



# PDF Scanned & Optical Character Recognition (OCR)



# 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](#)

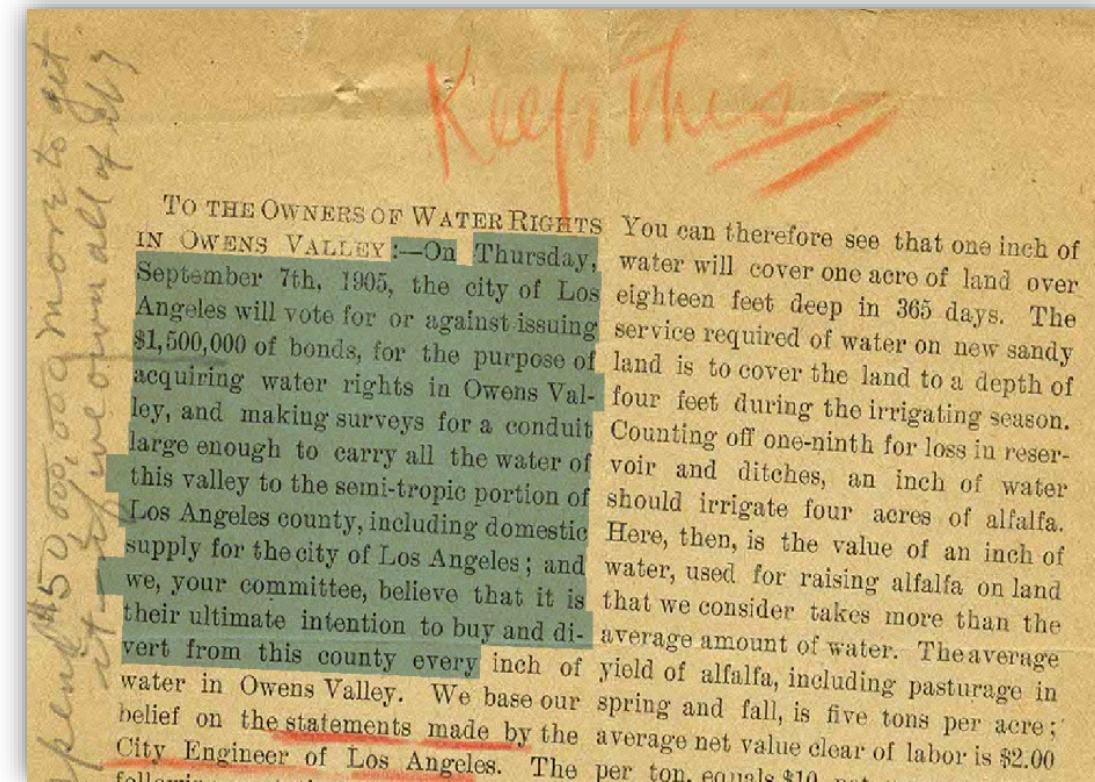


Adobe Acrobat DC

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



# Scanned Documents



- Screen readers or other assistive technology are unable to convert images scanned into text.
- Scanned documents, especially poor quality scans or handwriting, can be difficult to read for everyone.
- Scanned documents should be avoided as much as possible.
- If the document can be found in the library, a reference to the library item can be provided.
- Benefits of having digital copy
  - Can be searched
  - Can copy and paste text



# Scanned Documents - OCR

- Success is highly dependent upon:
  - The **quality of the scan** depends on the device
  - The **quality of the OCR engine**
- Some Gotchas
  - Colored backgrounds
  - Handwritten text
  - Poor quality scan depends on the device
- After improving the quality of the scan document, next step is tagging **PDF accessibility markup**.



# 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

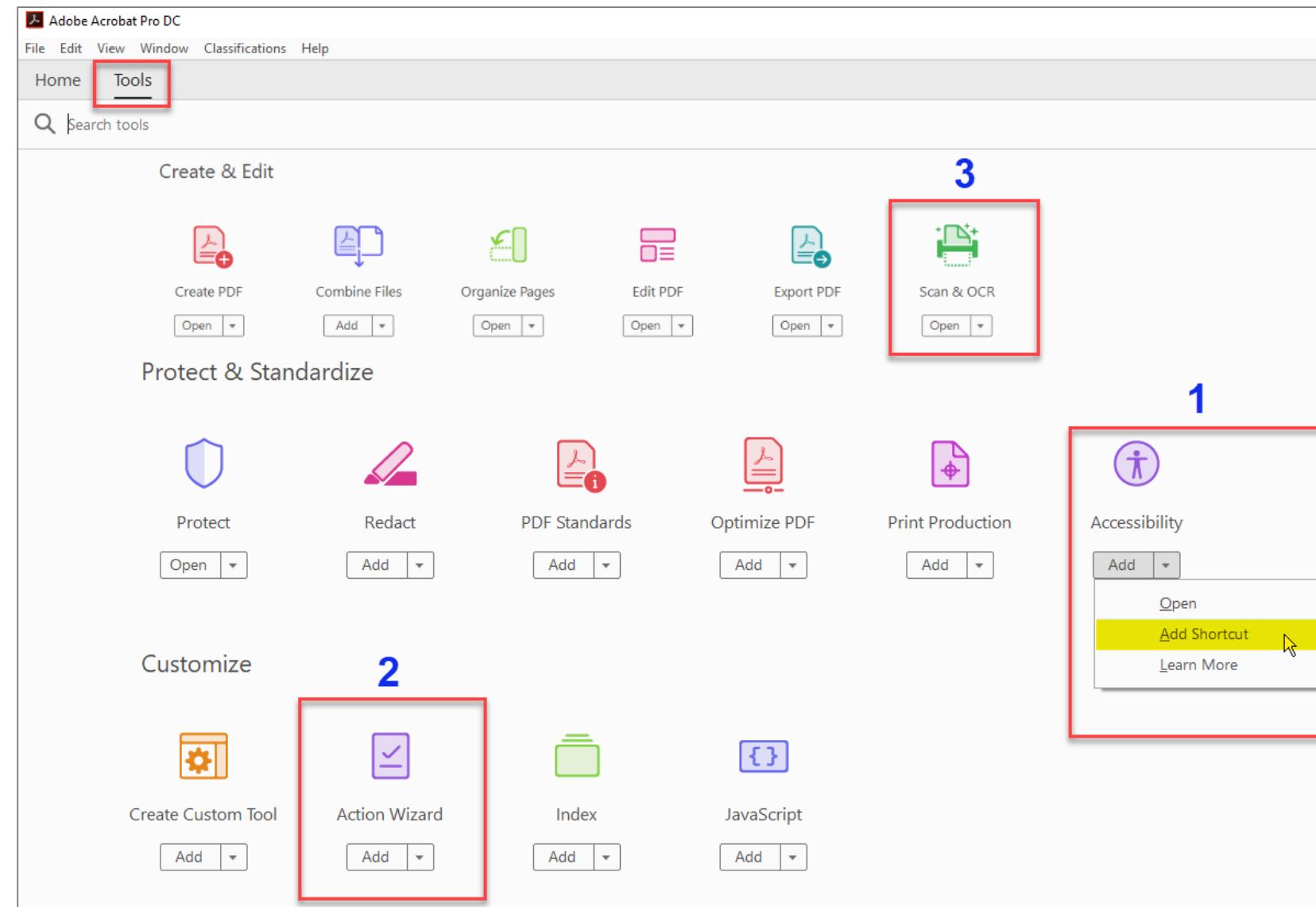
Accessibility is for everyone.

# Tools Pane Set Up

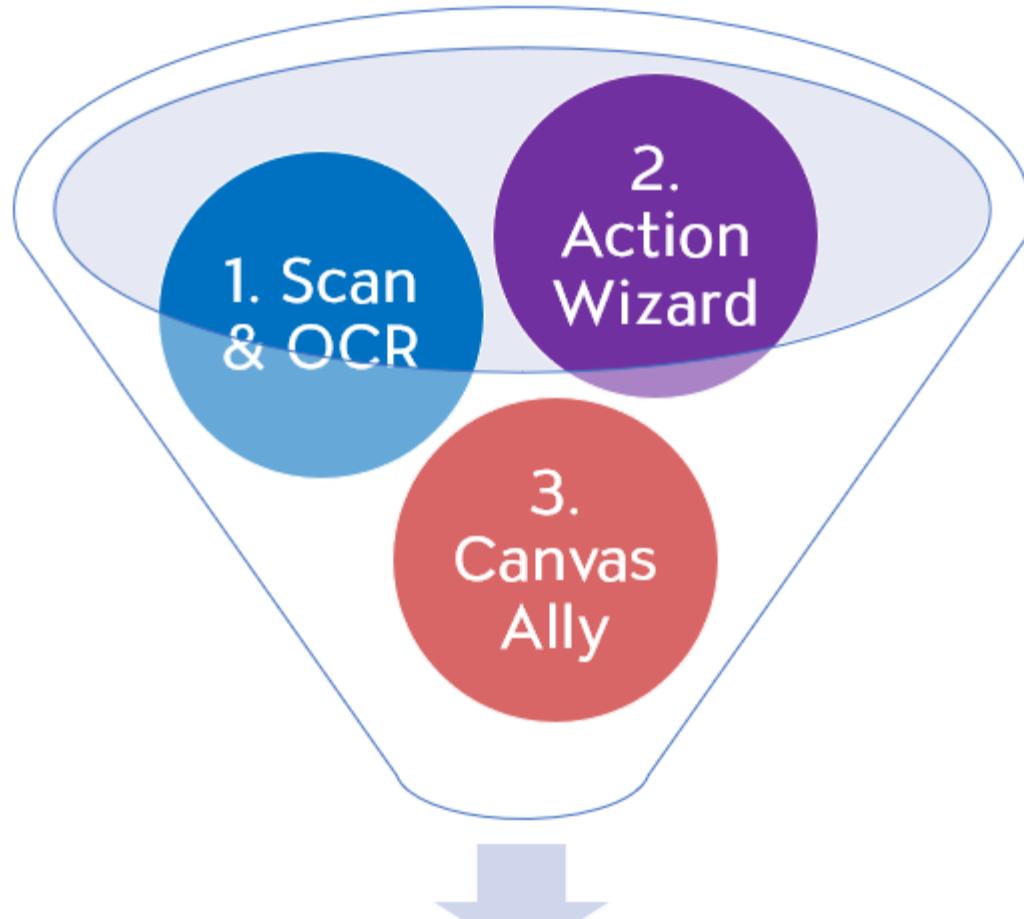
If this is your **first time** setting up Adobe Acrobat software...

Select **Tools** Tab and Add Shortcut to the right pane

- **Accessibility**
- **Action Wizard**
- **Scan & OCR**



# THREE ways to convert scan document to OCR



Review and Correct Tags

## Review and Correct Tags

Make sure all items have appropriate tags

- **Run Initial Accessibility Check**
  - Regular Text: Text/Paragraph
  - Headers: Heading 1 – 6
  - Images: Figure
  - Links: Link + OJBR
  - Form Fields: Form
  - Decorative Content (e.g. Lines, text boxes, etc.): Background/Artifact
- **Add Document Title and Language**
- **Verify Reading Order**
- **Verify Color Contrast**
- **Run Final Accessibility Check**

# Text Recognition

Scan & OCR



Insert ▾



Enhance ▾



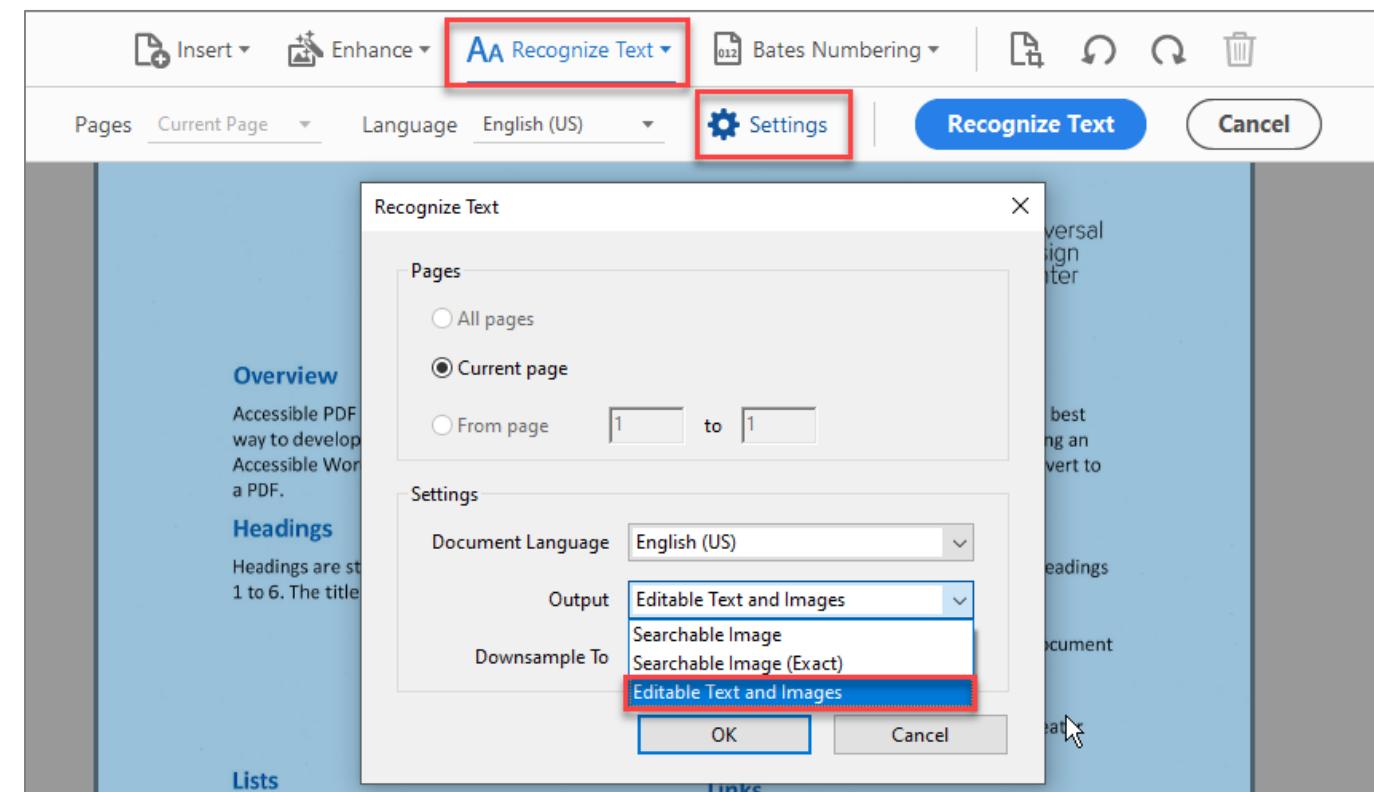
Recognize Text ▾



Bates Numbering ▾



- Need to conduct **Optical Character Recognition (OCR)**
- Text Recognition Types:
  - Searchable Image
  - Searchable Image (exact)
  - **Editable Text and Images**

