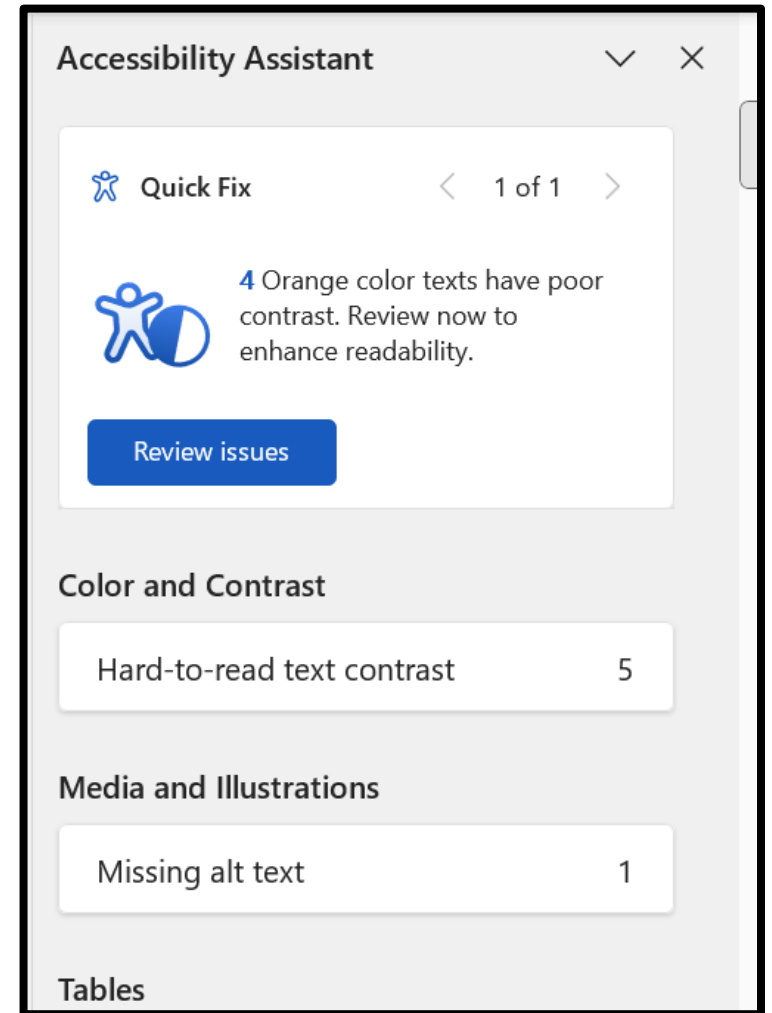
Using the Accessibility Checker (1 of 2)

- Select Review Ribbon
- Select Accessibility Checker



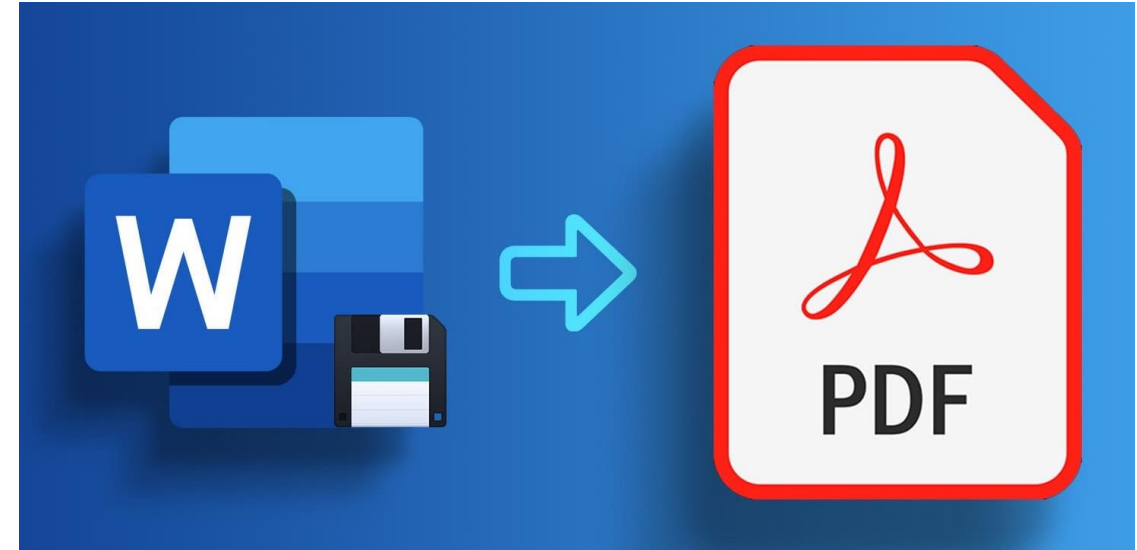
Using the Accessibility Checker (2 of 2)

