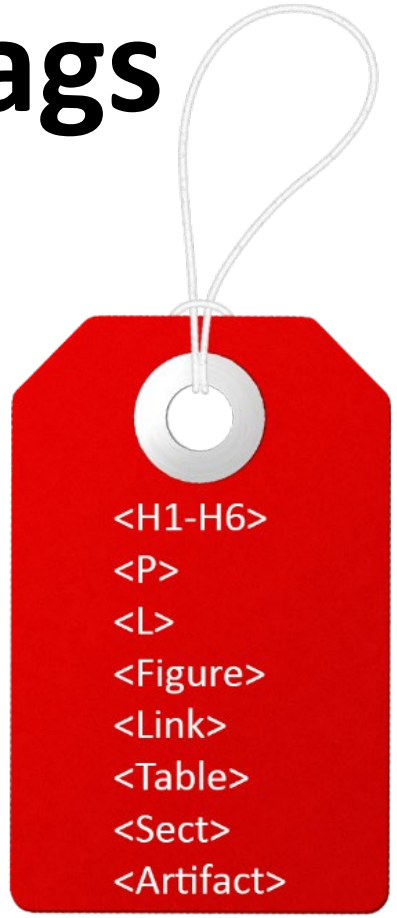
PDF Custom Tags

Adobe Acrobat DC



Accessibility (A11y)

Adobe Creative Cloud for Faculty & Staff

Adobe Acrobat DC

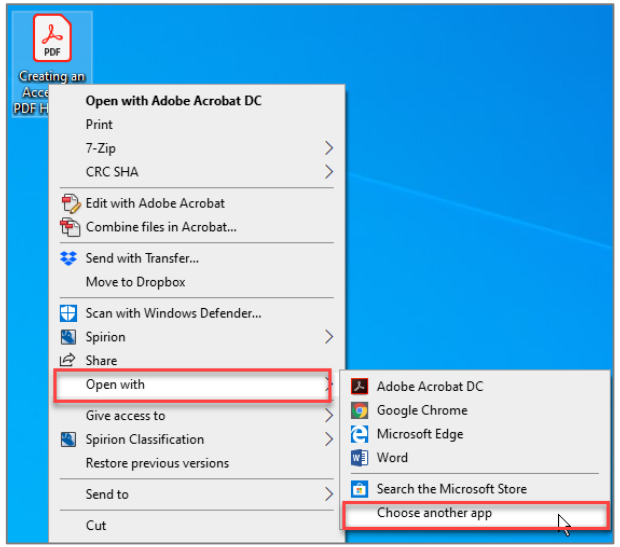
- Adobe Creative Cloud software is now available for use (at no additional charge) on all faculty and staff university-owned computers, labs and classroom devices, and for all students.
- Please note that this deployment of Adobe software is not available for use on personally-owned faculty and staff devices at this time.
- Learn more about Adobe Creative Cloud for Faculty & Staff

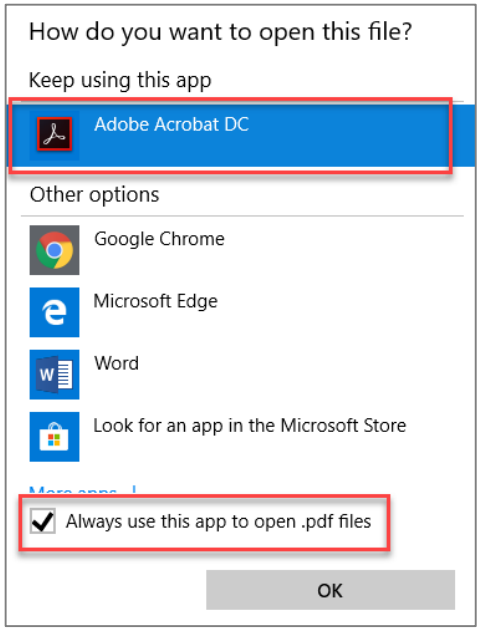
- ***Adobe Reader*** *is for viewing, printing, signing, sharing, and annotating PDFs. Adobe Reader doesn't have Accessibility checking tool.*

Open PDF files from Adobe Acrobat not Web Browser by default

Windows

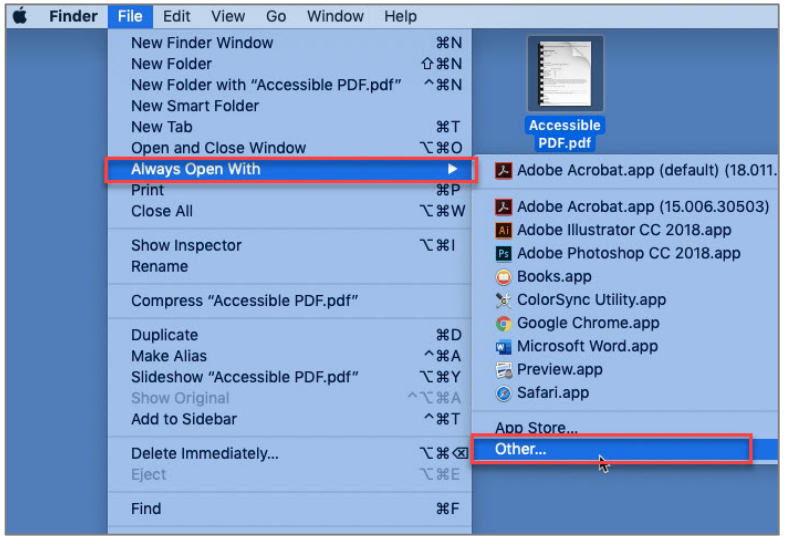
- Save PDF files on desktop
- Right-click on PDF file, select Open with, Choose another app

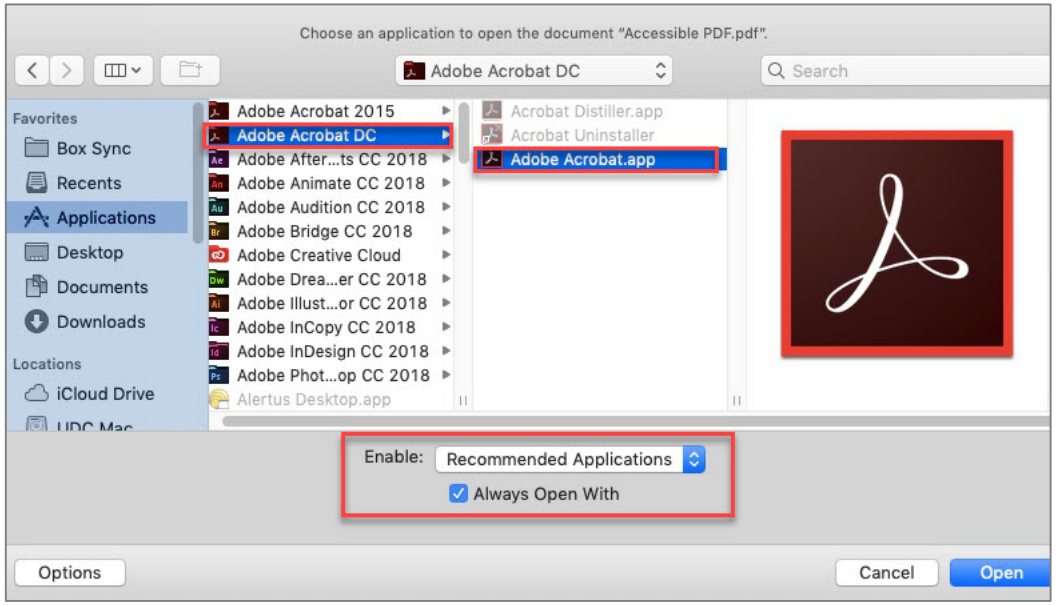




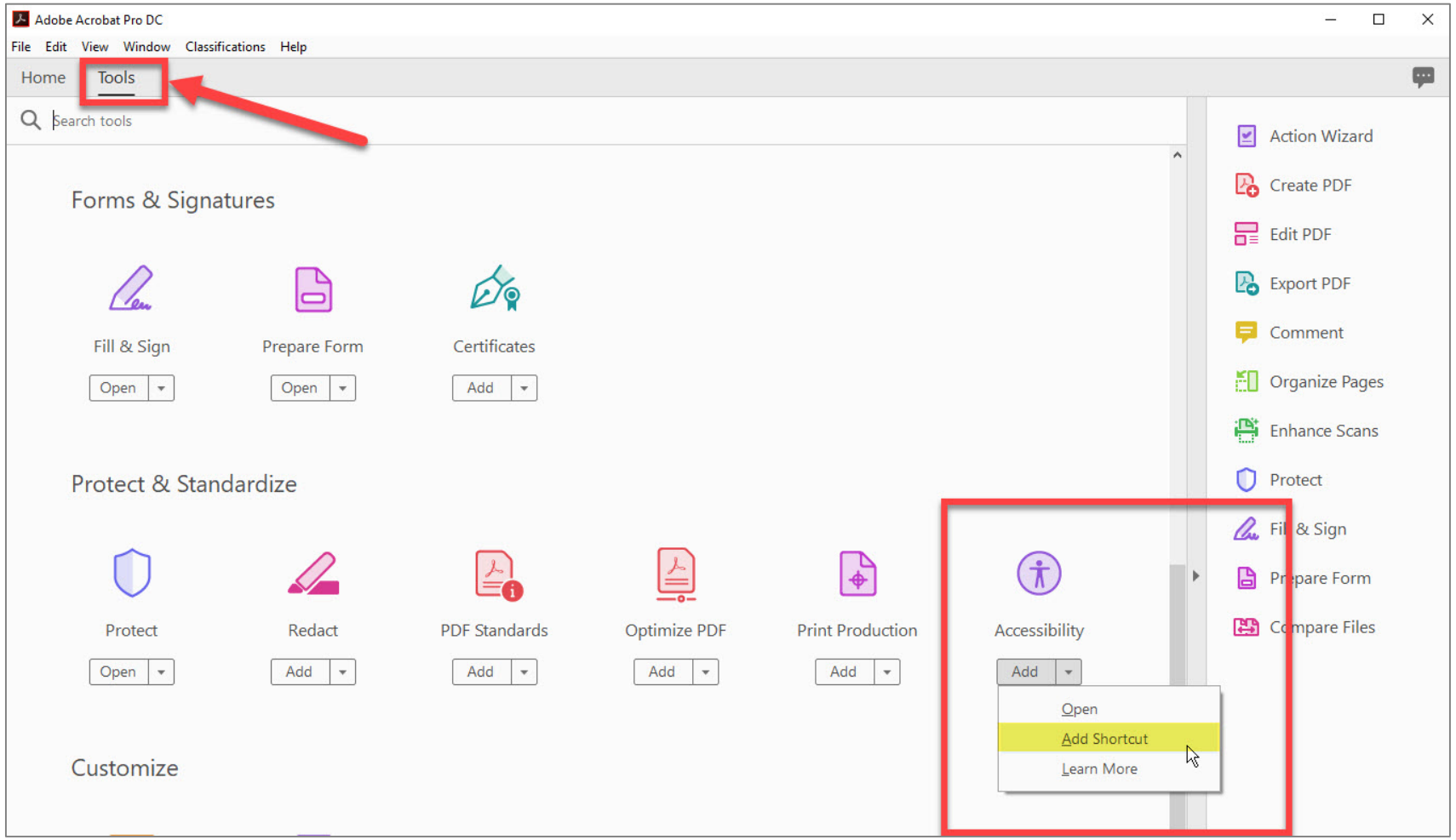
Mac

- Save PDF files on Desktop
- Select PDF (not double click)
- File tab, Always Open with, Other





Tools Pane Set Up



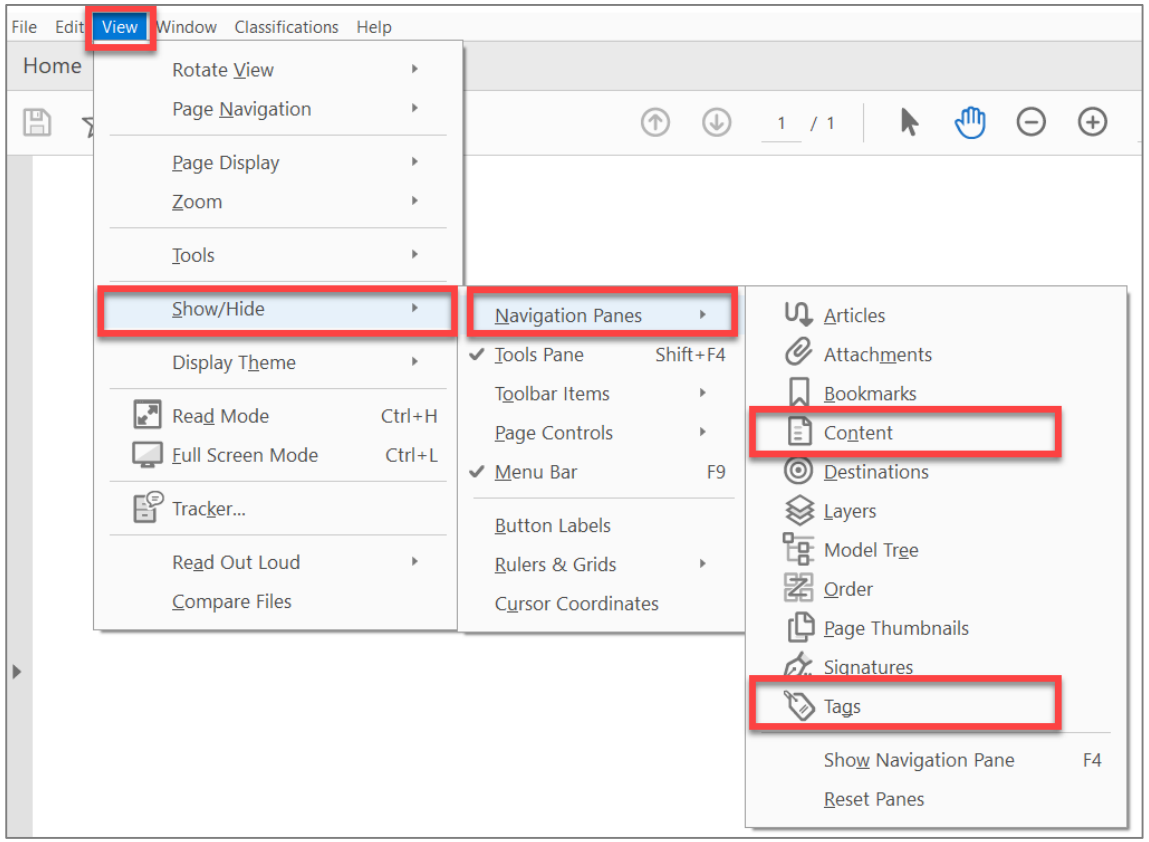
If this is your **first time** setting up Adobe Acrobat software