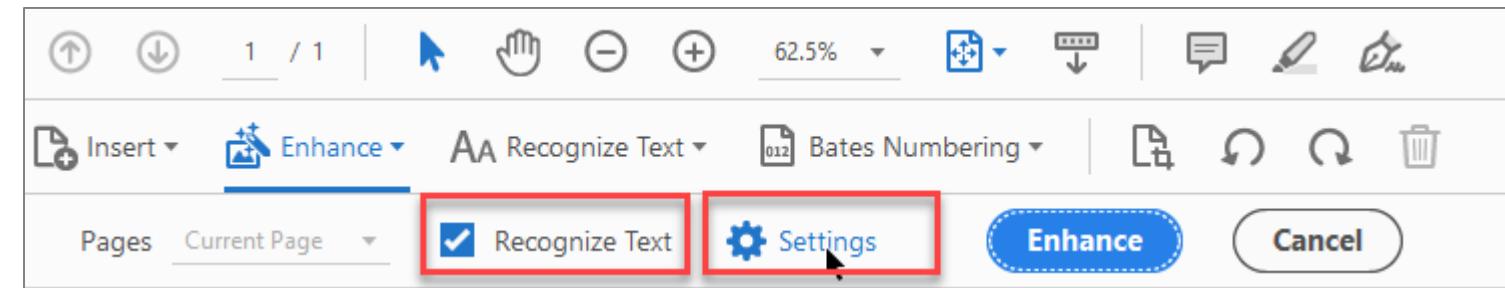
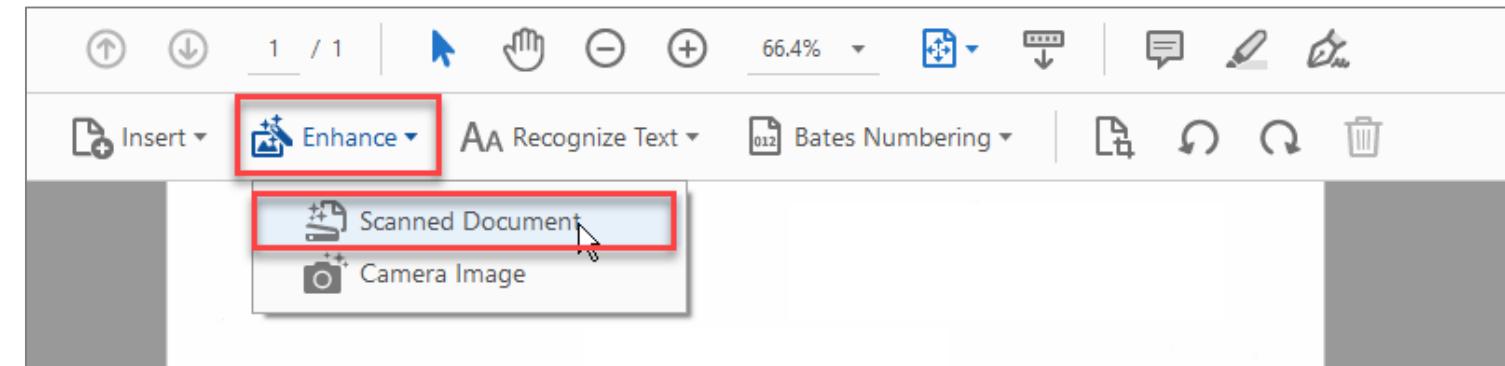
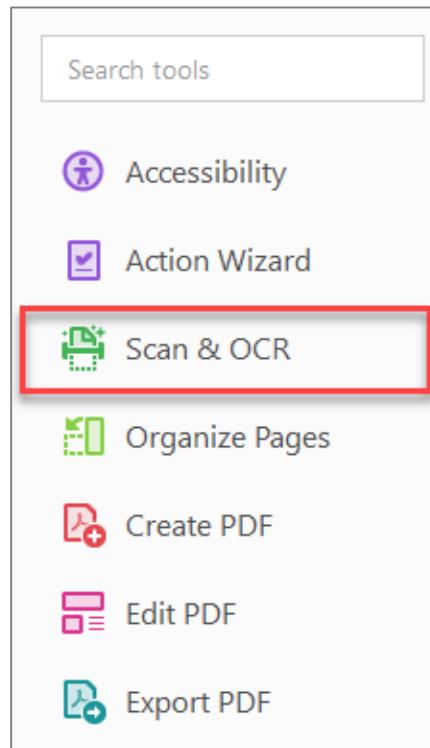


Universal Design Center

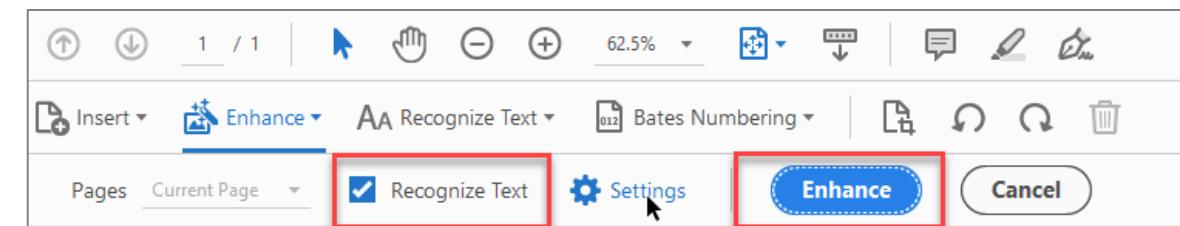
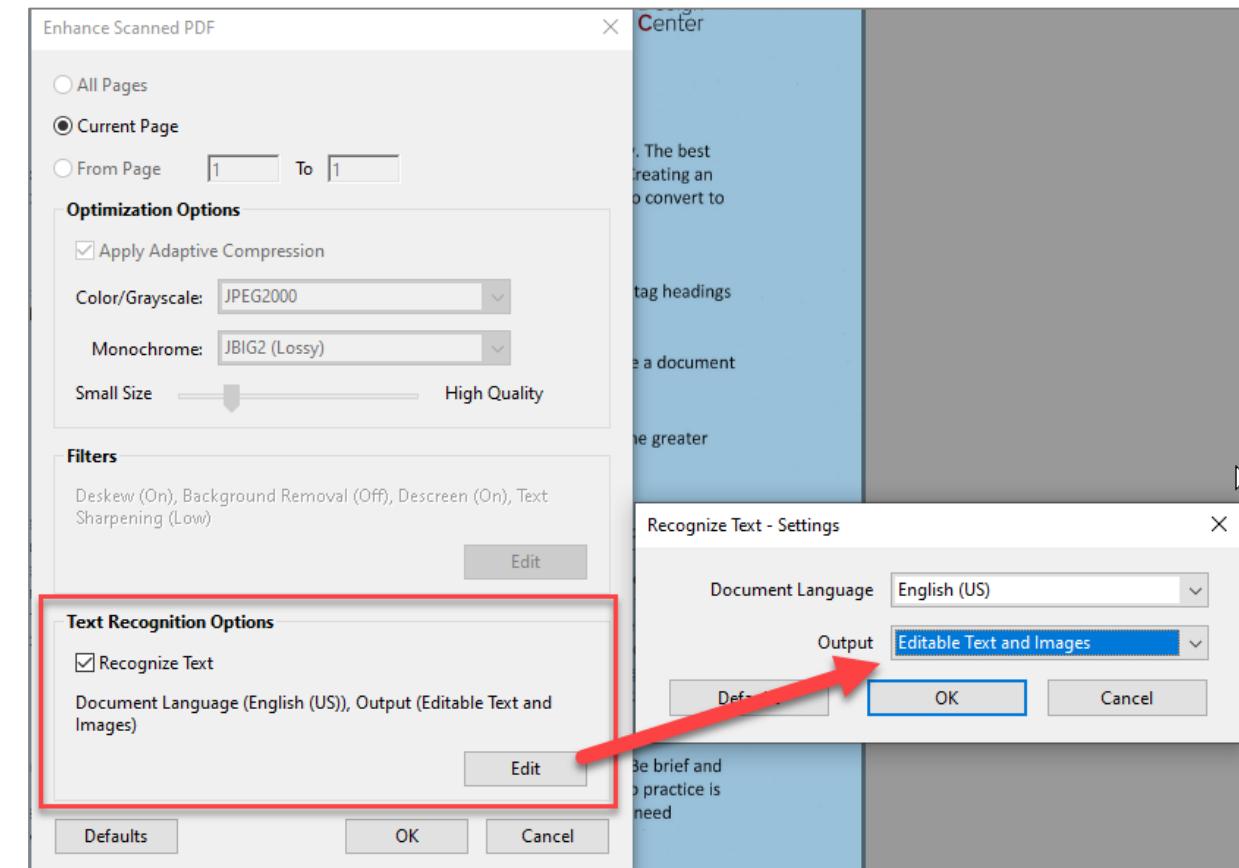
csun.edu/udc

# Option 1: Scan & OCR Steps, 1 of 2

1. Open Scanned PDF
2. Run **Scan & OCR Tool**
3. **Enhance “Scanned Document” (Recognize Text Checked)**
4. Multiple runs of **Enhance** to improve the quality of the scan

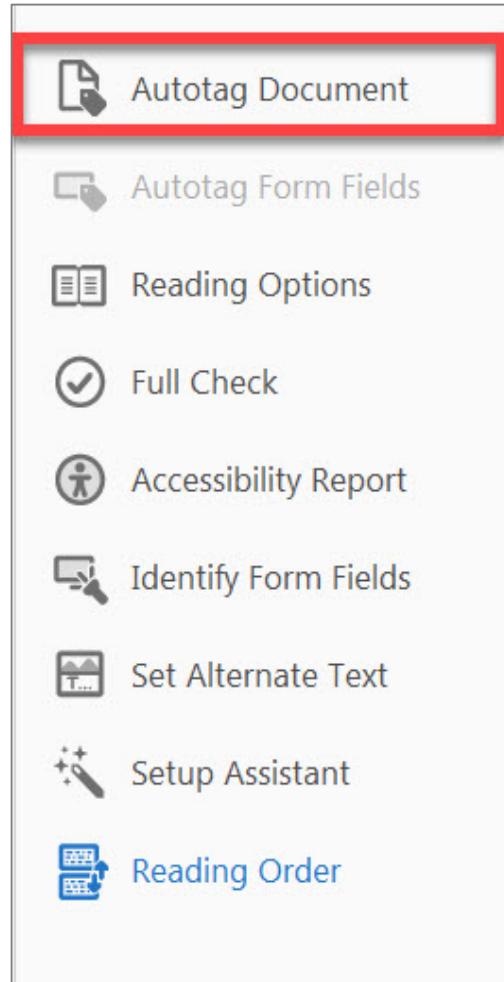


# Scan & OCR Steps, 2 of 2



Now **Live text** should be **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.

# Scan & OCR Steps - Tagging Phase: Autotag Document



## Review and Correct Tags

Make sure all items have appropriate tags

- **Run Initial Accessibility Check**
  - **Regular Text:** Text/Paragraph
  - **Headers:** Heading 1 – 6
  - **Images:** Figure
  - **Links:** Link + OJBR
  - **Form Fields:** Form
  - **Decorative Content** (e.g. Lines, text boxes, etc.): Background/Artifact
- **Add Document Title and Language**
- **Verify Reading Order**
- **Verify Color Contrast**
- **Run Final Accessibility Check**

# Option 2: Action Wizard Steps, 1 of 5

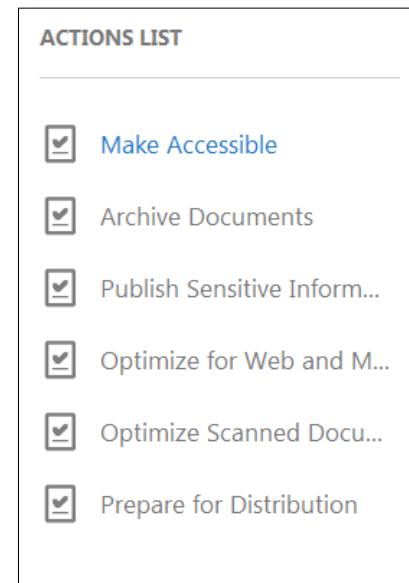
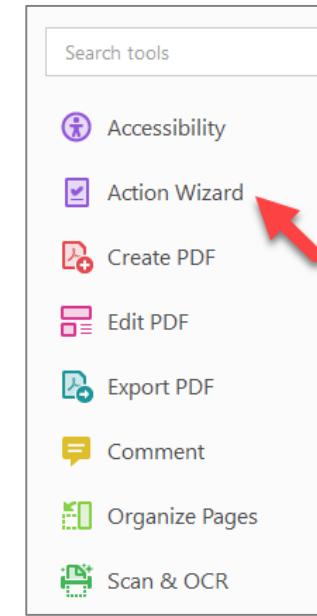
- The **Make Accessible** feature of the Action Wizard is designed to crawl through a PDF to detect headings, images, tags, reading order, etc.
- The easy prompts will guide a user through the process of making the PDF accessible.
- It **should not** be the only tool used to check a PDF's accessibility. User still need to go through **Full Check** for accessibility mark up.

**Step 1:** Open Scanned Document

**Step 2:** Select **Action Wizard** Tool

**Step 3:** Select **Make Accessible**

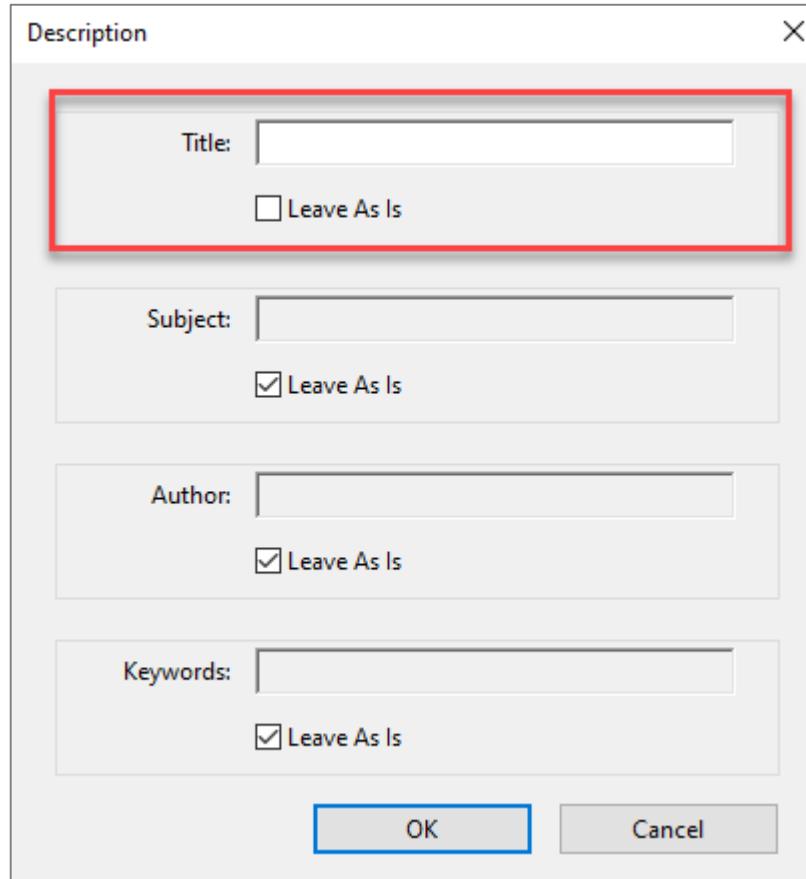
**Step 4:** Start button

A screenshot of the Action Wizard software interface showing the workflow steps:

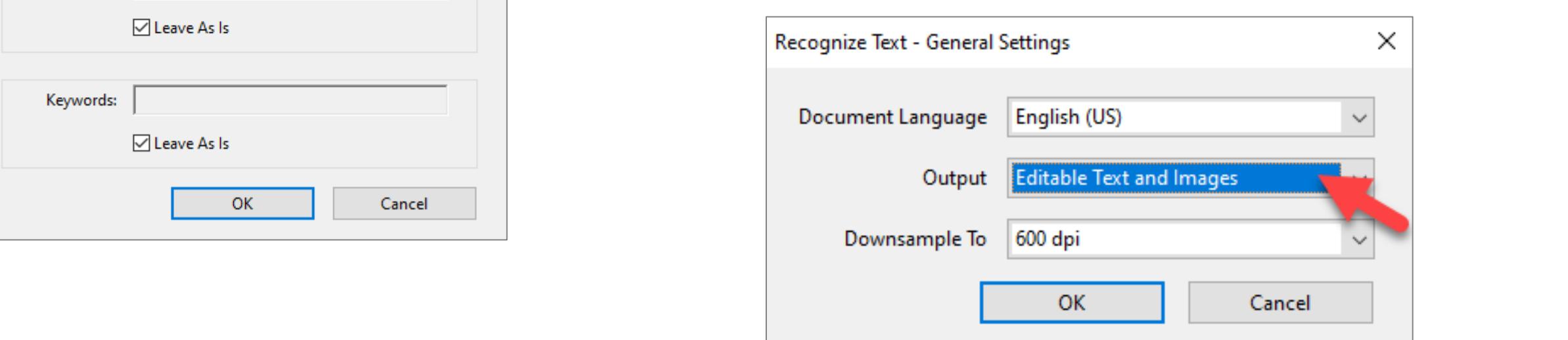
- 1. Prepare**: Set a title and ensure it displays in the window title bar.
  - Add Document Description
  - Set Open Options
- 2. Set Language & Tags**
  - Recognize Text using OCR
  - Detect Form Fields
  - Set Tab Order Property

A file named 'Action Wizard Scan.pdf' is listed under 'Files to be processed'. A large blue 'Start' button is at the bottom of the first section.