- Panel opens to the right
- Identifies accessibility issues



Save as PDF

- Always “Save As” PDF instead of Printing to PDF
 - Newer versions: Save a Copy and then choose PDF from dropdown menu
- If using a Mac, also choose “Best for electronic distribution and accessibility”



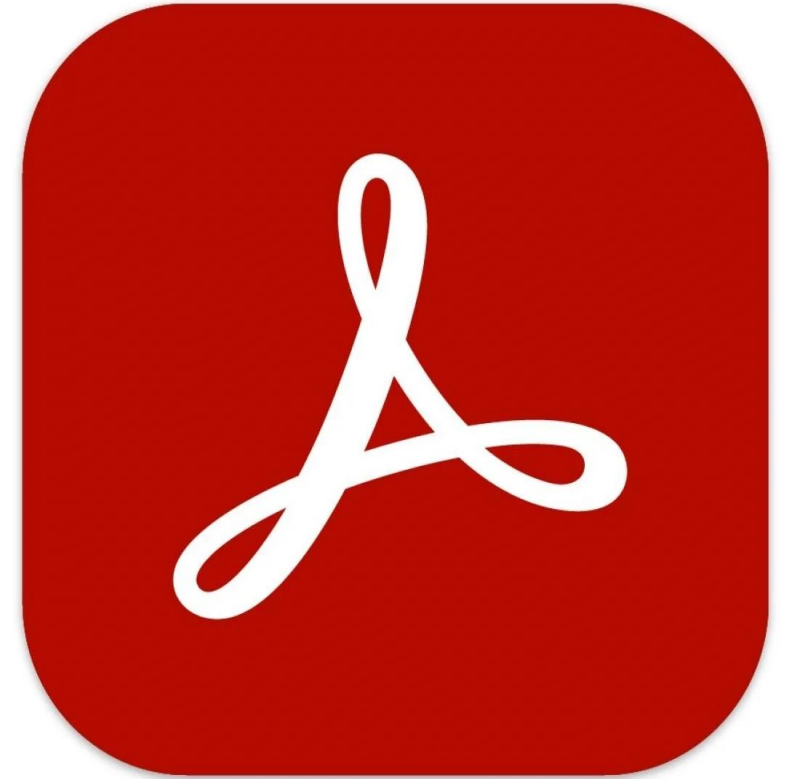
Demo: MS Word to PDF

Existing PDFs

How Do I Know If It Is Accessible

Is the PDF Accessible?

- Is there actual text?
- Is the PDF tagged?
- Are there accessibility errors?



Demo: Checking Existing PDFs

Free Accessibility Checkers

- [PDF Accessibility Checker \(Windows\)](#)
- [AxesCheck](#)



Fixing Inaccessible PDFs

Got Source Document?