- Select **Tools** Tab
- Add Shortcut for **Accessibility**

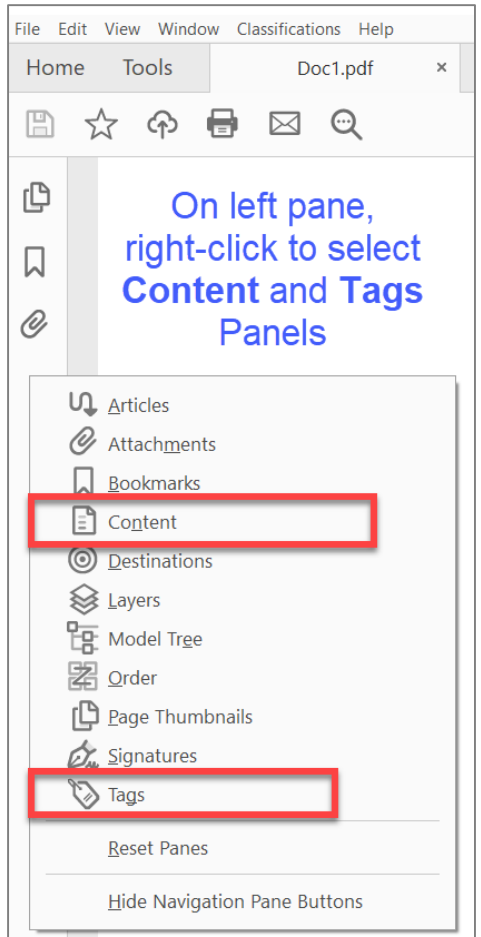
Adding Tools to Navigation Pane

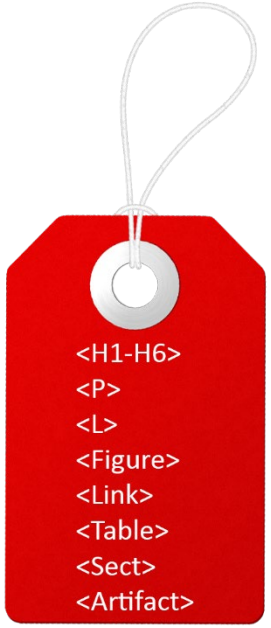
These are the primary tools needed to create an accessible PDF:

Option 1: View > Show/Hide >Navigation > **Tags and Content** Pane

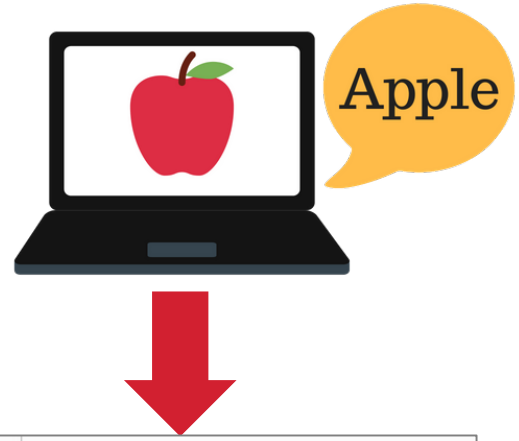


Option 2: On left pane, right-click to select **Tags and Content** Pane





Tags Pane, 1 of 2

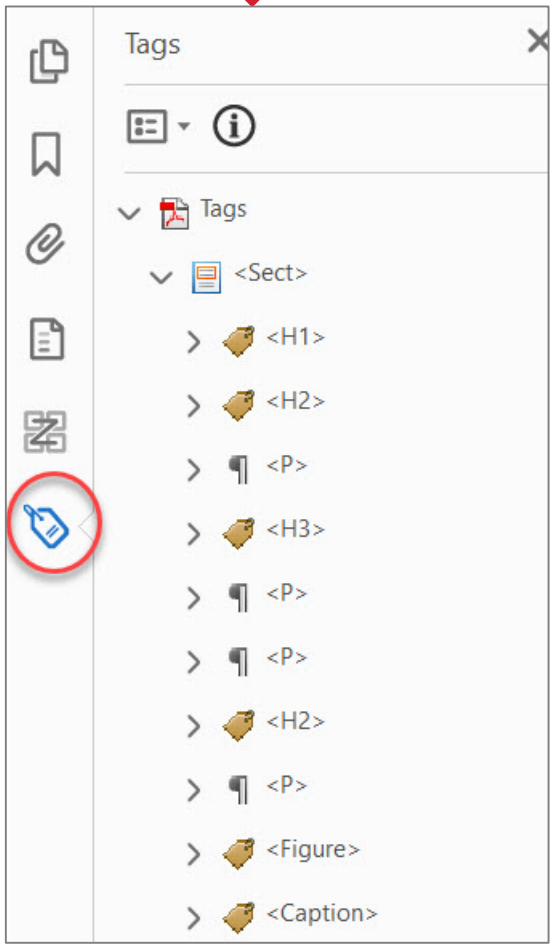


Accessible PDF means **every piece of content** must be tagged with the correct tag.

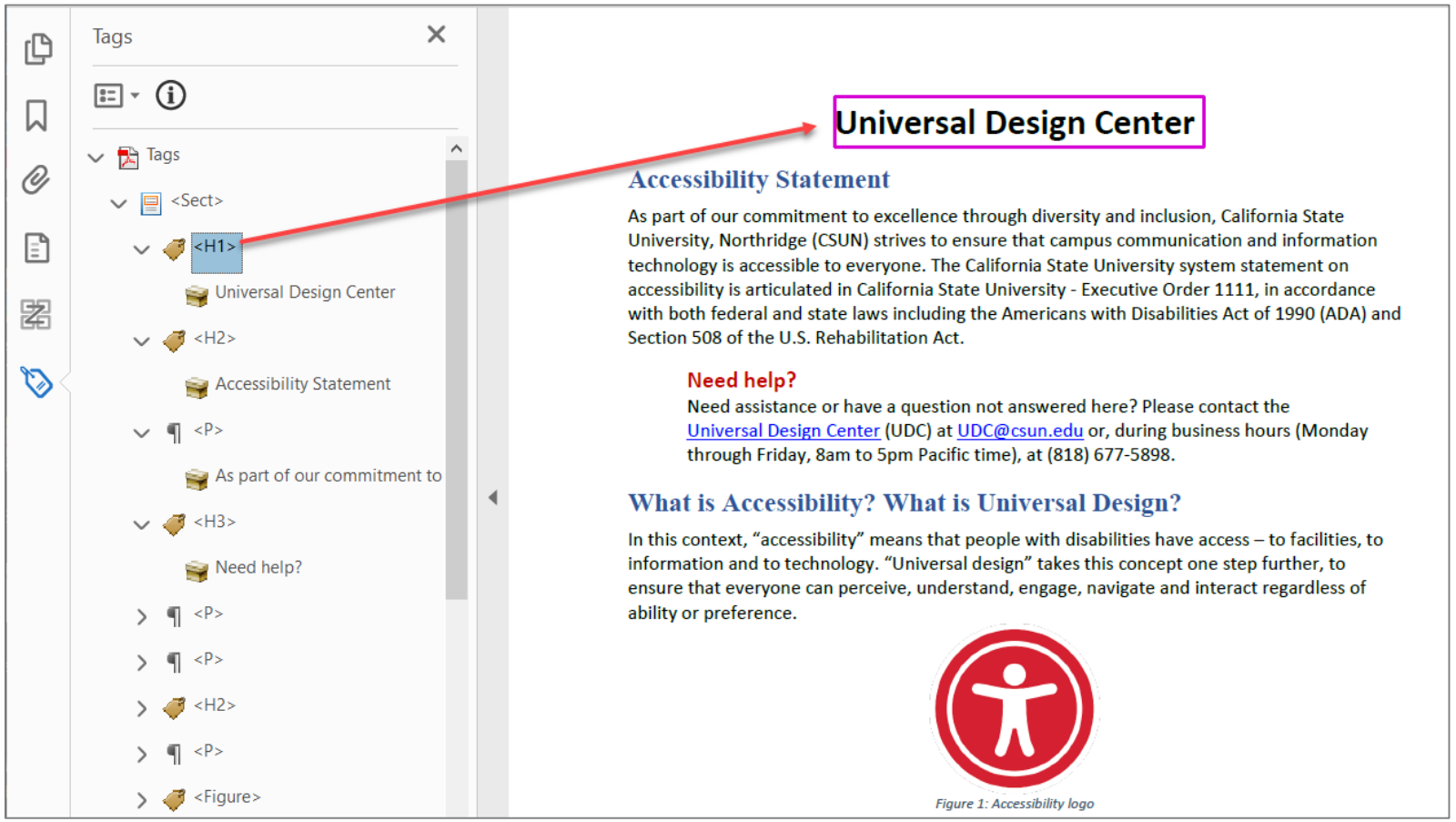
Tags are invisible identifiers that will tell **screen readers and other assistive technology** (AT) an object is…

- Paragraphs of body text: <P>
- Headings and subheads: <H1> - <H6>
- Lists: <L>, <LI>
- Tables: <Table>, <TR>, <TH>, <TD>
- Graphics have Alt-Text that describe the visual: <Figure>
- Hyperlinks: <Link>
- Captions, and other parts of a document: <Caption>
- Decorative images: <Artifact>

Ensure the tags are in the correct **logical reading order** to match the document pane.

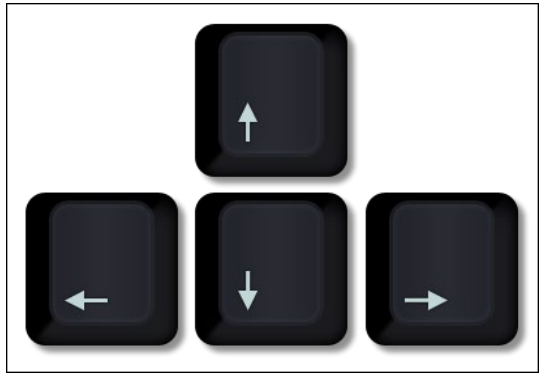


Tags Pane, 2 of 2

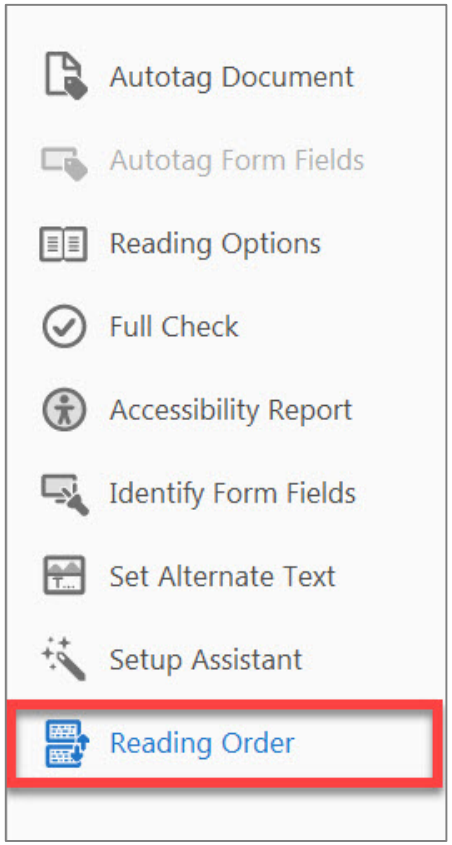


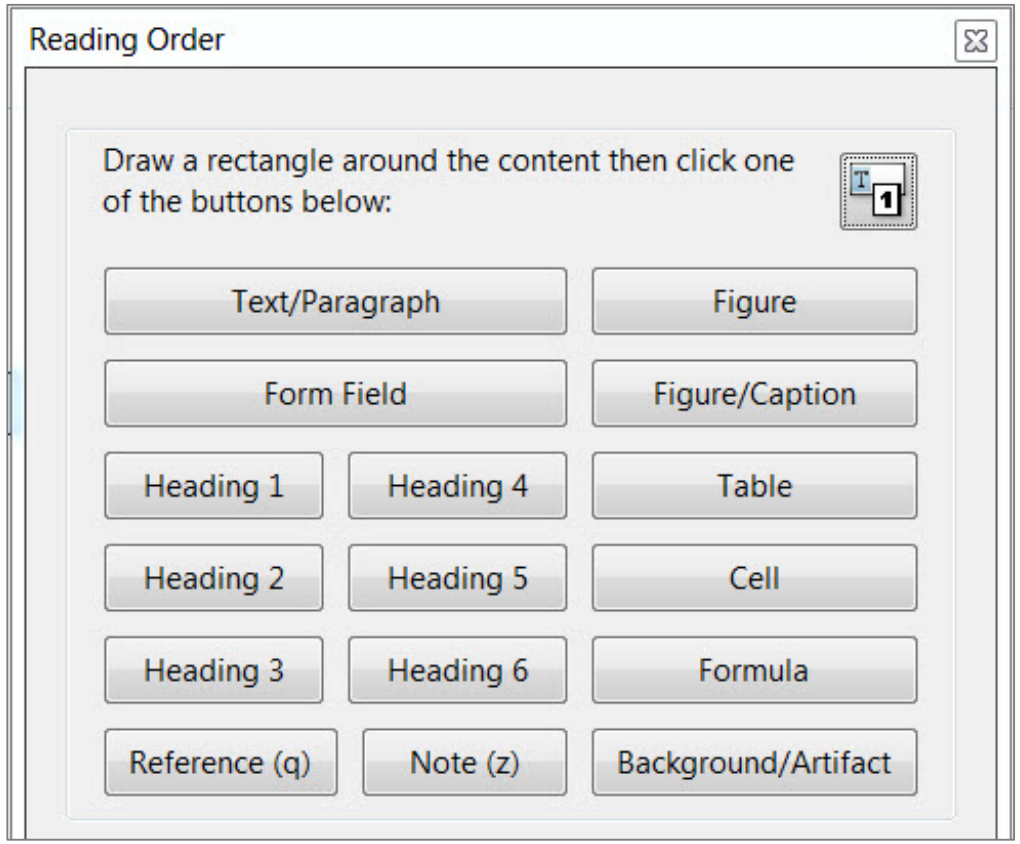
Tags are shown as an expandable "tree"

- Up and Down arrow keys to navigate tags tree.
- Right and left arrow keys to expand and collapse the text.



What is Custom Tags?





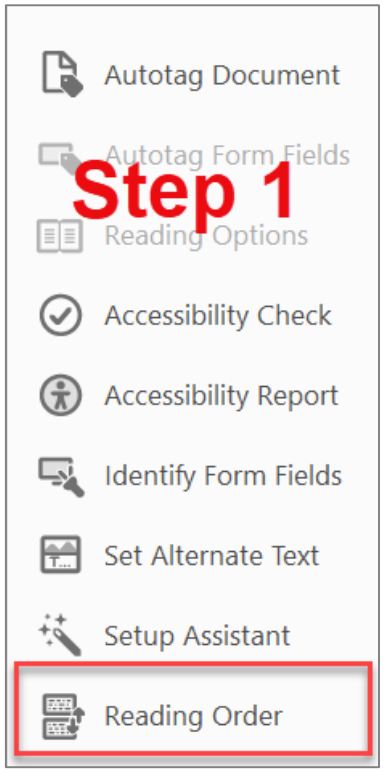
Tags such as **Link, List, List Item, Table Data Cell, Table Header Cell, Section, and so forth** that are **not listed** in the Reading Order tool, but these are essential structural elements.