# Action Wizard Steps, 2 of 5



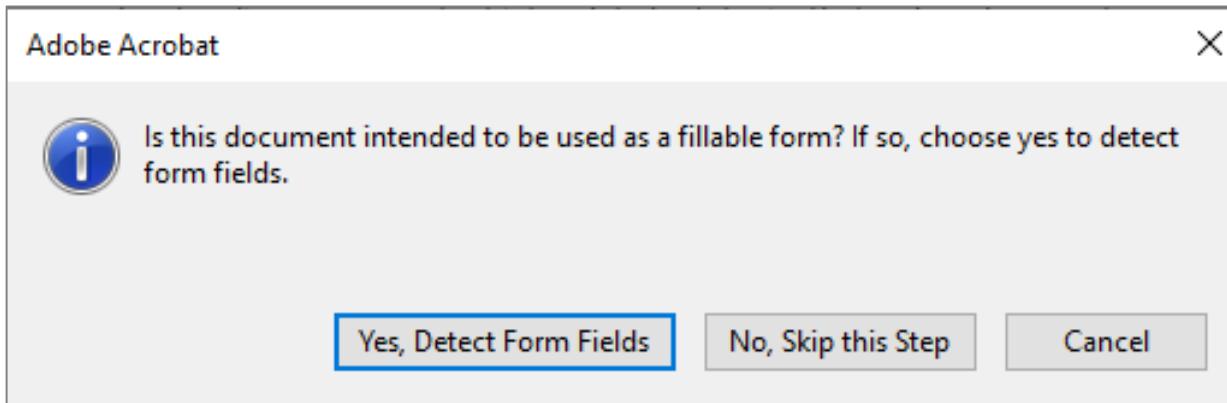
**Step 5:** The document description gives the document a proper title to be recognized by assistive technology. Uncheck the **Leave As Is** box and provide a title to the document.



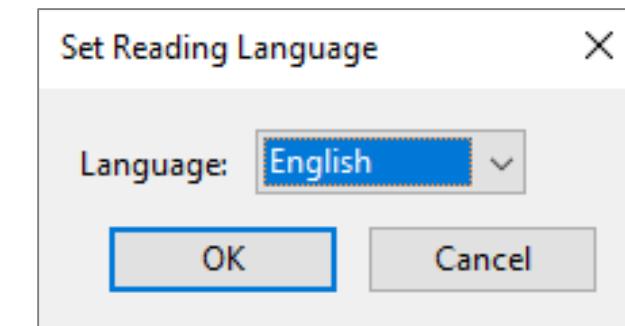
**Step 6:** The recognized text option will scan the document using the selected language. Select the desired **Language** and **Output Editable Text and Images**.

# Action Wizard, 3 of 5

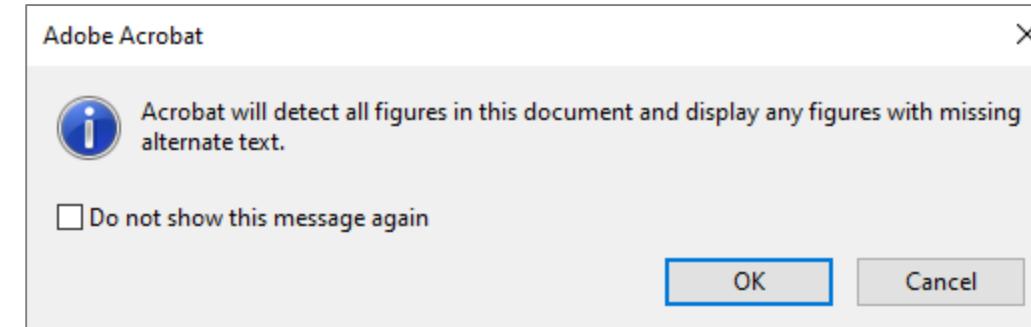
**Step 7:** Detect Form Fields. The Wizard will automatically detect form fields on the PDF. If the document has space boxes for form fields, select **Yes, Detect Form Fields**. If not, select **No, Skip this Step**.



**Step 8:** Click the desired **Reading Language** and select **OK**.

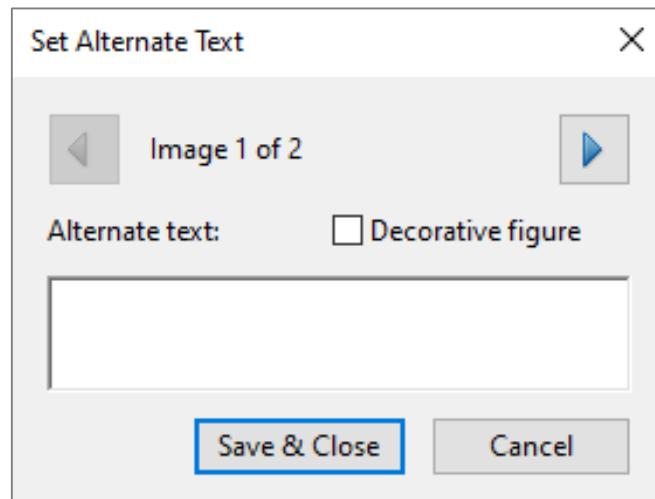


**Step 9:** The Action Wizard can be set up to always detect for any image present in the document. Select **OK** to scan the PDF for missing alternate texts.

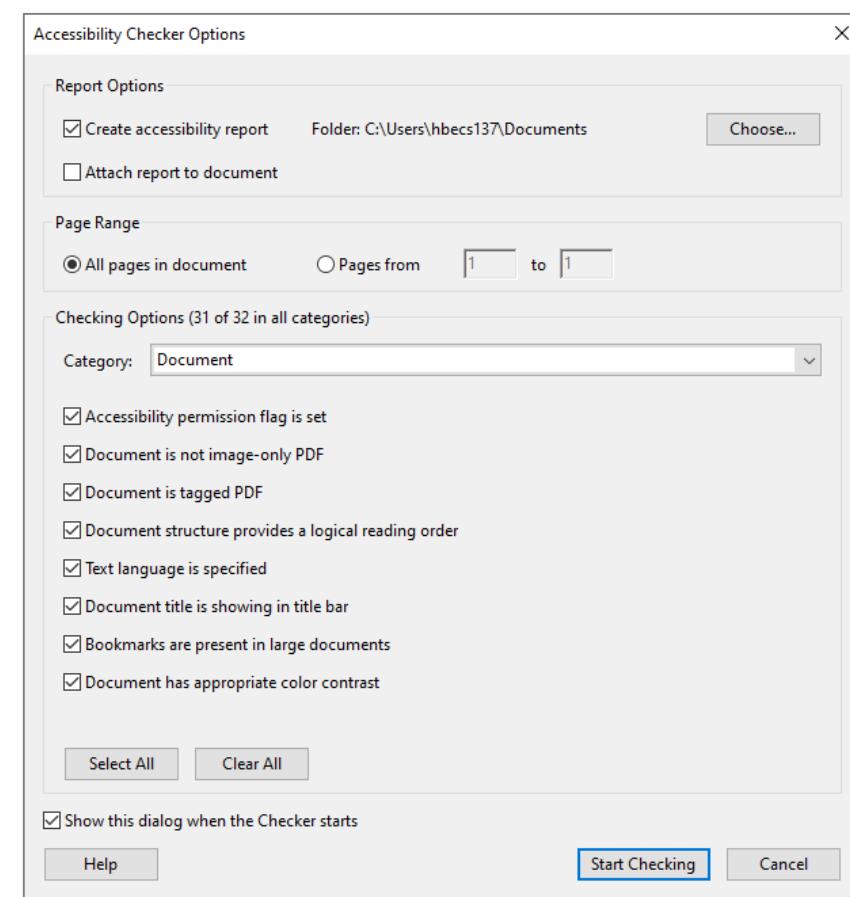


# Action Wizard, 4 of 5

**Step 10:** If alternative text is missing, a window will appear to set the alternative text for each image. Type the description of each image in the box and toggle between images using the right and left arrow buttons. Select **Save & Close** when all images have proper descriptions.



**Step 11: Run Accessibility Full Check.** The Accessibility Full Checker will run a full scan for accessibility. Select **Start Checking** to complete the scan. The results will display on the screen.

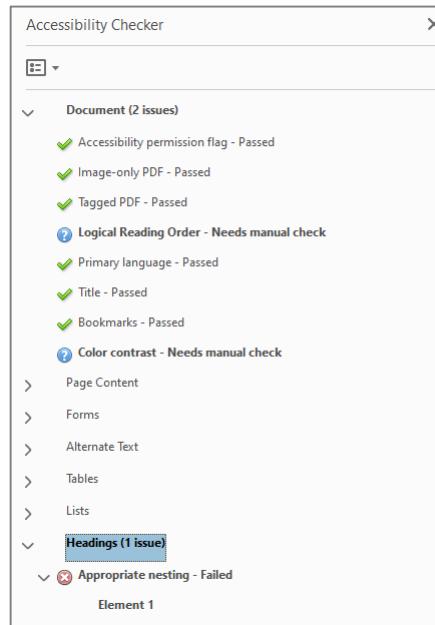


# Action Wizard, 5 of 5

## Step 12: Accessibility Issues

After running the final step in the **Action Wizard** with the **Accessibility Checker**, the results are prompted on screen for review. The **Accessibility Checker** will detect and prompt any remaining issues. These issues are identified using specific icons to represent each type of issue: **Passed** (green check mark), **Needs Manual Check** (question mark), and **Failed** (X).

- *Important:* any issue with a **Needs Manual Check** or **Failed** will need to be fixed before the document can be considered accessible.
- Select the X in the right-hand pane to close the **Action Wizard**.



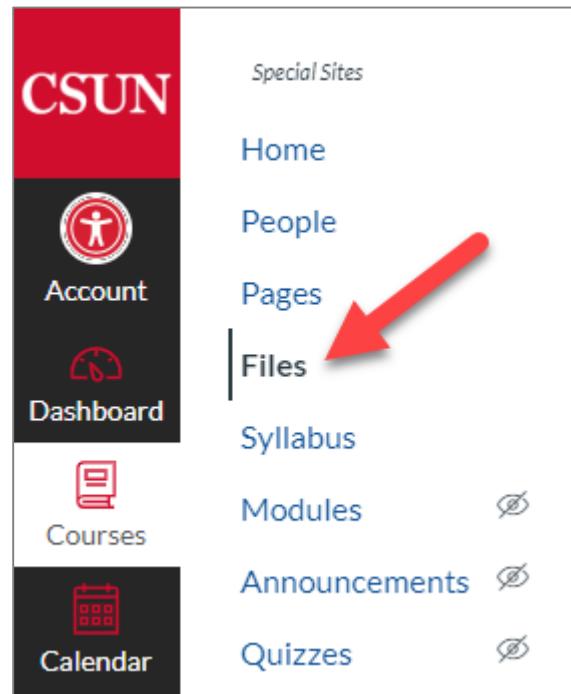
## Review and Correct Tags

Make sure all items have appropriate tags

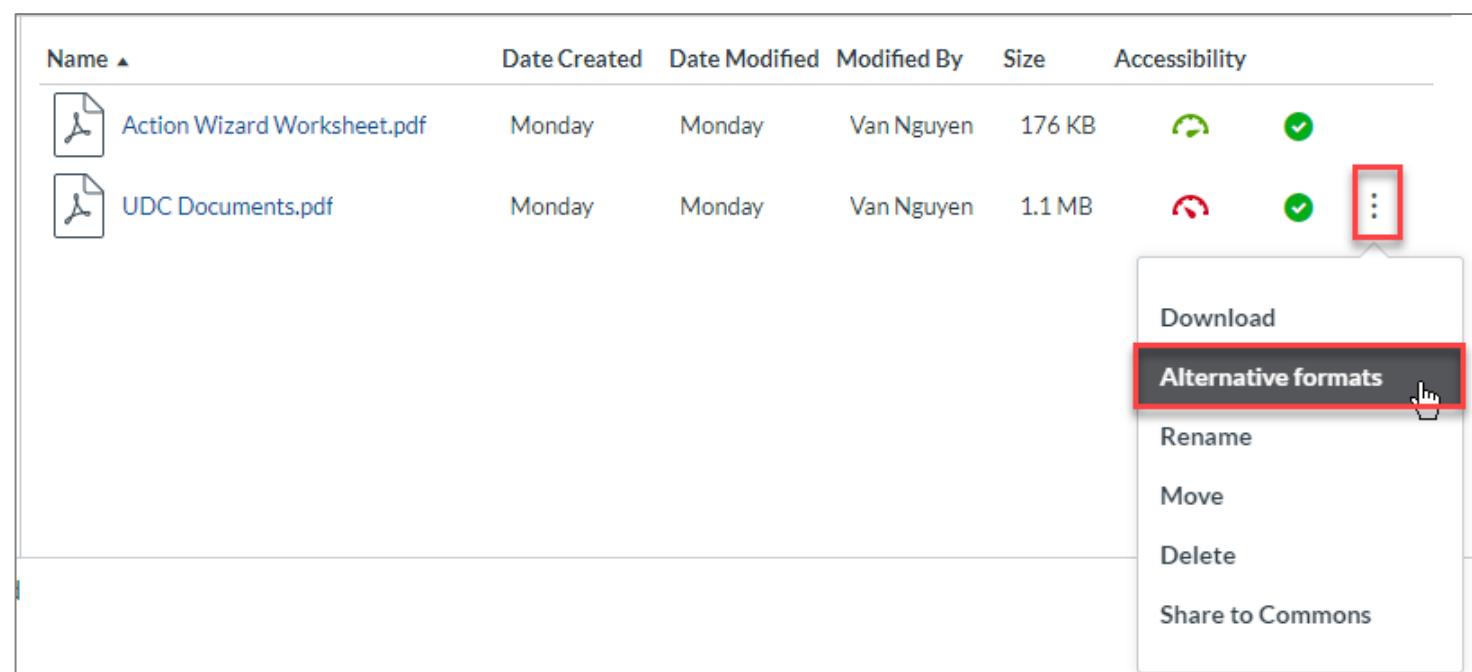
- **Run Initial Accessibility Check**
  - **Regular Text:** Text/Paragraph
  - **Headers:** Heading 1 – 6
  - **Images:** Figure
  - **Links:** Link + OJBR
  - **Form Fields:** Form
  - **Decorative Content** (e.g. Lines, text boxes, etc.): Background/Artifact
- **Add Document Title and Language**
- **Verify Reading Order**
- **Verify Color Contrast**
- **Run Final Accessibility Check**

