

# PDF Accessibility Tools



Adobe Acrobat DC



# Adobe Creative Cloud for Faculty & Staff



- 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.*



**Adobe Acrobat DC**



# What are Screen Readers

**Screen readers** are a form of assistive technology (AT) software that ***enables access*** to a computer, and all the things a computer does, by attempting to identify and interpret what is being displayed on the computer screen using ***text-to-speech***. Screen readers can only access and process **live text** (fully editable or selectable text).

- **Provides access** to someone who is visually impaired, mobility or has a learning disability to access text on the screen.
- Offers same level of **independence** and privacy as anyone else.



# Types of screen readers



Screen reader program for Microsoft Windows that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a refreshable Braille display. [NVDA screen reader](#) can be **downloaded free of charge** by anyone.



Provides auditory descriptions of each onscreen element using gestures, a keyboard, or a braille display.



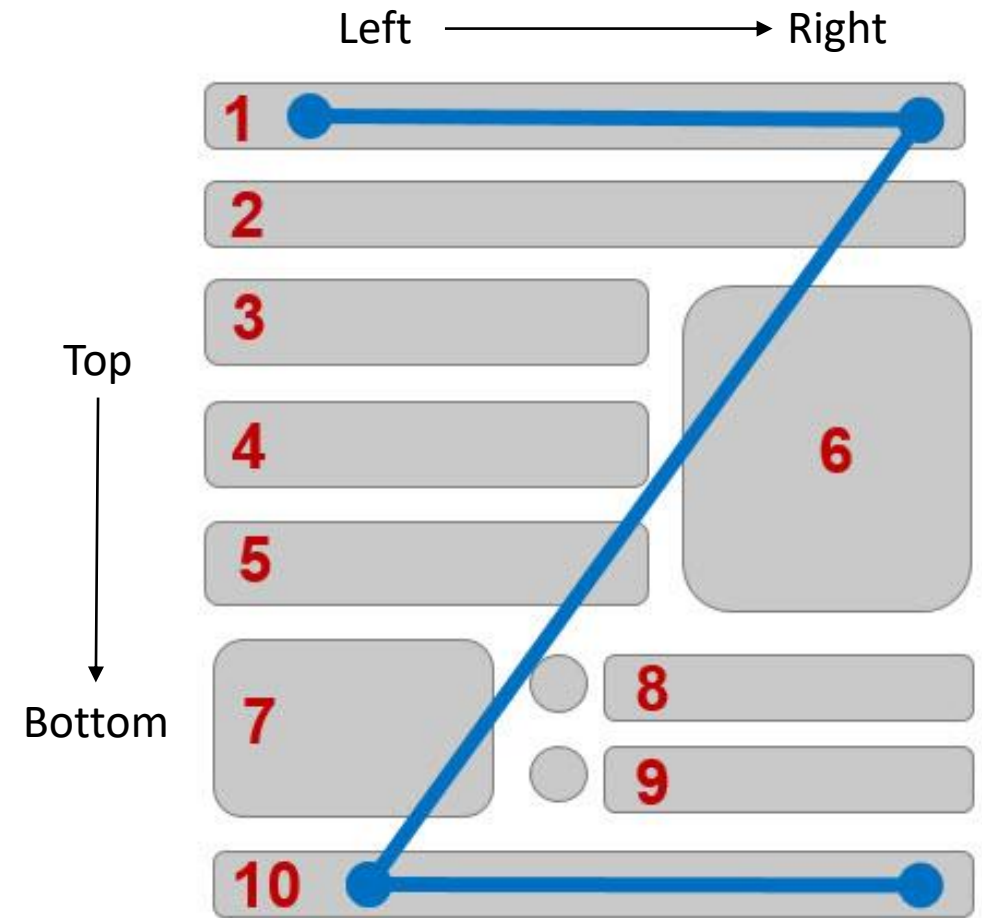
Adds spoken, audible, and vibration feedback to your device.



Screen magnifier for Microsoft Windows that allows you to see and hear everything on the computer.

# How Do Screen Readers Work?

- Screen readers read line-by-line from left-to-right and top-to-bottom.
- Screen readers start at the top of a document or website and read any text including alternative text for images, graphics or charts.
- Screen readers navigate a document or website using the keyboard **without** a mouse. **Tab** key: jump from link to link, **Enter**: select a link, **arrow** keys: navigate a document or website.
- Reading order is important for users with visual challenges. The users can become confused if the document (content, tables, images or charts) is poorly organized or out of order.



# Live or Real Text

- To check if the text is “live” or “real,” try to select the text with your cursor. If you’re unable to highlight/select it then it is not real text, and therefore **not accessible** for all users.
- **Live text** is **searchable**; this allows users to use search functions like **CTRL + F** to look for specific terms and find what they need quickly or to copy/paste text.

## Universal Design Center

Accessibility ensures everyone can perceive, understand, engage, navigate, and interact with technology regardless of device, software, or product without barriers.

Accessibility is not about disability it’s actually about ability. It’s about making easy for everyone.

- Easy to get
- Easy to understand
- Easy to use

Accessibility is for everyone.

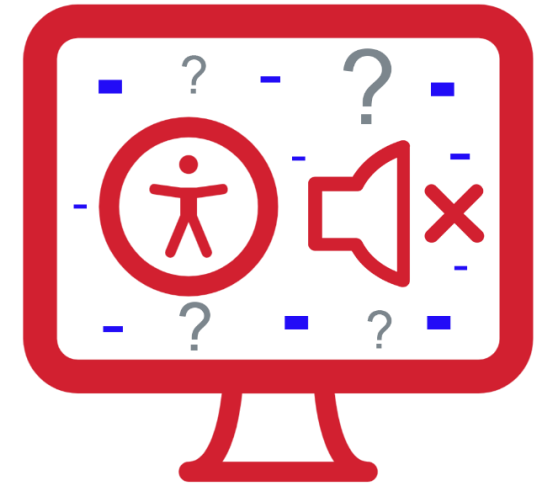


# Mysterious Dash or Hyphen

Screen readers do not know what the – symbol represents (minus, hyphen, en dash or em dash) so screen readers **will not** read it. *It is always a good practice to spell the word and any abbreviations or make a reference to your abbreviation when used for the first time.*

For examples:

- May 8<sup>th</sup>, 2022 from 3:30 - 5:00pm. The screen reader reads three, thirty five. Recommend May 8<sup>th</sup>, 2022 from 3:30 **to** 5:00pm.
- Final exams May 14 - 20, 2022, screen reader reads May 1420, 2022. Recommend May 14 **to** 20, 2022.
- Homework assignment pages 200 – 281 for tonight’s reading material. Recommend pages 200 **to** 281.
- The fiscal year 2015-2016. Recommend The fiscal year **from** 2015 **to** 2016.
- Grading scale 95 - 100%, screen reader reads 95100%. Recommend 95 **to** 100%.
  - ❖ A + , screen reader reads A+. Recommend A **plus**.
  - ❖ A – , screen reader reads A. Recommend A **minus**.
  - ❖ Recommend to spell the word plus or minus for consistency purpose.



Minor changes can have a big effect on maintaining clarity for students using assistive technology.

# What is a Tagged PDF?



**TAGS** are the HTML code accessibility markup all of the document text, images, etc. Tags are invisible identifiers that will tell **screen readers and other assistive technology (AT)** an element is...

- header <H1-H6>
- paragraph <P>
- image <Figure>
- list item <LI>
- hyperlink <Link>
- table data cell <TD>

The screenshot shows a PDF viewer interface with a 'Tags' panel on the left. The panel lists various tags and their corresponding elements in the document. Red arrows point from the tags in the panel to the elements in the document:

- The **<H1>** tag points to the header **Universal Design Center**.
- The **<H2>** tag points to the section **Accessibility Statement**.
- The **<P>** tag points to the paragraph: "As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act."
- The **<H3>** tag points to the section **Need help?**.
- The **<P>** tag points to the paragraph: "Need assistance or have a question not answered here? Please contact the Universal Design Center (UDC) at UDC@csun.edu or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898."
- The **<H2>** tag points to the section **What is Accessibility? What is Universal Design?**.
- The **<Figure>** tag points to the image of a person with a red circle and a white figure, labeled "Figure - Accessibility icon."



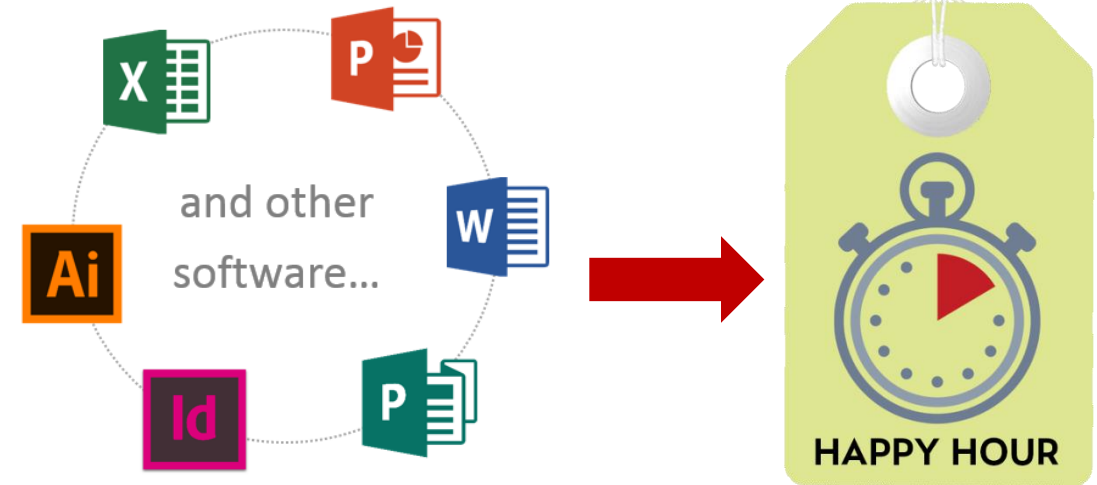
# What's the Difference?

## Remediate PDF Documents



- No tags, or inaccessible scanned version
- Incorrect reading order
- No descriptive text (alt text) for images and graphics
- Testing accessibility and fixing issues

## Remediate Source Documents



- PDF keeps accessibility tags from original document
- Logical reading order
- Descriptive text (alt text) for images and graphics
- Use Built-in Accessibility Checker



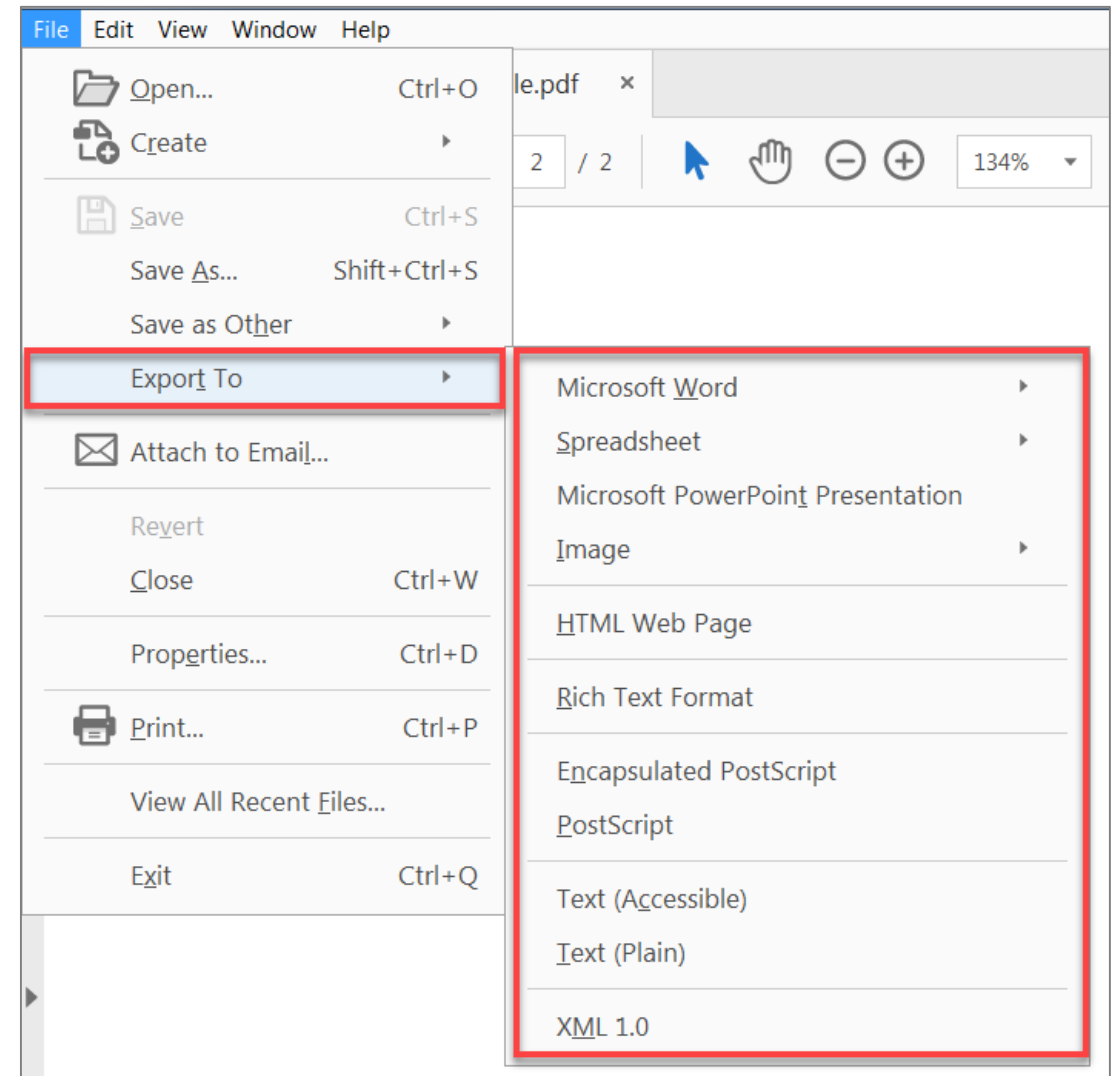
# Option 1: No Source Document? Try Export Options

When no source document is available, recommend opening the PDF in Acrobat, and exporting to a Word or PowerPoint file.

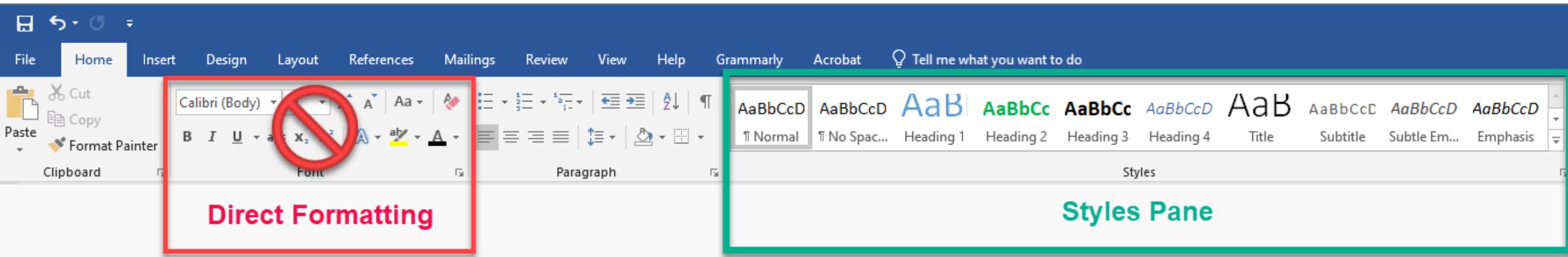
To convert a PDF to a Word document, select **File > Export To> Microsoft Word > Word Document**.

Next step is applying **Styles Formatting**. See the next slide “Direct vs Styles Formatting.”

***Note:** Need to verify format, alignment, unrecognized characters, punctuation, spelling, etc.*



# Direct vs Styles Formatting



## Direct Formatting

- Not accessible to any assistive technology such as screen readers
- Can't create a Table of Contents
- Can't create a navigation to different sections in a document
- **Huge barriers!**

## Styles Pane Formatting

- Provide structure and make document accessible
- Easier to modify existing formatting
- Create and update a Table of Contents
- Quicker navigation to different sections in a document
- **Retain document structure when export to PDF**
- Accessible to any assistive technology like screen readers
- **Save time and save lives!**

# Headings and Document Structure

## Example 1: Reading long, dense text documents can be a daunting task for learners

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act.

Need assistance or have a question not answered here? Please contact the Universal Design Center (UDC) at UDC@csun.edu or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.

In this context, “accessibility” means that people with disabilities have access – to facilities, to information and to technology.