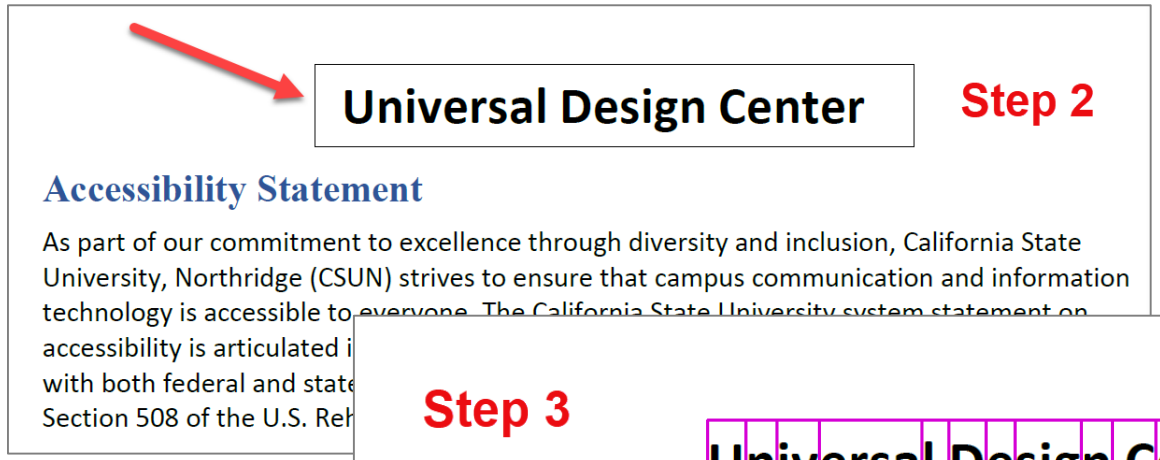
Custom tags are the only way to make it works by selecting “New Tag” from Tags Pane.

When do we use custom tags?

How to Tag a Document?

1. Open **Accessibility**, select **Reading Order** Tool
2. Draw a rectangle around the content or double-click the content
3. Select one of Reading Order buttons to tag it
4. Proceed step #2 to tag the rest of the content





List Tags

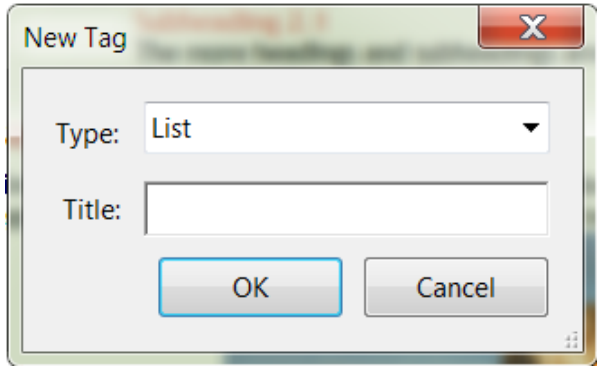
How do we create list tags?

How to create an accessible PDF:

- Create an accessible Word document
- Convert your Word document to PDF
- Validate PDF Tags and Reading Order
- Use the accessibility checker to test your document

List Tags

- Tags Panel: Create New Tags



- **List Nesting**:

List **<L>**

List Item **<LI>**

List Item Body **<LBody>**

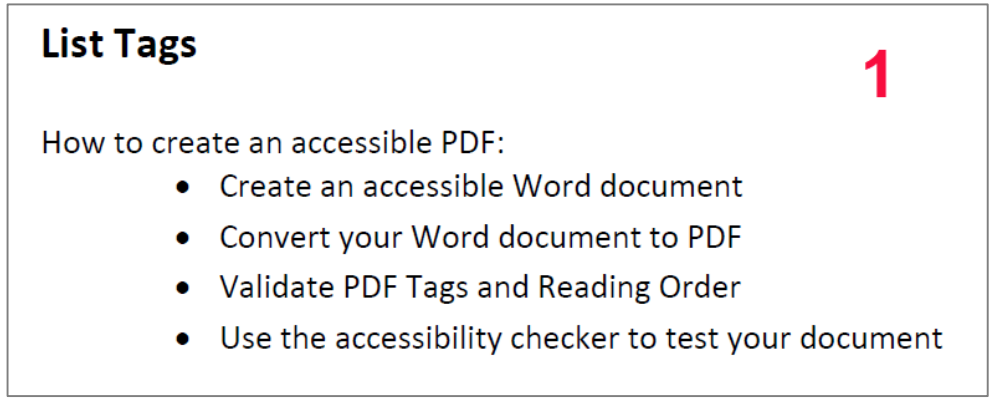
List Item **<LI>**

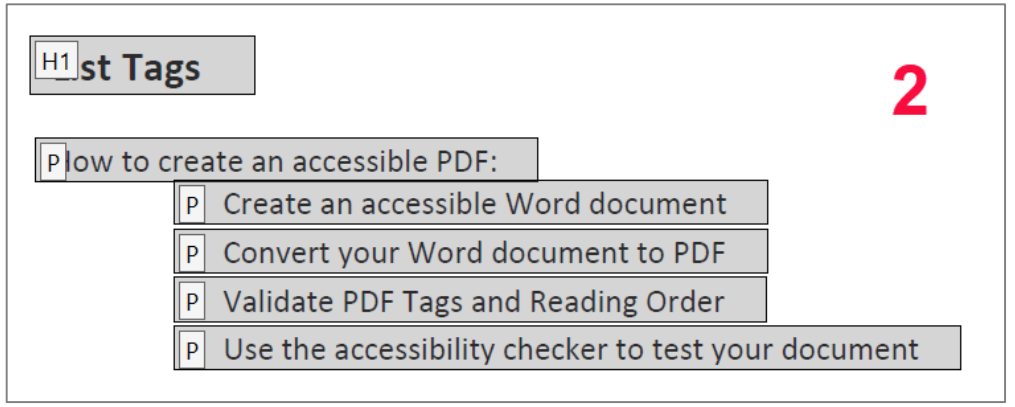
List Item Body **<LBody>**

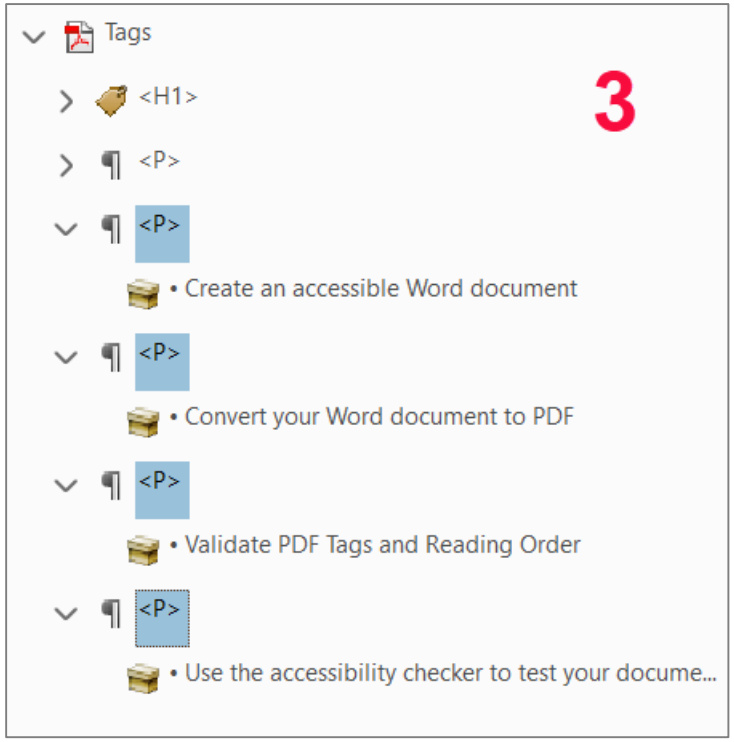
List Item **<LI>**

List Item Body **<LBody>**

List Nesting, 1 of 2

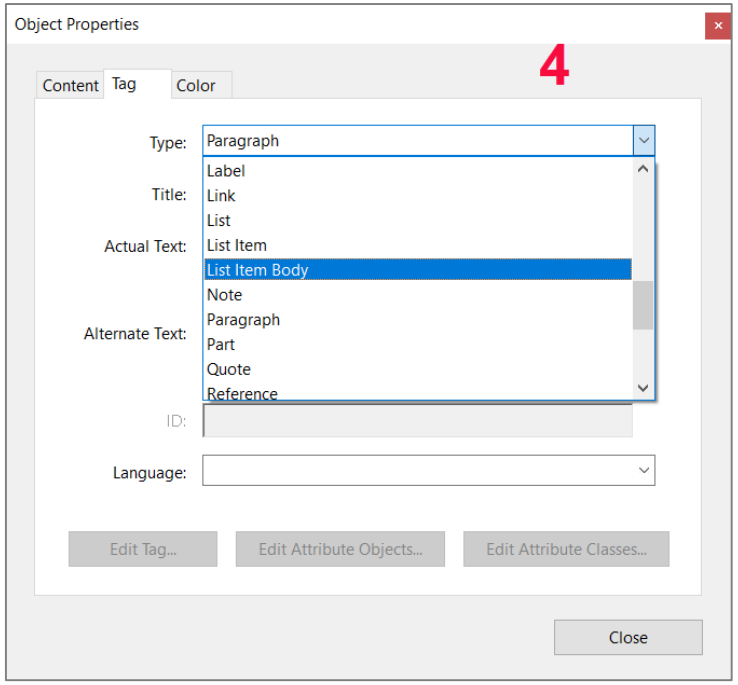




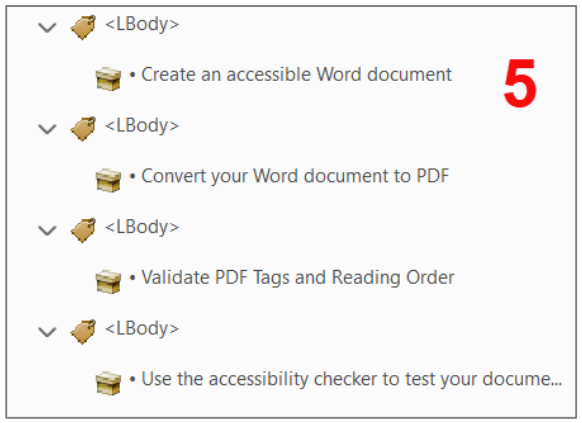


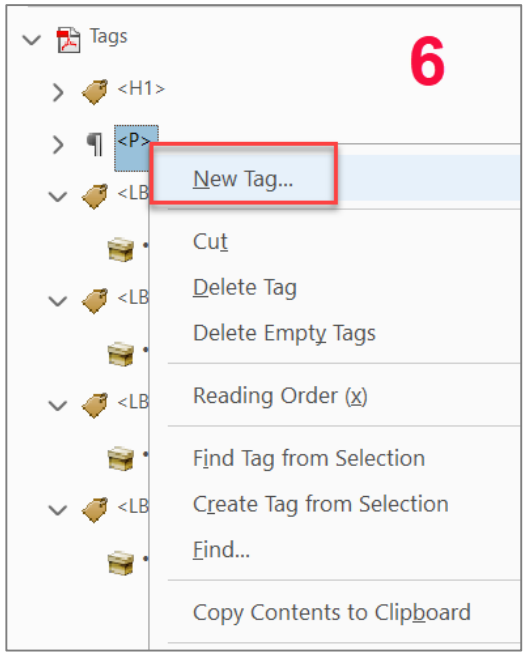
- List item needs to tag <P> line by line individually not one chunk <P>
- Hold **Shift** key to select four **<P>** at the same time
- Right-click **Properties**
- Change Paragraph to **List Item Body**

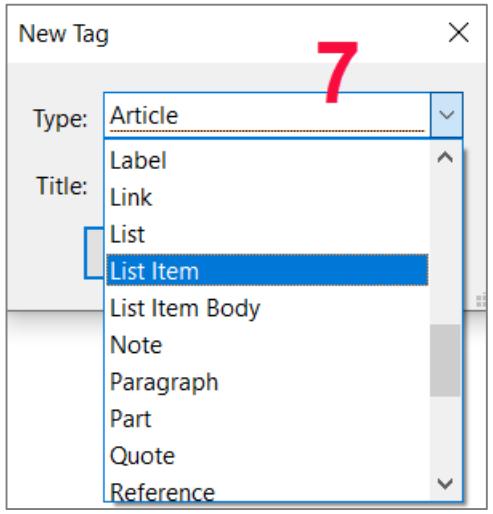
Note: **CTRL** is for specific selection



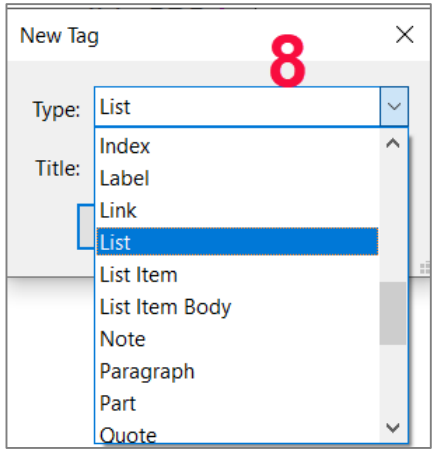
List Nesting, 2 of 2

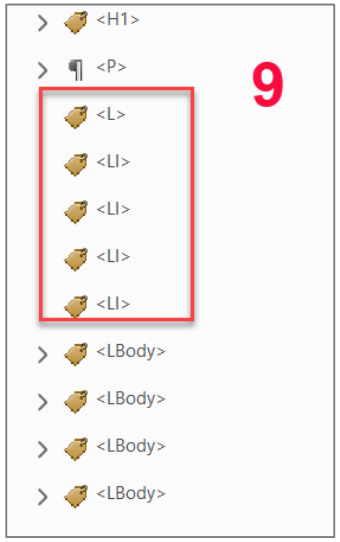




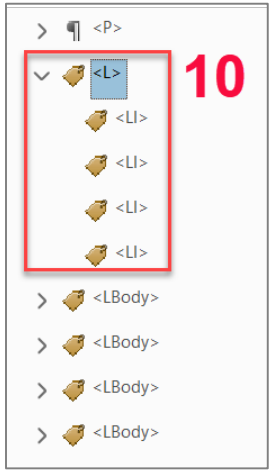


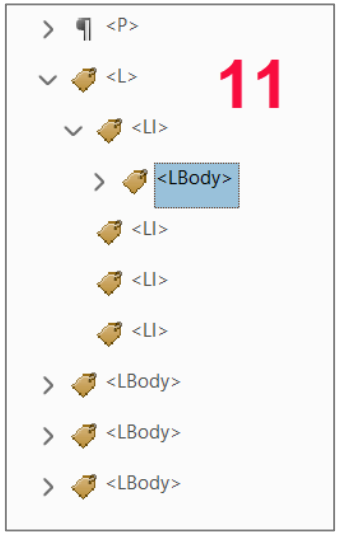
Create 4 new List Item <LI> tags and 1 new List <LI>.