# Option 3: Canvas Ally Course Steps, 1 of 2

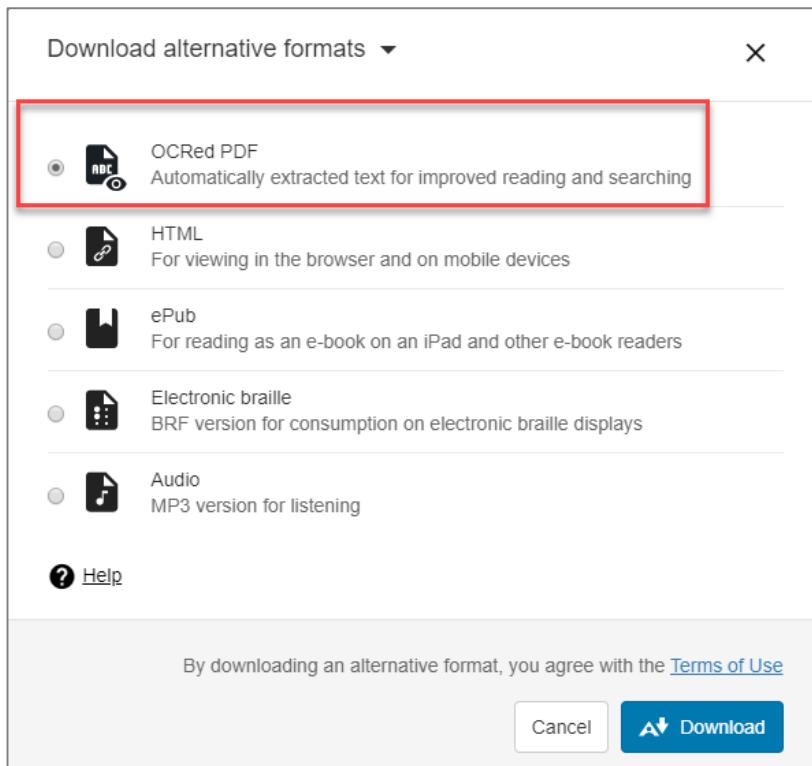
Upload your image scanned document (without OCR) in Canvas Ally Course **Files** folder



Select three vertical dots icon menu  
Select **Alternative Formats**



# Canvas Ally Course Steps, 2 of 2



## Ally Attempts To

- Improve the quality of the scan
- OCRed PDF with Searchable Text
- Tag it

## Review and Correct Tags

Make sure all items have appropriate tags

- **Run Initial Accessibility Check**
  - **Regular Text:** Text/Paragraph
  - **Headers:** Heading 1 – 6
  - **Images:** Figure
  - **Links:** Link + OJBR
  - **Form Fields:** Form
  - **Decorative Content** (e.g. Lines, text boxes, etc.): Background/Artifact
- **Add Document Title and Language**
- **Verify Reading Order**
- **Verify Color Contrast**
- **Run Final Accessibility Check**

# Canvas Ally Course - Scanned Comparison

## Original Quality – No tags available

The screenshot shows a scanned document titled "THE LEVEL OF WATER" from page 165. The document contains text about children's responses to floating objects. A sidebar on the left is titled "Tags" and displays a message "No Tags available". The overall quality is grainy and lacks digital structure.

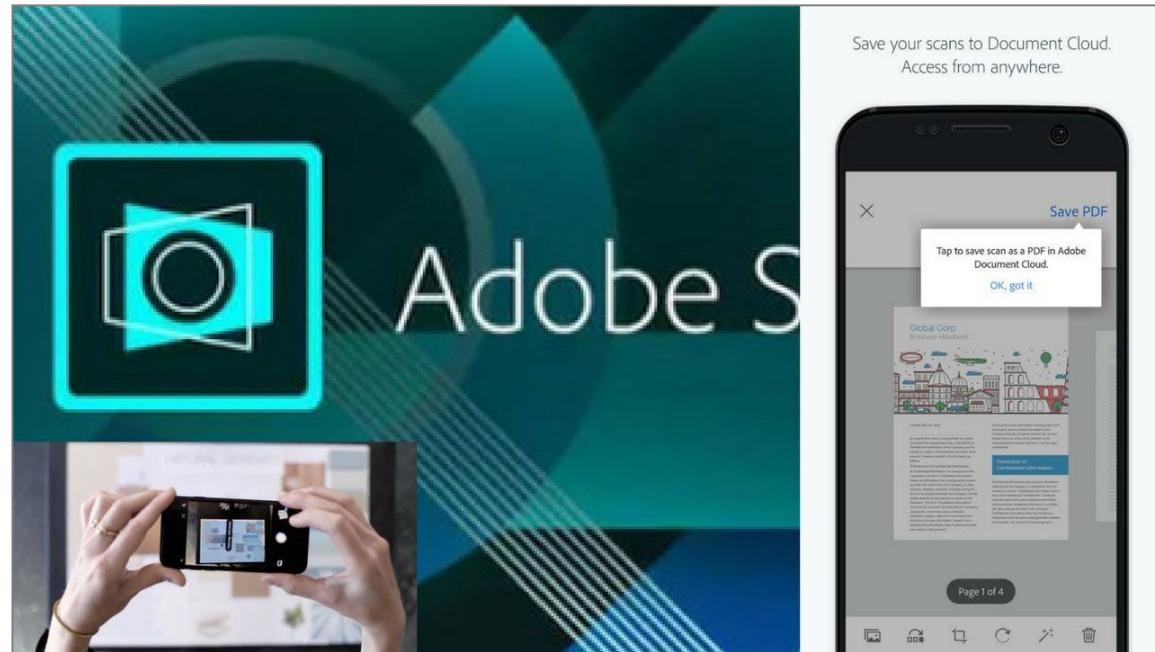
## Ally Quality – Improved and tags

The screenshot shows the same document after processing by Ally. The text is clearer and more legible. The "Tags" sidebar now lists several HTML tags found in the document, including <NonStruct>, <P>, <Div>, <H2>, and <Span>. The page number "165" is also present in the header. The overall quality is significantly improved, and the document's structure is now represented by semantic tags.



# Adobe Scan on Mobile App

- Free **Adobe Scan** on iOS or Android
- Scans Documents into PDFs
- Automatically Recognizes Text
- See [Adobe Scan Mobile App in action](#)



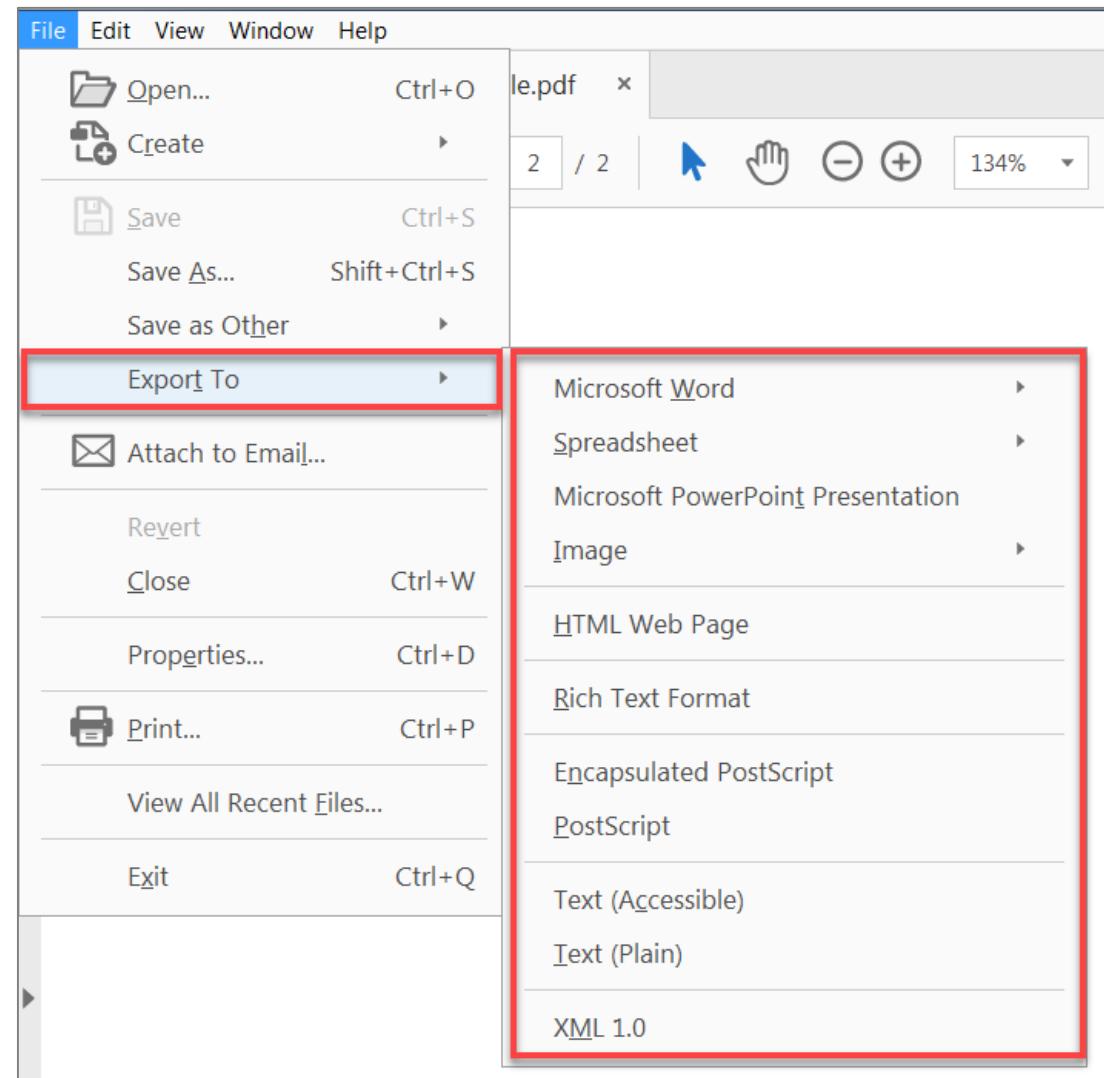
# Option 1: No Source Document? Try Export Options

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

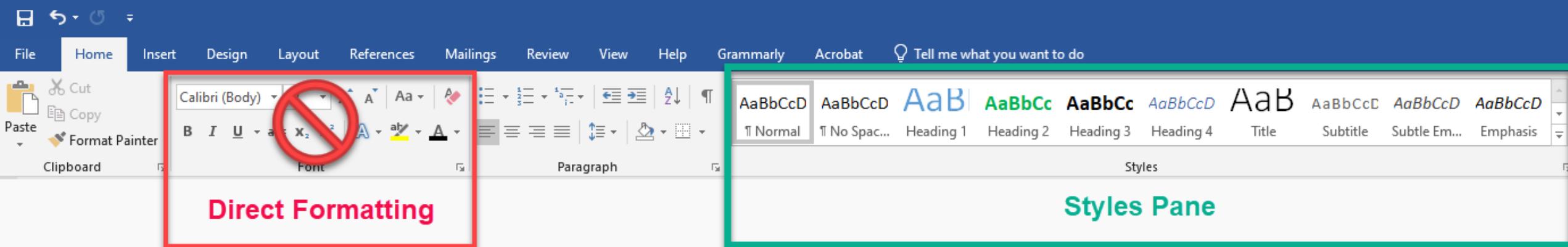
To convert a PDF to a Word document, select **File > Export To > Microsoft Word > Word Document.**

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.

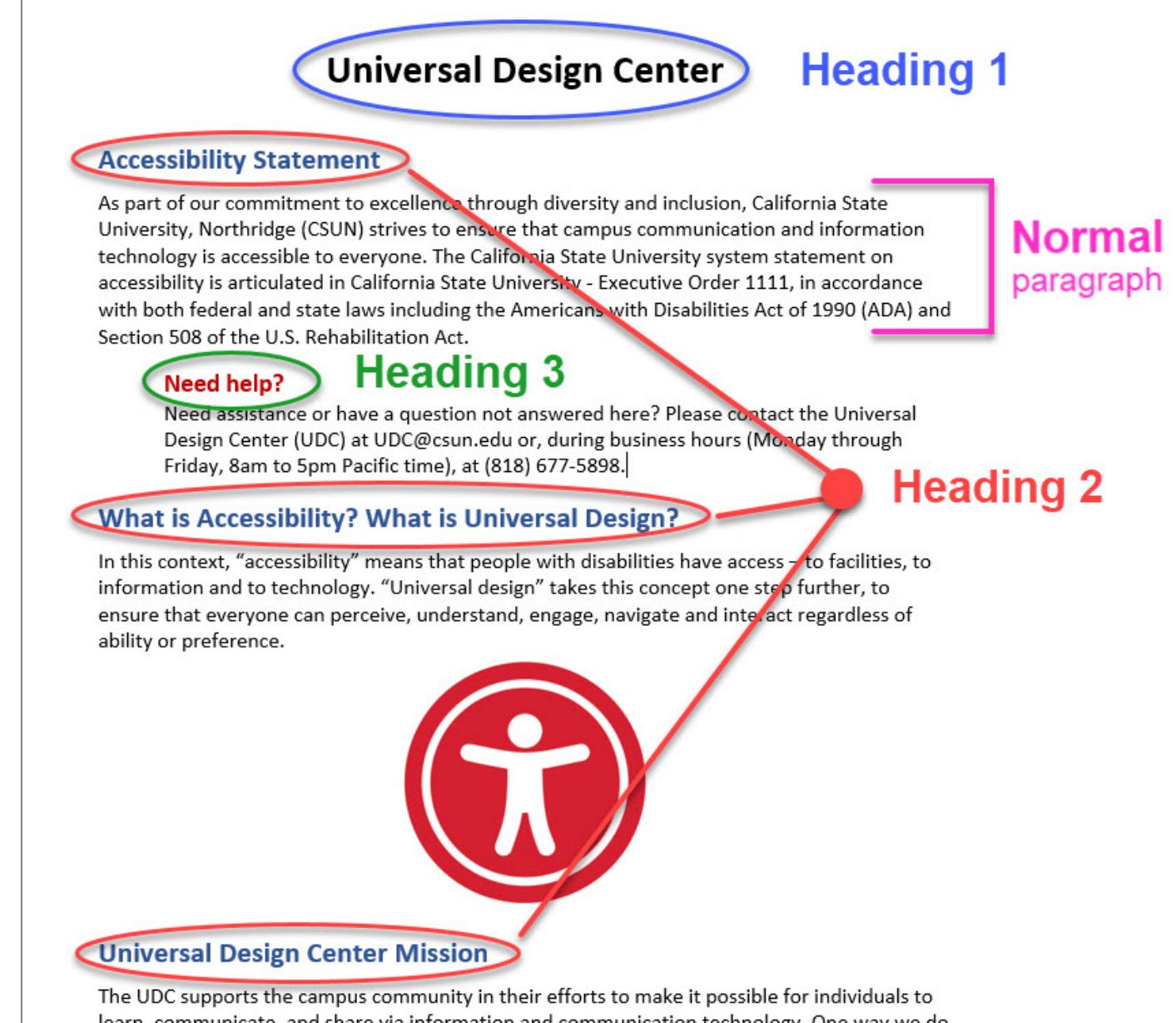
The UDC supports the campus community in their efforts to make it possible for individuals to learn, communicate, and share via information and communication technology. One way we do this is by assisting the campus community to ensure their information and communication technology is interoperable, 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?