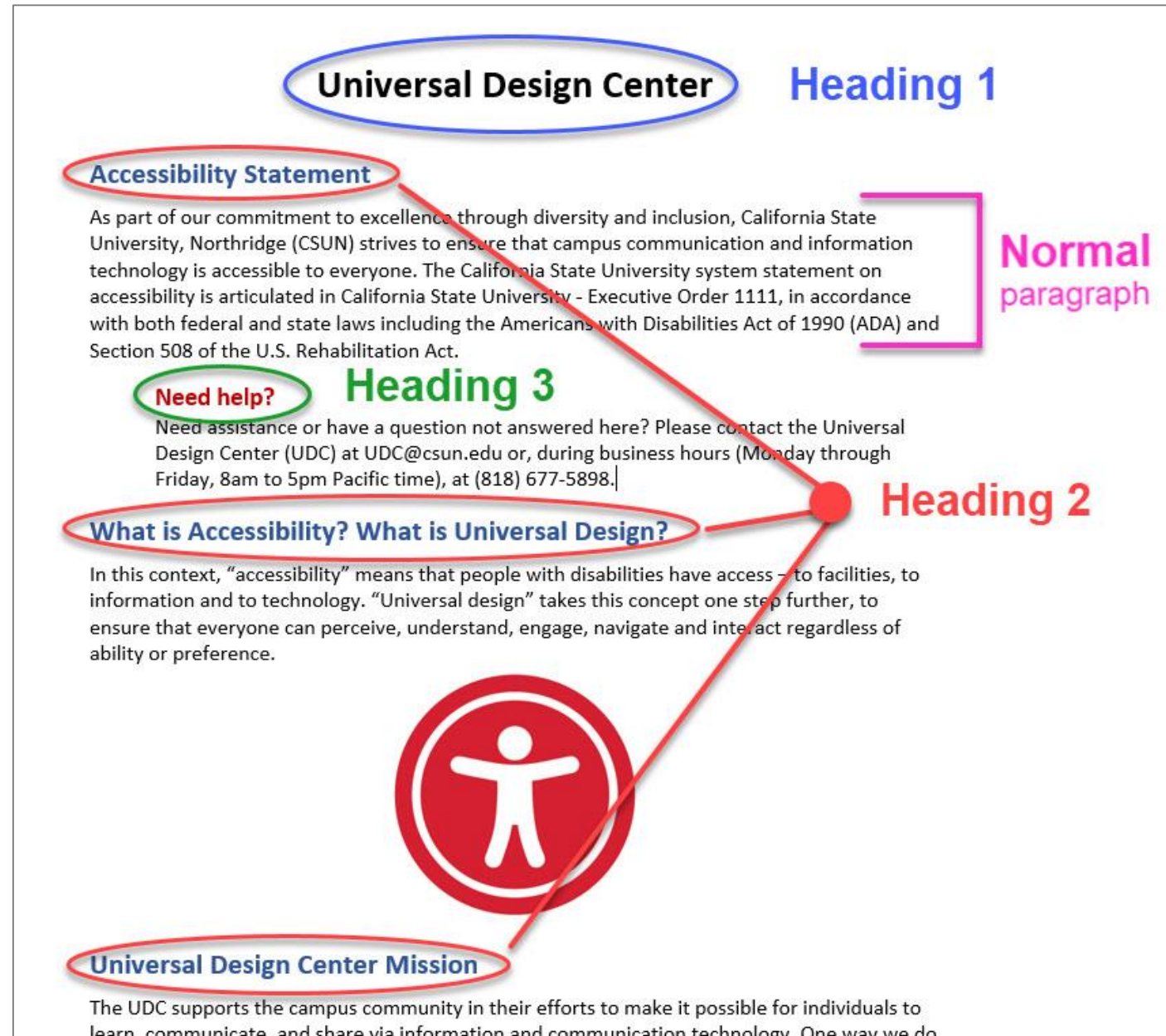
“Universal design” takes this concept one step further, to ensure that everyone can perceive, understand, engage, navigate and interact regardless of ability or preference.

The UDC supports the campus community in their efforts to make it possible for individuals to learn, communicate, and share via information and communication technology. One way we do this is by assisting the campus community to ensure their information and communication technology is interoperable, usable and accessible, so that individual learning and processing styles and/or physical characteristics are not barriers to access.

The role of the UDC is to help CSUN implement business practices which enable the campus to meet policy standards under the Accessible Technology Initiative Coded Memoranda. What does this mean to me?

Everyone has a part in creating accessible and usable information. The responsibility of creating and maintaining accessible content falls to the entire campus community.

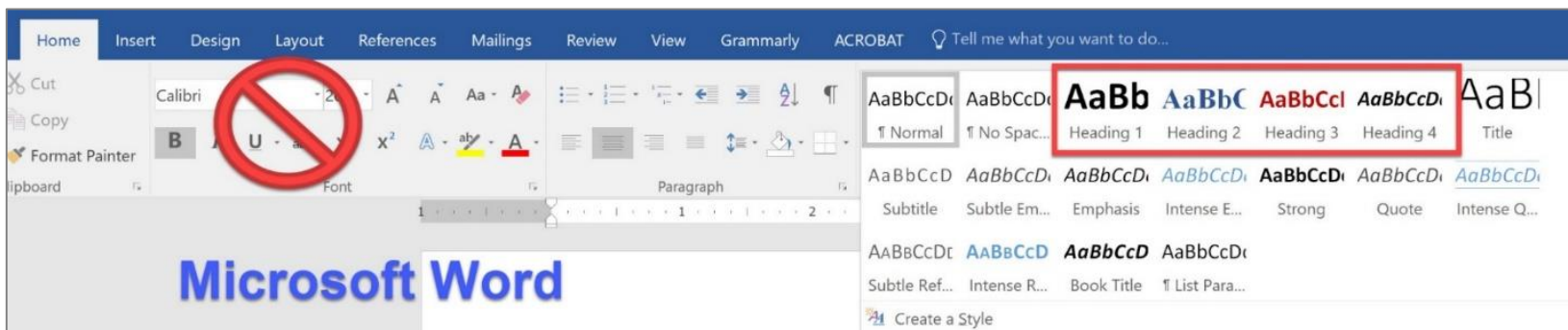
## Example 2: Well-structured documents help readers organize and process texts





# Heading Styles

- Heading Styles (Heading 1 through Heading 6) in a logical sequence. Do not skip heading levels i.e. Heading 2 to Heading 4, headings should be in order.)
  - **Heading 1:** Document title or main content heading/title (**just one**)
  - **Heading 2:** Major section heading
  - **Heading 3:** Sub-section of the Heading 2
  - **Heading 4:** Sub-section of the Heading 3, and so on, ending with Heading 6
  - **Normal:** Text or paragraph
  - **Title** in Word Style won't recognize when converting to a PDF. Start with **Heading 1** for the document title.
- How to create an accessible document using Microsoft Word, visit Word Essentials page [www.csun.edu/udc/word](http://www.csun.edu/udc/word)



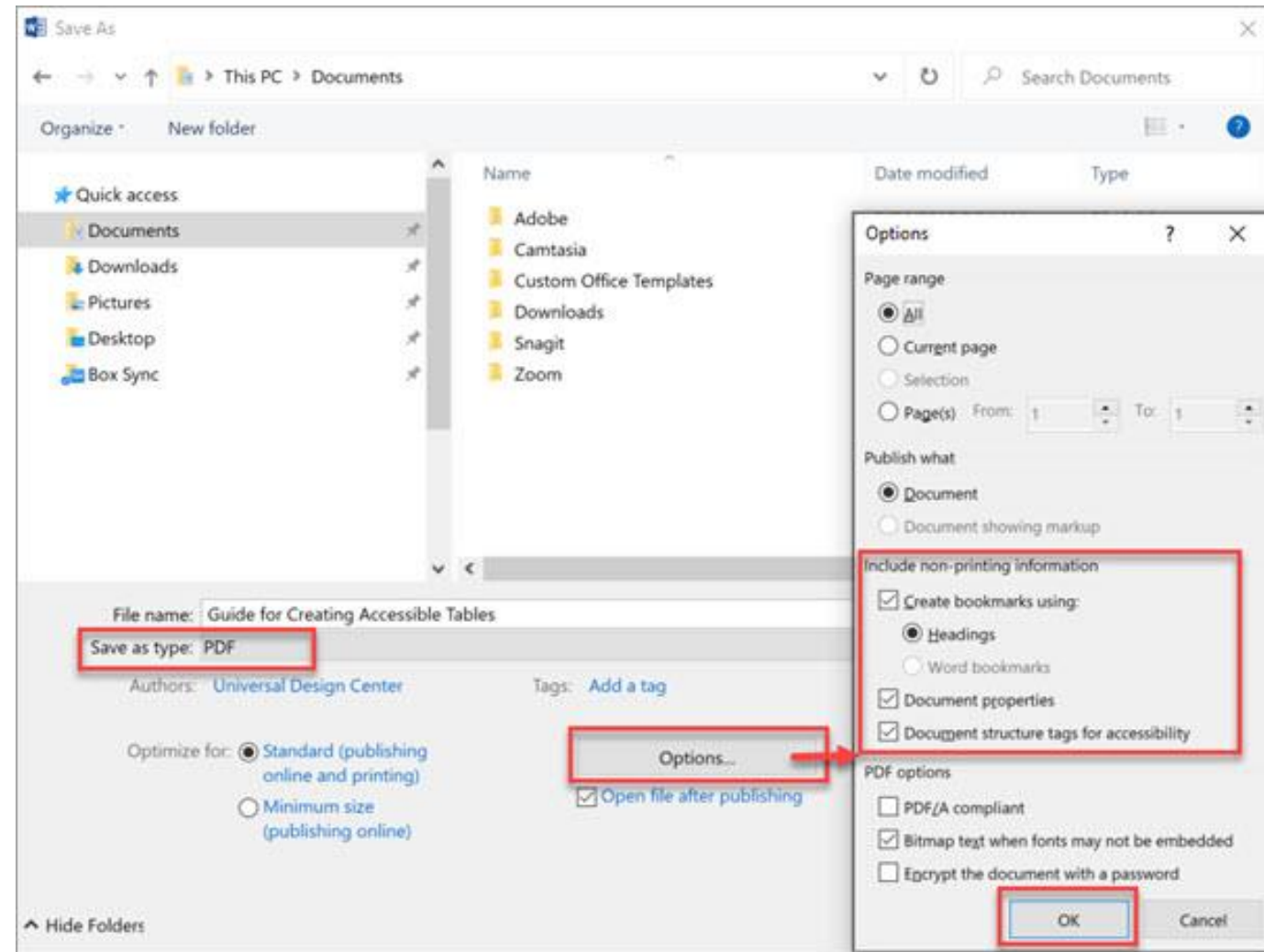
**Headings** are styles to give a document structure by category or topic.

**Without headings**, a person using assistive technology like a screen reader **cannot** navigate by sections, subsections, or scan section titles to understand the document structure.



# Windows: Converting Word Document to PDF

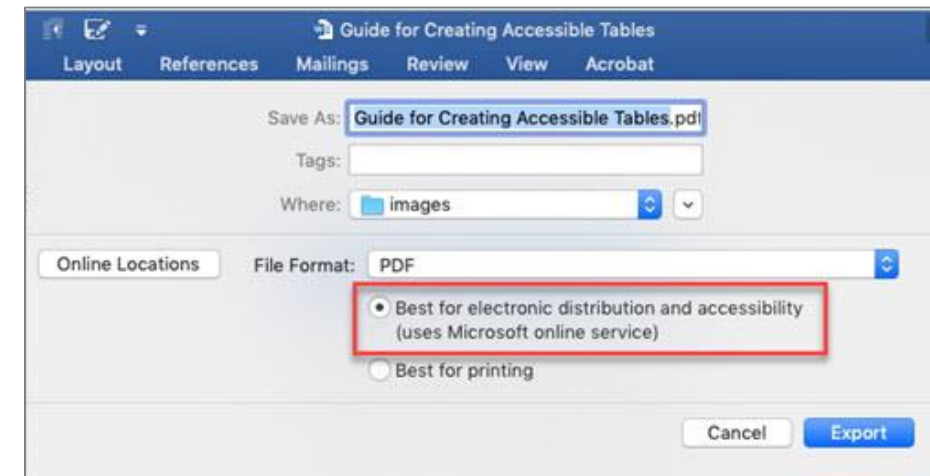
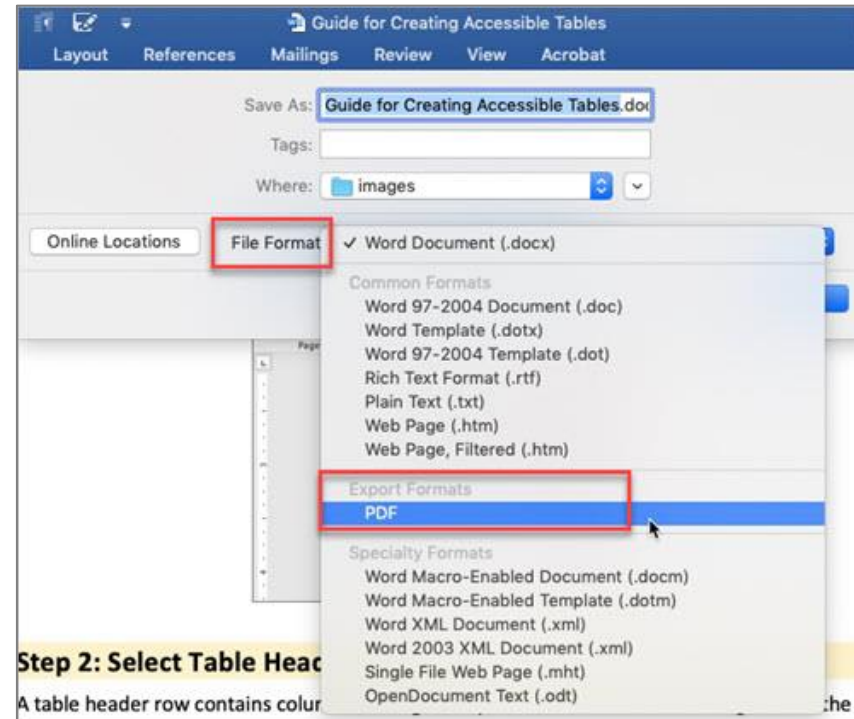
1. Select **File** from the menu and select **Save As**. Choose where you want to save the file.
2. In the **Save As** dialog box, choose **PDF** in the Save as type list.
3. Select **Options** button in the same dialog box, make sure to select these boxes
  - Document structure tags for accessibility
  - Document Properties
  - Create bookmarks using: Headings
4. Select **OK** and **Save** the PDF.





# Mac: Converting Word Document to PDF

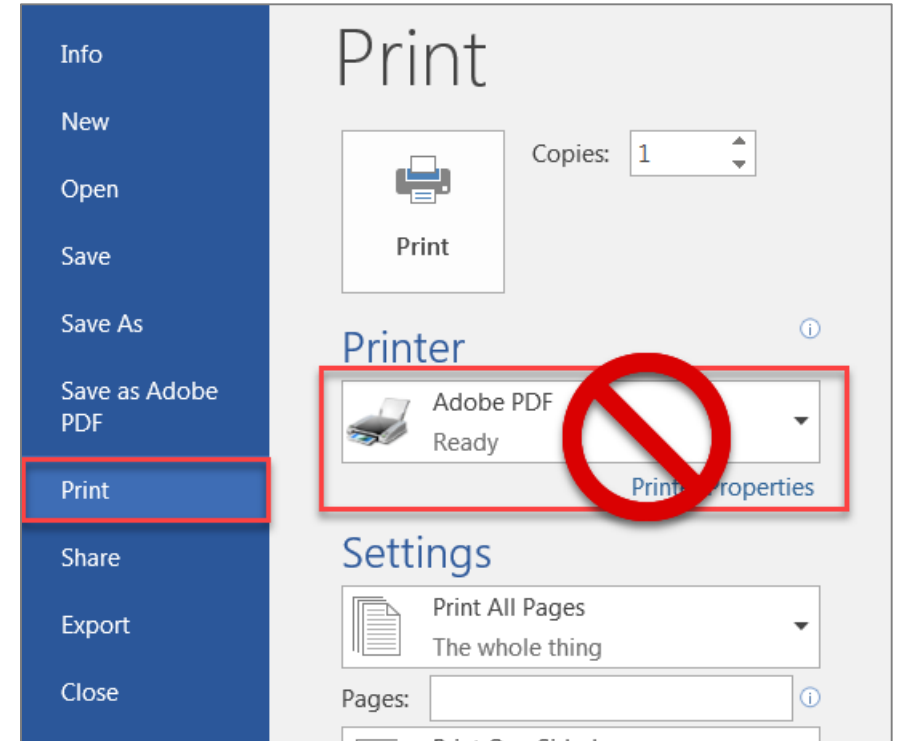
1. Select **File** from the menu and select **Save As**. Choose where you want to save the file.
2. In the **Save As** dialog box, choose **PDF** (Export Formats) in the File Format.
3. Select 1st radio button “**Best for electronic distribution and accessibility** (Uses Microsoft online service)”
4. Select **Export** button



# Never Choose Print to PDF Option

**Never** choose a "Print" to PDF option in Office, or in any other program. A screen reader user may still be able to access the text of a PDF created in this way, but heading structure, alternative text, a logical reading order, and any other tag structure will be **lost**.

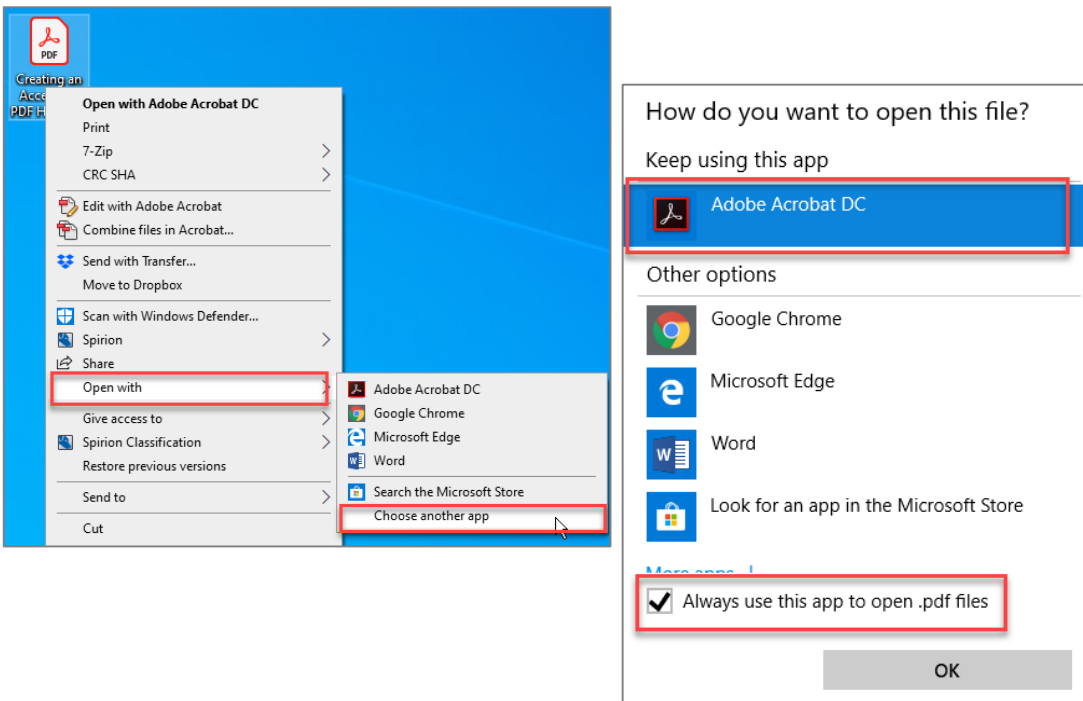
Use **Save As** choose **PDF**.