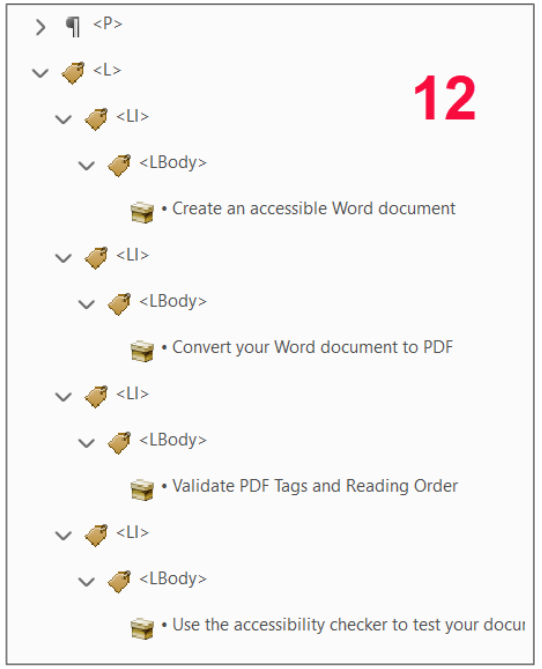


Hold **Shift** to select all four <LI> move underneath <L>. <L> becomes the parent and <LI> becomes the child.





Move each <LBody> under <LI>. All list items should look like this format.



Links or Hyperlinks

- Link Tags
- Create Link

Adobe: Create and Verify PDF Accessibility

NCDAE: Creating Accessible PDF Documents

Coblis Color Blindness Simulator

Simple Tables vs. Complex Tables

Best Practices for Accessible Links

DESCRIPTION

- Link text must always properly **describe the purpose** of the link and tell a user **where** the link will take them.
- Do not use text such as "**click here**" or "**read more,**" nor web addresses (URLs).

PRESENTATION

- Each link on the page should be **visually different** from regular text on the website.
- Can be differentiated by color, **bold,** underline, or *italics*.
- Using color alone **does not** make it accessible.

FUNCTIONALITY

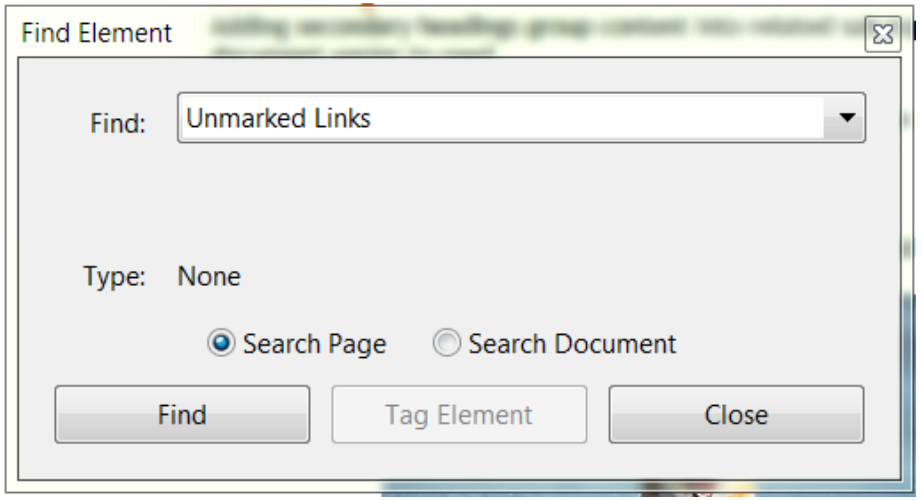
- Link functionality is about ensuring a link functions the way the user expects.
- Links must always enhance the accessibility of a webpage.
- Users must be able to access links using a mouse, keyboard, or speech recognition commands.

LINKED IMAGES

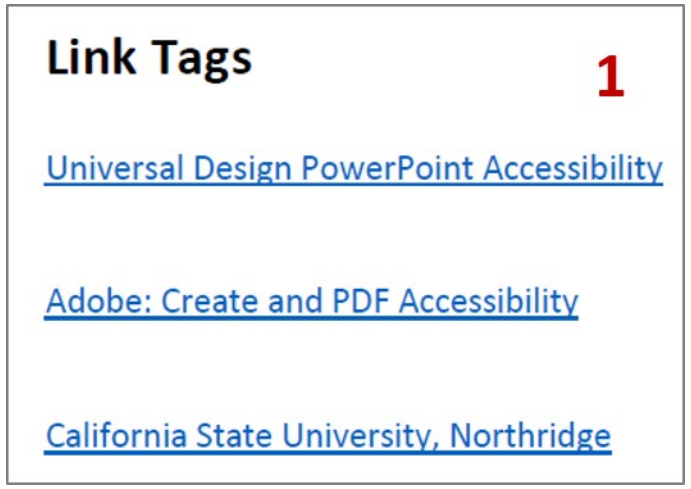
- A linked image is an image (with or without text) that is linked to another resource or webpage.
- Linked images need link descriptions as well as image descriptions (alt text).
- If the link description is different than the alt text, enter the link description in the HTML Title field.
- Visit Linked Images on the Best Practices for Accessible Images page for more information.

Link Tag

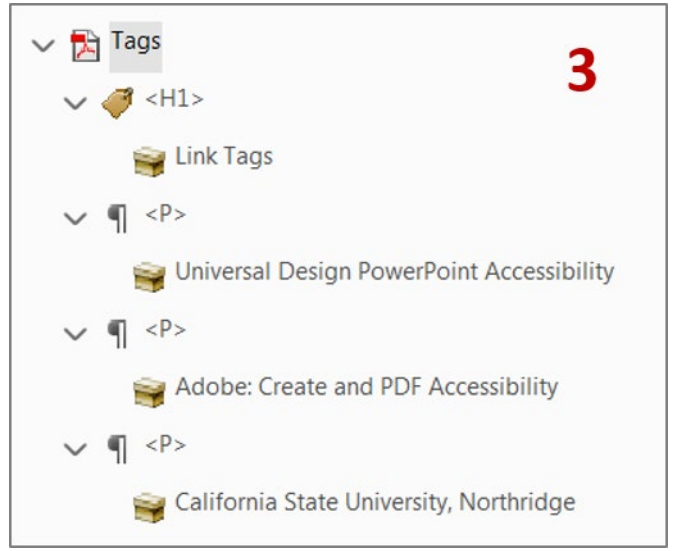
- Tags Panel: Find Unmarked Links
- Link Nesting:
  - "**OBJR**" tag must be present so link is defined correctly