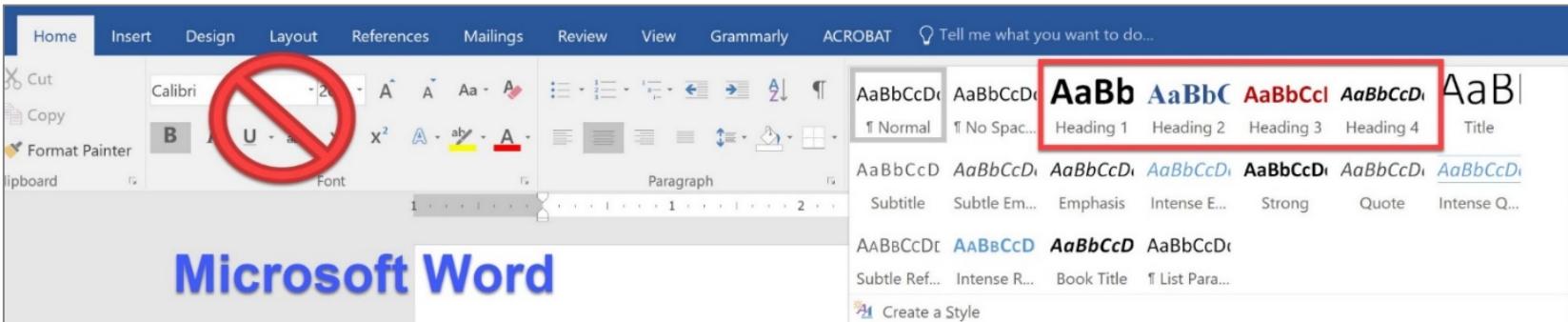
Everyone has a part in creating accessible and usable information. The responsibility of creating and maintaining accessible content falls to the entire campus community.

## 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)



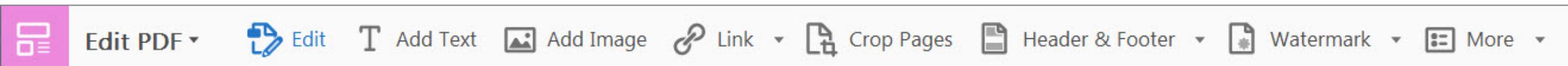
**Headings** are styles to give a document structure by category or topic.

**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.



# Option 2: Edit Original PDF Documents

- Allows you to add and edit text and content within your PDF
- Benefits
  - Saves Time
  - Helpful if you converted from inaccessible files
- Drawback
  - If you have extensive edits, may need to retag your document.



# Review PDF Tools Training





# 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 editor interface with a 'Tags' panel on the left and the main content area on the right.

- Tags Panel:** The title bar is labeled 'Tags'. A red box highlights the 'Tags' icon in the sidebar.
- Content Area:** The main content is a page with the following sections:
  - H1 Universal Design Center**
  - H2 Accessibility Statement**

This 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 Universal Design Center (UDC) at 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.
  - Image (76): w:315 h:315** (An accessibility icon showing a person with arms raised inside a circle with a diagonal cross over it.)

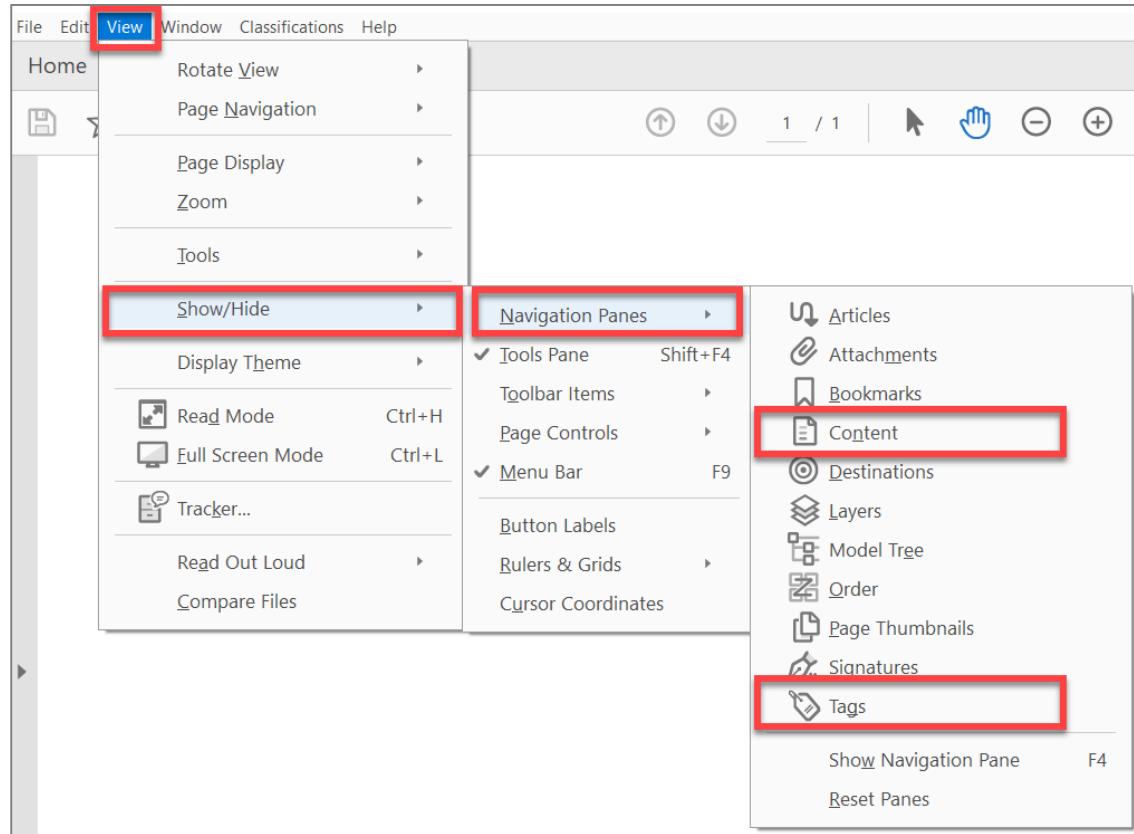
Red arrows point from the 'Tags' panel to each of these content blocks, indicating the corresponding HTML tags:

- H1 Universal Design Center** points to the first section.
- H2 Accessibility Statement** points to the second section.
- H3 Need help?** points to the third section.
- H2 What is Accessibility? What is Universal Design?** points to the fourth section.
- Image (76): w:315 h:315** points to the image icon.

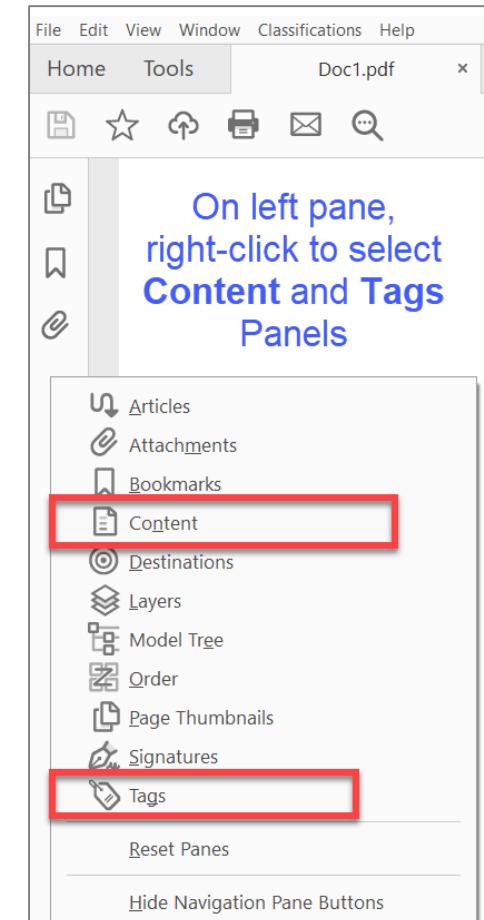
# Adding Tools to Navigation Pane

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**





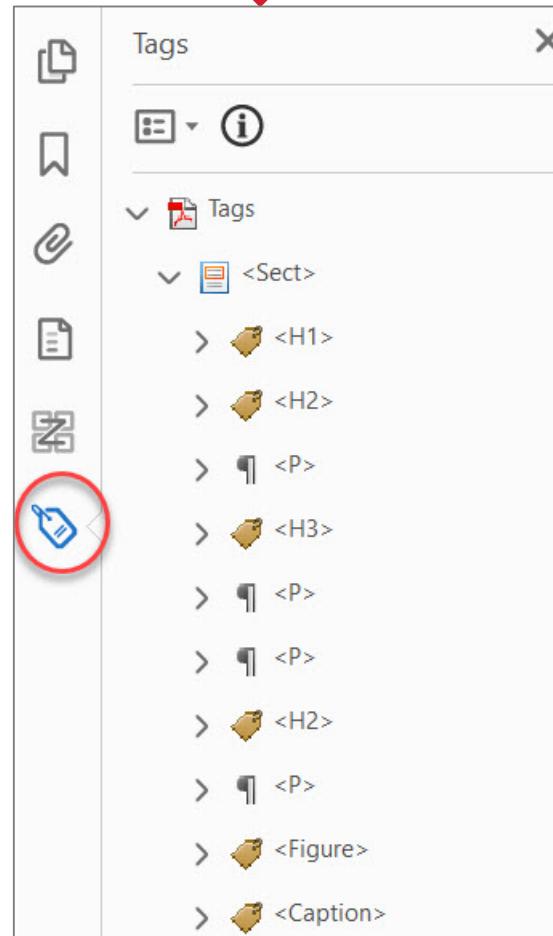
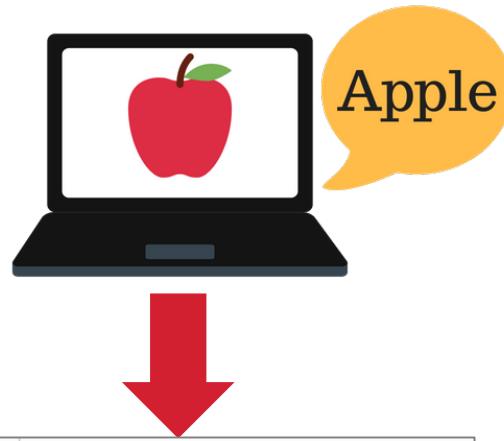
# Tags Pane, 1 of 2

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

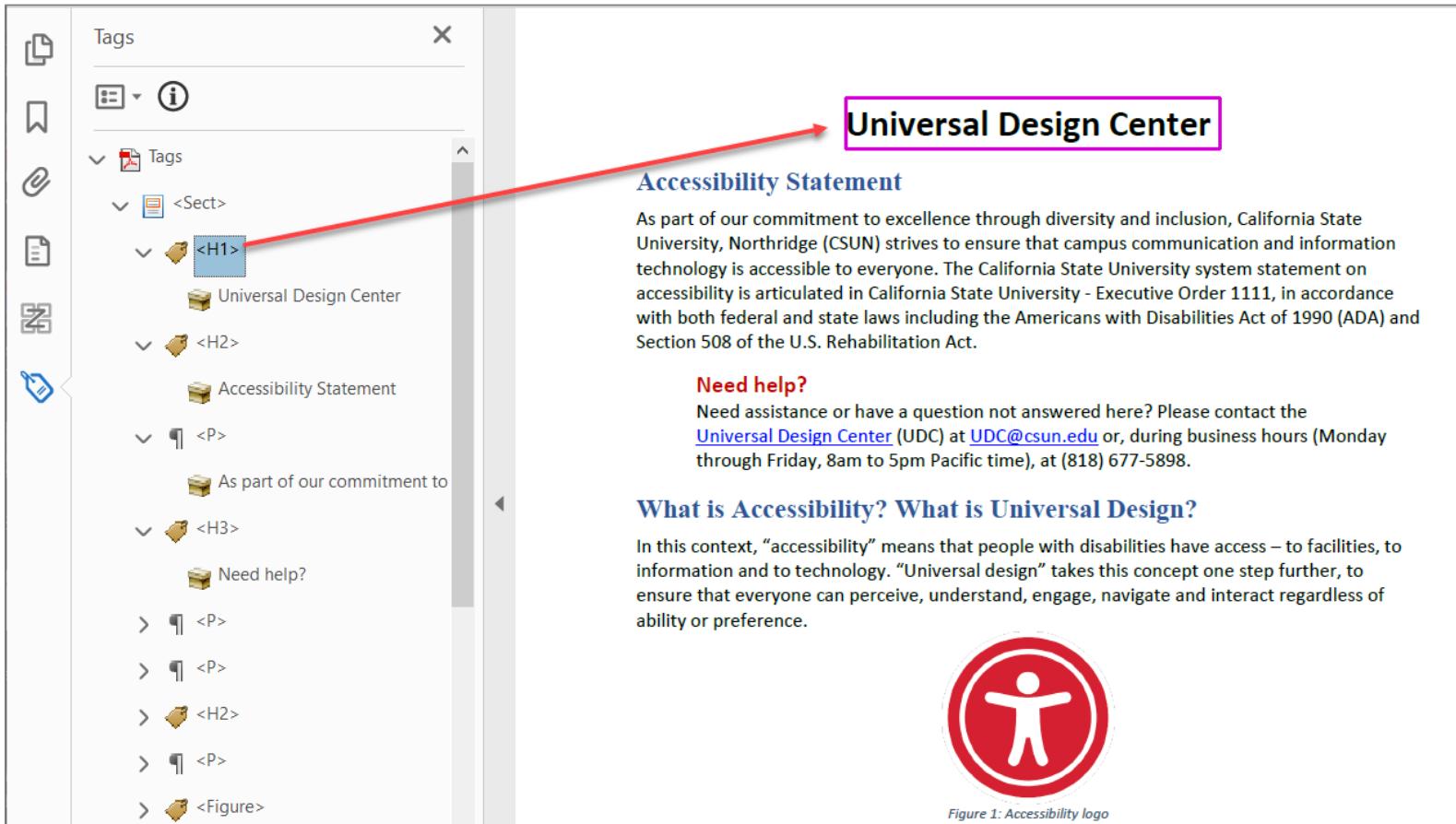
Tags are invisible identifiers that will tell **screen readers and other assistive technology (AT)** an object is...