# How to open PDF files from Adobe Acrobat not Web Browser by default?

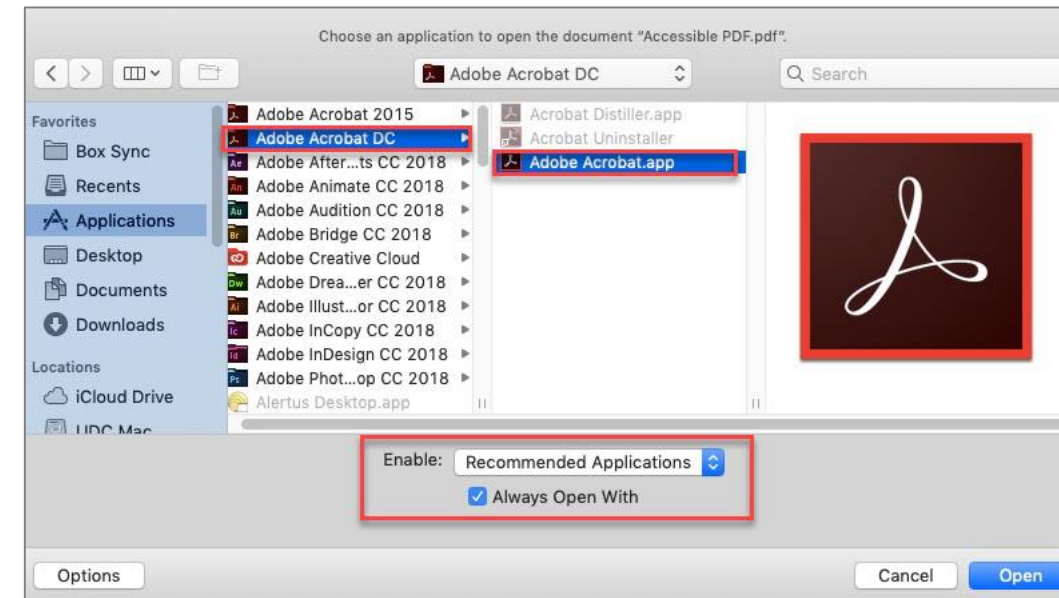
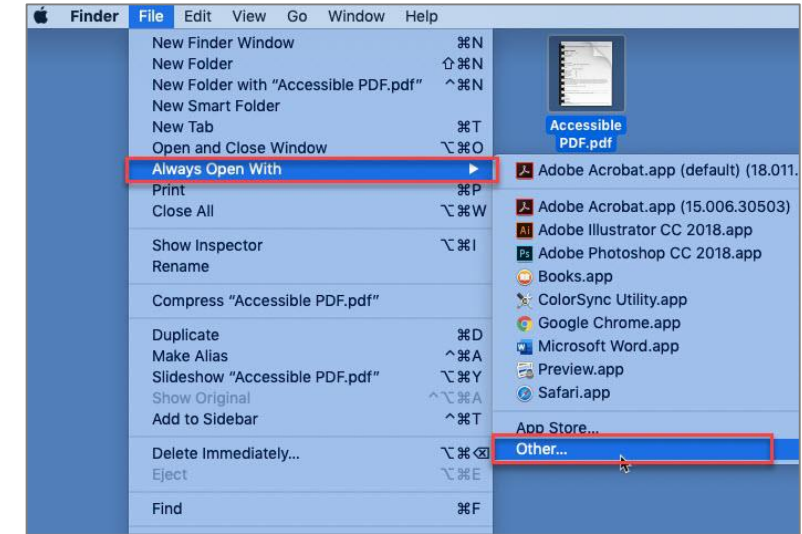
## Windows

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

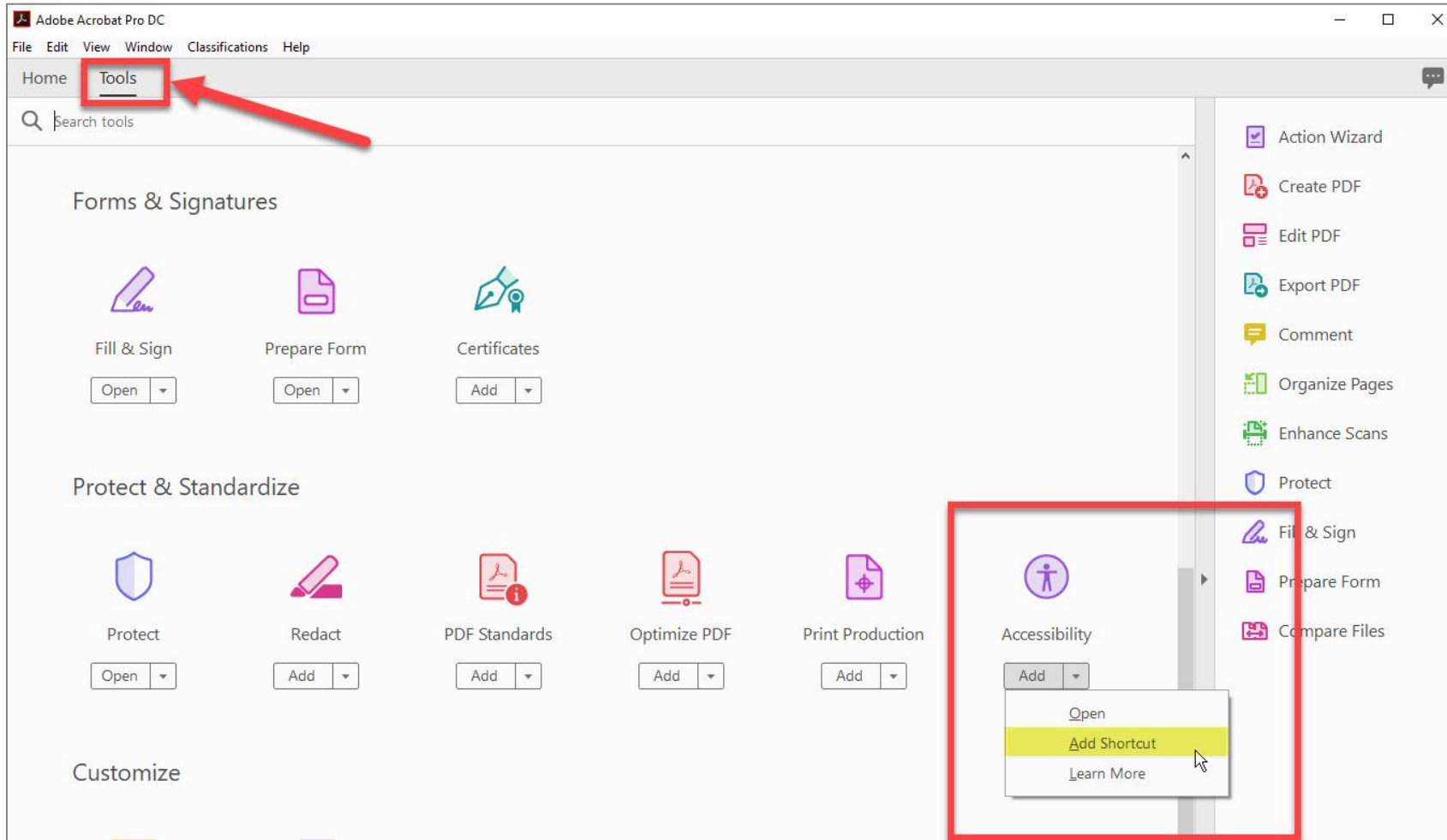


## Mac

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



# Option 2: Tools Pane Set Up



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

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

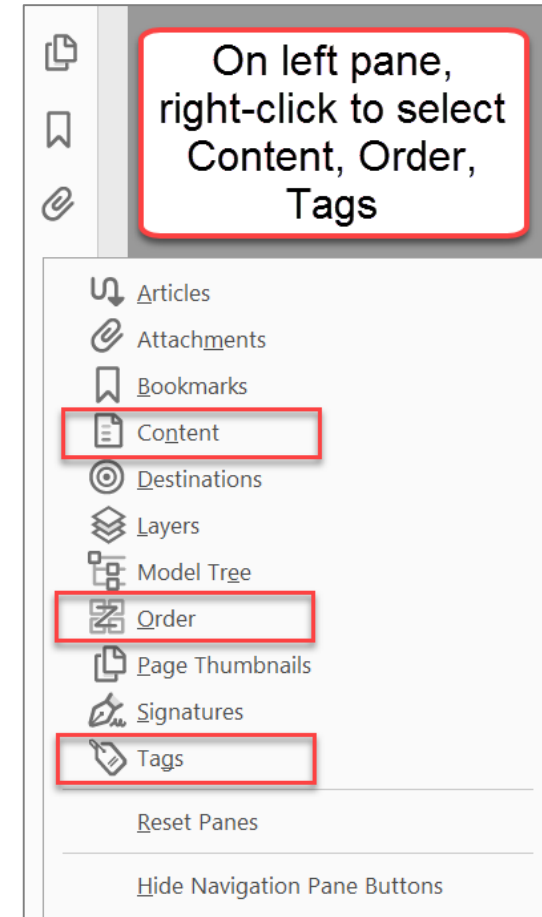
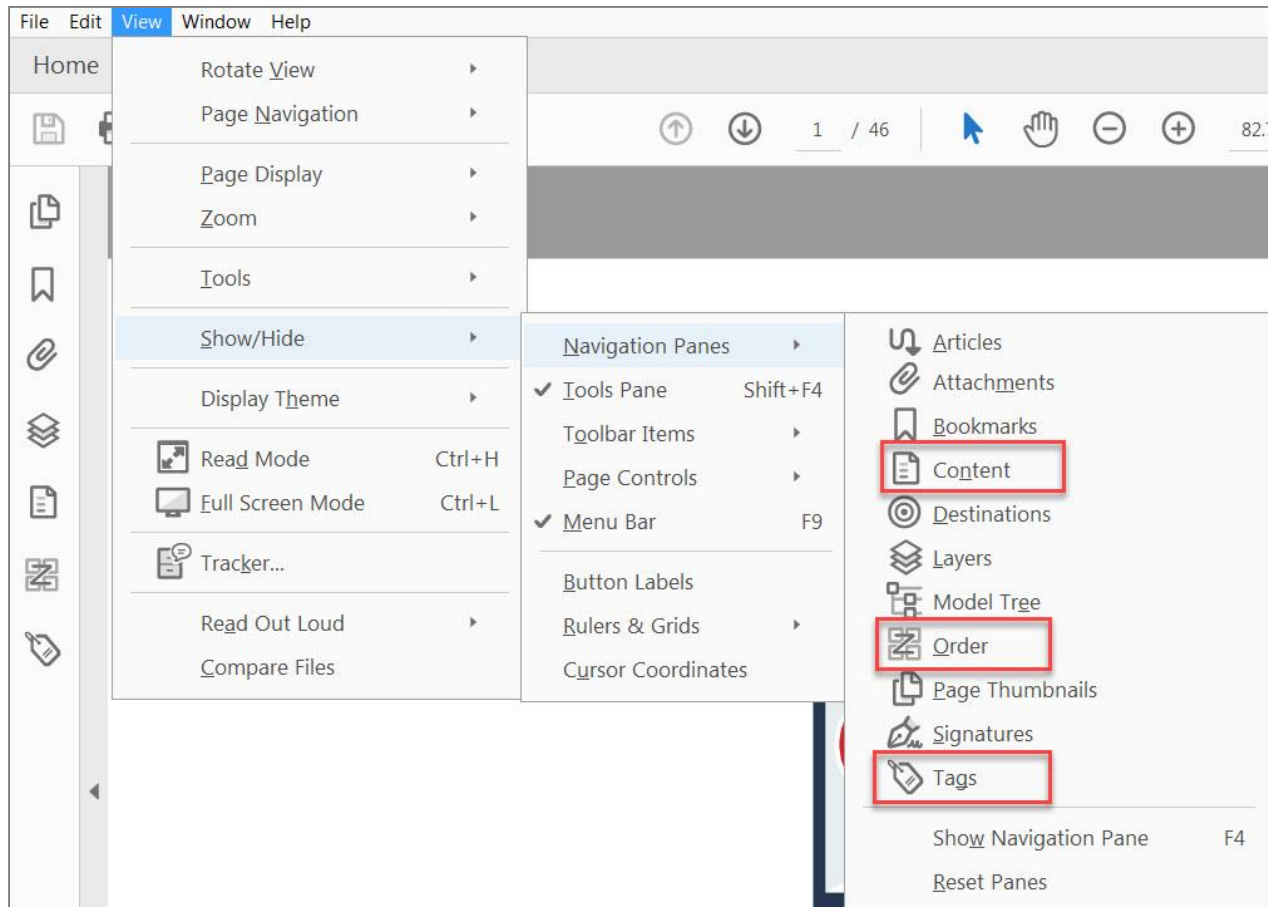


# Adding Tools to Navigation Pane

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

**Option 1:** View > Show/Hide > Navigation > **Tags, Z-Order, and Content** Pane

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





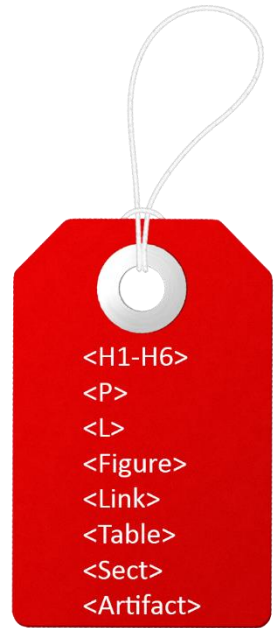
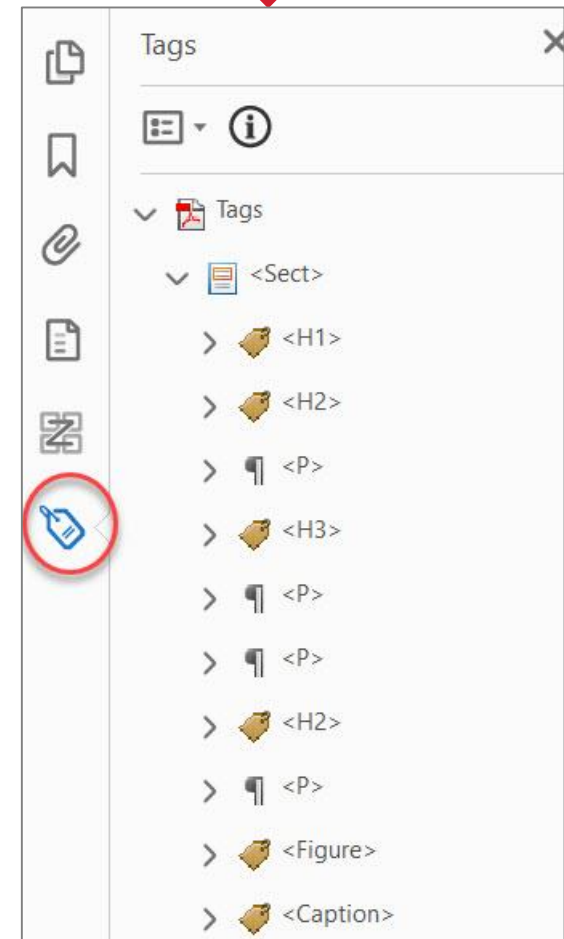
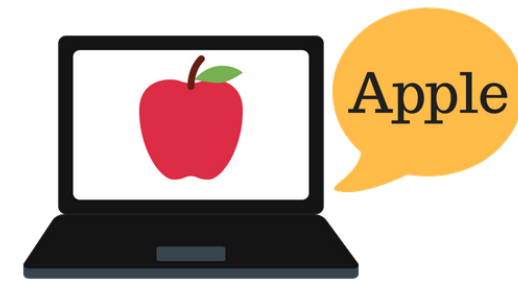
# Tags Panel, 1 of 2

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...

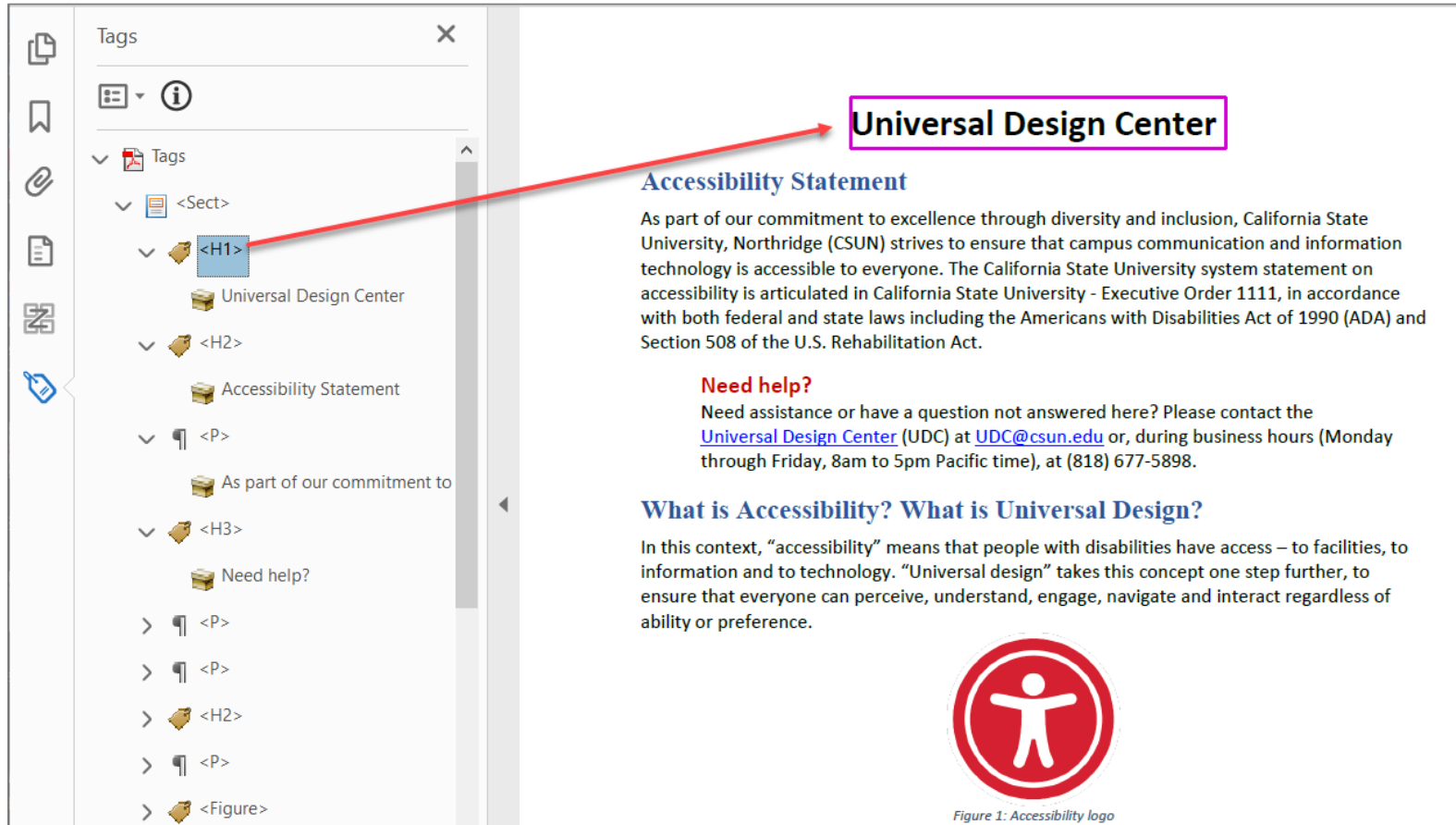
- Paragraphs of body text: <P>
- Headings and subheads: <H1> - <H6>
- Lists: <L>, <LI>
- Tables: <Table>, <TR>, <TH>, <TD>
- Graphics have Alt-Text that describe the visual: <Figure>
- Hyperlinks: <Link>
- Captions, and other parts of a document: <Caption>
- Decorative images: <Artifact>