- Fix issues in the source document
- Resave to PDF
- Recheck for accessibility



Problem: PDF is a Scanned Image

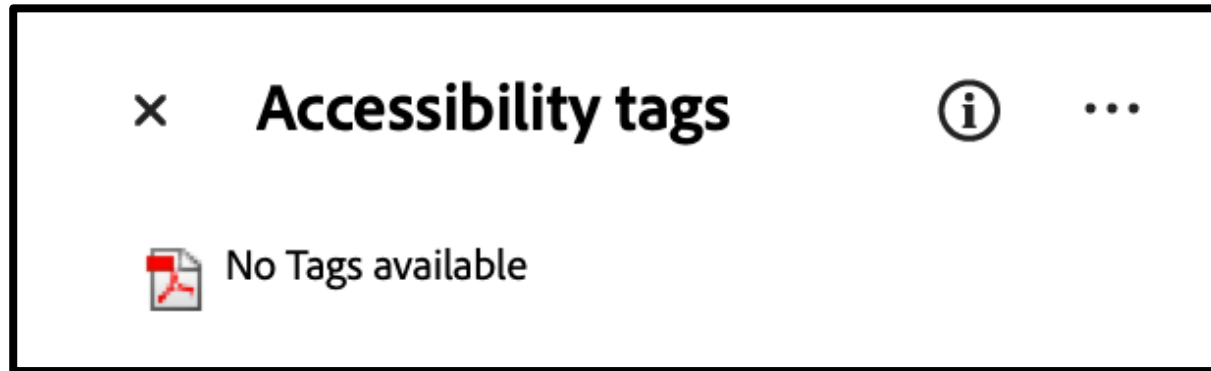
Use Optical Character Recognition (OCR) to recognize and render text.

If the scan is a quality one, you may be able to fix the problem using Acrobat Pro.

- Windows: Select View > Tools > Recognize Text
- Mac: Select Edit > Scan and OCR > Recognize Text > In File

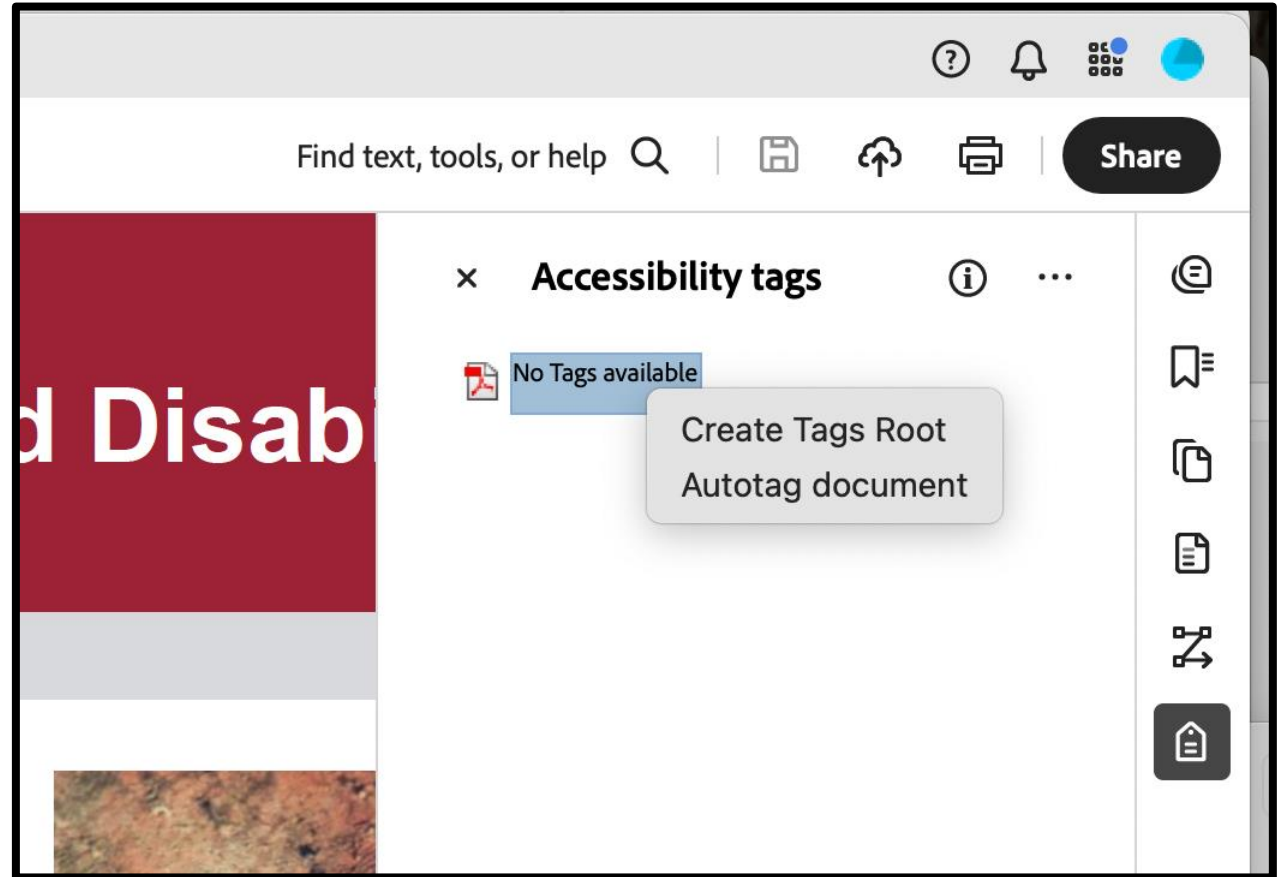
Problem: PDF is Untagged

Use Adobe Acrobat Pro to auto-generate tags.