- 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

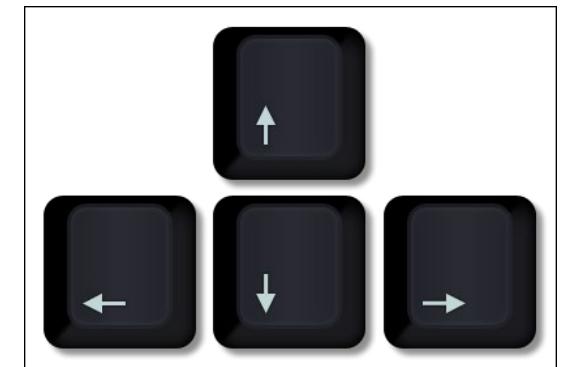


The screenshot shows the Microsoft Word Tags pane open on the left side of the screen. The pane has a tree view where nodes can be expanded or collapsed. A red arrow points from the 'Universal Design Center' heading in the main content area to its corresponding node in the Tags pane. The Tags pane shows the following structure:

- Tags
- ↳ Tags
  - ↳ <Sect>
    - ↳ <H1>
      - Universal Design Center
    - ↳ <H2>
      - Accessibility Statement
    - ↳ <P>
      - As part of our commitment to
    - ↳ <H3>
      - Need help?
    - > <P>
    - > <P>
    - > <H2>
    - > <P>
    - > <Figure>

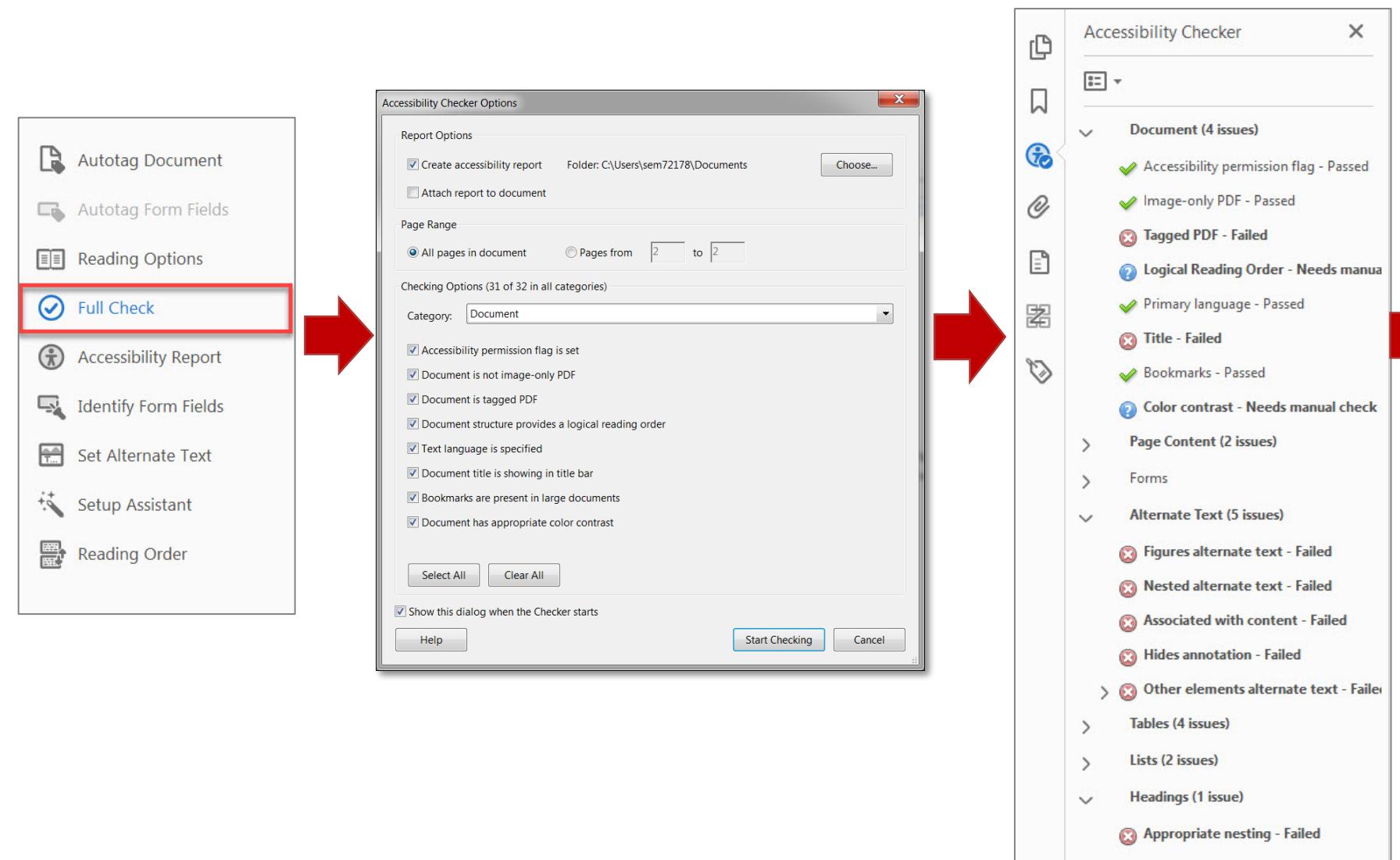
Tags are shown as an expandable “tree”

- 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.



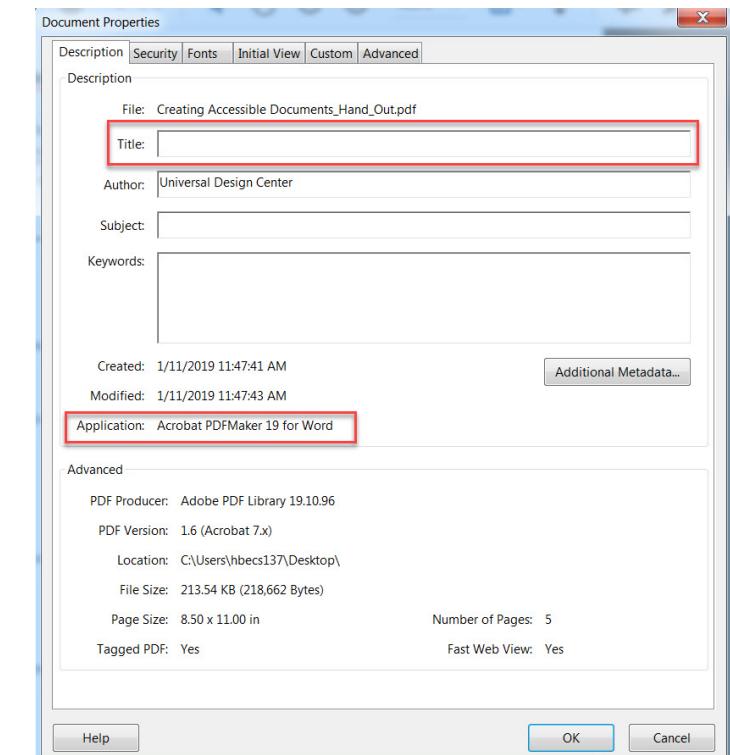
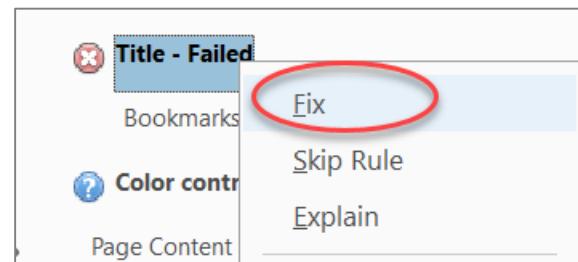
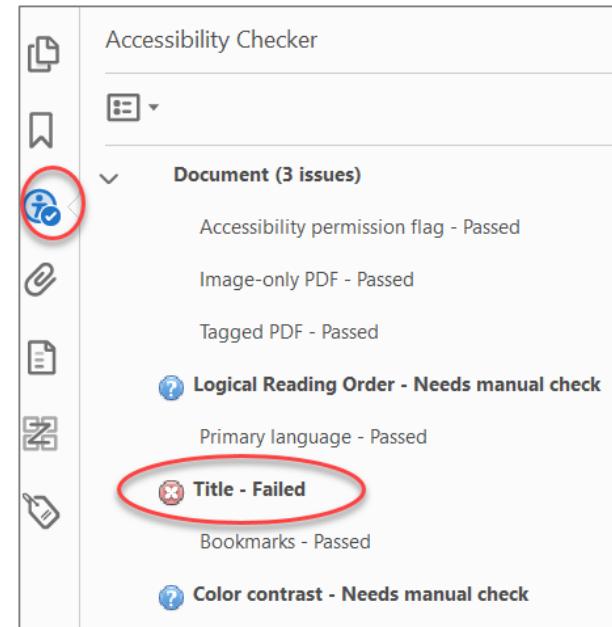
- Accessibility checker results in **bold** text have one or more issues/failed that need to fix.
- If you have a failure, you can right-click on any item in the report and select “Explain” that will link to Adobe webpage to explain the problem.
- If the results not in bold text, that section has passed.

# 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](#)

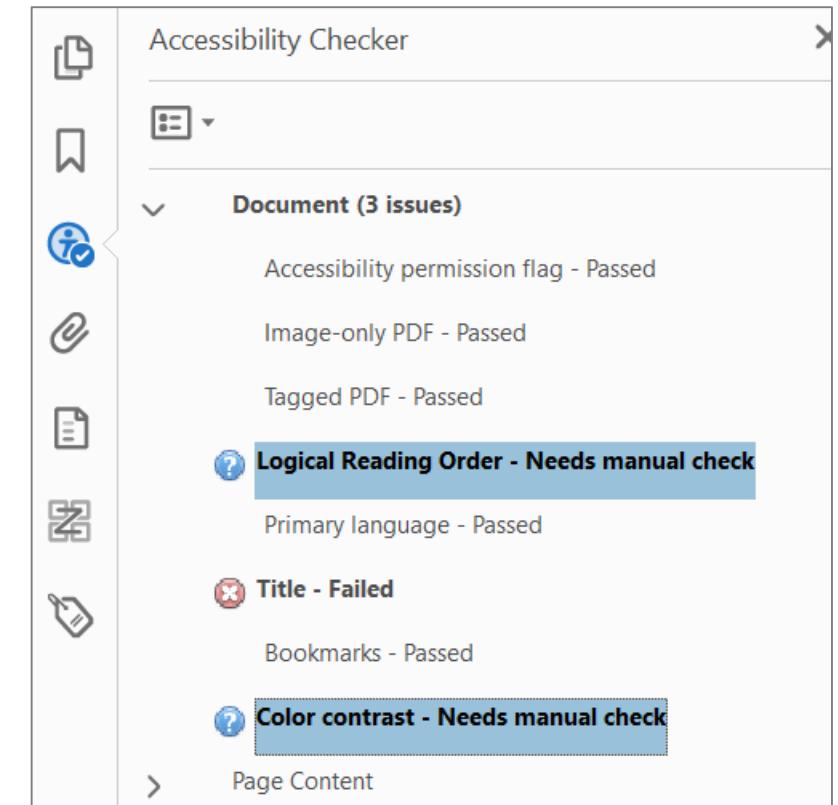


# Accessibility Checker – Manual evaluation

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

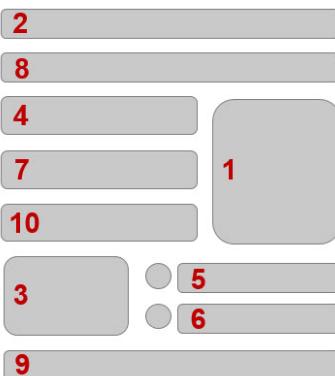
- Logical Reading Order
- Color Contrast

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.

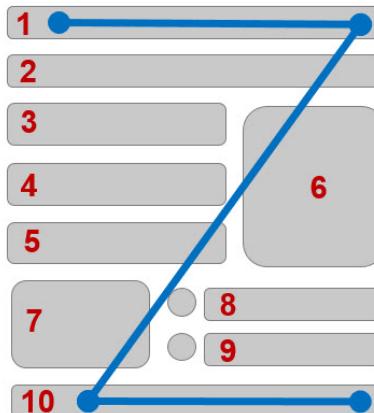


# Verify Logical Reading Order

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 starts 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.



Bottom: Correct reading order



**Universal Design Center**

This site is a project of the Accessible Technology Initiative (ATI) of the California State University system. "It is the policy of the CSU to make information technology resources and services accessible to all CSU students, faculty, staff and the general public regardless of disability."

All CSU programs, services, and activities should be accessible to all students, staff, faculty, and the general public. This encompasses all technology products used to deliver academic programs and services, student services, information technology services, and auxiliary programs and services.

**UDC Mission**

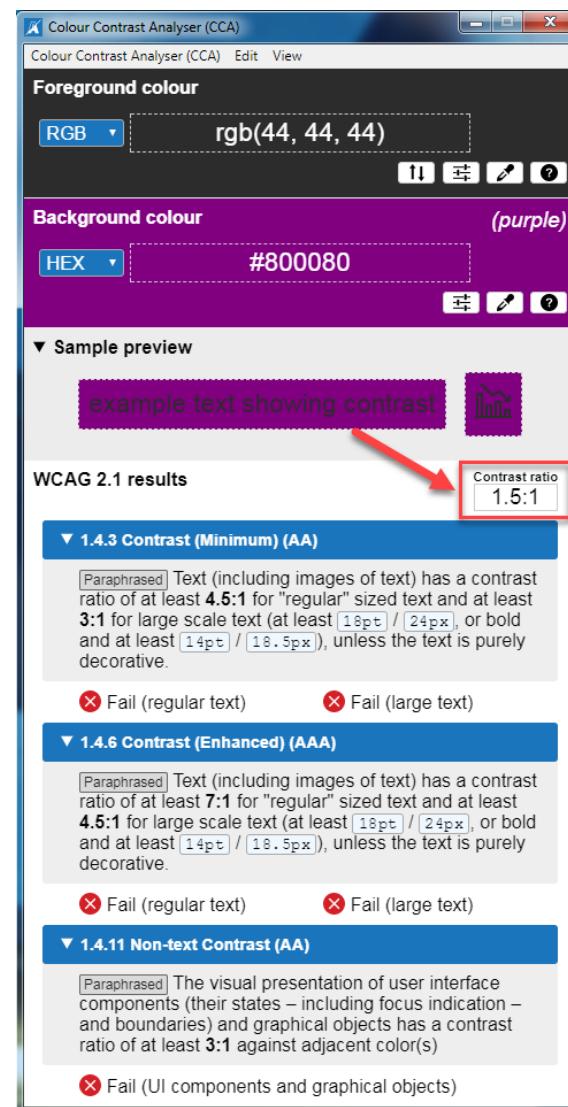
The UDC supports the campus community in their efforts to make it possible for individuals to learn, communicate, and share via information and communication technology. One way we do this is by assisting the campus community to ensure their information and communication technology is interoperable,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