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



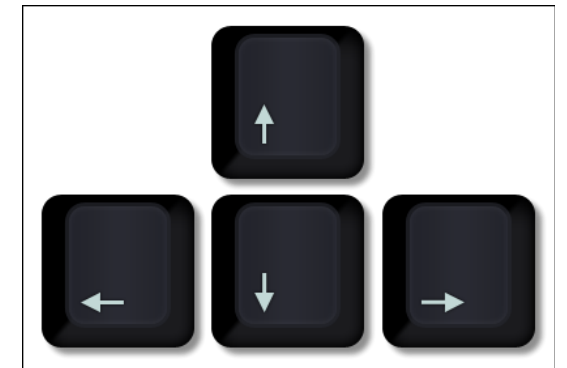


# Tags Panel, 2 of 2



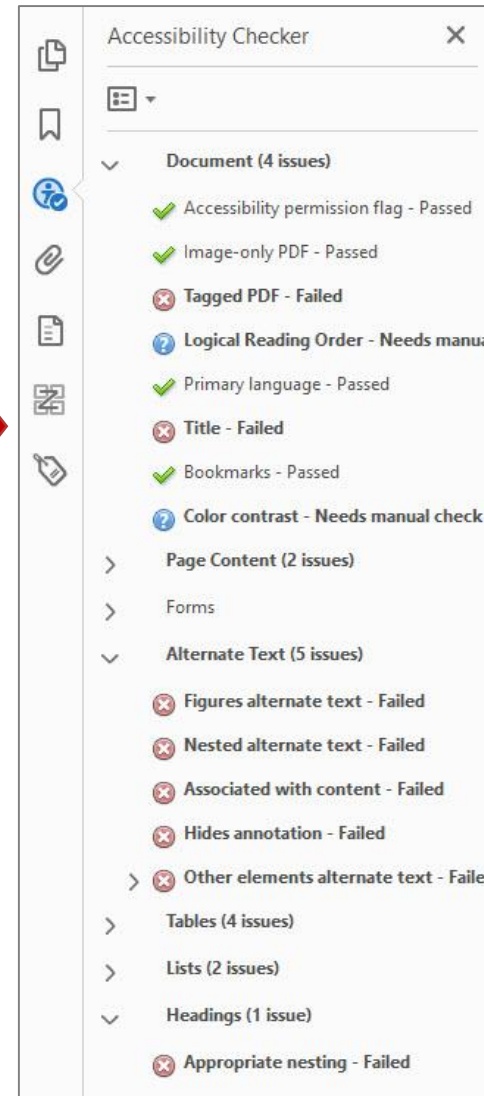
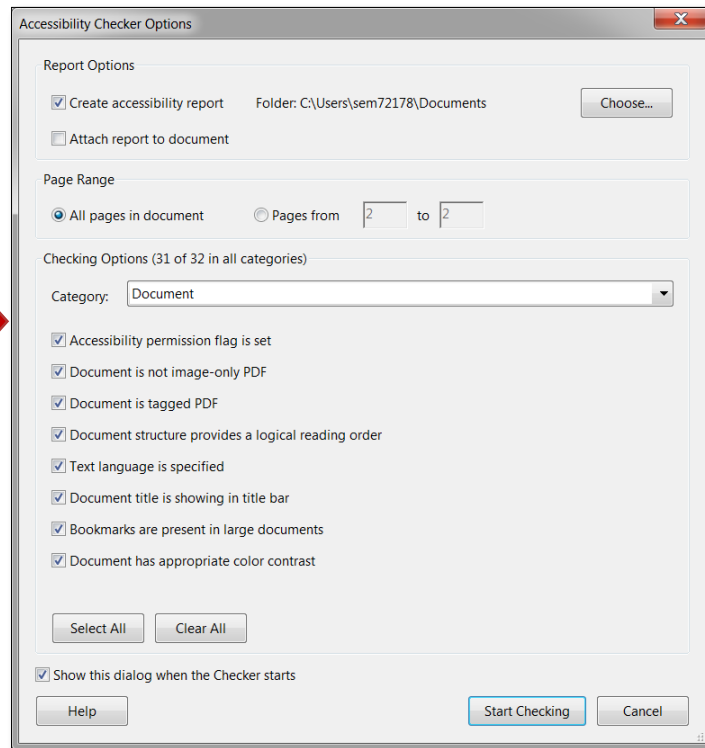
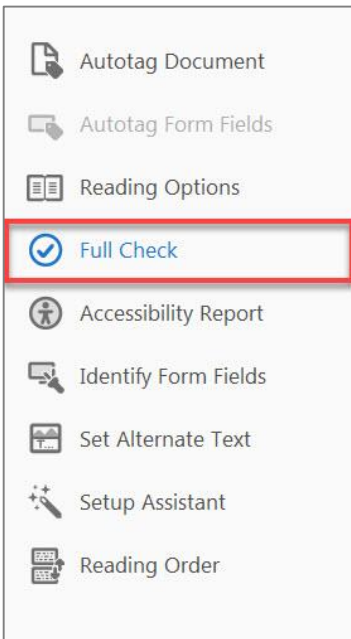
Tags are shown as an expandable “tree”

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



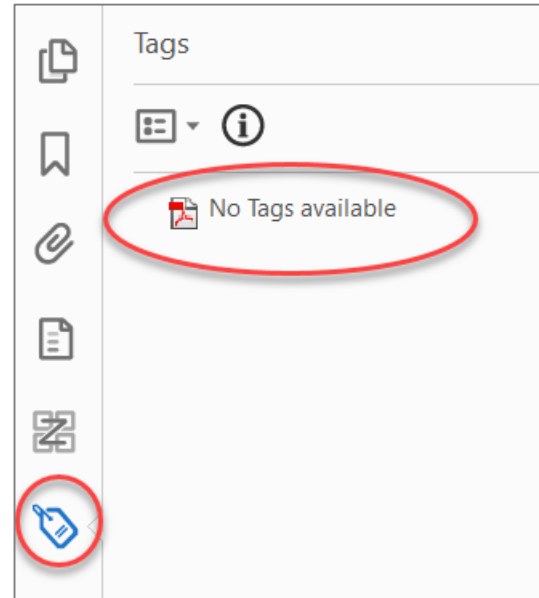
# Check Accessibility

First run the Accessibility **Full Check** at the beginning and at the end.



- Accessibility checkers results in bold text have one or more issues/failed that need to fix.
- If you have a failure, you can right-click on any item in the report and select “Explain” that will link to Adobe webpage to explain the problem.
- If the results not in bold text, that section has passed.

# No Tags Available

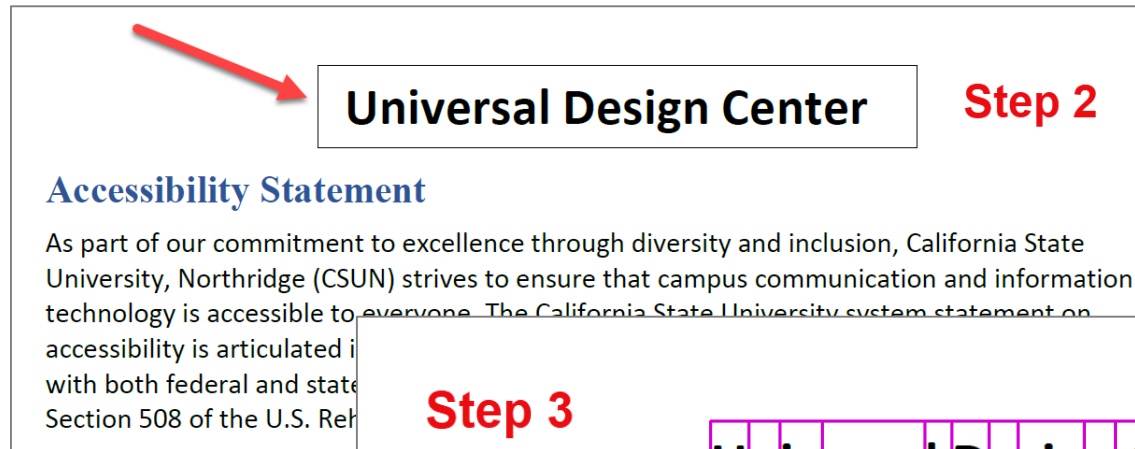
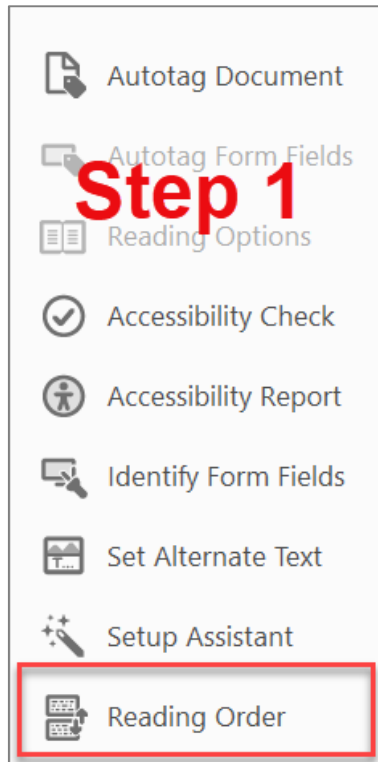


If you see “No tags available” in the Tags Panel, then the document is missing tagged structure. See the next slide “How to tag a document?”



# 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

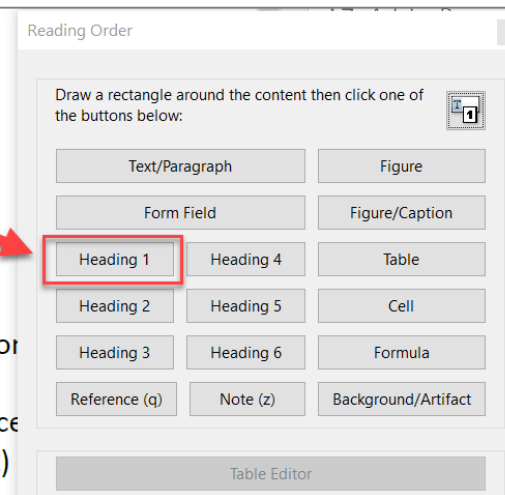


Step 3

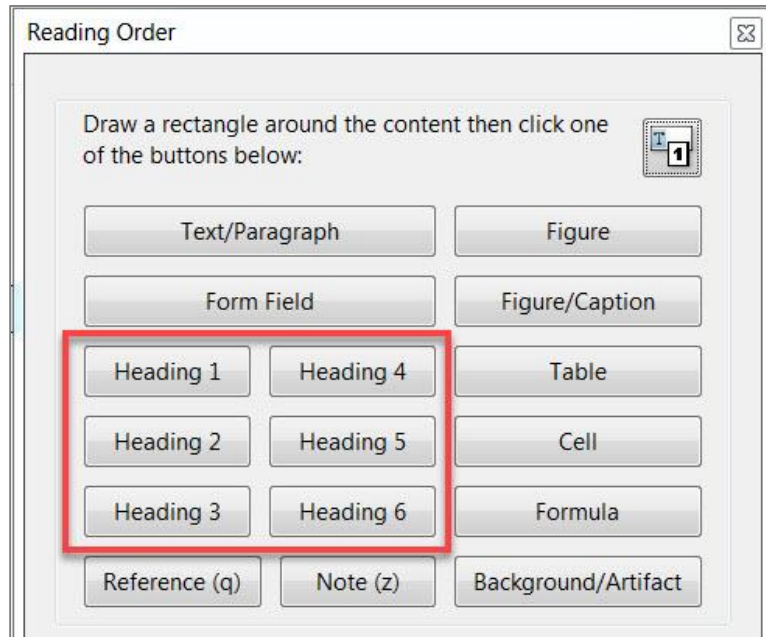
## Accessibility Statement

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) Section 508 of the U.S. Rehabilitation Act.

Universal Design Center



# Heading Tags Sample



Tags

- <Sect>
  - <H1> Universal Design Center
  - <H2> Accessibility Statement
  - <P>
  - <H3> Need help?
  - <P>
  - <H2> What is Accessibility? What is Universal Design?
  - <P>
  - <Figure>
  - <H2>

Universal Design Center

Accessibility Statement

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Need help?

Need assistance or have a question not answered here? Please contact the Universal Design Center (UDC) at UDC@csun.edu or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.

What is Accessibility? What is Universal Design?

In this context, "accessibility" means that people with disabilities have access – to facilities, to information and to technology. "Universal design" takes this concept one step further, to

The image shows a 'Tags' panel in a web browser. A red box highlights the 'Tags' icon in the left sidebar. Red arrows point from specific tags in the tree to corresponding text blocks on the right: from <H1> to 'Universal Design Center', from <H2> to 'Accessibility Statement', from <H3> to 'Need help?', and from <H2> to 'What is Accessibility? What is Universal Design?'.

Content highlighted from tags tree

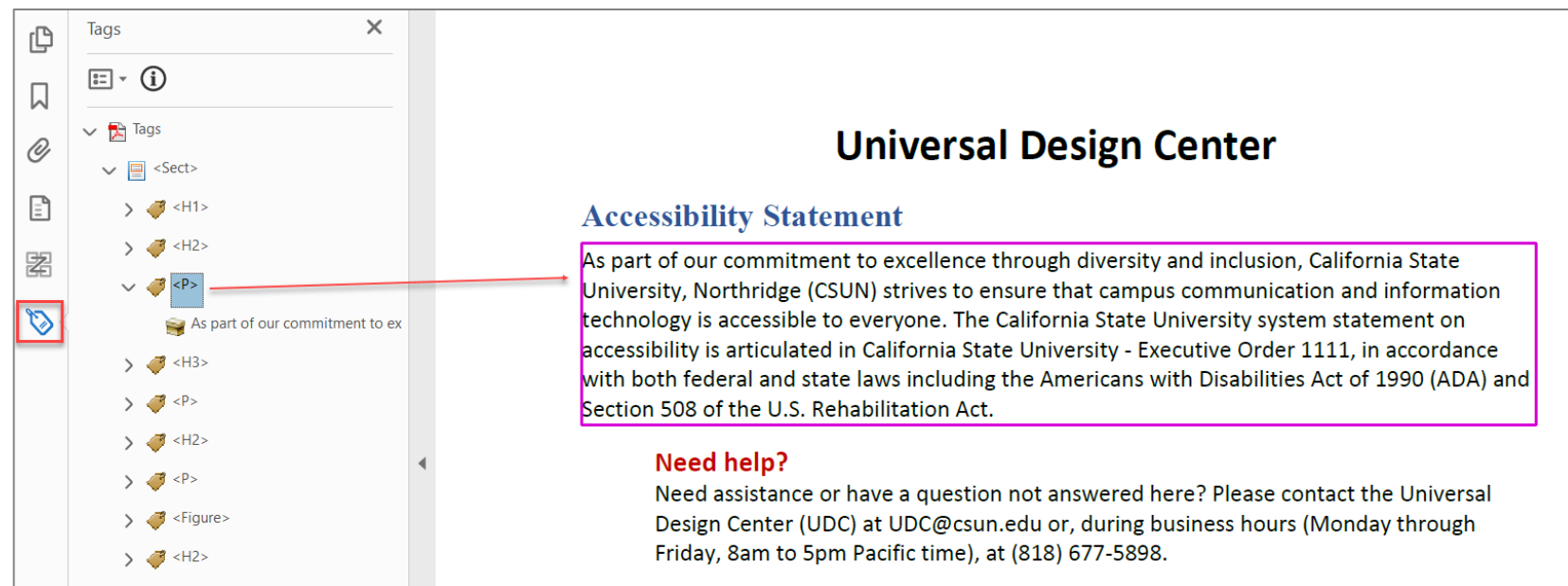
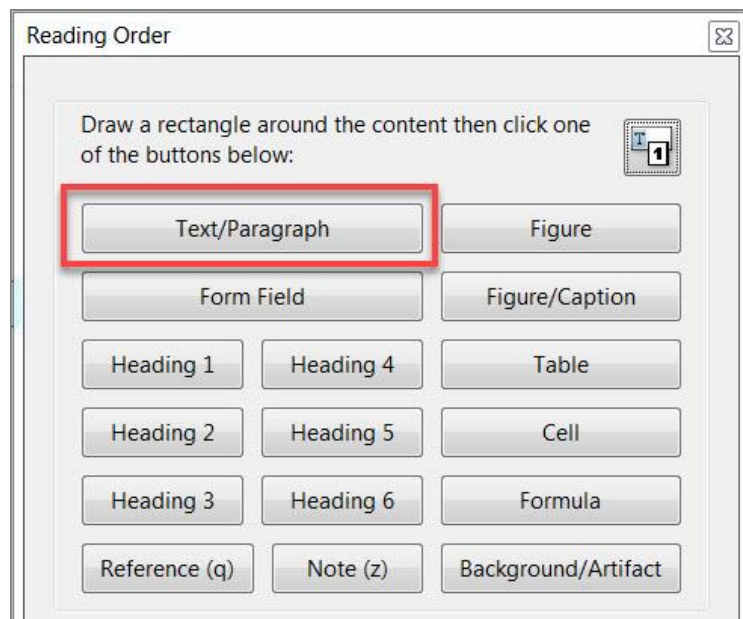
For multiple tags selection, CTRL + select tags (PC) or Command + select tags (Mac)