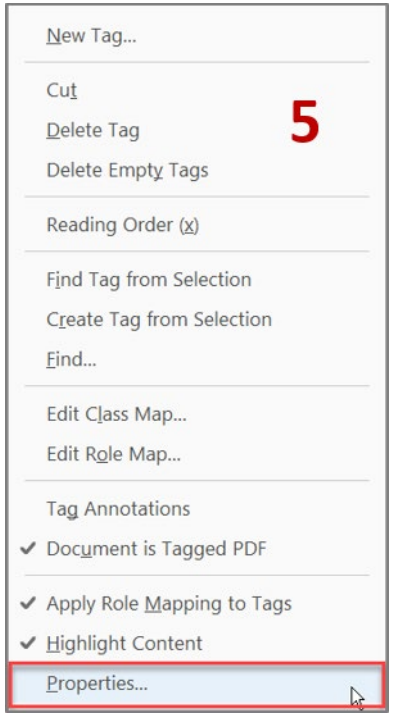


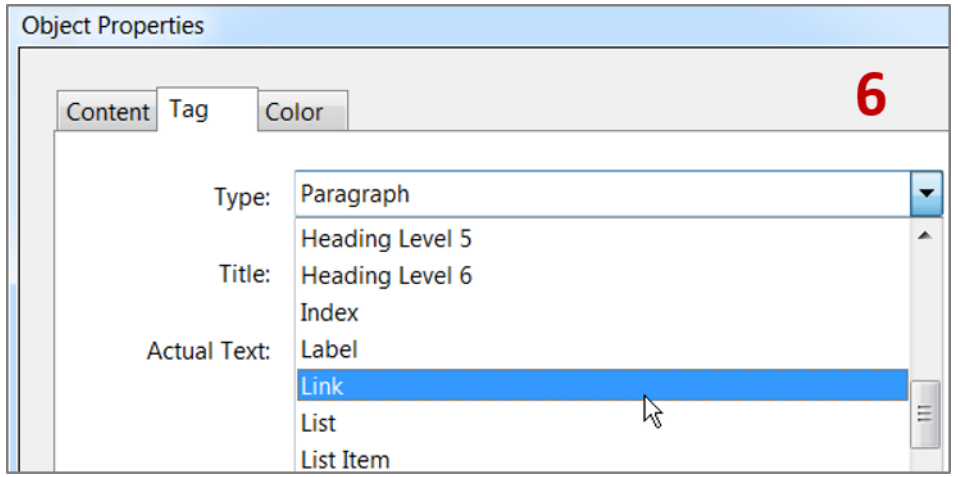
Create Link, 1 of 3



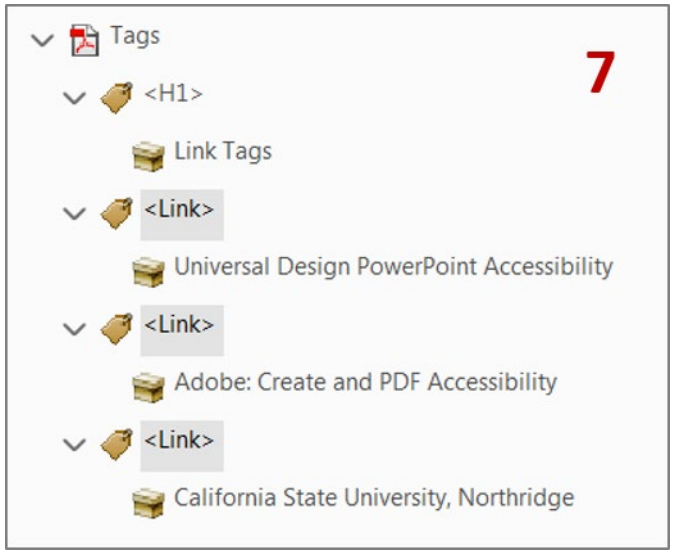
This example has no tag structure

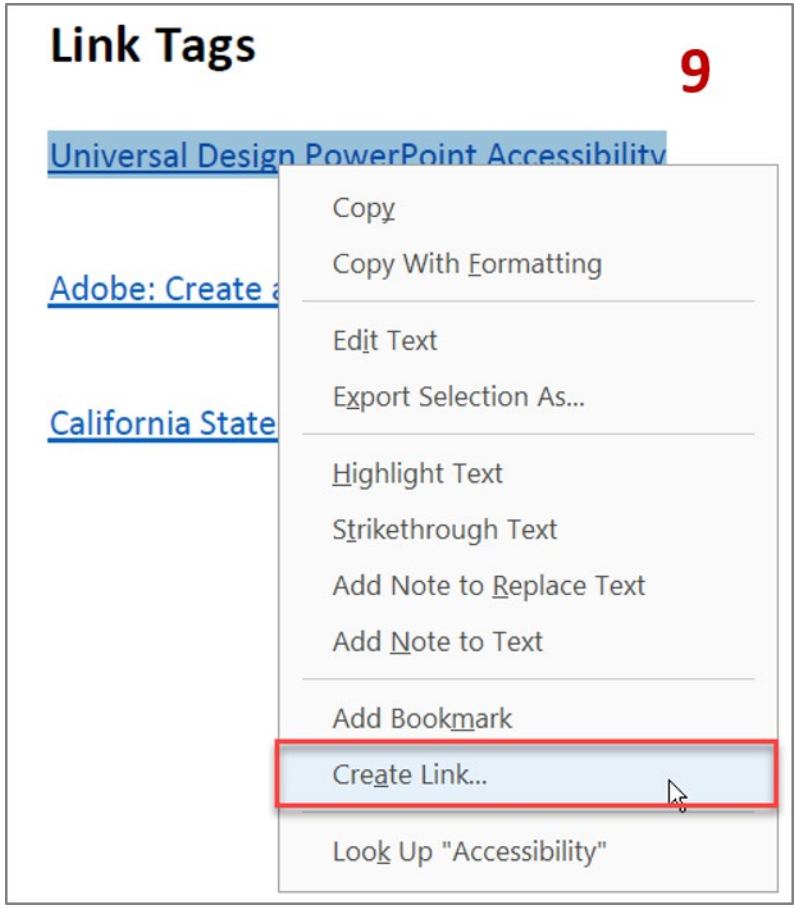


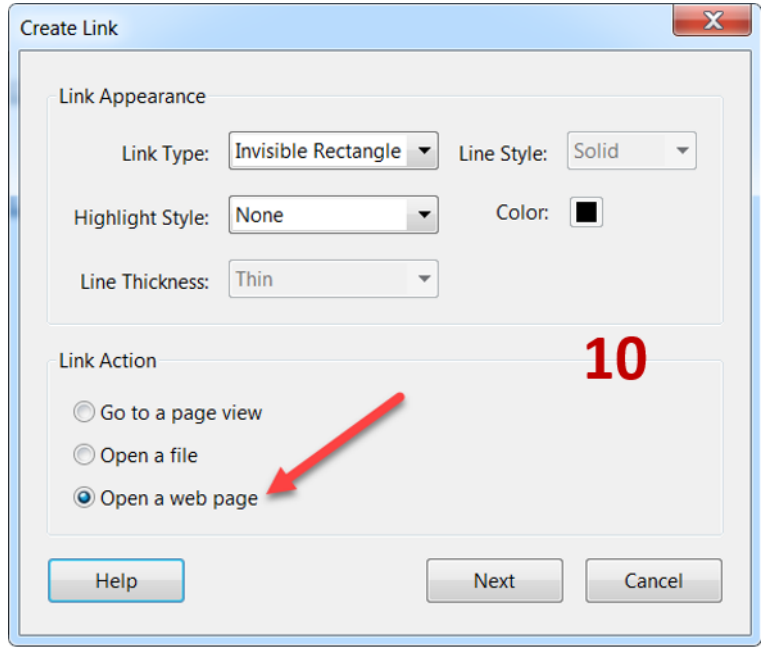


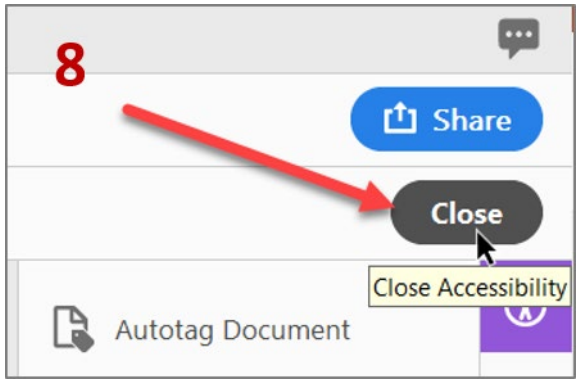


Create Link, 2 of 3

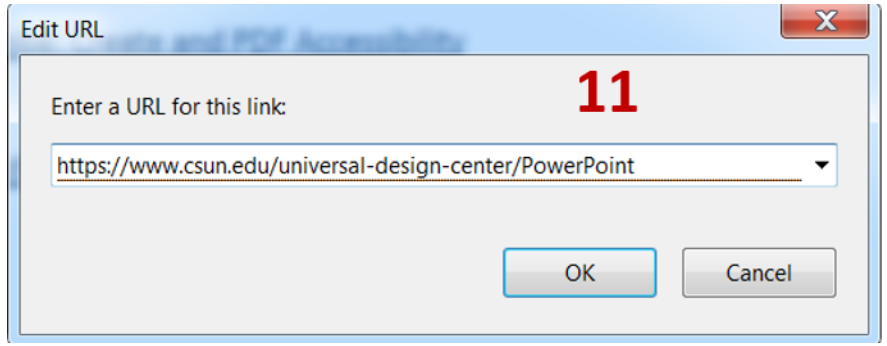






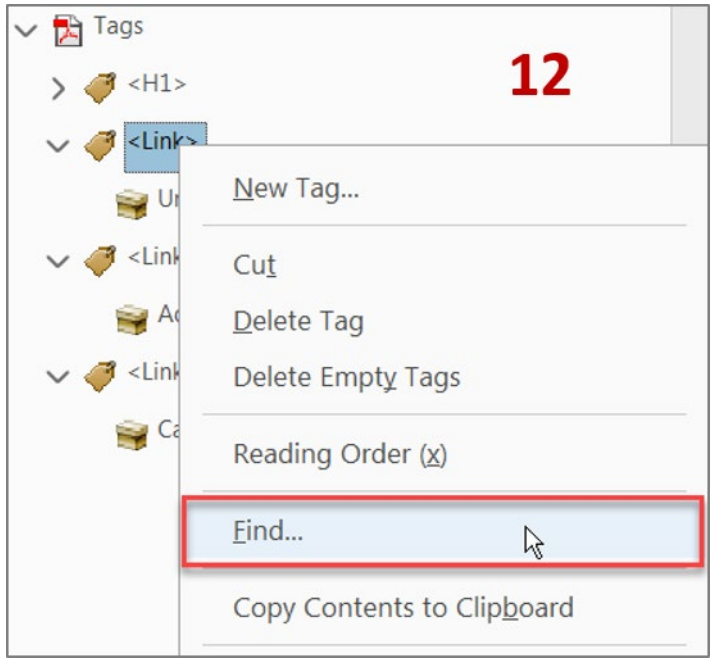


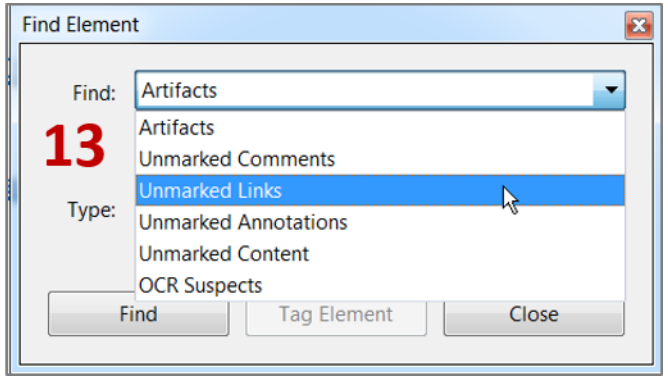
Highlight “Universal Design PowerPoint Accessibility” then right click to select **Create Link**

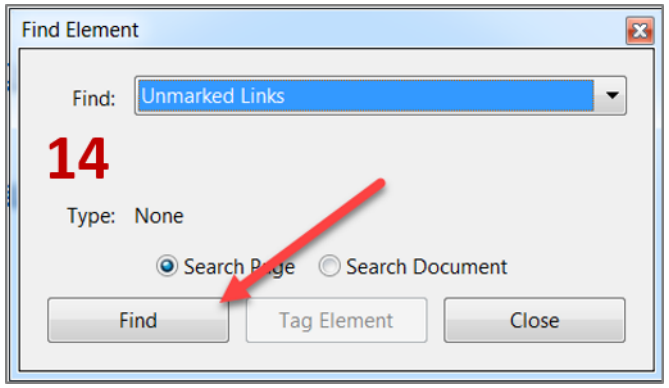


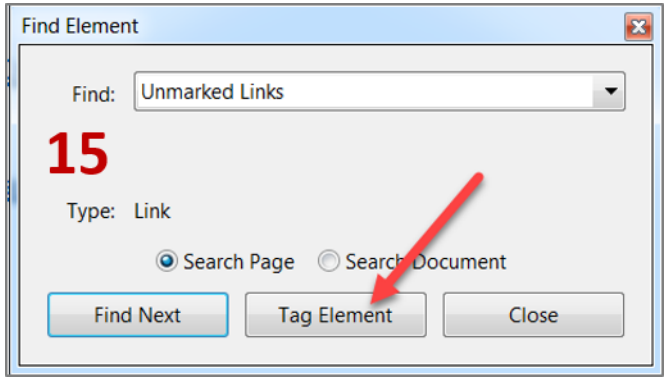
Create Link, 3 of 3

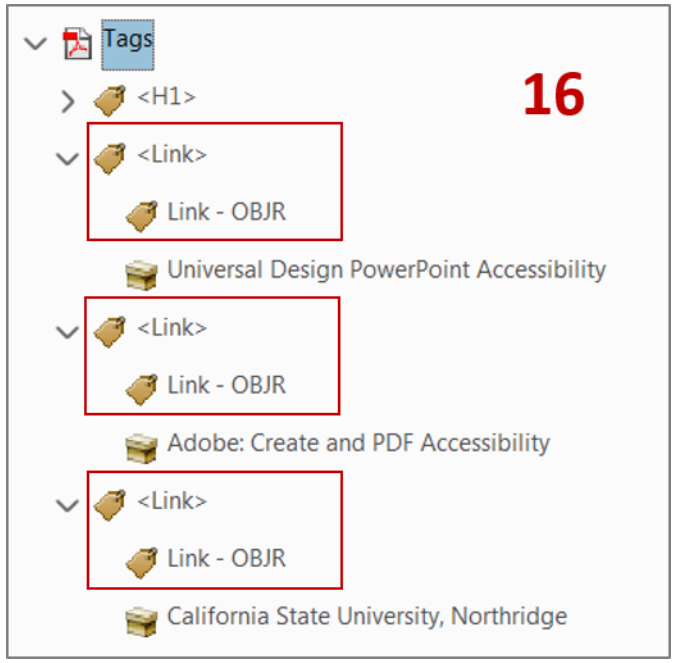
"**OBJR**" tag must be present so link is defined correctly

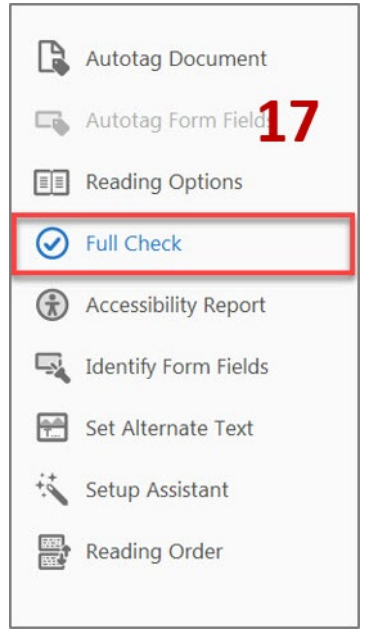












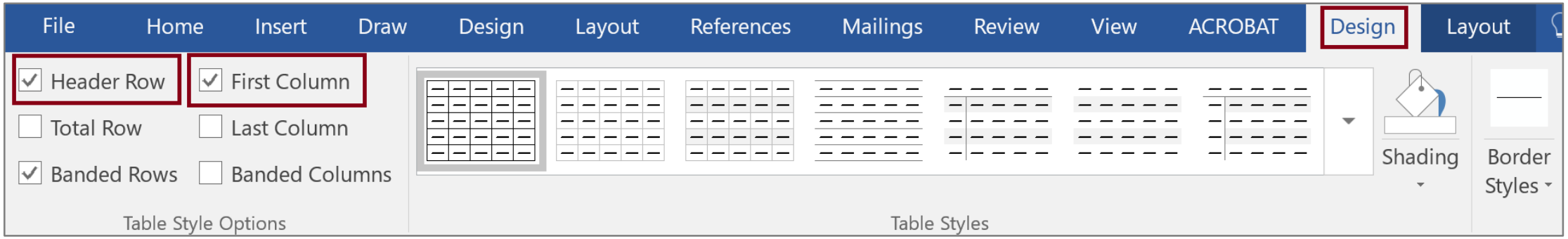
Tables

Disability	People in U.S.
Visual	1.8 Million
Hearing	1.0 Million
Cognitive Mental	4.3 Million
Ambulatory	11.8 Million

- Table Tags
- Table Editor
- Table Summary

Table Header Cells - Office

1. Table Tools added to the Ribbon when Table is created or selected
2. Header Checkboxes found under Design Tab
   - Word
     - Header Row (Column Headers)
     - First Column (Row Headers)



Fruit	2018	2017	2016
Orange	$1,900	$2,400	$1,500
Strawberry	$800	$600	$1,000
Avocado	$2,000	$1,500	$3,000

Header Row (First row header)

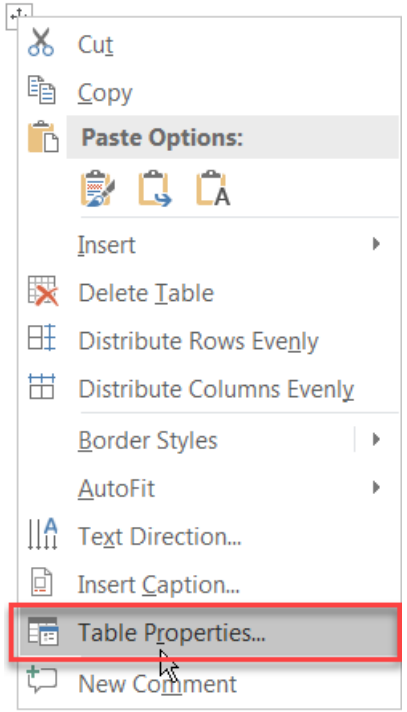
Fruit	2018	2017	2016
Orange	$1,900	$2,400	$1,500
Strawberry	$800	$600	$1,000
Avocado	$2,000	$1,500	$3,000

Header Row and First Column

Table Header Row - Office

If ‘Repeat as header row at the top of each page’ isn’t selected, table headers will be ignored when exporting as a PDF and won’t be read by screen reader.

- Right-click the **first row** of the table and select **Table Properties**.
- On the **Row** tab, make sure the checked **Repeat as header row at the top of each page** and unchecked **Allow row to break across pages**. Click **OK**.
- Repeat these steps for all tables in the document. Save the document.



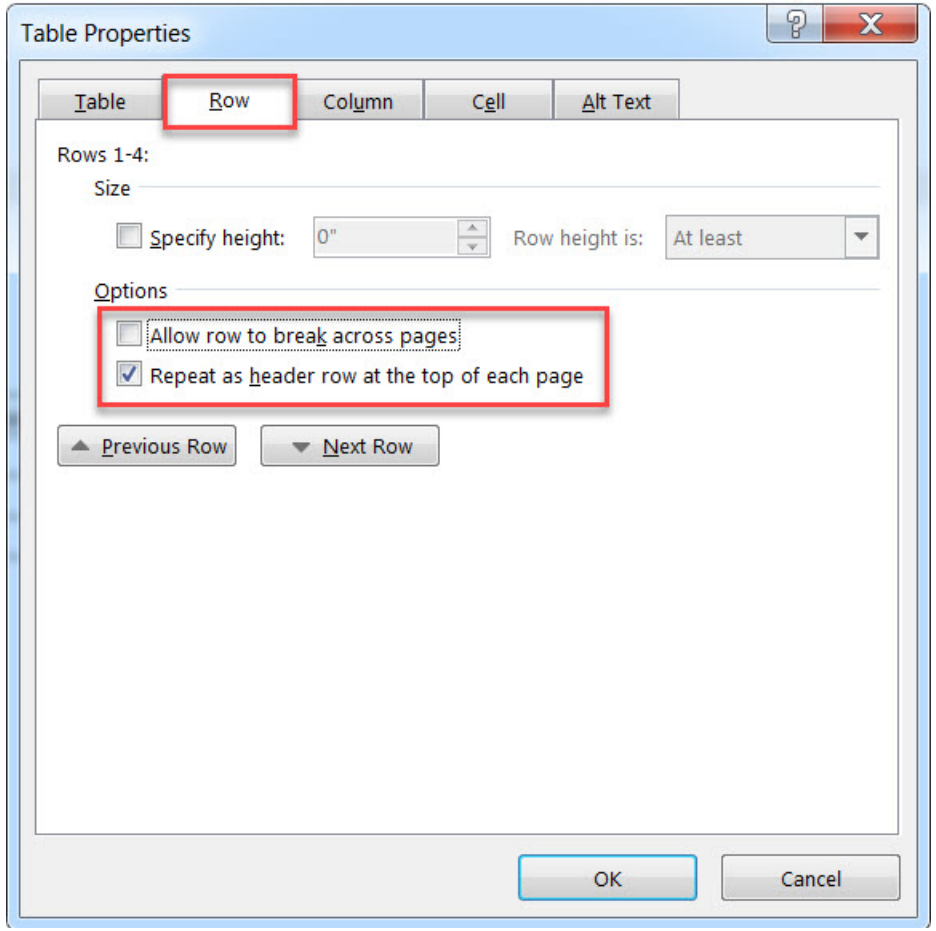
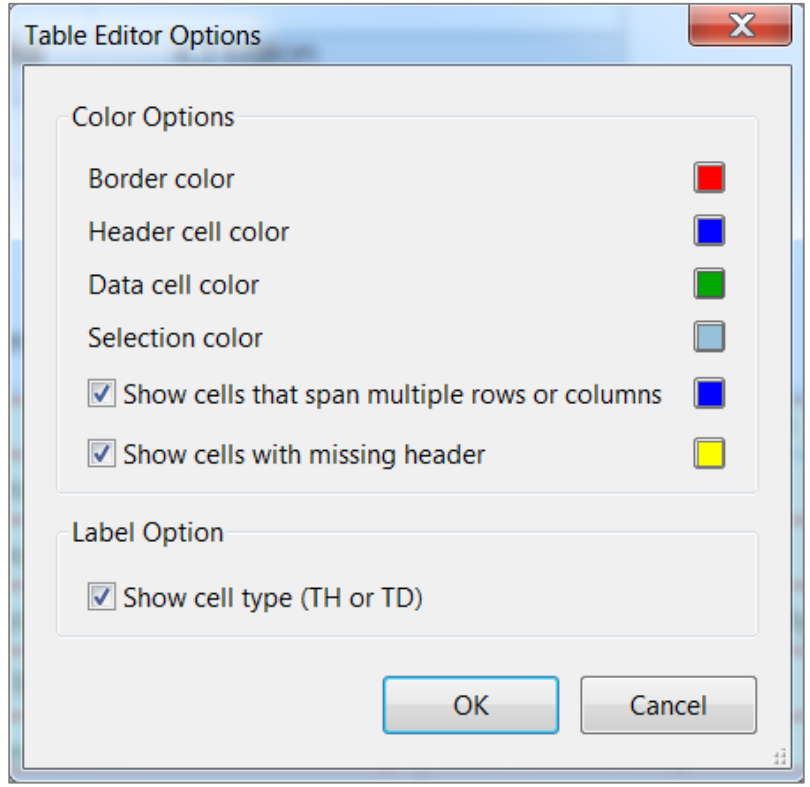