**Campus Responsibility**

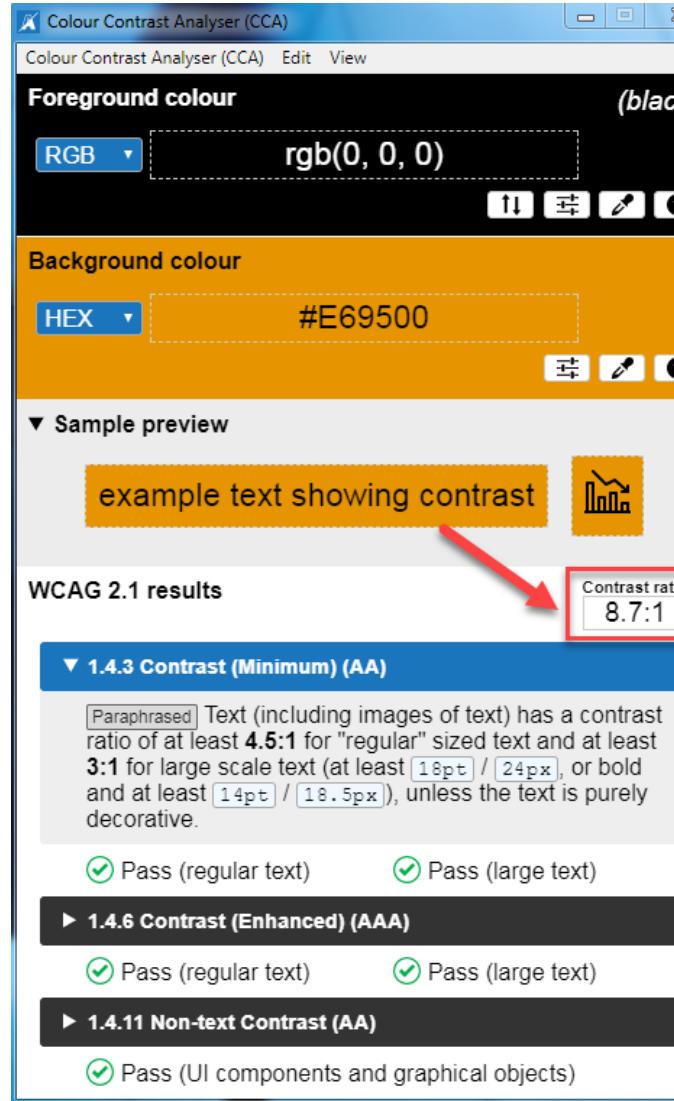
Everyone has a part in creating accessible and usable information. The responsibility of creating and maintaining accessible content falls to the entire campus community.

**Document Pane**

# 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.



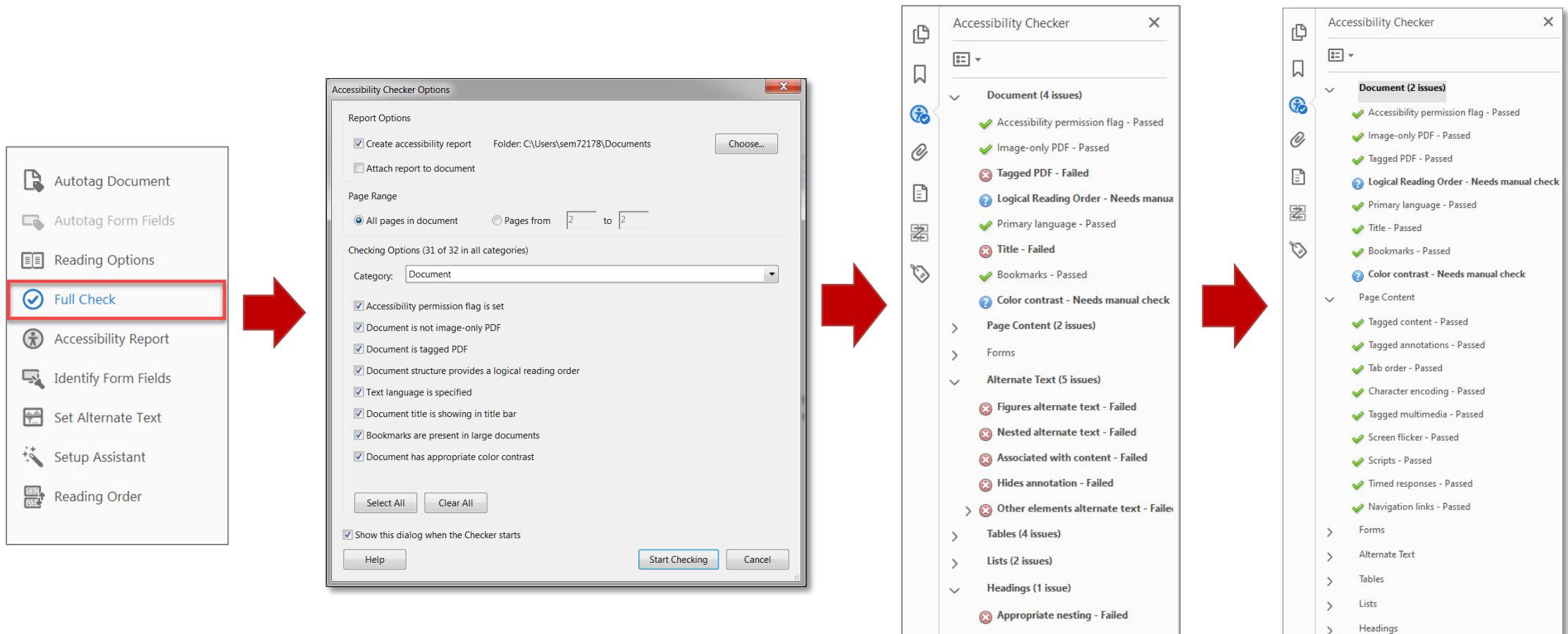
This example has a great color contrast ratio of 8.7:1. The contrast is sufficient for those who have color deficiencies.

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

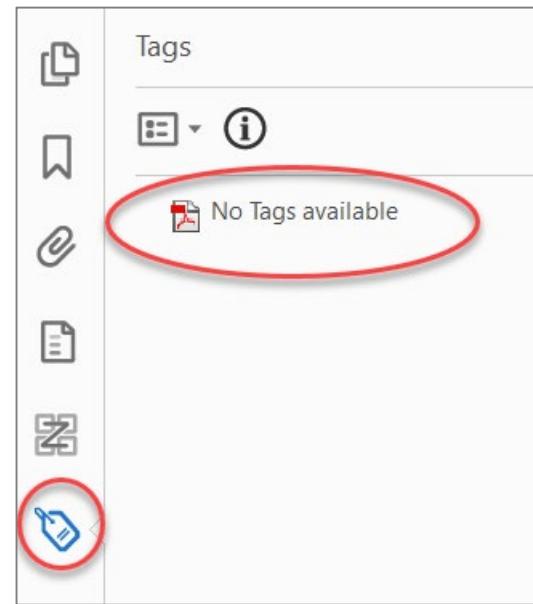
- Download [Colour Contrast Analyser](#) onto your computer (PC/Mac) to ensure accessible contrast or use an online contrast checker from [WebAIM](#).
- WCAG Level AA requires a contrast ratio of at least **4.5:1** for regular sized text (12 or 14 pt. font) and **3:1** for large text (18 pt. font).
-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

# 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.



# No Tags Available

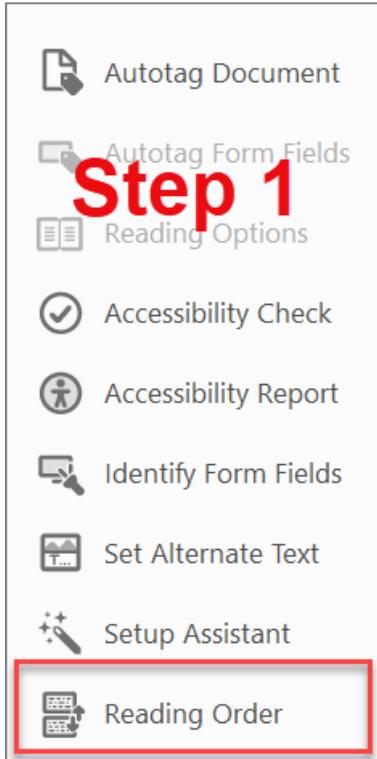


If you see “No tags available” in the Tags Pane, then the document is missing tagged structure. See the next slide “How to tag a document?”



# 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



The screenshot shows the Microsoft Word ribbon on the left with various tools listed. The 'Reading Order' option is highlighted with a red box.

**Step 1** is indicated by a large red arrow pointing to the 'Autotag Document' button in the ribbon.

**Step 2** is indicated by a red arrow pointing to the 'Universal Design Center' heading in the main content area, which is highlighted with a pink rectangle.

**Step 3** is indicated by a red arrow pointing to the 'Reading Order' dialog box on the right, which contains a grid of buttons for selecting reading order levels. The 'Heading 1' button is highlighted with a red box.

**Universal Design Center**

**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.

**Step 2**

**Step 3**

**Universal Design Center**

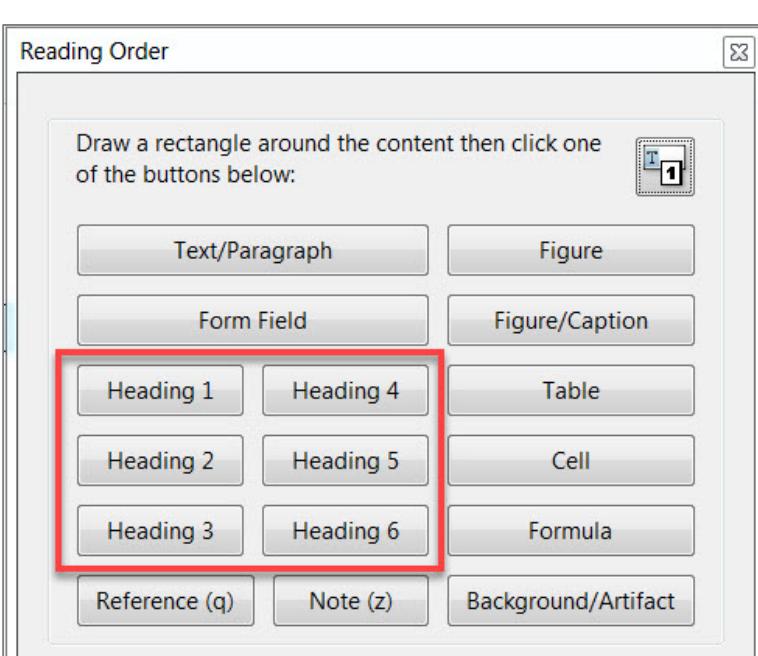
**Accessibility Statement**

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**Reading Order**

Draw a rectangle around the content then click one of the buttons below:			
Text/Paragraph	Figure		
Form Field	Figure/Caption		
Heading 1	Heading 4	Table	
Heading 2	Heading 5	Cell	
Heading 3	Heading 6	Formula	
Reference (q)	Note (z)	Background/Artifact	
Table Editor			

# Heading Tags Sample



The Tags panel shows a hierarchical tree of HTML tags. Red arrows point from the 'Heading 1' through 'Heading 6' buttons in the Reading Order panel to their respective <H1>, <H2>, <H3>, <H4>, <H5>, and <H6> tags in the Tags tree.

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

**Content highlighted from tags tree**

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



**Universal Design Center**

[csun.edu/udc](http://csun.edu/udc)

# Paragraph Tags Sample

Reading Order

Draw a rectangle around the content then click one of the buttons below:

**Text/Paragraph** (highlighted with a red box)

Figure

Form Field

Figure/Caption

Heading 1

Heading 4

Table

Heading 2

Heading 5

Cell

Heading 3

Heading 6

Formula

Reference (q)

Note (z)

Background/Artifact

Tags

- Tags
- <Sect>
- <H1>
- <H2>
- <P> (highlighted with a red box) → As part of our commitment to ex
- <H3>
- <P>
- <H2>
- <P>
- <Figure>
- <H2>

**Universal Design Center**

**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.

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Content highlighted from tags tree



# List Tags Sample

The screenshot shows a software interface with a tree view on the left and a list of steps on the right. The tree view displays a hierarchy of list items (LI) and list bodies (LBody). A red arrow points from the second step in the list to the corresponding node in the tree.

**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

```
>  <H3>  
✓  <P>  
  Need assistance or have a question not ans  
✓  <P>  
  ✓  <Link>  
    Universal Design Center  
    Link - OBRJ  
    (UDC) at  
  ✓  <Link>  
    UDC@csun.edu  
    Link - OBRJ  
  or. during business hours (Monday PathPat
```

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?

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## 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 browser's developer tools. On the left, the DOM tree is displayed, showing the structure of the HTML code. A red arrow points from the tree to the 'Disability' column of a table on the right. Another red arrow points from the tree to a specific cell in the 'Disability' column of the table.

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

**How to create an accessible PDF:**

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:
  - What is its purpose?
  - Is the image important enough to be there?
  - If there is no description, what will the screen reader users miss?
  - Be concise and eliminate unnecessary words.
  - 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.
- “Image of...”, “Photo of...” is not needed because screen readers and other AT announce that it's an “image” or “graphic”.
- There is no limit to the number of characters, but keep alt text descriptions short around 200 characters or less.
- **Don't use images of text for headings instead use live text** (fully editable or selectable 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.



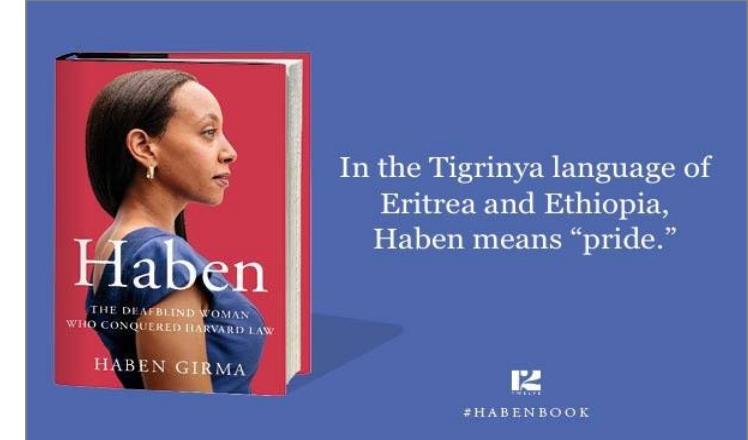
A hand reaches out of a computer screen giving the hand gesture for stop. The screen reads 'access denied!'



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."