Universal Design Center

csun.edu/udc

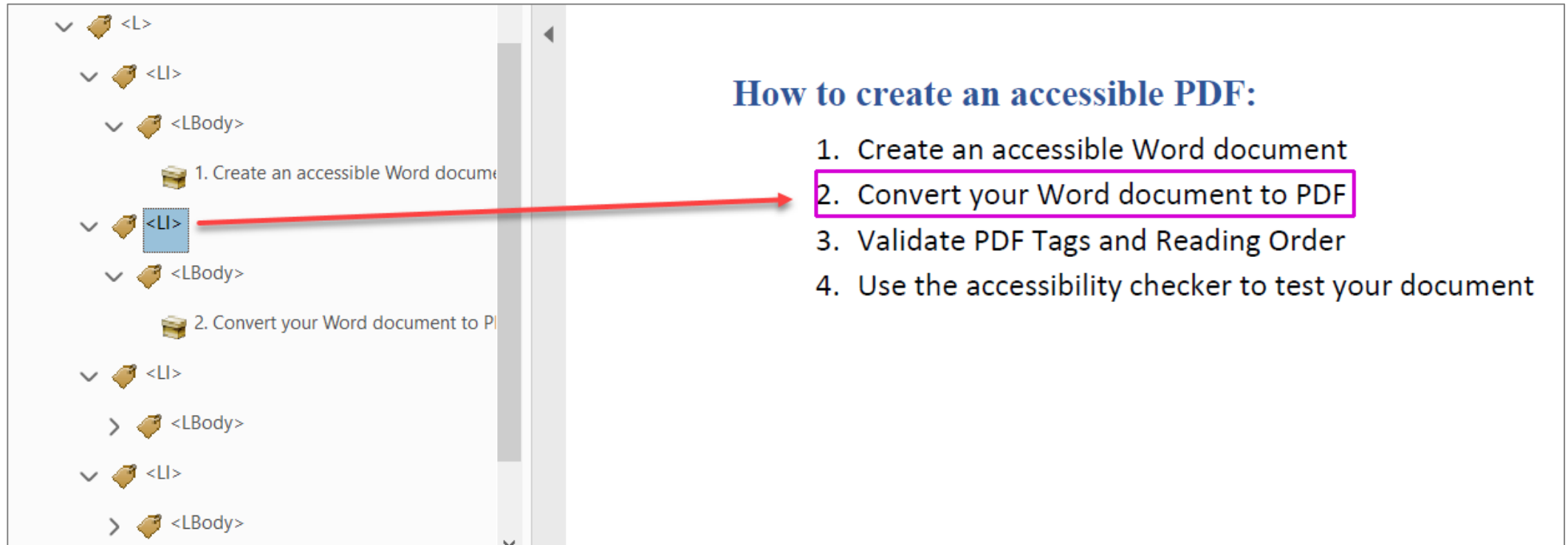
# Paragraph Tags Sample



Content highlighted from tags tree



# List Tags Sample



The image shows a screenshot of a PDF tag list on the left and a guide on the right. The tag list includes:

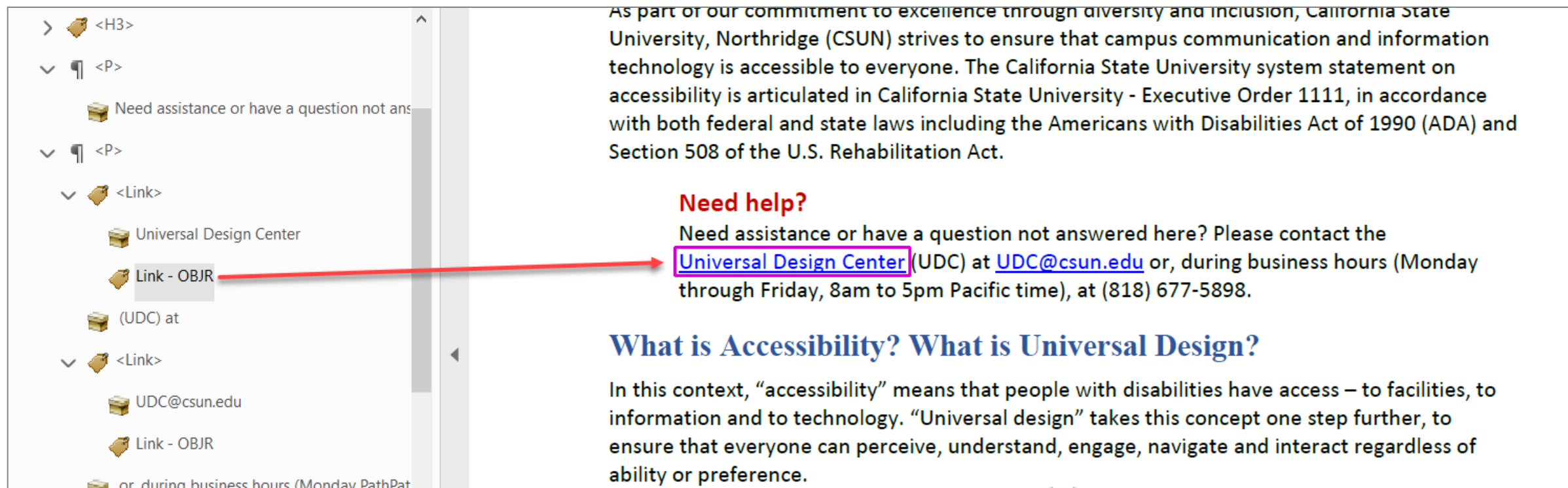
- <L>
- <LI>
- <LBody>
  - 1. Create an accessible Word document
- <LI> (highlighted with a blue box and a red arrow pointing to the guide)
- <LBody>
  - 2. Convert your Word document to PDF
- <LI>
  - <LBody>
- <LI>
  - <LBody>

**How to create an accessible PDF:**

1. Create an accessible Word document
2. Convert your Word document to PDF
3. Validate PDF Tags and Reading Order
4. Use the accessibility checker to test your document



# Link Tags Sample



The screenshot shows a web editor interface. On the left is a sidebar with a list of link tags, each preceded by a folder icon and a dropdown arrow. The tags are: <H3>, <P> (with sub-item 'Need assistance or have a question not answered'), <P>, <Link> (with sub-items 'Universal Design Center' and 'Link - OBJR'), (UDC) at, <Link> (with sub-items 'UDC@csun.edu' and 'Link - OBJR'), and or, during business hours (Monday PathPat). A red arrow points from the 'Link - OBJR' tag in the sidebar to the text 'Universal Design Center' in the main content area.

AS part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act.

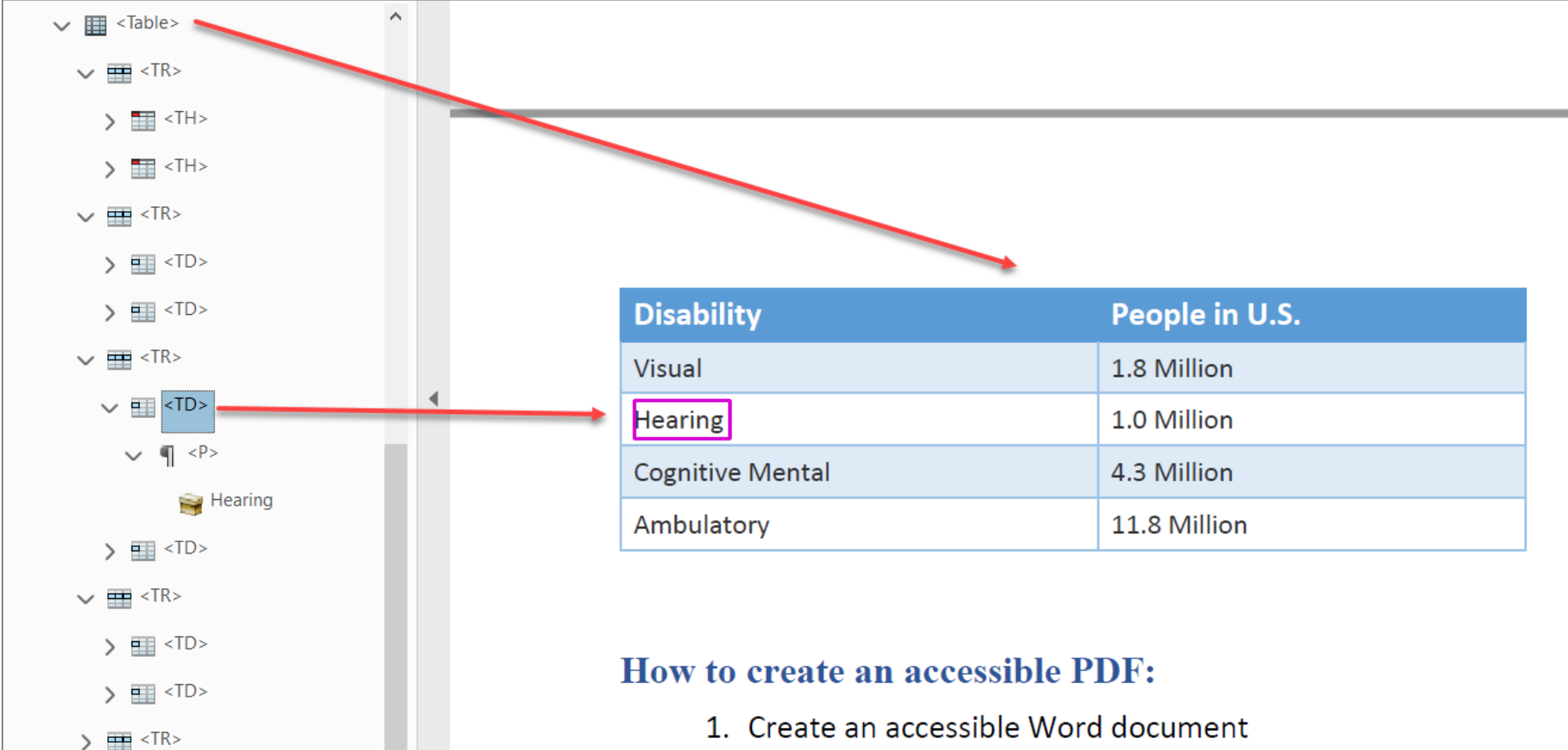
**Need help?**  
Need assistance or have a question not answered here? Please contact the [Universal Design Center](#) (UDC) at [UDC@csun.edu](mailto:UDC@csun.edu) or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.

**What is Accessibility? What is Universal Design?**

In this context, “accessibility” means that people with disabilities have access – to facilities, to information and to technology. “Universal design” takes this concept one step further, to ensure that everyone can perceive, understand, engage, navigate and interact regardless of ability or preference.



# Table Tags Sample



The screenshot shows a web editor interface. On the left is a sidebar with a tree view of HTML tags. The tags are organized as follows:

- <Table> (expanded)
  - <TR> (expanded)
    - <TH> (expanded)
    - <TH> (expanded)
  - <TR> (expanded)
    - <TD> (expanded)
    - <TD> (expanded)
  - <TR> (expanded)
    - <TD> (expanded)
- <TD> (selected, highlighted with a blue box)
  - <P> (expanded)
    - Hearing (selected, highlighted with a yellow box)

On the right is a table with the following structure:

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

Below the table, the text "How to create an accessible PDF:" is displayed in blue. Underneath it, a numbered list starts with "1. Create an accessible Word document".



# Image Alternative or Alt Text



*Screen readers and other AT announce that it's an "image" or "graphic", then read the alt text: "Three plants going through transformation with text quote Accessibility user-friendly document for CSUN student success."*

- The purpose of **Alt Text** is to allow low vision or blind users who use text-to-speech assistive technologies (AT), such as screen readers, to understand the purpose of graphic images. Sighted users usually don't see alt text unless they use AT.
- Screen readers and other AT **can't** convert images into texts. So, when writing alt text, consider the following for images:
  - Describe the content and the purpose of the image clearly and concisely, in a phrase or a sentence or two. Keep alt text short 200 characters or less.
  - Image with text (for example, the CSUN wordmark) should include the words on the image.
  - "Image of...", "Photo of..." is not needed because screen readers and other AT announce that it's an "image" or "graphic".
  - When completing the alt text, use proper punctuation such as periods to indicate the end of the alt text. Without proper punctuation, some screen readers will run the alt text into the body text that follows and cause confusion to the user.
  - Don't insert hyperlinks in alt text because they are not clickable and can't create descriptive link text.



# How to Describe Images?



A stair chase leading up to an entryway is painted yellow with bold black text that reads museums are now.



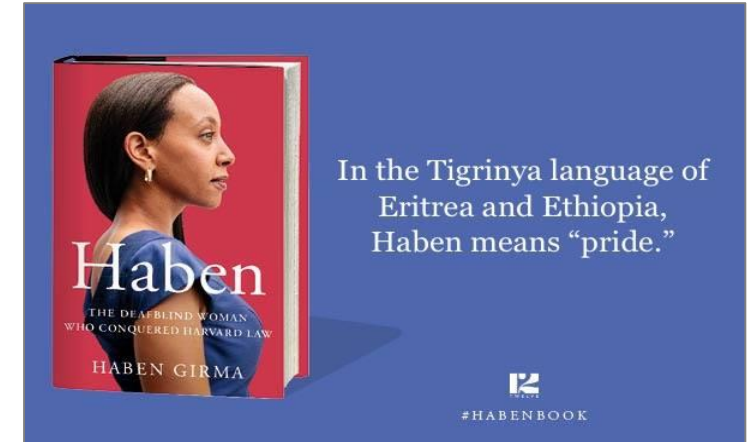
A hand reaches out of a computer screen giving the hand gesture for stop. The screen reads 'access denied!'



Michelle Obama claps and Barack waves.



Student holds a diploma hardcover up in the air during CSUN commencement. Caption text "and together, as Matadors, we will move mountains."



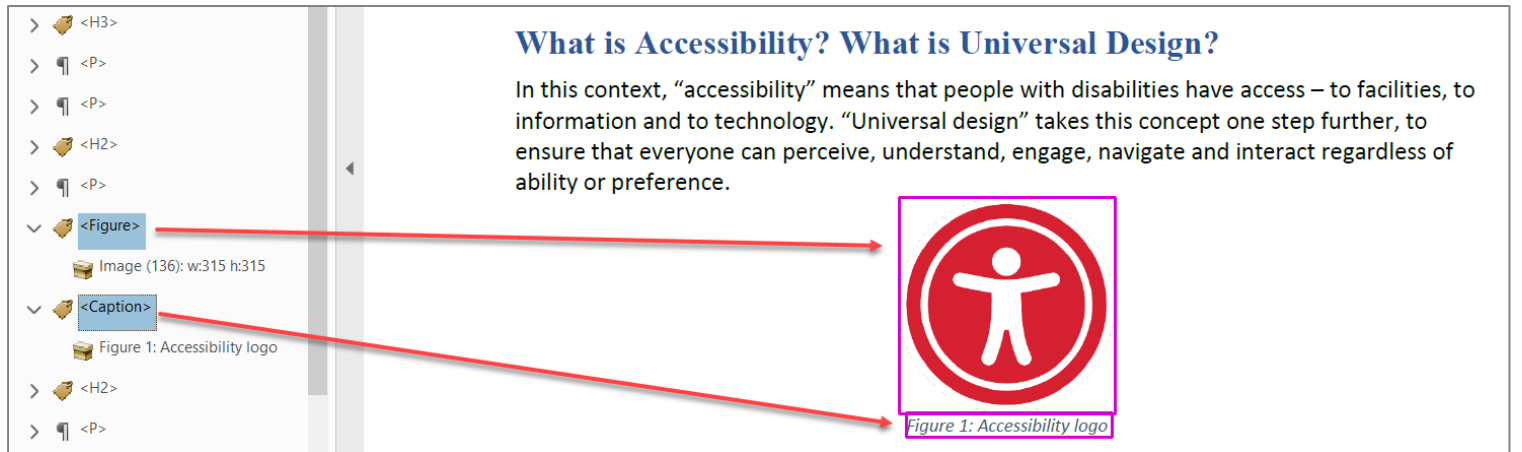
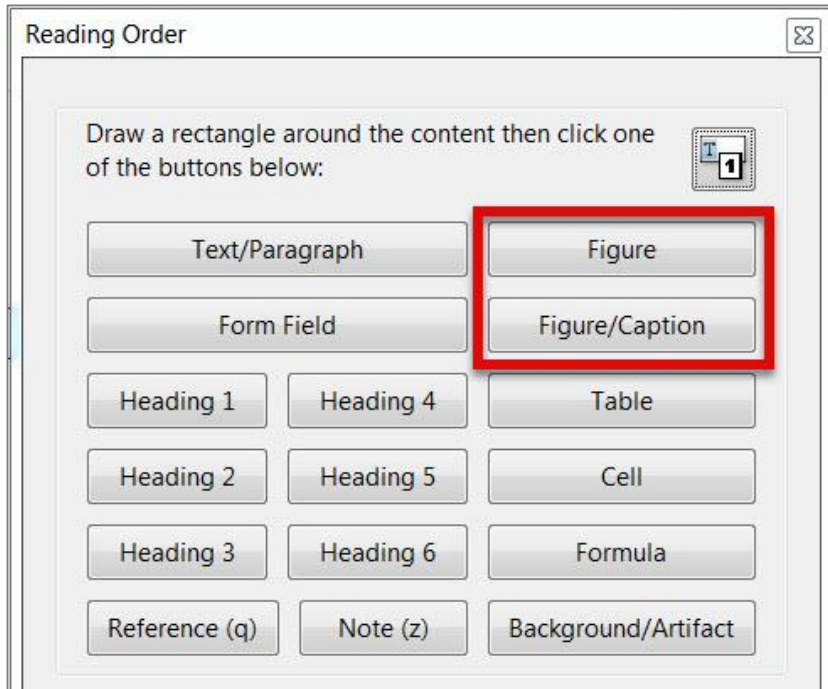
On the left is the book cover for Haben The Deafblind Woman Who Conquered Harvard Law, and on the right is the quote: "In the Tigrinya language of Eritrea and Ethiopia, Haben means 'pride.'"