Table Editor, 1 of 2

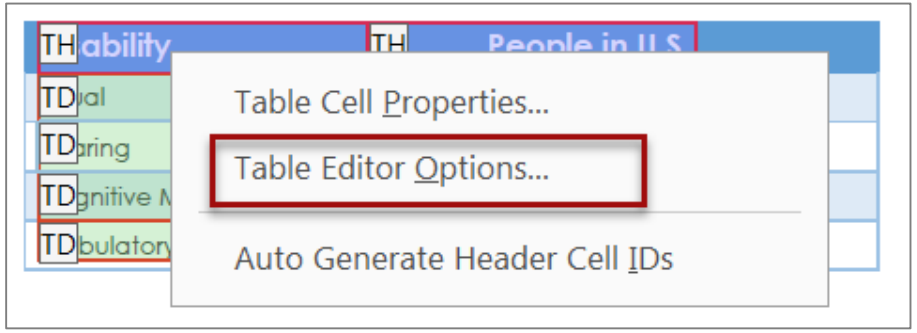
1. Set up Table Editor
   - Access via Tag Tree or Reading Order tool
   - Set display color options
2. Enhancements
   - Click anywhere
   - Select cell



TD me	TD Title	TD Roles & Responsibilities
TD te Sharron	TD Program Manager	TD Jane of all trades
TD en Davoudian	TD Senior Information System Analyst	TD Web Accessibility
TD ystal Monroy	TD Project Analyst	TD Procurement Accessibility
TD n Nguyen	TD Instructional Media Accessibility	TD Document Accessibility
TD erardo Rodriguez	TD Technical Consultant	TD Web Accessibility

Table Editor, 2 of 2

- Access from Tag Panel Option Menu
- Right-click **<Table>** to select **Table Editor** (q)
- Set up Options
  - Check all check boxes
  - Select display colors



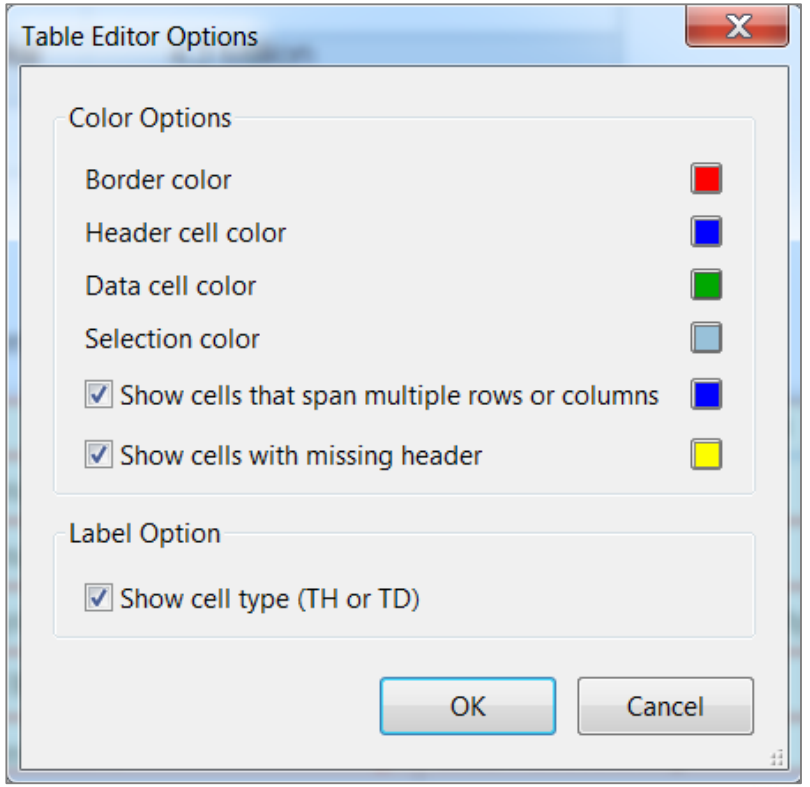


Table Tags

Tables need a <Table>, <TR>, <TH> and <TD> tags in this order

<Table>

<TR>: Table Row

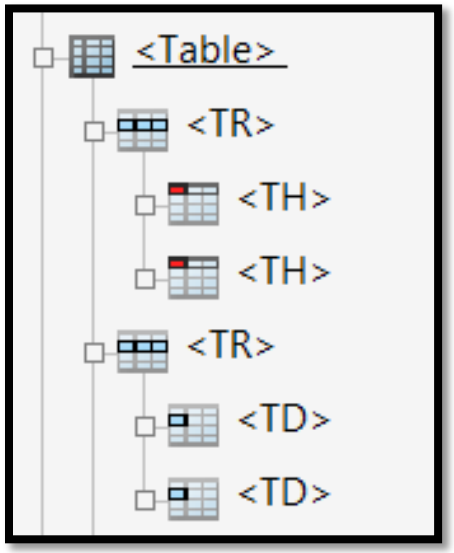
<TH>: Table Header

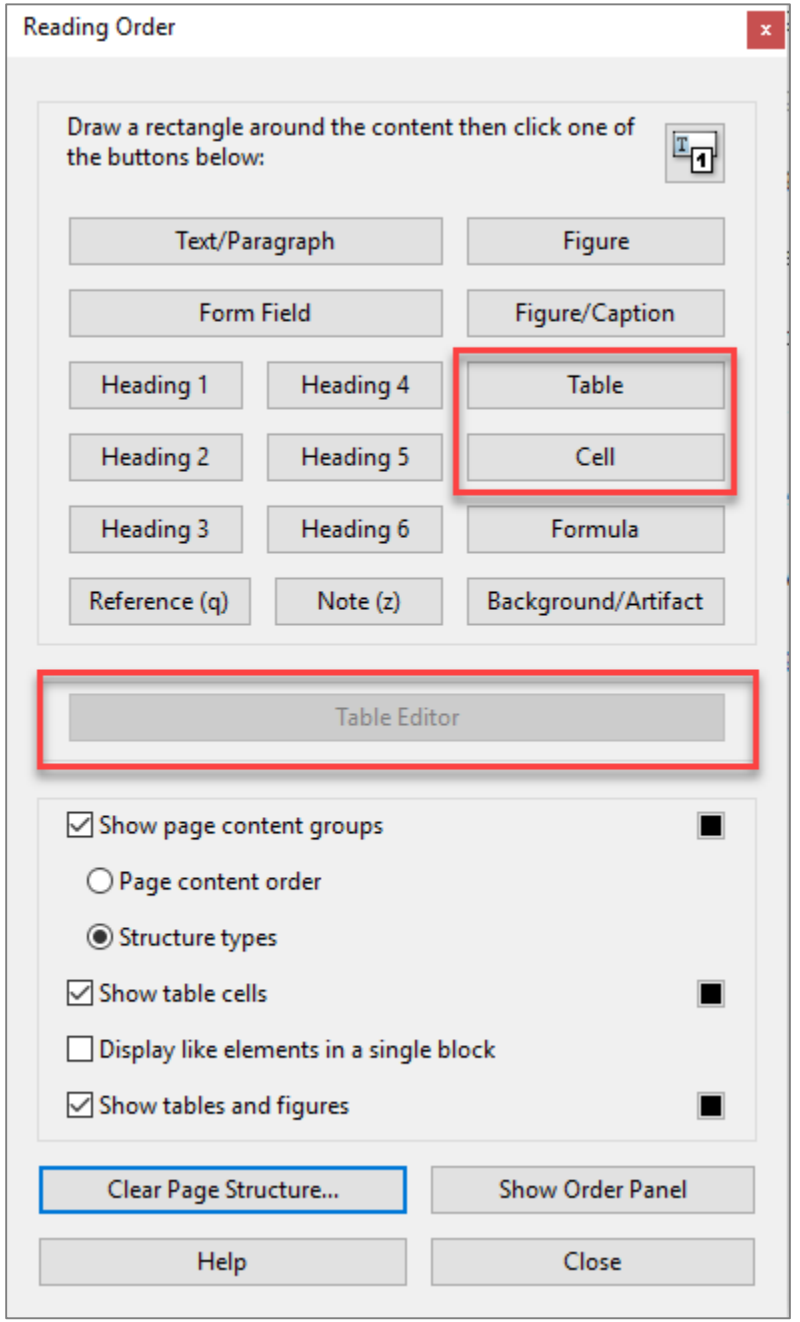
<TR>: Table Row

<TD>: Table Data

Column and Row Headers need to be tagged with the <TH> and data cells with the <TD> tag.

** Use **CELL** to tag individually if Table creates the tags incorrectly.



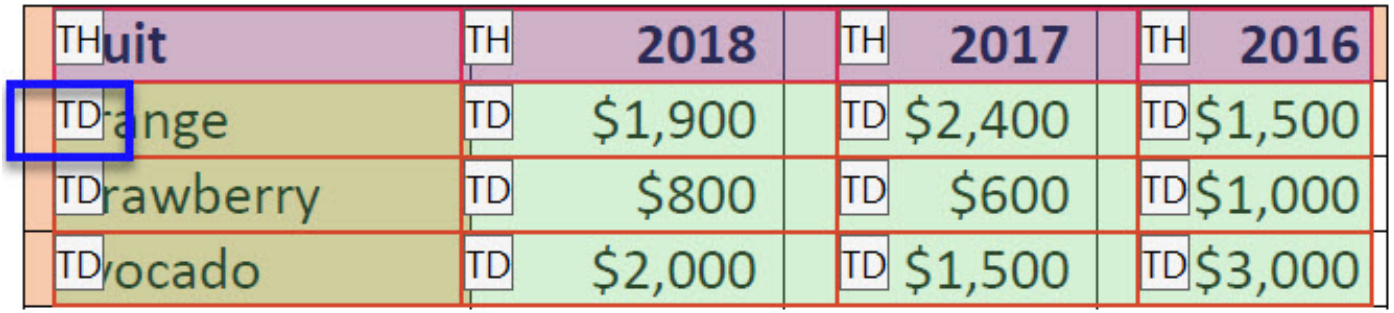


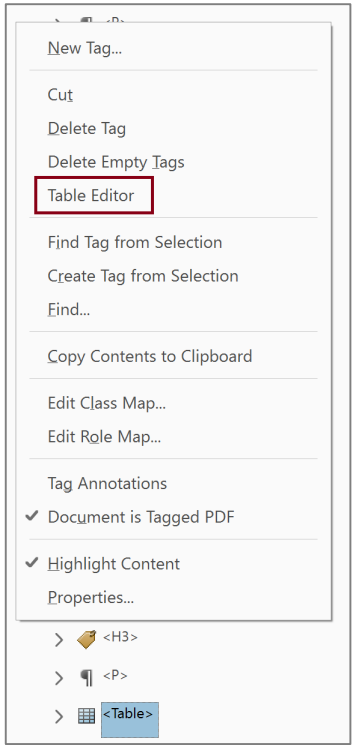
Fixing Tags – Basic Table, 1 of 2

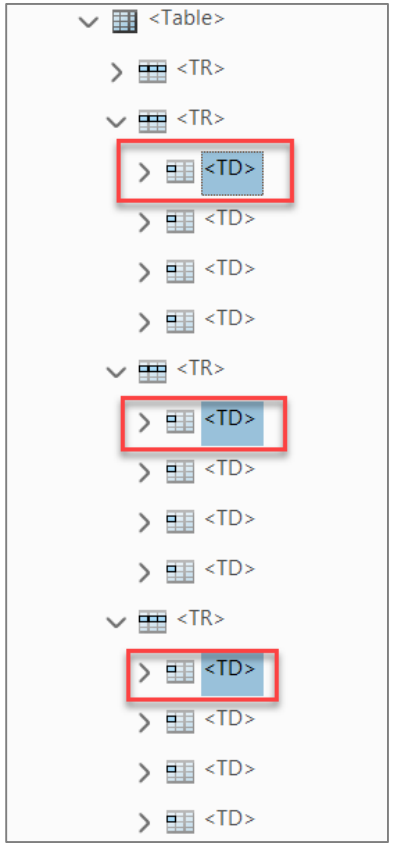
Column and Row Headers need to be tagged with the <TH> and data cells with the <TD> tag

- Open Table Editor (context menu in Tag Tree or Reading Order tool)
- Notice row headers (Orange, Strawberry, Avocado should be <TH> not <TD>)
- Select 1 or multiple <TD> tags change to <TH> tags

Fruit	2018	2017	2016
Orange	$1,900	$2,400	$1,500
Strawberry	$800	$600	$1,000
Avocado	$2,000	$1,500	$3,000