Auto-Tagging a PDF

- Open tags panel
- Right click on No tags available
- Choose Autotag document



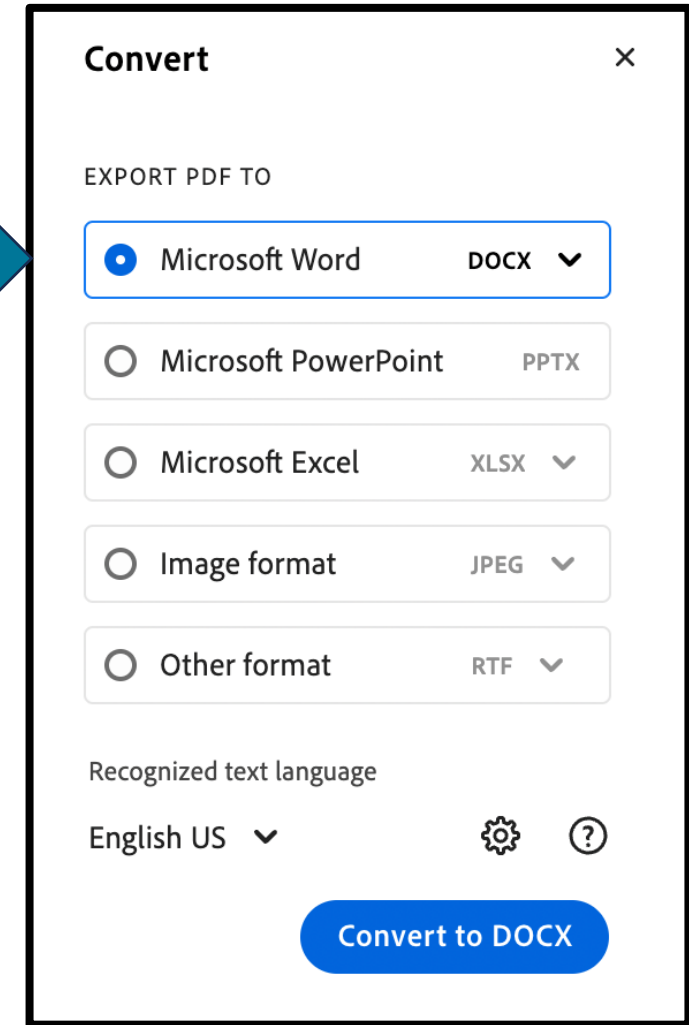
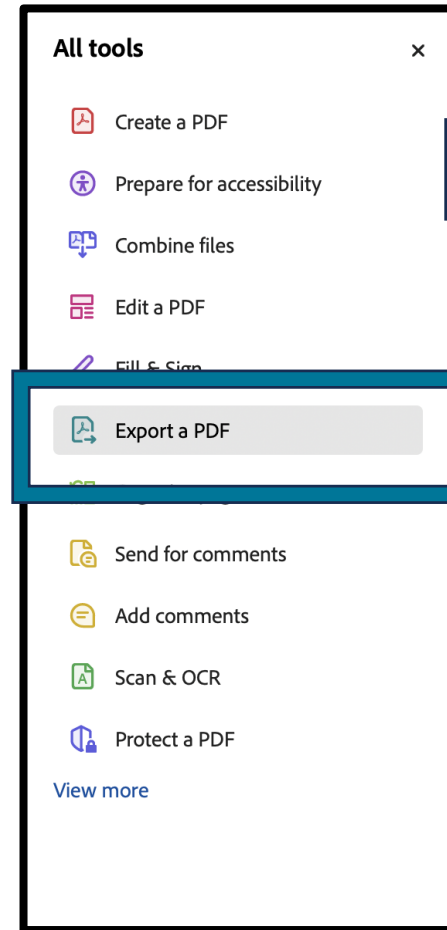
Problem: PDF is Tagged But Has Significant Accessibility Issues

Export document to MS Word (or MS PowerPoint).