## More examples of How to Describe Images

- [Document Learning Tools: Describing images](#)
- [How to Describe Images](#) (Art, Chemistry, Diagrams, Flow Charts, Formatting & Layout, Graphs, Maps, Mathematics, Page Layout, Tables, Text-only images)
- [Periodic Table of the Elements](#)
- [UDC Best Practices for Describing Images](#)



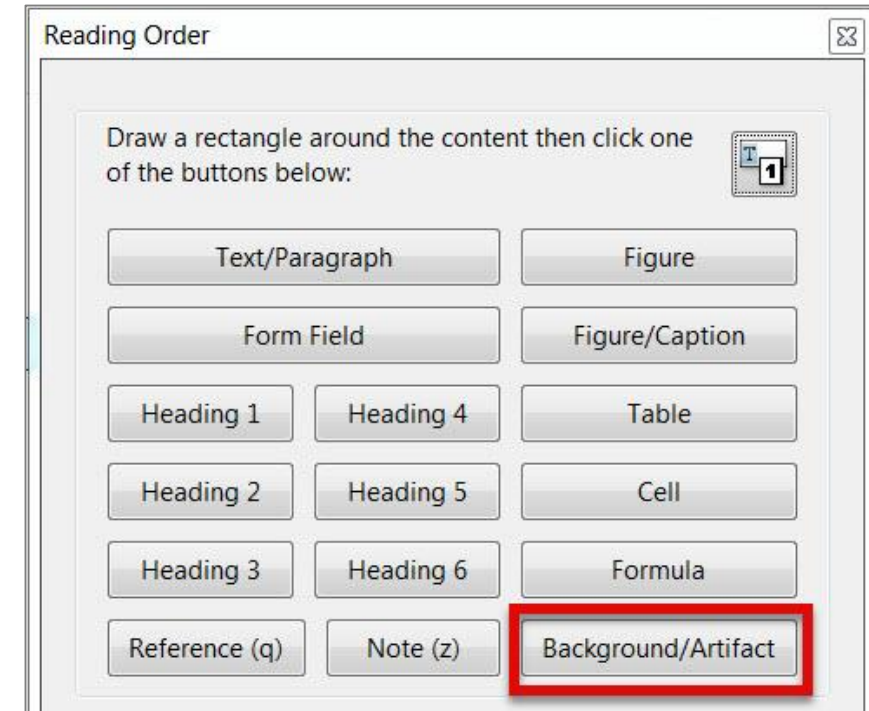
# Figure and Caption Tags Sample

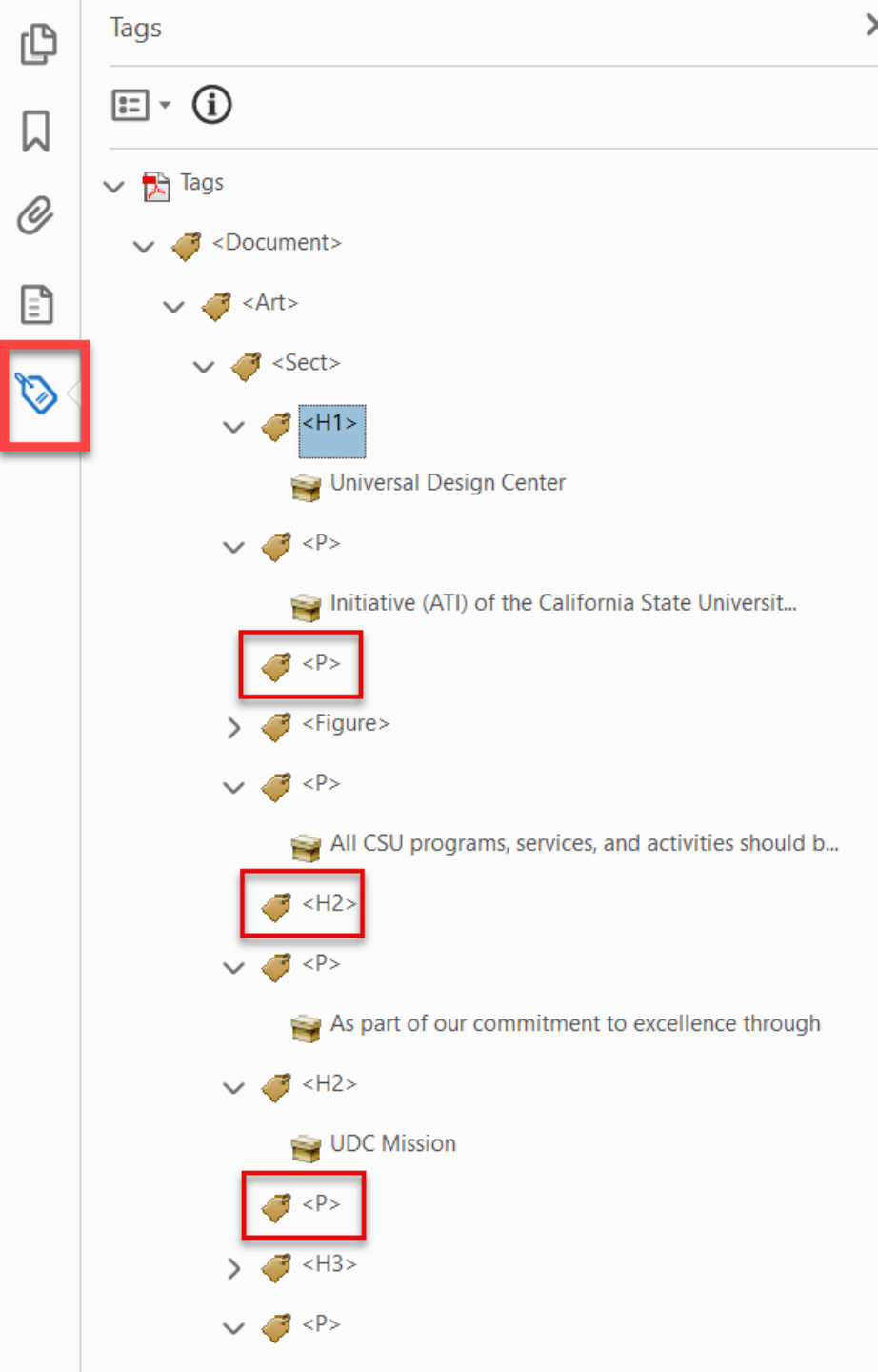


- Images are tagged as **“Figure”**
- Or images with short text underneath as **“Figure/Caption”**.

# Background/Artifact Tag for Decorative Images

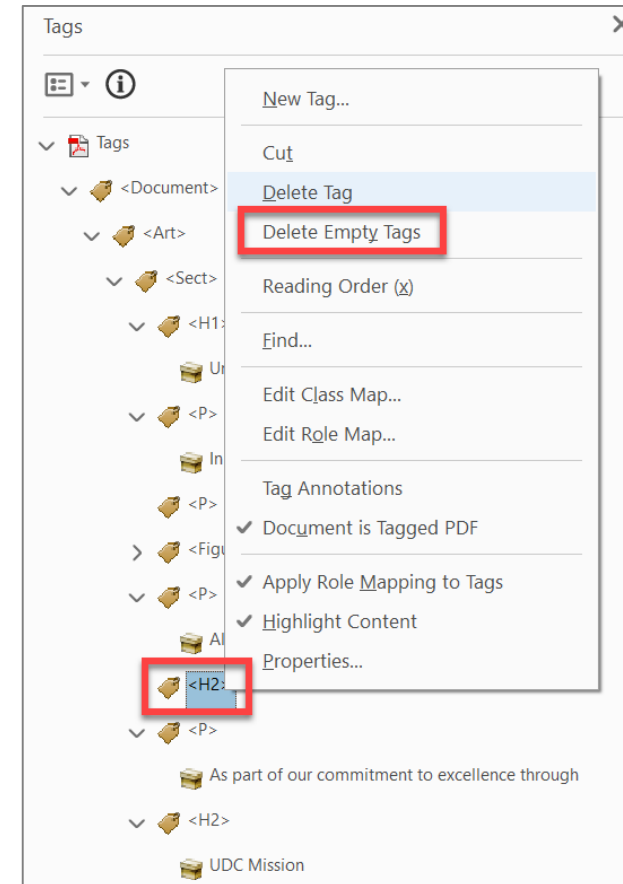
- Conveys no information; does not provide meaningful information.
- Purely for visual effect.
- The horizontal line that divided the two sections.
- Line border image used as part of page design.
- Decorative images do not require a text alternative.
- **Decorative images, lines, borders, or shapes ignore by assistive technologies, such as screen readers.**





# Delete Empty Tags

Empty tags mean no text underneath the tags. Screen readers will say “**Blank**”. Recommend to delete any empty tags by selecting <P> or <H2>, right-click to select “Delete Empty Tags”.

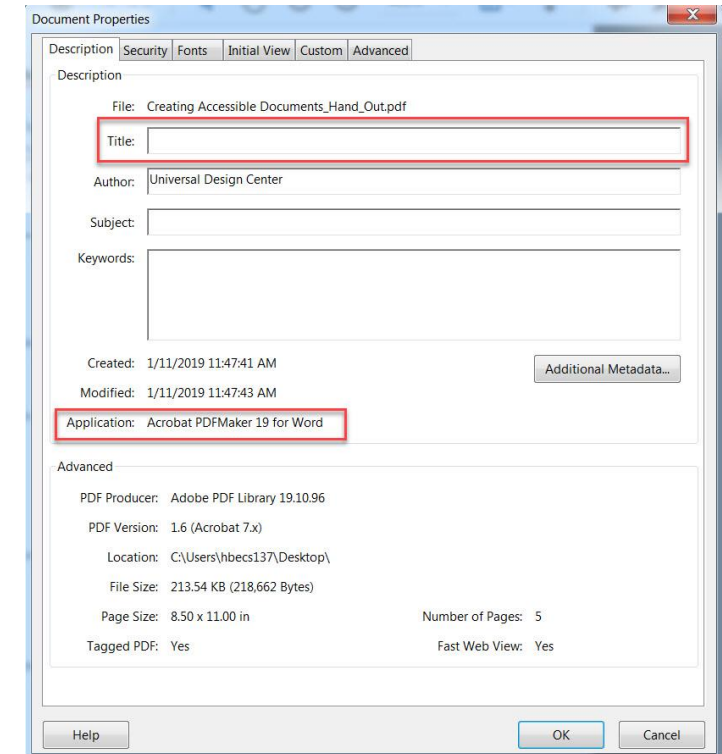
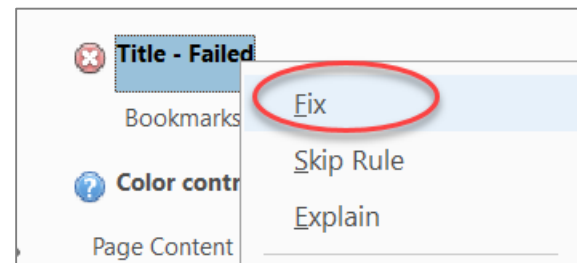
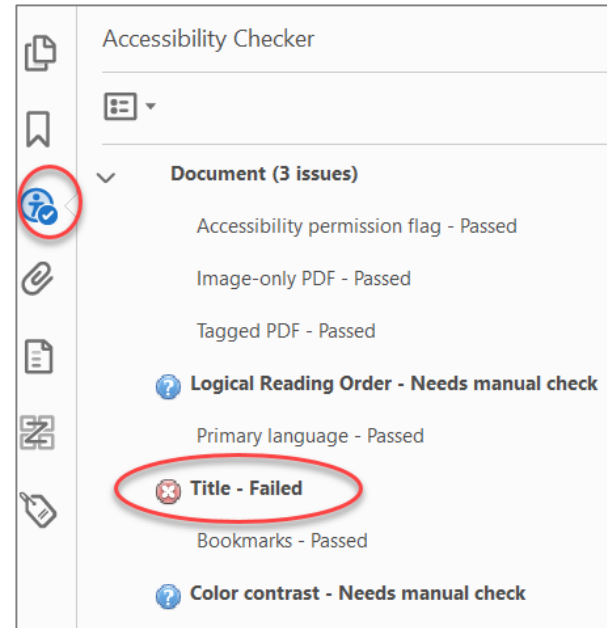


# Common Issues – Title shown as a failure

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](#)




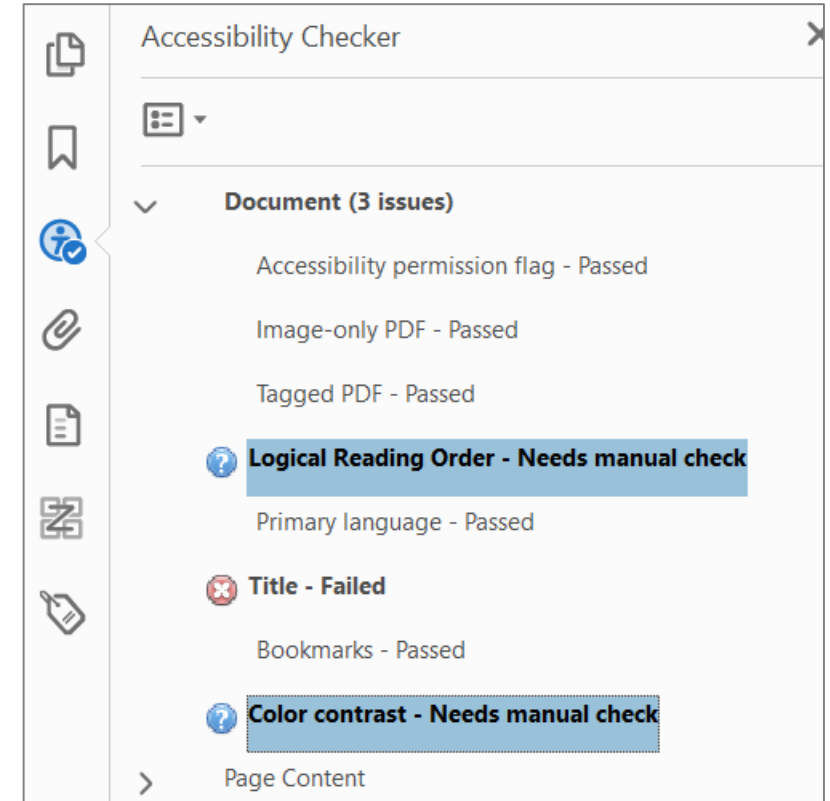


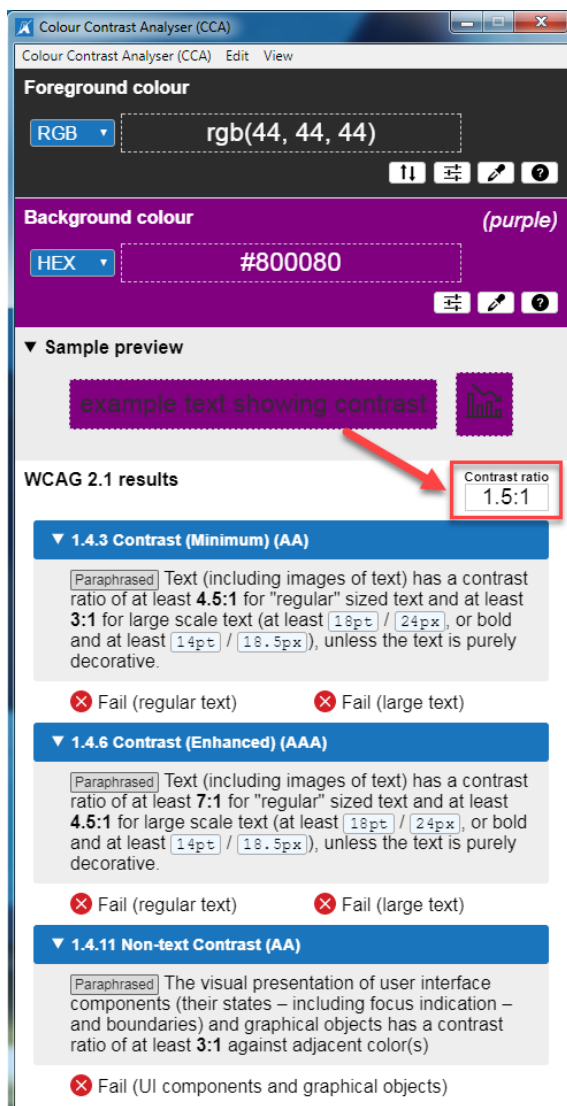
# Accessibility Checker – Manual evaluation

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

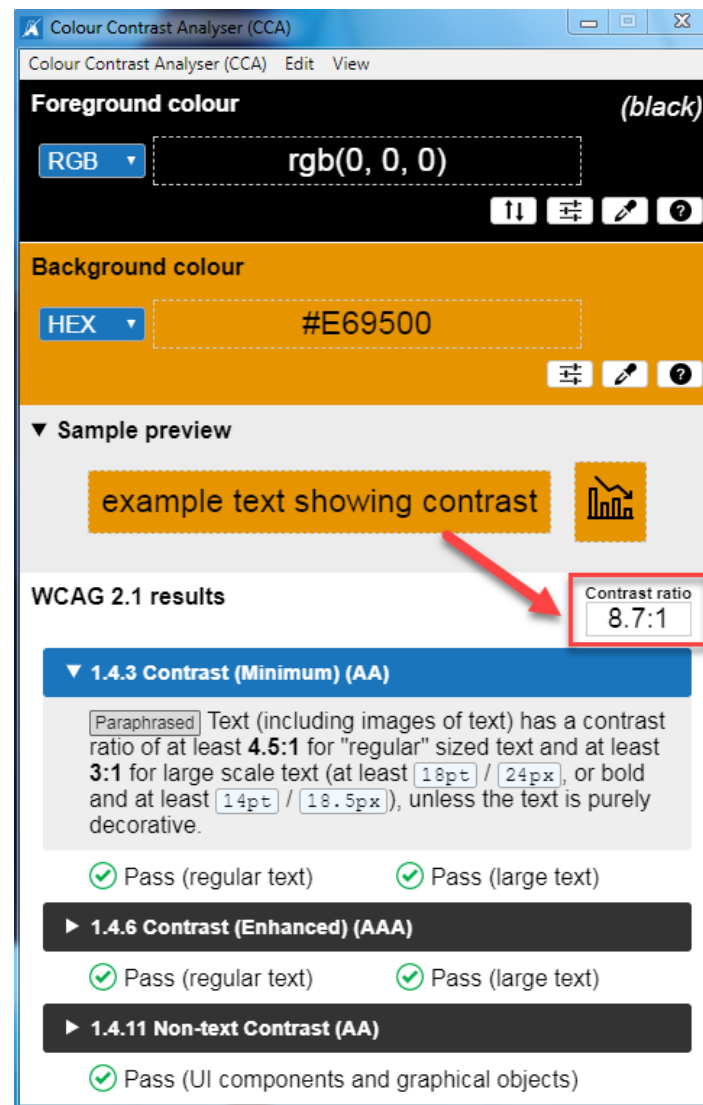
- Logical Reading Order
- Color Contrast

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.