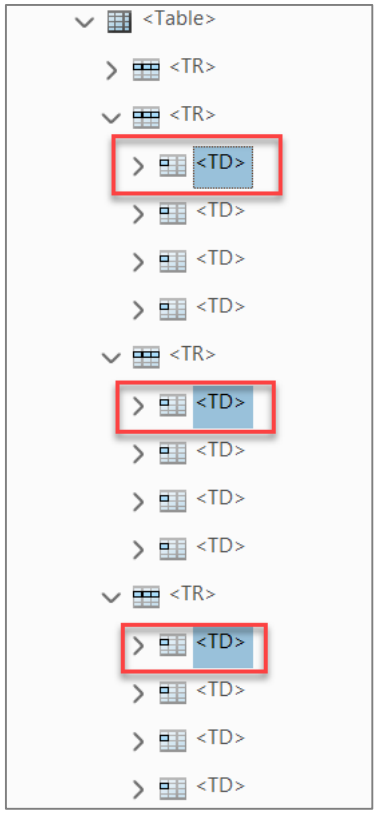


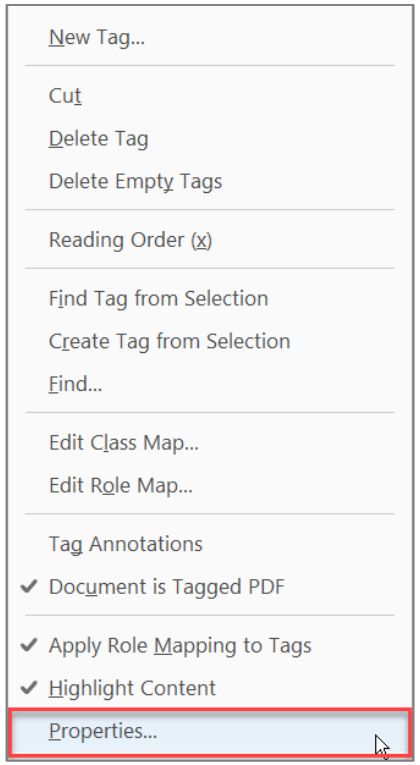


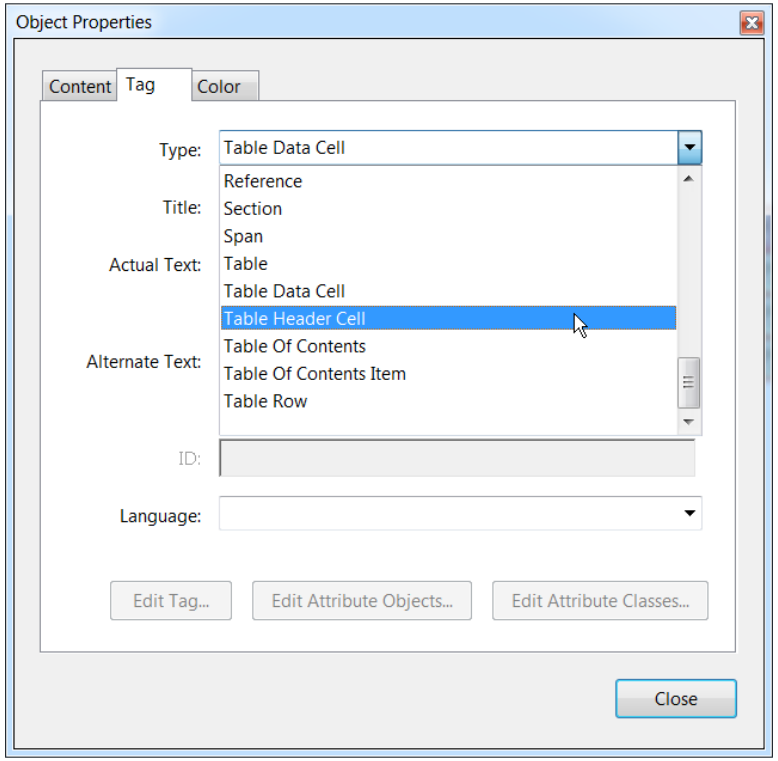


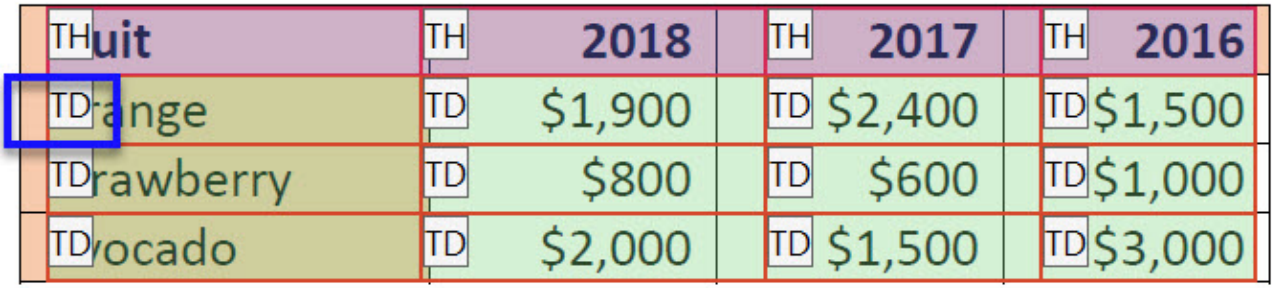
Fixing Tags – Basic Table, 2 of 2

- Hold **Ctrl** and select multiple **<TD>** tags
- Right-click to select **Properties**
- Change Table Data Cell to **Table Header Cell**









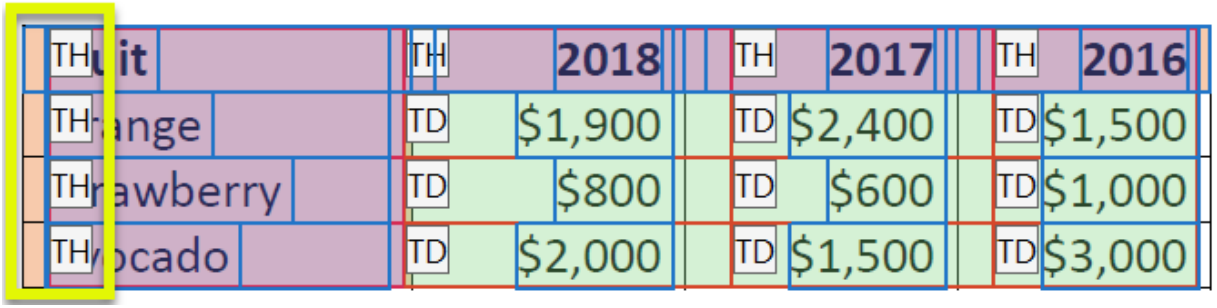
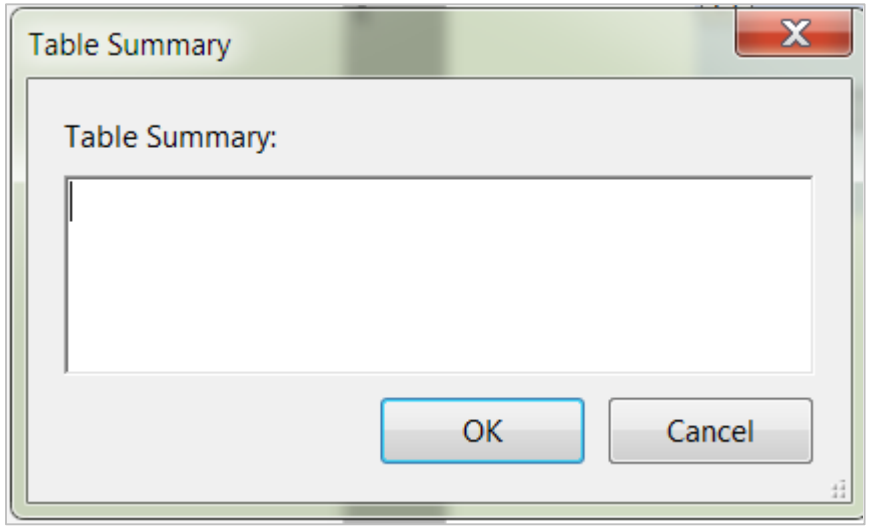


Table Summary

- **What is a table summary?**

  A table summary is really similar to alternative text for images. It's a description of what your table represents.

- **Do I need a table summary?**

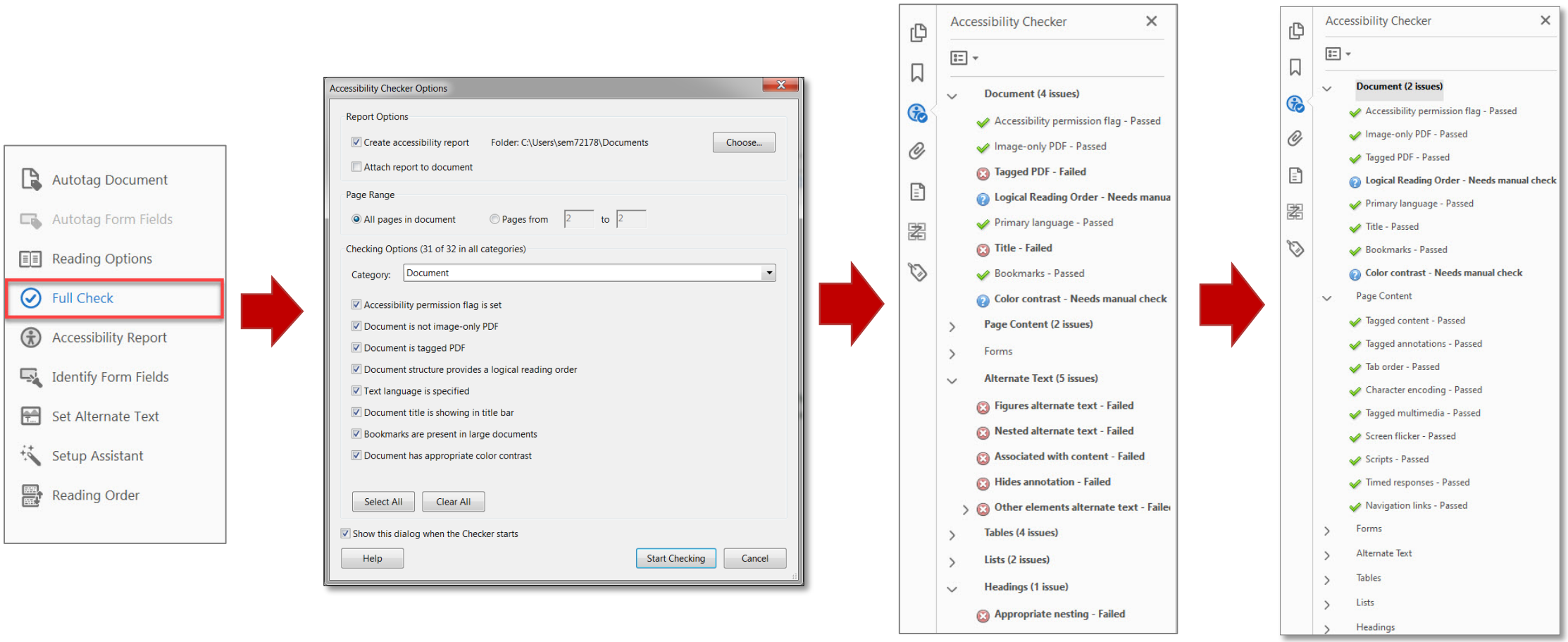


Tables Issues / Accessibility

- Table issues are unpredictable
- Problems with tables converted from Word or other programs
- May need to fix tables in Tags Panel
- To ensure accessibility, format tables with headers and **avoid** merged, split, or blank cells
- The more complex a table (merging cells, nesting multiple headings under one, adding blank lines, etc.) the **worse** it will be for accessibility
- Sample of Simple Tables vs. Complex Tables by Penn State

Check Accessibility Again…

- Go through each section that has one or more issues/failed to fix it until all sections passed.
- Two question marks will always stay in **Document (2 issues)** section even if you right-click and select **Pass**. It just there as a reminder to conduct manual check.

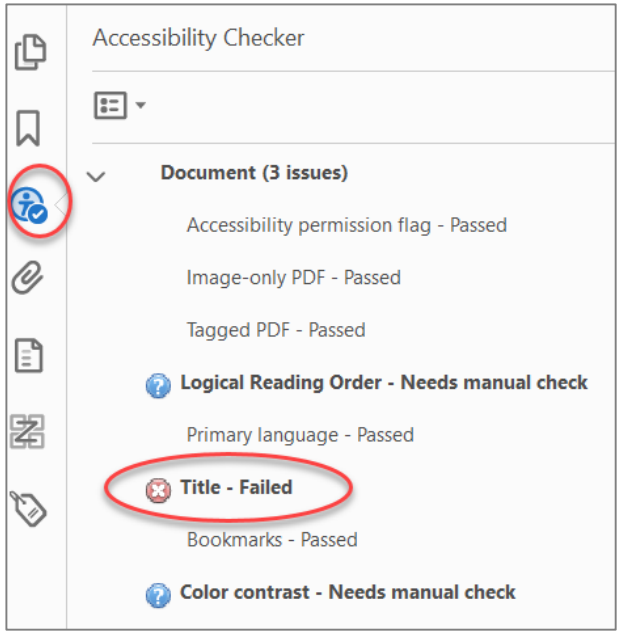


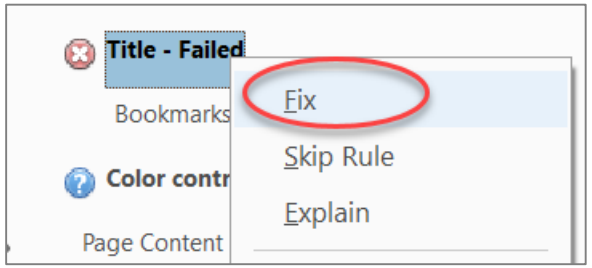
Common Issues – Title shown as a failure

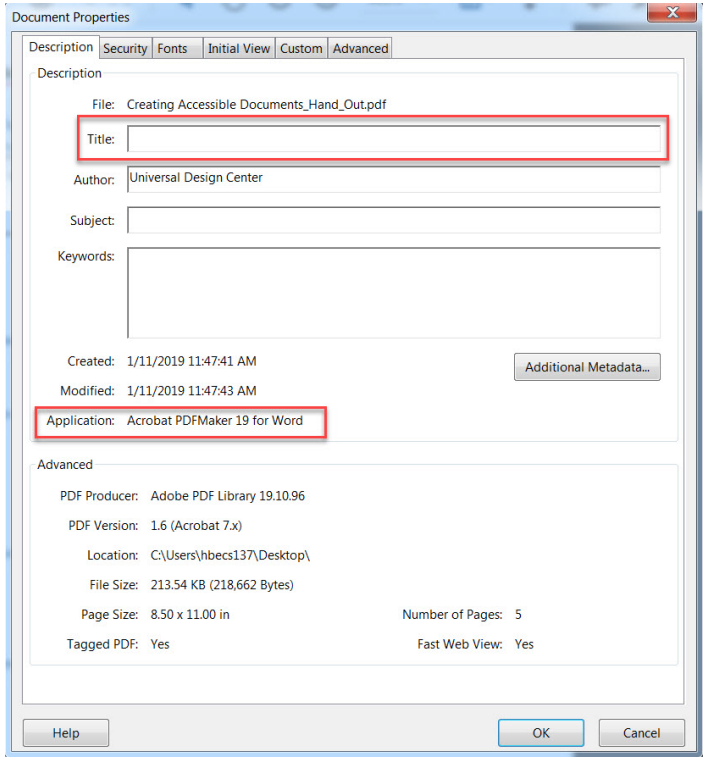
Acrobat did not recognize the Title from Word Document, simply right-click Title item and select “Fix”.

The document description gives the document a proper title and language to be recognized by assistive technology.

- **Select File** menu **> Properties**
- **Description** tab, enter **Title** box is document title or main content heading/title (deselect **Leave As Is**, if necessary).
- **Application** box showing the source document created from Word to PDF.







What are PDF Title and Language?

Title

- A PDF title is a more descriptive and meaningful version of the file name. PDF titles are often visible in the PDF window or tab. This visibility makes it easier to distinguish multiple PDFs before diving in.
- When multiple PDFs are open, well defined PDF titles allow for easier distinction between them. This distinction is particularly useful when relying on screen readers.

Language

Screen readers can "speak" various languages—as long the content language is identified. If the screen reader does not support or cannot speak the defined language, the user might be informed of the content language, even if that content cannot be properly read.