- Simple documents may export well to MS Word.
- More complex documents may be better edited in MS PowerPoint.

Exporting PDF to MS Word

- Choose All Tools
- Then Export a PDF
- Then Microsoft Word (or PowerPoint)

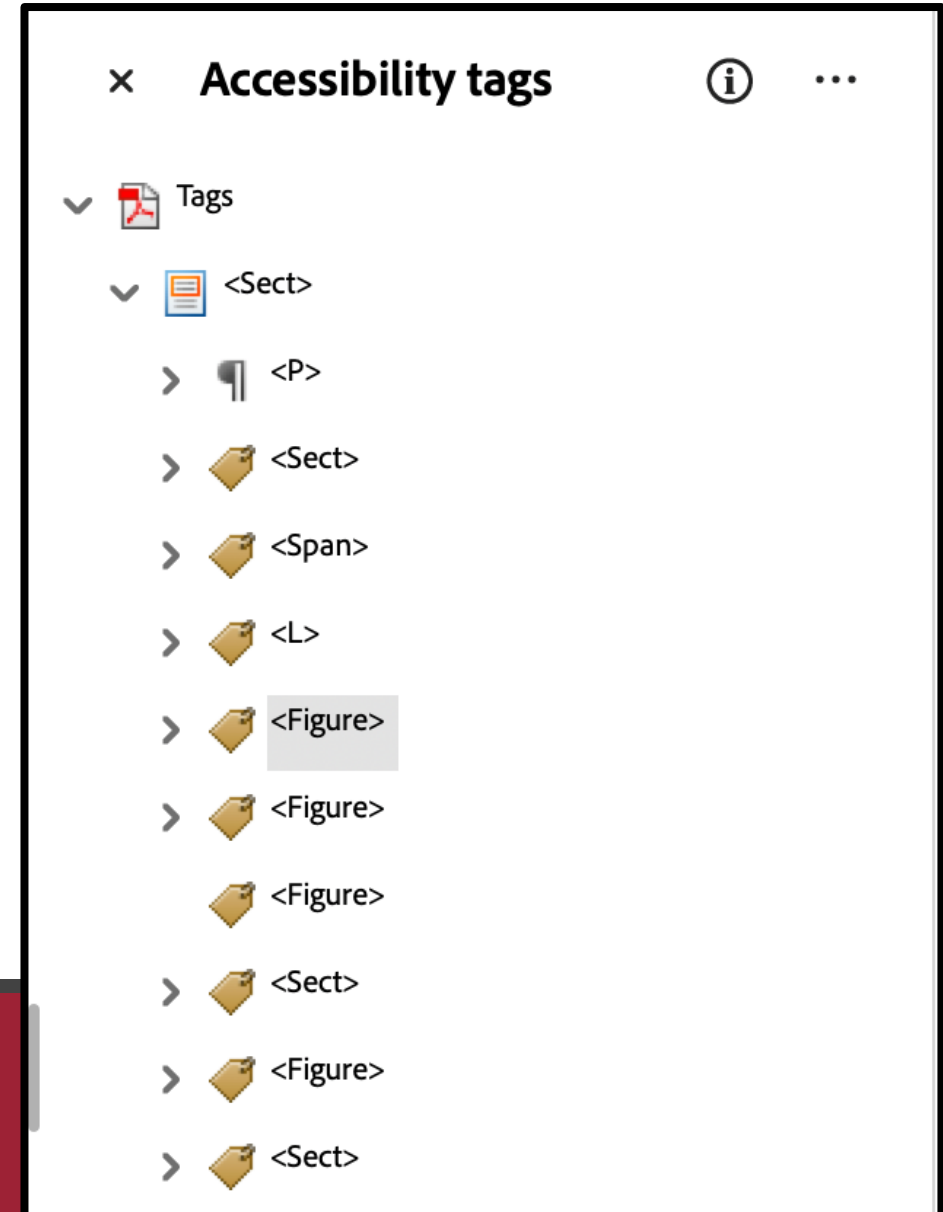


Problem: PDF is Tagged with Minor Accessibility Errors

Fix accessibility errors in tag tree or using the Reading Order tool in Acrobat Pro.