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

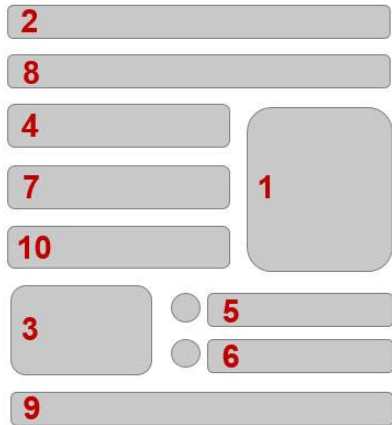
# Verify Color Contrast

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](#)

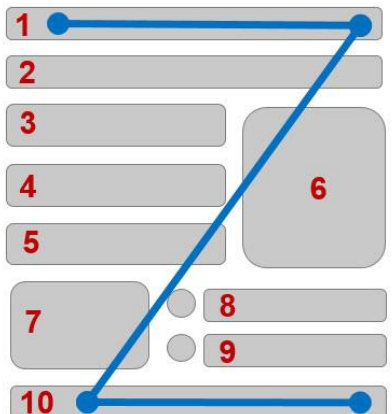
# Repairing Reading Order, 1 of 3

Ensure the **Tags Tree** are in the **correct logical order** to match the document pane. This example illustrated that `<P>` tag is read first which is incorrect reading order. The `<H1>` for Universal Design Center should read first. How do we repair the reading order? Proceed next slide



Top: Incorrect reading order

Bottom: Correct reading order



The screenshot shows the 'Accessibility' pane in a software application. The 'Tags' tree on the left lists various HTML tags in a specific order: `<Sect>`, `<P>`, `<H2>`, `<P>`, `<P>`, `<H3>`, `<H1>`, `<P>`, `<Figure>`, `<H2>`, `<Caption>`, `<H2>`, and `<P>`. A red arrow points from the `<P>` tag in the tree to the first paragraph in the document pane. The document pane displays the following content:

- H1 Universal Design Center**
- H2 Accessibility Statement**  

As part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act.
- H3 Need help?**  

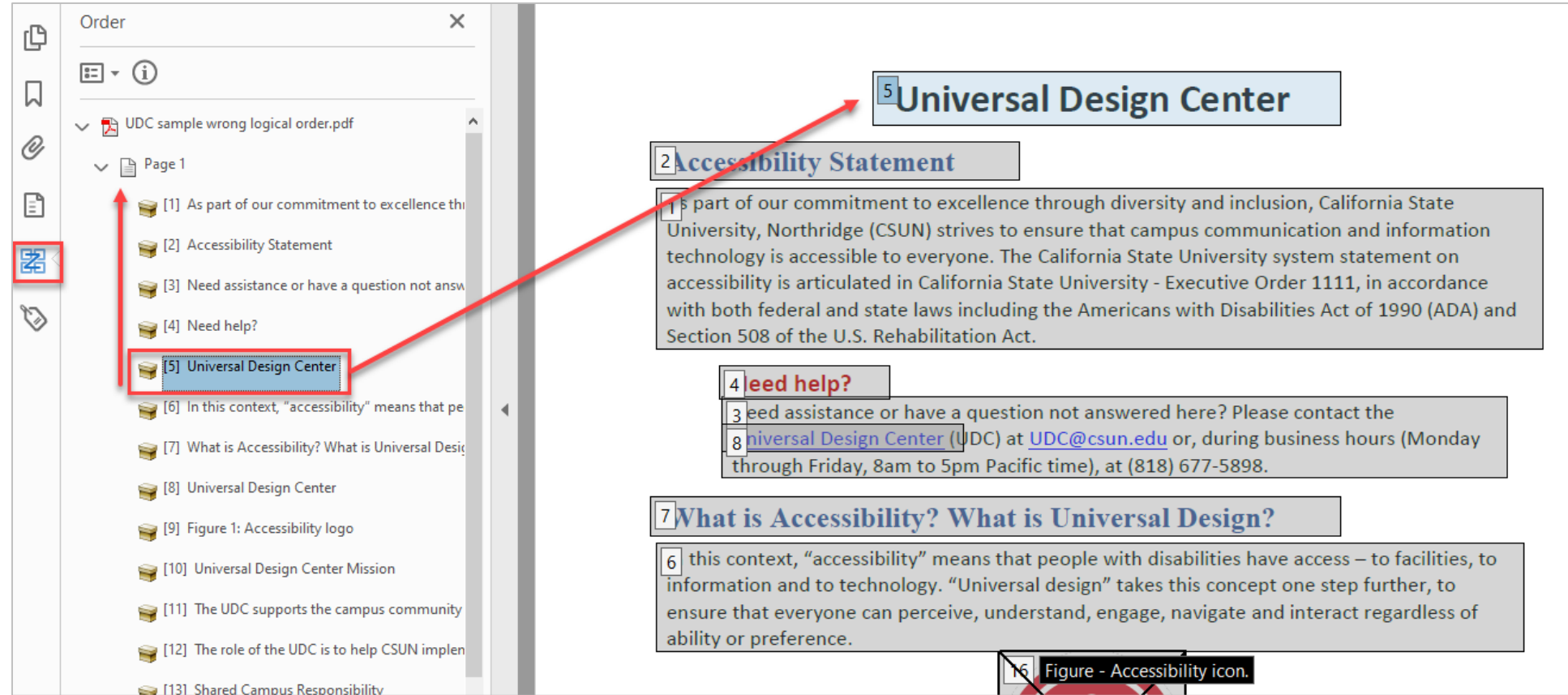
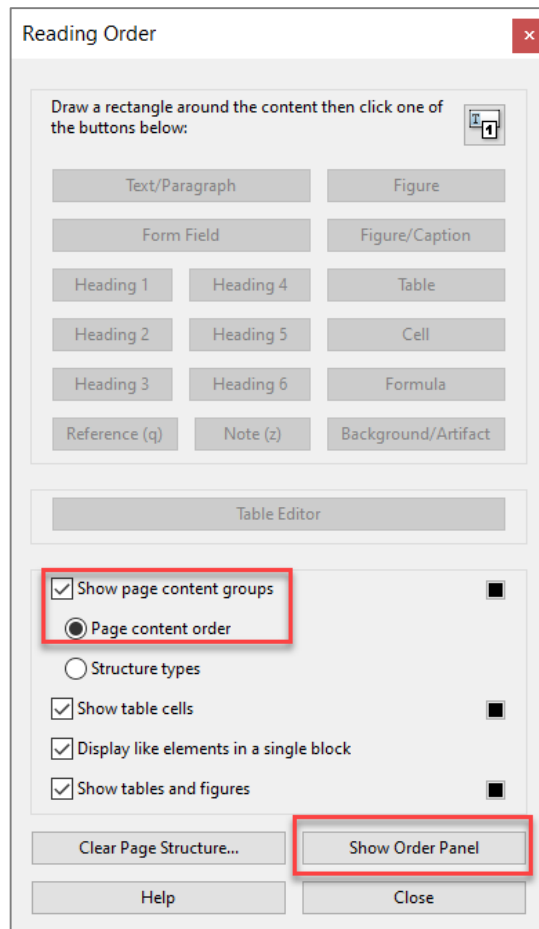
Need assistance or have a question not answered here? Please contact the [Link Universal Design Center \(UDC\) at UDC@csun.edu](mailto:UDC@csun.edu) or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.
- H2 What is Accessibility? What is Universal Design?**  

In this context, "accessibility" means that people with disabilities have access – to facilities, to information and to technology. "Universal design" takes this concept one step further, to ensure that everyone can perceive, understand, engage, navigate and interact regardless of ability or preference.

Figure - Accessibility icon.

# Repairing Reading Order, 2 of 3

From the **Reading Order** dialog, checked “**Show Page Content Groups, Page content order**” number refers to the order of the element in this content. Then select the “**Show Order Panel**” button in the bottom-right corner.



This example illustrated that the order of the element #1 paragraph is read first which is incorrect reading order. So, grab element #5 “Universal Design Center” to move on top before element #1. Repeat the steps to drag up or down in the right reading order. As you rearrange the order, notice the number also changes.

# Repairing Reading Order, 3 of 3

The final order panel should match the document pane like this example

Order

UDC sample wrong logical order.pdf

Page 1

[1] Universal Design Center

[2] Accessibility Statement

[3] As part of our commitment to excellence th

[4] Need help?

[5] Need assistance or have a question not answ

[6] What is Accessibility? What is Universal Desig

[7] In this context, "accessibility" means that pe

[8] Image

[9] Figure 1: Accessibility logo

[10] Universal Design Center Mission

[11] The UDC supports the campus community

[12] The role of the UDC is to help CSUN imple

[13] Shared Campus Responsibility

[14] Everyone has a part in creating accessible a

Document Pane

1 Universal Design Center

2 Accessibility Statement

3 s part of our commitment to excellence through diversity and inclusion, California State University, Northridge (CSUN) strives to ensure that campus communication and information technology is accessible to everyone. The California State University system statement on accessibility is articulated in California State University - Executive Order 1111, in accordance with both federal and state laws including the Americans with Disabilities Act of 1990 (ADA) and Section 508 of the U.S. Rehabilitation Act.

4 eed help?

5 eed assistance or have a question not answered here? Please contact the [Universal Design Center](mailto:UDC@csun.edu) (UDC) at [UDC@csun.edu](mailto:UDC@csun.edu) or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.

6 What is Accessibility? What is Universal Design?

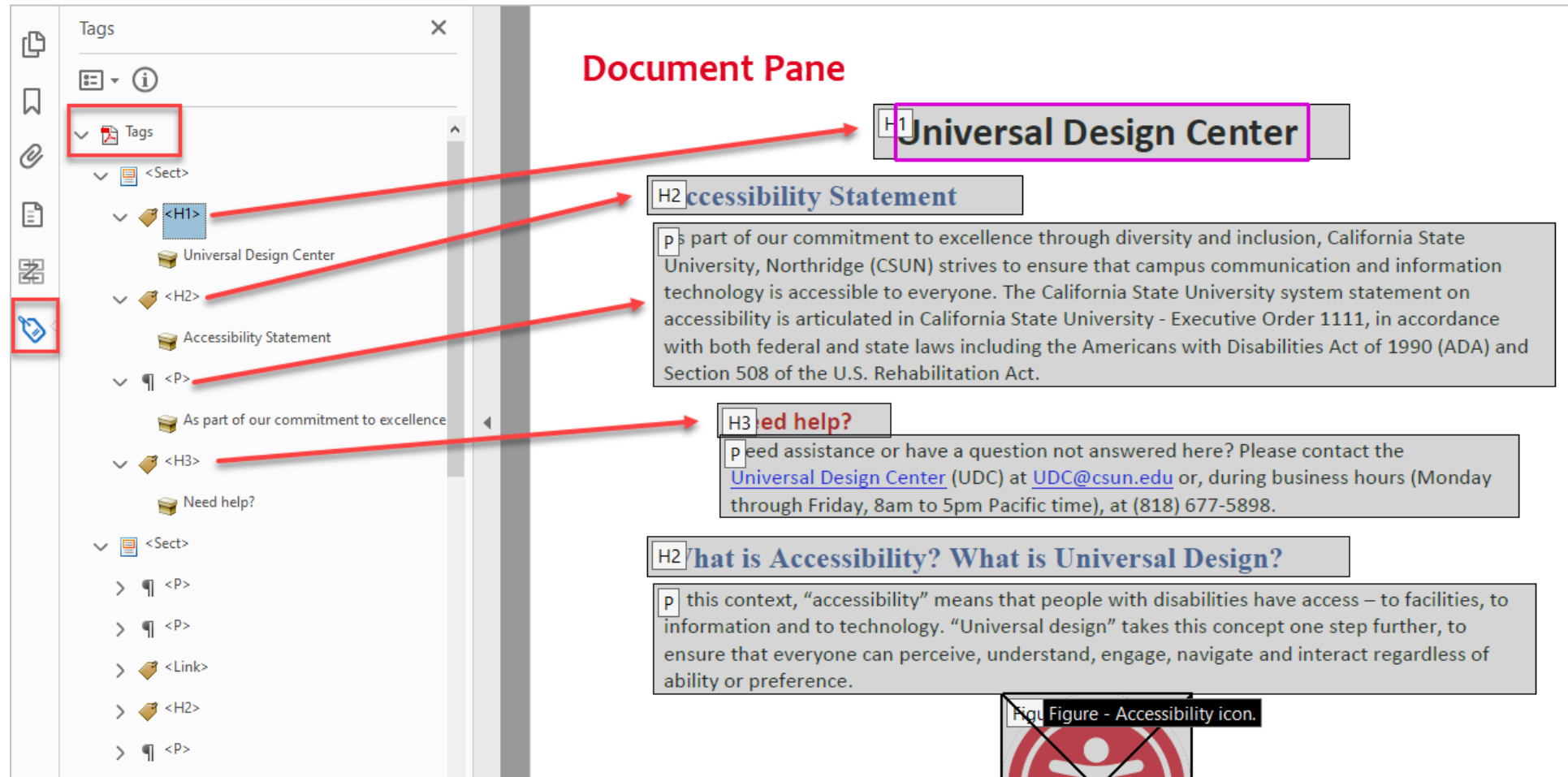
7 this context, "accessibility" means that people with disabilities have access – to facilities, to information and to technology. "Universal design" takes this concept one step further, to ensure that everyone can perceive, understand, engage, navigate and interact regardless of ability or preference.

8 Figure - Accessibility icon.



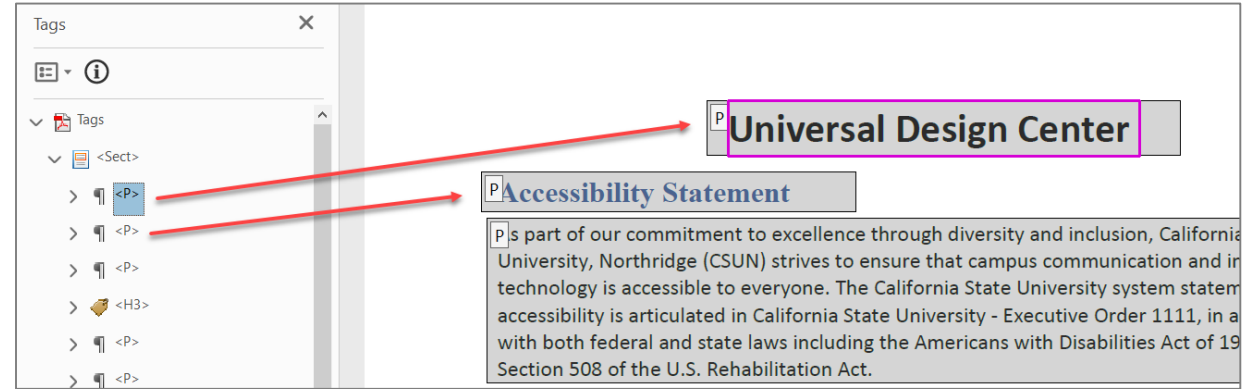
# Verify Tags Logical Reading Order

Ensure the tags are in the correct **logical reading order** to match the document pane for the screen readers and other assistive technology users. Navigate starting from the top of the tags tree and move through each tag in sequentially using the down arrow key. In case any tag is not in the correct order, grab that specific tag, then move up or down in the right order. Occasionally, the Order Panel is out of sync with Tags tree.

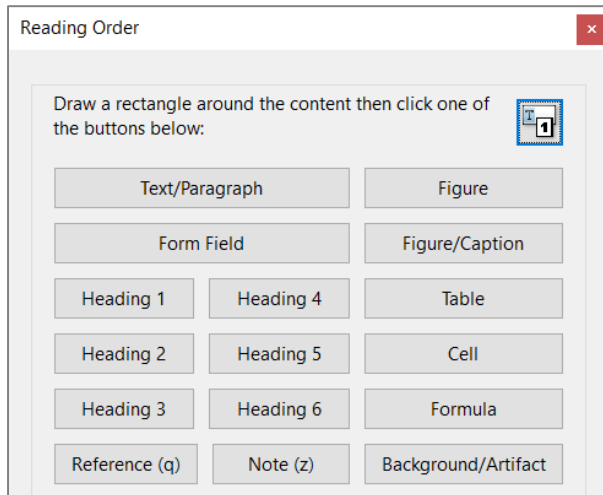


# Repair Tag Structure

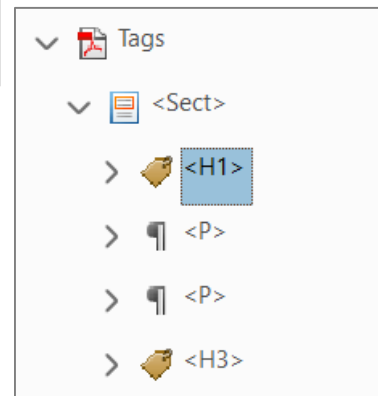
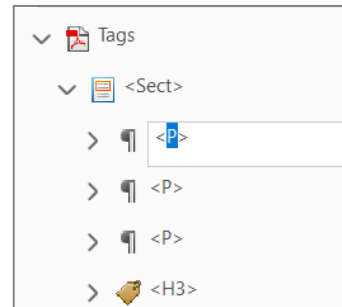
In case you found incorrect pre-assigned tag i.e. `<P>` for heading title “**Universal Design Center**” when it should be tagging as `<H1>`. There are three different ways to correct the tag from `<P>` to `<H1>` in below examples.



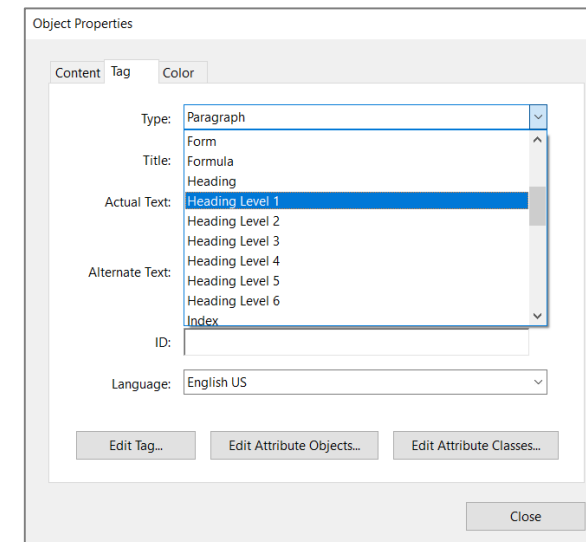
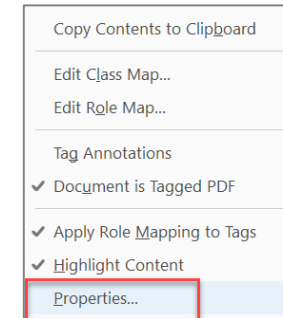
**Option 1:** Re-draw a rectangle around the content, select one of the Reading Order Tool buttons to tag it.