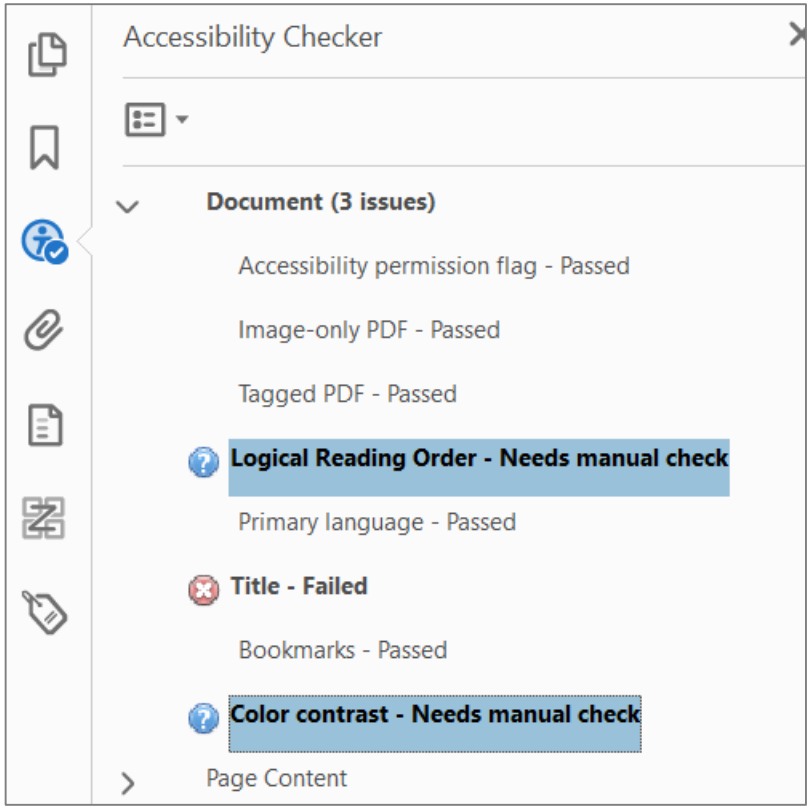
[WebAIM: Document and Content Language]

Accessibility Checker – Manual evaluation

The accessibility checker will always flag two items that require manual evaluation:

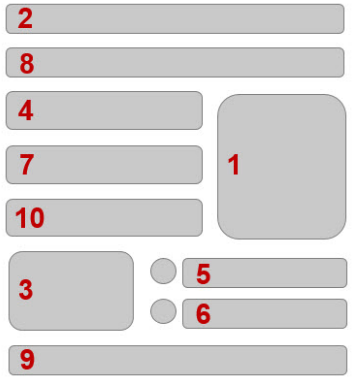
- Logical Reading Order
- Color Contrast

Two question marks will always stay in **Document (2 issues)** section even if you right-click and select **Pass**. It just there as a reminder to conduct manual check.



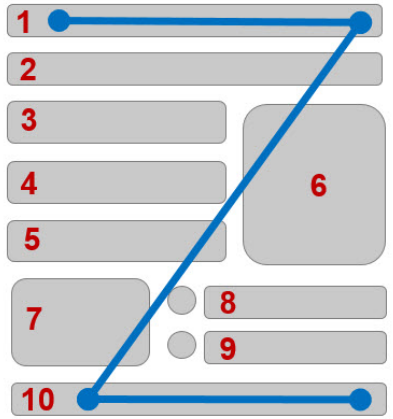
Verify Logical Reading Order

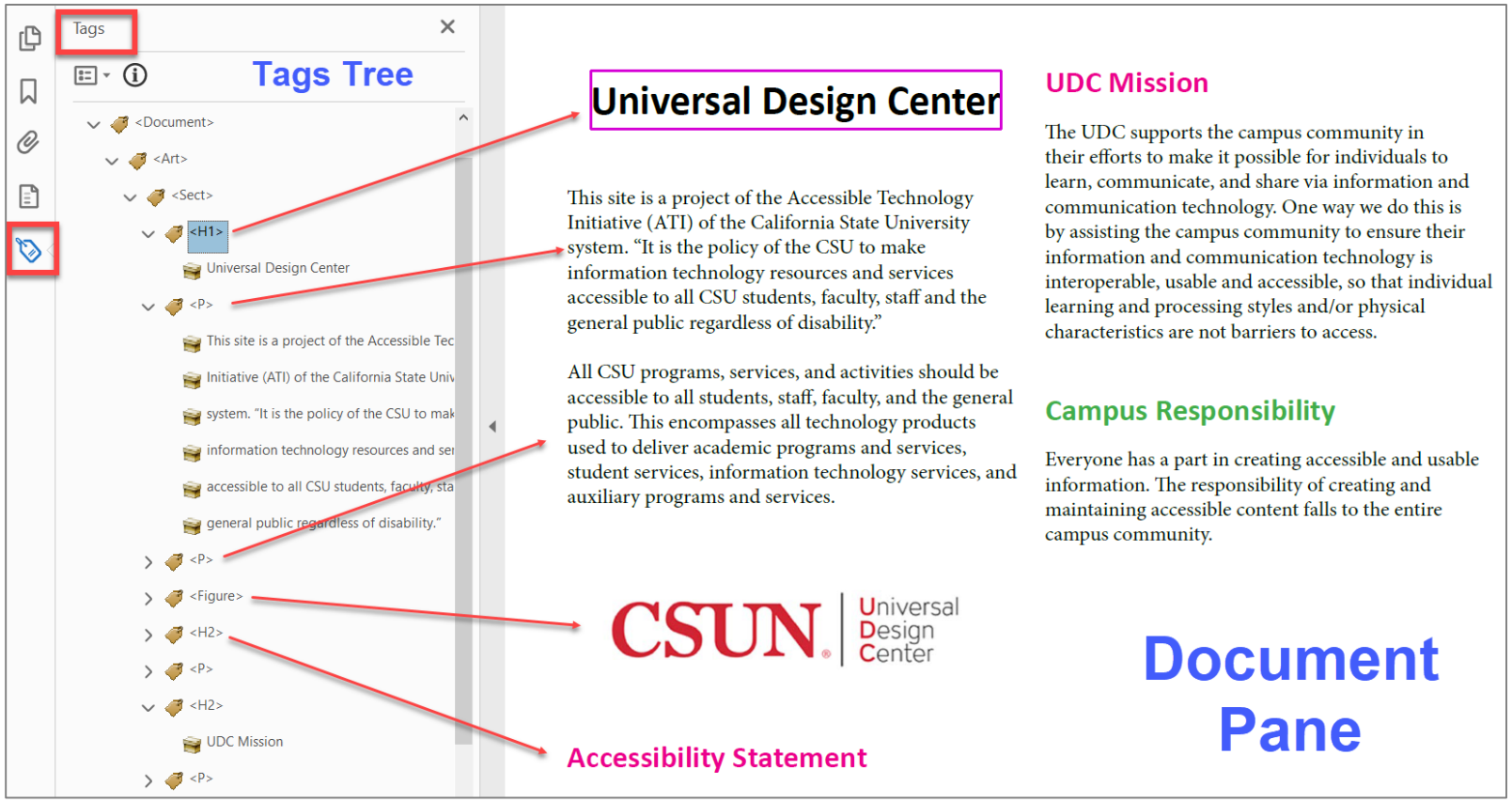
Ensure the **TAGS Tree** are in the **correct logical order** to match the document pane. Manual rearrange tags as needed in the **TAGS pane**. After making these adjustments, start from the top of the tags tree and move through the tags pane sequentially using the down arrow key. A logical reading order start from left to right, top to bottom as illustrated. The Document Pane example is a two-columns layout hence the logical reading order starts with the first column then second column.



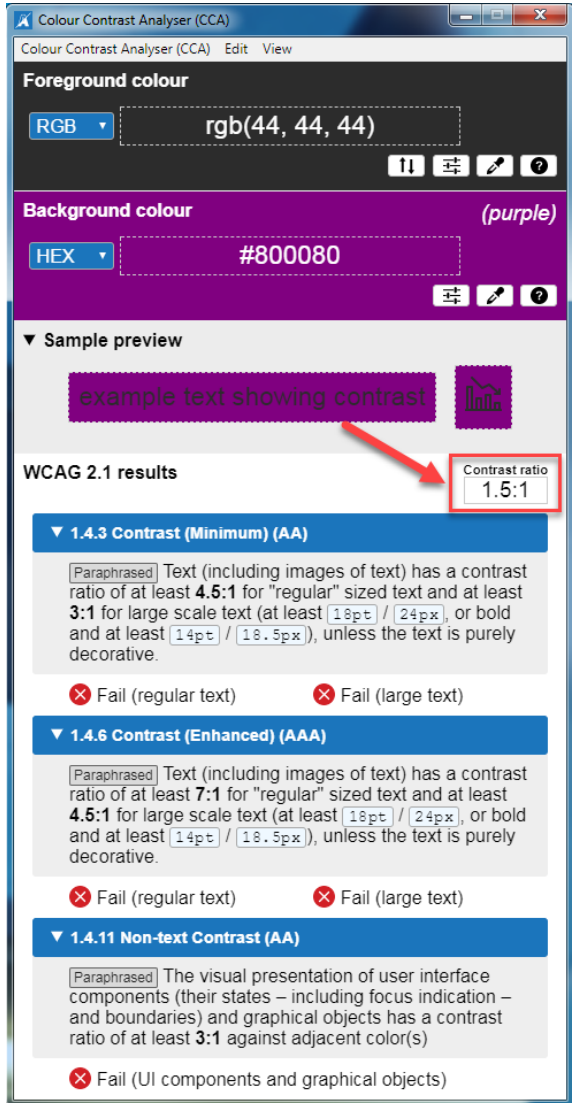
Left: Incorrect reading order

Bottom: Correct reading order

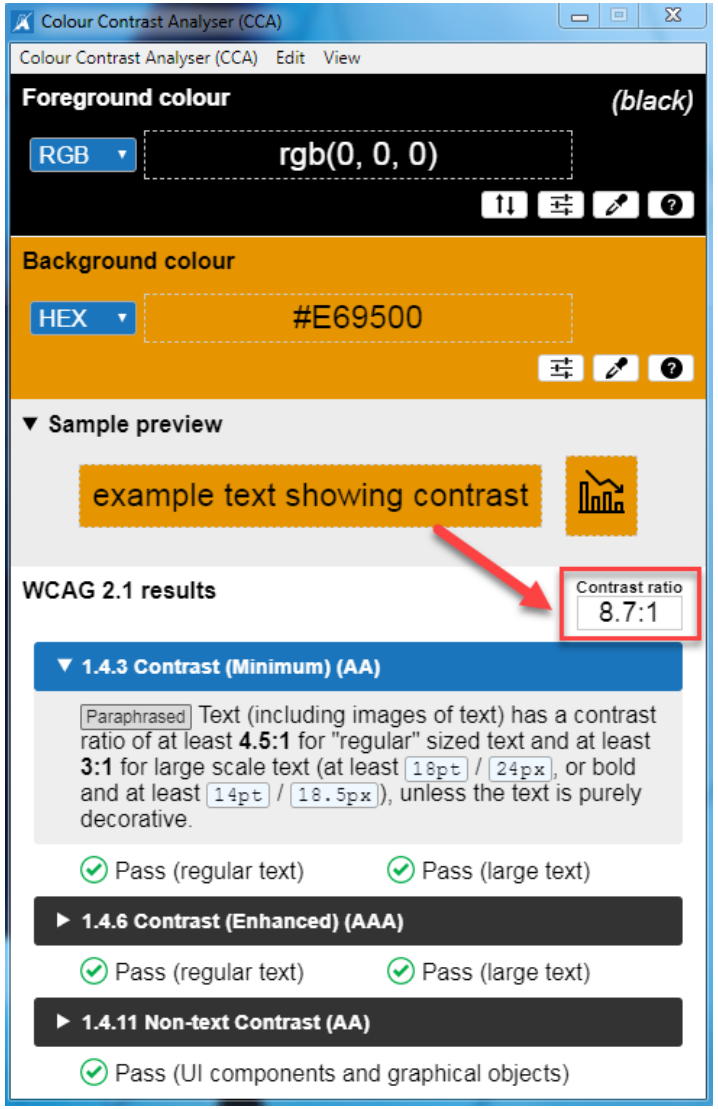




Verify Color Contrast



People who have low vision or colorblind could encounter some difficulty distinguishing text color from a background color if the contrast is insufficient contrast ratio 1.5:1.



This example has a great color contrast ratio of 8.7:1. The contrast is sufficient for those who have color deficiencies

Bad Examples	Good Examples
Red on black is bad	Yellow on black is good
Blue on orange is bad	Black on orange is ok
Red on green is bad	White on green is good
Grey on purple is bad	Aqua on purple is ok

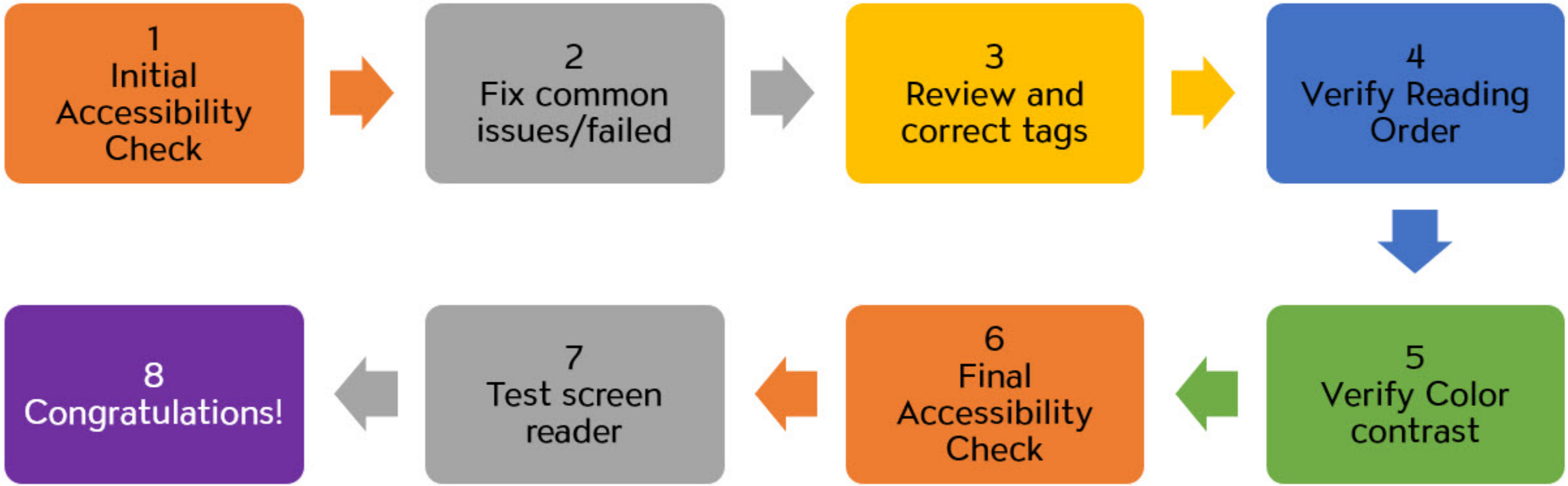
- Download Colour Contrast Analyser onto your computer (PC/Mac) to ensure accessible contrast or use an online contrast checker from WebAIM.
- WCAG Level AA requires a contrast ratio of at least **4.5:1** for regular sized text (12 or 14 pt. font) and **3:1** for large text (18 pt. font).
- Coblis Color Blindness Simulator

Accessibility Tips

Accessibility Tips

- Always save your PDF as you add accessibility markup
- When modifying extensive content in reading order, drag content down not up
- Remove empty tags i.e. <p>
- Header, footer, and page numbers, decorative lines or shapes tag as “Background/artifact”

PDF Accessibility Iterative Process



How can we help you make a difference?

Universal Design** means design for **everyone

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- In-person training each semester
- Consultations
- Tools and Services