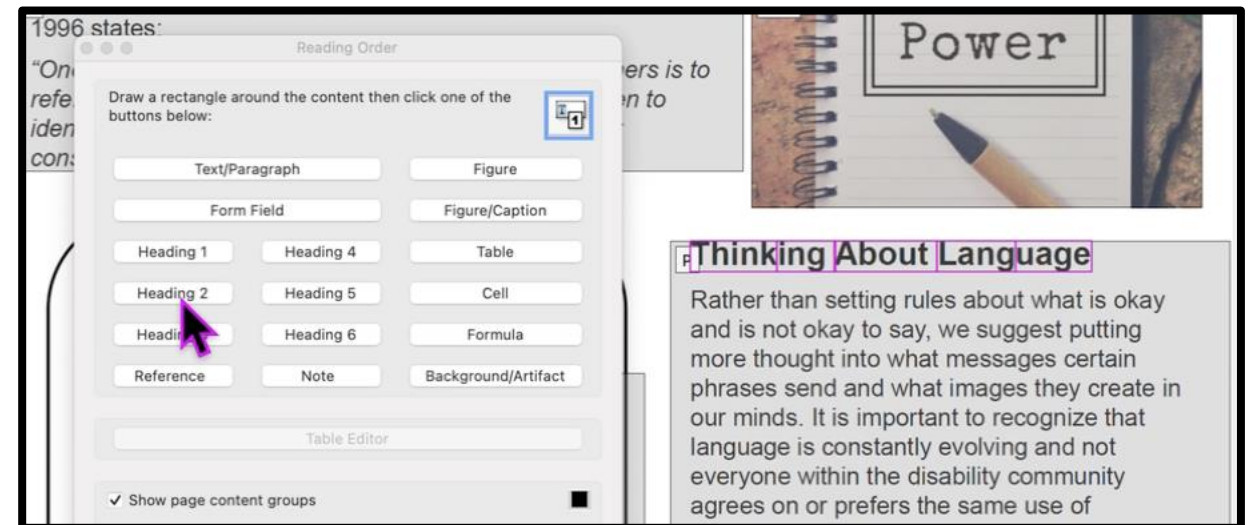
Remediating a PDF Using Tag Tree

- Those who are familiar with HTML may prefer fixing errors using the Tag Tree.
- To view the tags panel, select View > Show/Hide > Side Panel > Tags.



Remediating a PDF Using Reading Order Tool

- To access the Reading Order tool, select All Tools > Prepare for Accessibility > Fix reading order.



Demo: Fixing Existing PDFs

Other PDF Accessibility Remediation Tools

- [AccessibilityNow Remediate \(Crawford Technologies\)](#)
- [CommonLook PDF \(Allyant\)](#)
- [Equidox PDF Accessibility Software](#)
- [Grackle PDF](#)
- [PDFix](#)
- [PREP Document Remediation Software \(Continual Engine\)](#)



Resources

- [Adobe: PDF accessibility](#)
- [Deque: 8 Step PDF Accessibility Checklist](#)
- [Deque: Quick Reference Guide: Basic PDF Accessibility \(PDF\)](#)
- [Harvard: PDF Accessibility](#)
- [University of Arizona: PDF Accessibility](#)
- [University of Colorado – Boulder: Understanding PDF Accessibility](#)
- [University of Washington: Checking PDFs for Accessibility](#)
- [WebAIM: PDF Accessibility](#)
- [W3C; PDF Techniques](#)

A Partnership between U of A Partners and iCAN

- iCAN (Increasing Capabilities Access Network) is the Arkansas statewide Assistive Technology program designed to make technology available and accessible for everyone who needs it.
- Partners collaborates to promote disability access through training, technical assistance, resource development and dissemination, and research.



Upcoming Webinars

- January 15th:
Universal Design and Instruction
- Dates to be determined:
 - Accessible Tables and Excel Worksheets
 - Accessibility with Canva
 - Creating an Accessible Campus
- Visit: uofapartners.uark.edu/news-events



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