**Option 2:** Double-click the tag i.e. `<P>` then re-type to `<H1>`

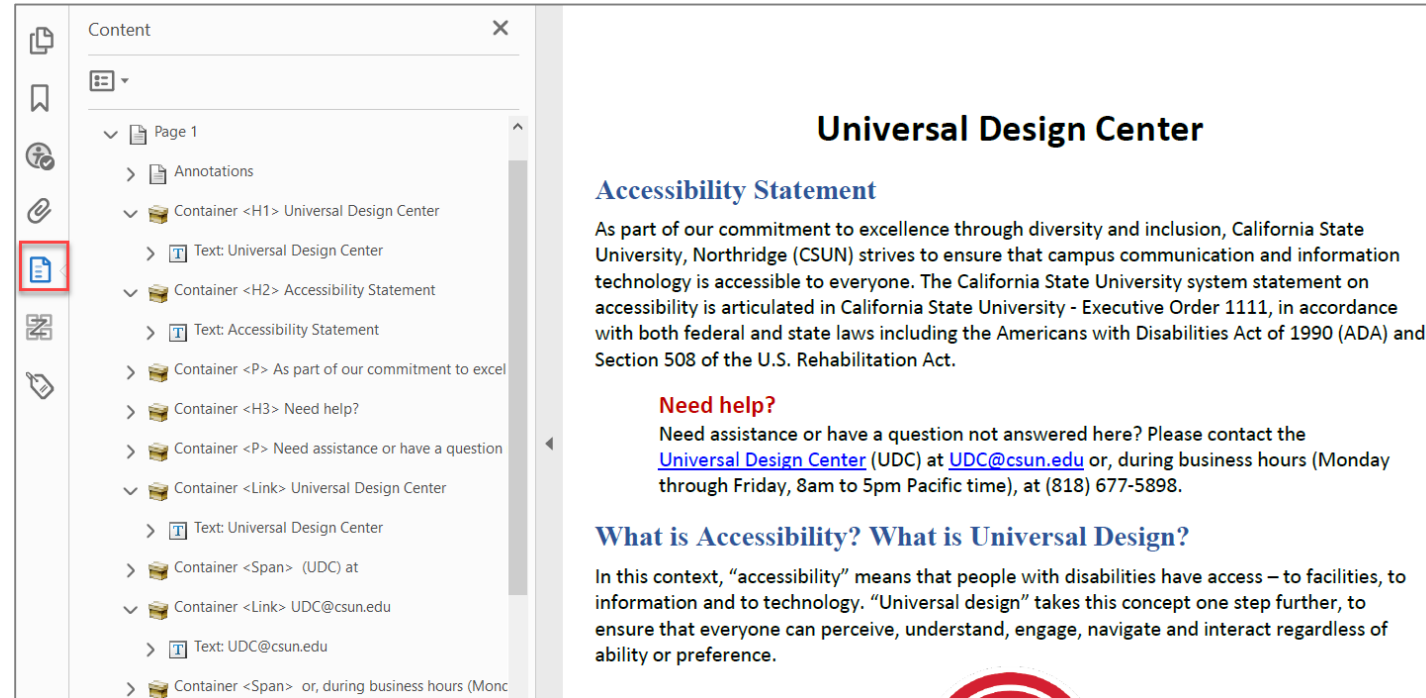


**Option 3:** Select `<P>` tag, right-click to select **Properties**. Type box: select Heading Level 1



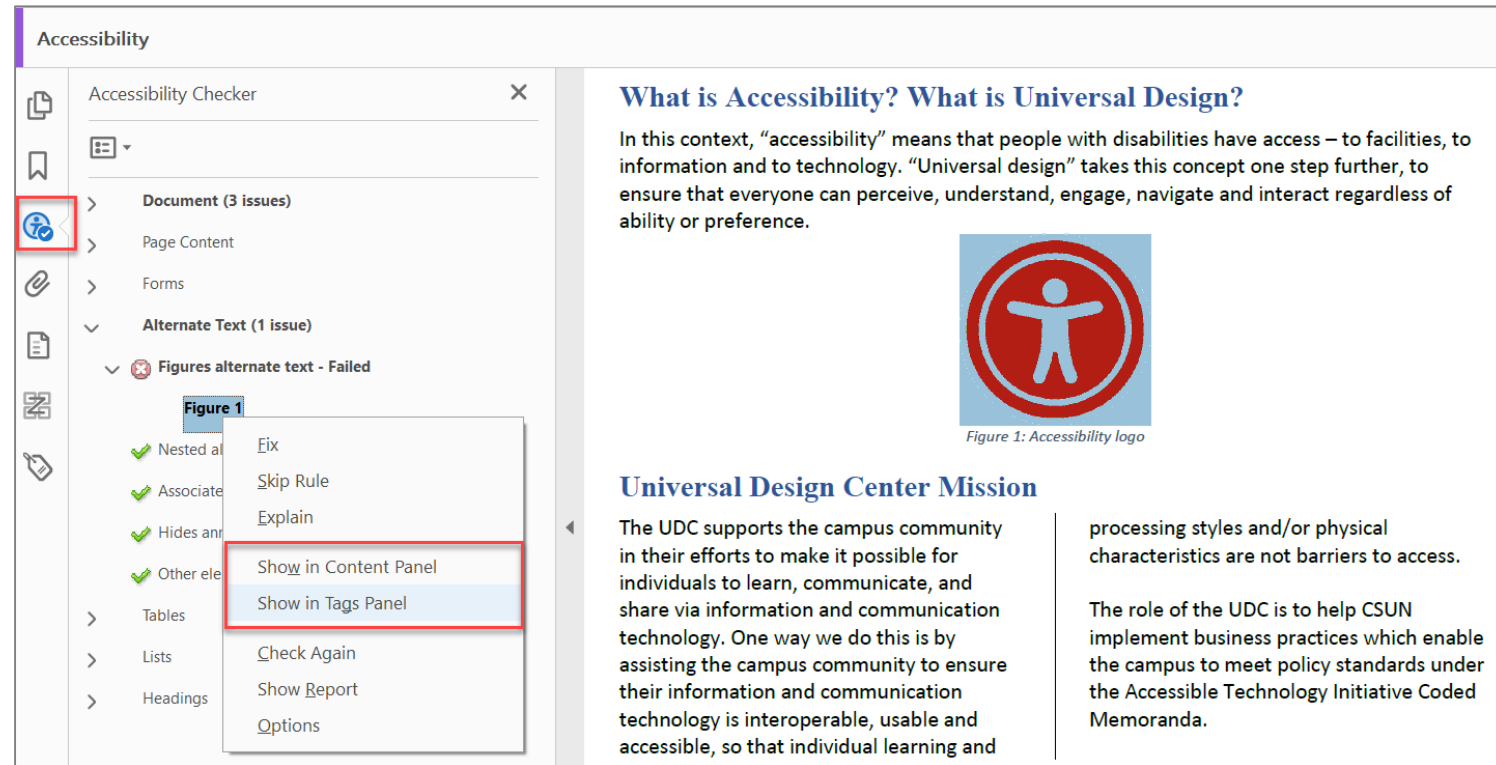
# What is the Content Panel?

- The Content Panel shows you the elements on a page and hold all the content within your PDF.
- You should be familiar with structural elements of PDF documents before editing them in the Content Panel.
- The Content Panel can be difficult to navigate because it is not properly organized.
- Editing your Content Panel is most helpful when you have PDFs with lots of graphics or overlapping information. If content is hidden in your PDF, you can go to the Content Panel to find it and reorganize to find the missing info.




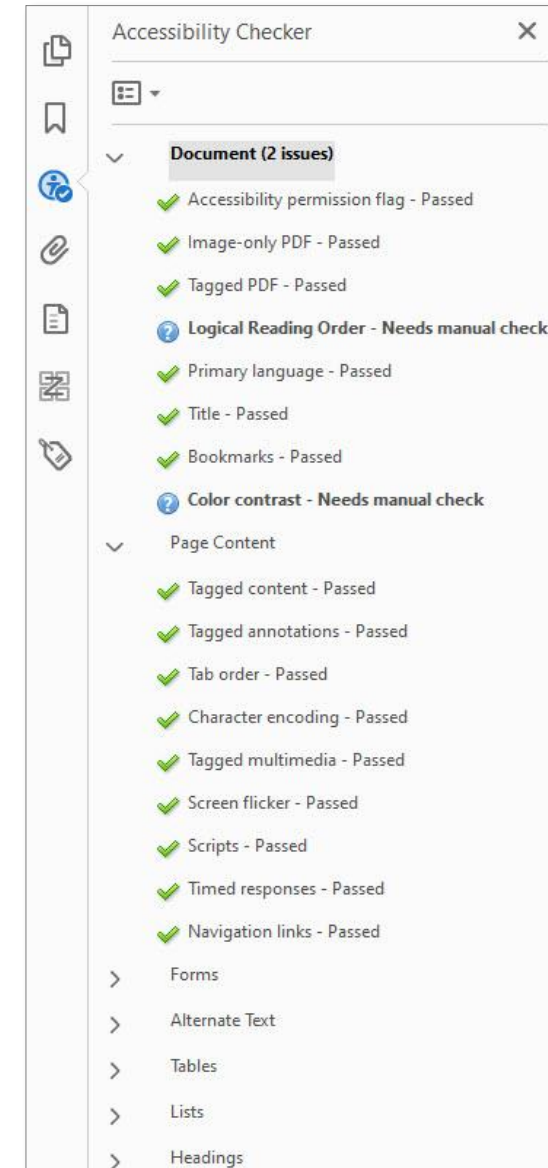
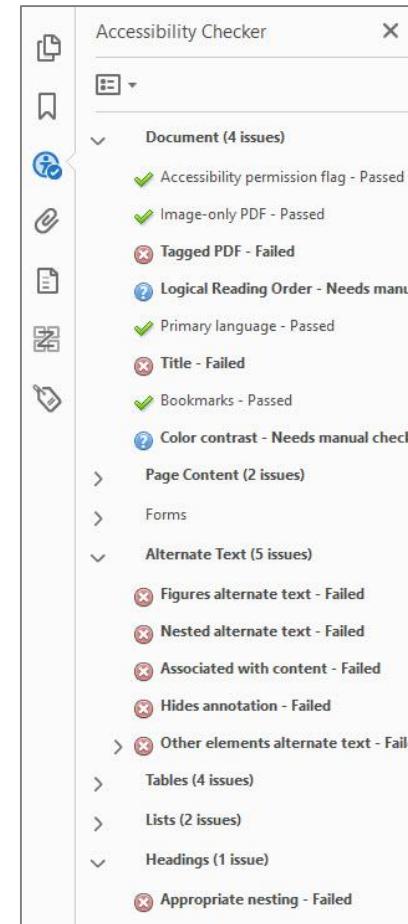
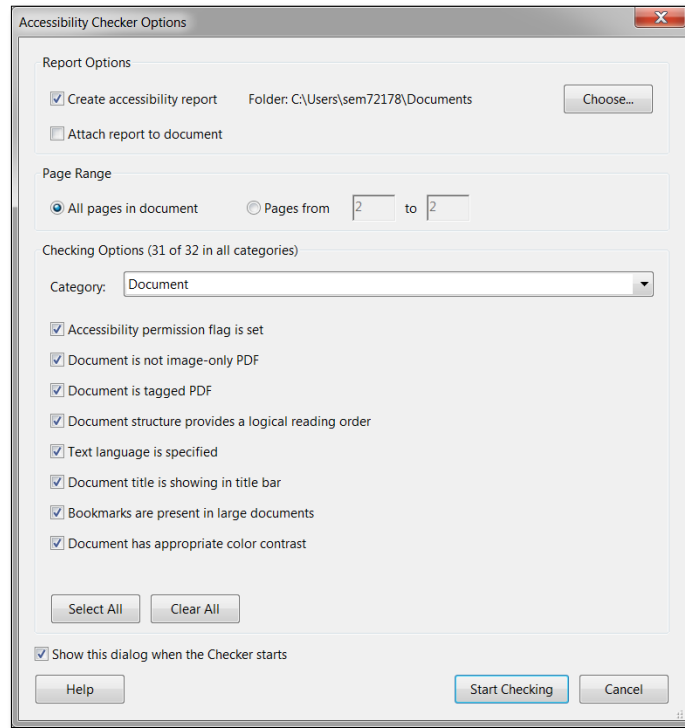
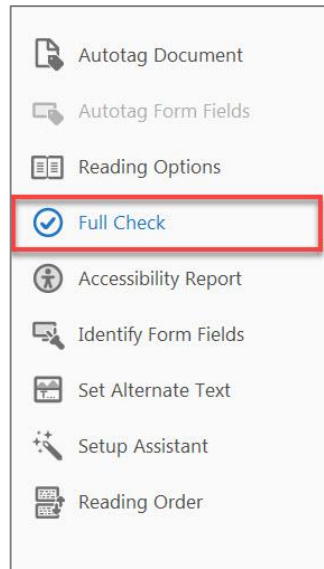
# Launch the Tags Panel or the Content Panel

- If you have errors in an Acrobat Accessibility Check, you should have the option to show the error in either the Content Panel or the Tags Panel or both.
- This lets you quickly see what the problem is.
- In most cases, activating/clicking on the error will let you see what it is in the document, but being able to see it in either or both the Content and Tags Panels takes you right to the problem.



# 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.





# Use screen reader to finalize your document accessibility features

**DO NOT** use Adobe Acrobat's built-in 'Read Out Loud' tool as a screen reader. This tool is NOT a screen reader and will not capture the same information as screen readers below.



**Microsoft Windows NVDA** screen reader that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a refreshable Braille display. NVDA can be **downloaded free of charge** by anyone.

[nvaccess.org](http://nvaccess.org)



VoiceOver (Apple)

- **Apple VoiceOver** built-in provides auditory descriptions of each onscreen element using gestures, a keyboard, or a braille display.

# Course Materials: Canvas Ally says, "This PDF is scanned"

A scanned document is created when a paper-based document, often already printed, is digitized using a scanner. The scanning process essentially takes a picture of every page and bundles it together into a PDF or other format. While the content will look like text, it's just an image of the text, which is not accessible for students who are using assistive technologies like screen readers.

## How do I fix a scanned PDF?

Your [Subject Specialist](#) at the University Library may be able to help you find a more accessible digital copy of textbooks, journals, articles, or publications for your courses.



# Accessibility Tips

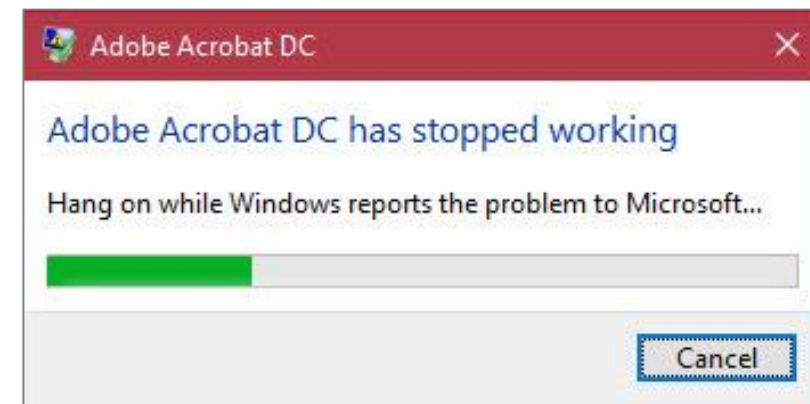


- Always save your PDF as you add TAGS accessibility markup
- When modifying extensive content in reading order, drag content down not up
- Delete empty tags
- Header, footer, and page numbers, decorative lines or shapes tag as “Background/artifact”

Accessibility Tips



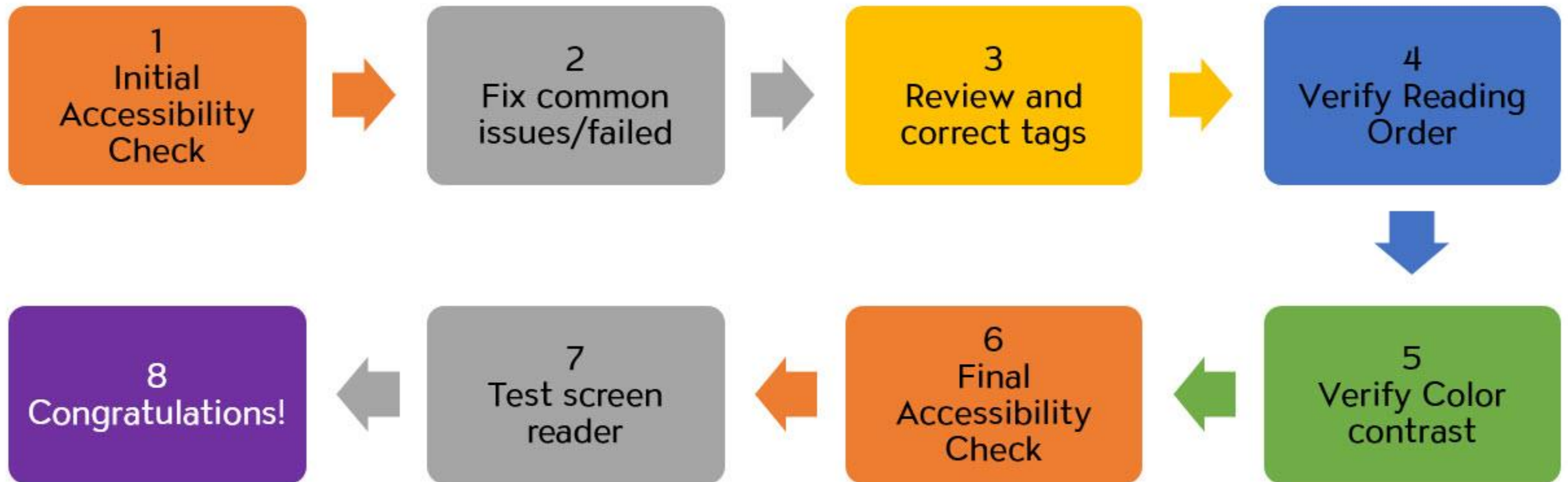
# Always **SAVE** your PDF as you add TAGS accessibility markup



Save it **OFTEN** to avoid Adobe **unpredictable crashes!**



# PDF Accessibility Iterative Process





# How can we help you make a **difference**?



## Universal Design Center Offers

- Online, self-paced training
- In-person training each semester
- Consultations
- Tools and Services