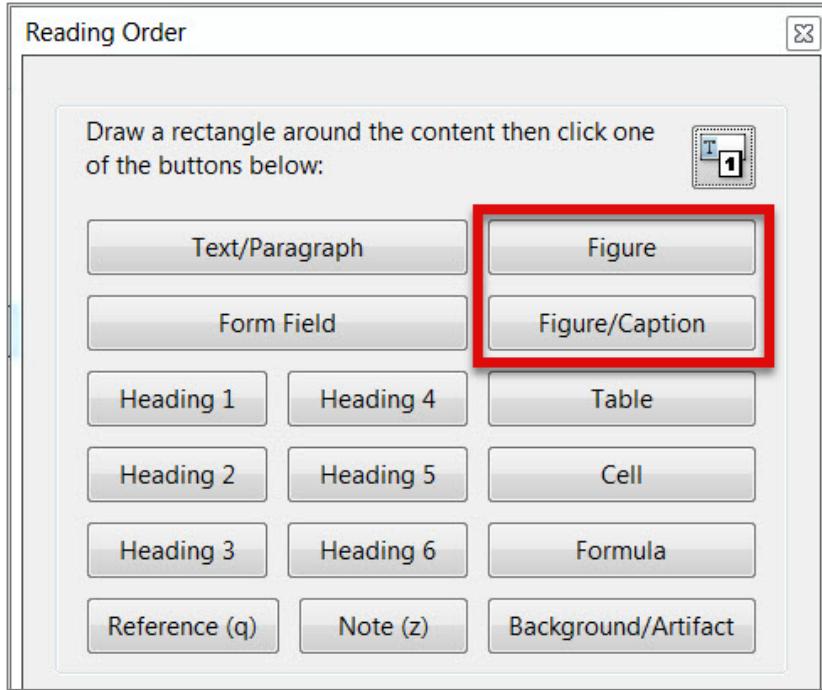


On the left is the book cover for Haben The Deafblind Woman Who Conquered Harvard Law, and on the right is the quote: "In the Tigrinya language of Eritrea and Ethiopia, Haben means 'pride.'"

## 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



**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.

The screenshot shows a document structure with a tree view on the left and a preview area on the right. The tree view shows the following structure:

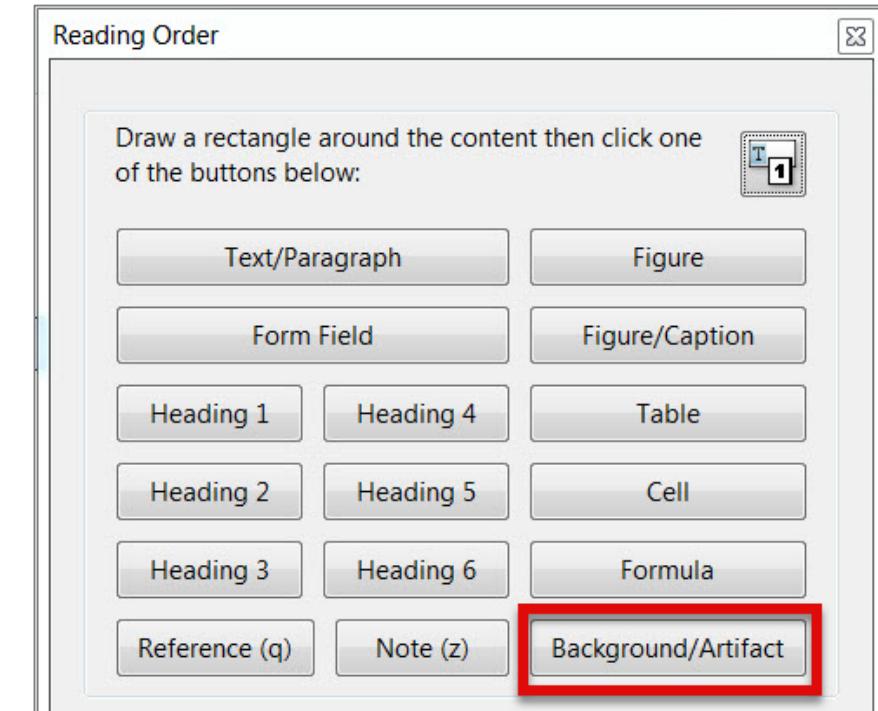
- > <H3>
- > <P>
- > <P>
- > <H2>
- > <P>
- > <Figure>
  - Image (136): w:315 h:315
- > <Caption>
  - Figure 1: Accessibility logo
- > <H2>
- > <P>

The preview area on the right shows a red circular accessibility logo with a white figure in the center. Below it, the caption "Figure 1: Accessibility logo" is displayed.

- 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.**

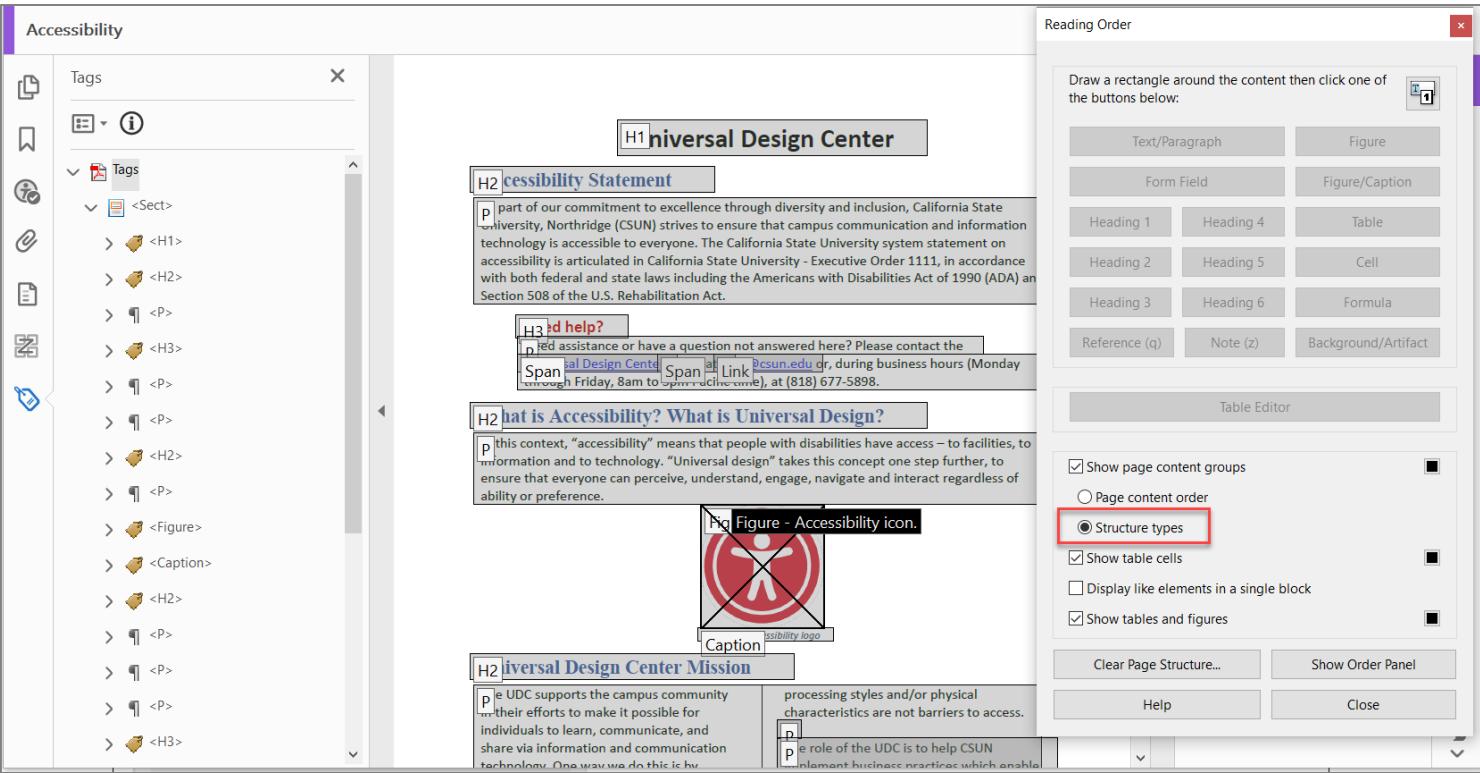


# About Reading Order Tool

## Show Page Content Groups

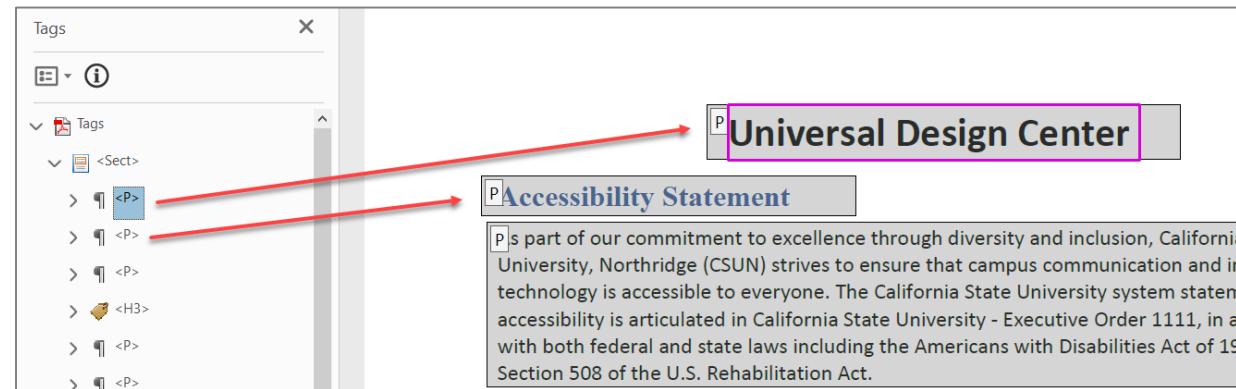
- **Page content order:** number refers to the order of the element in this content.
- **Structure types:** shows document's tag structure.

Recommend to uncheck  
*“Display like elements in a single block.”* This will show single tag rather than group elements.

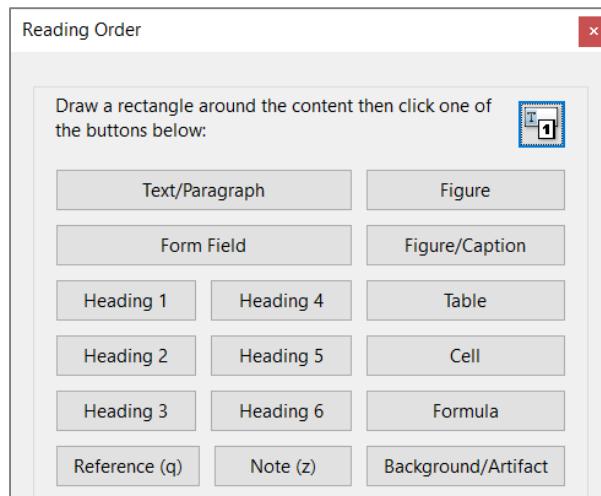


# Repair Tag Structure

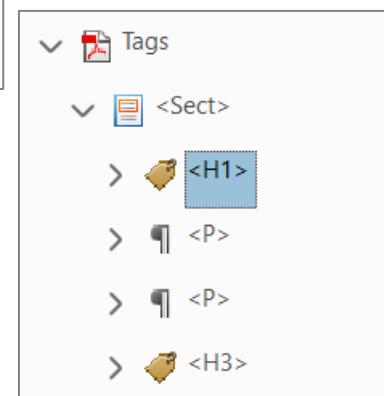
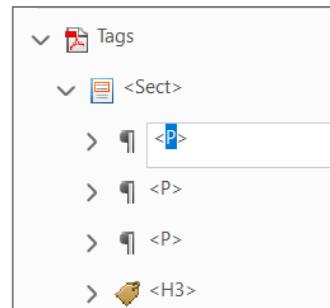
In case you found incorrect pre-assigned tag i.e. <P> for heading title when it should be tagging as <H1>. There are three different ways to correct the tag from <P> to <H1> in below examples.



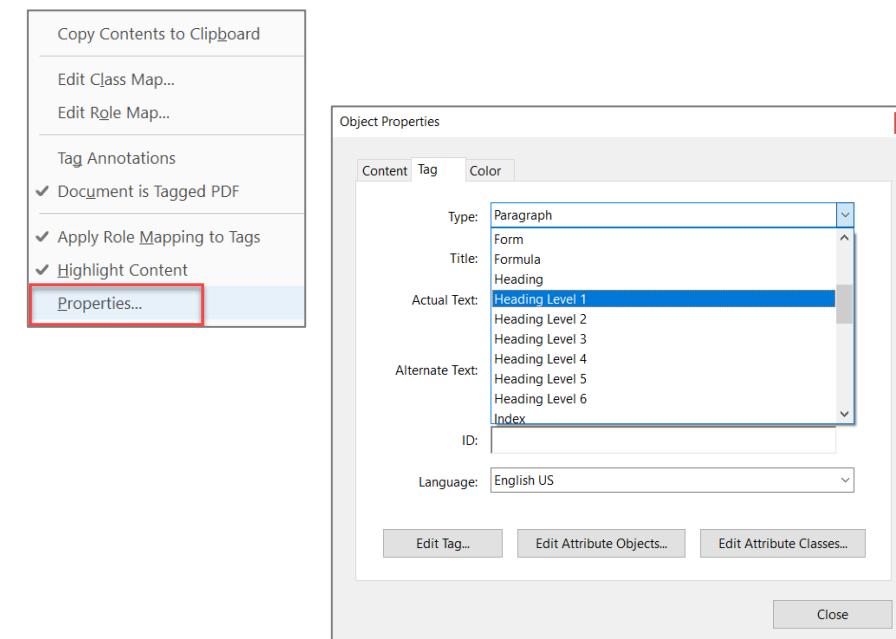
**Option 1:** Re-draw a rectangle around the content, select one of the Reading Order Tool buttons to tag it.



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

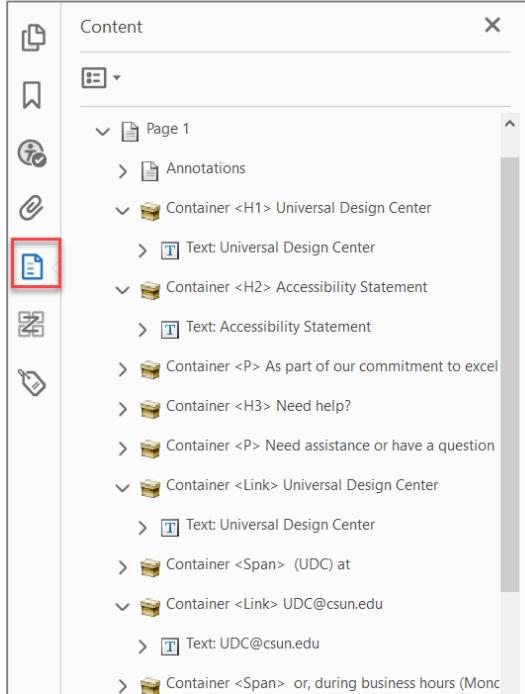


**Option 3:** Select <P> tag, right-click to select Properties. Type box: select Heading Level 1



# What is the Content Pane?

- The Content Pane 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 Pane.
- The Content Pane can be difficult to navigate because it is not properly organized.
- Editing your Content Pane 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 Pane to find it and reorganize to find the missing info.



The screenshot shows the 'Content' pane of Adobe Acrobat. The pane has a tree view of the document structure. A red box highlights the 'File' icon in the toolbar at the top left of the pane. The tree structure includes:

- Page 1
  - Annotations
  - Container <H1> Universal Design Center
    - Text: Universal Design Center
  - Container <H2> Accessibility Statement
    - Text: Accessibility Statement
  - Container <P> As part of our commitment to excel
  - Container <H3> Need help?
  - Container <P> Need assistance or have a question
  - Container <Link> Universal Design Center
    - Text: Universal Design Center
  - Container <Span> (UDC) at
  - Container <Link> UDC@csun.edu
    - Text: UDC@csun.edu
  - Container <Span> or, during business hours (Monc

## Universal Design Center

### Accessibility Statement

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### Need help?

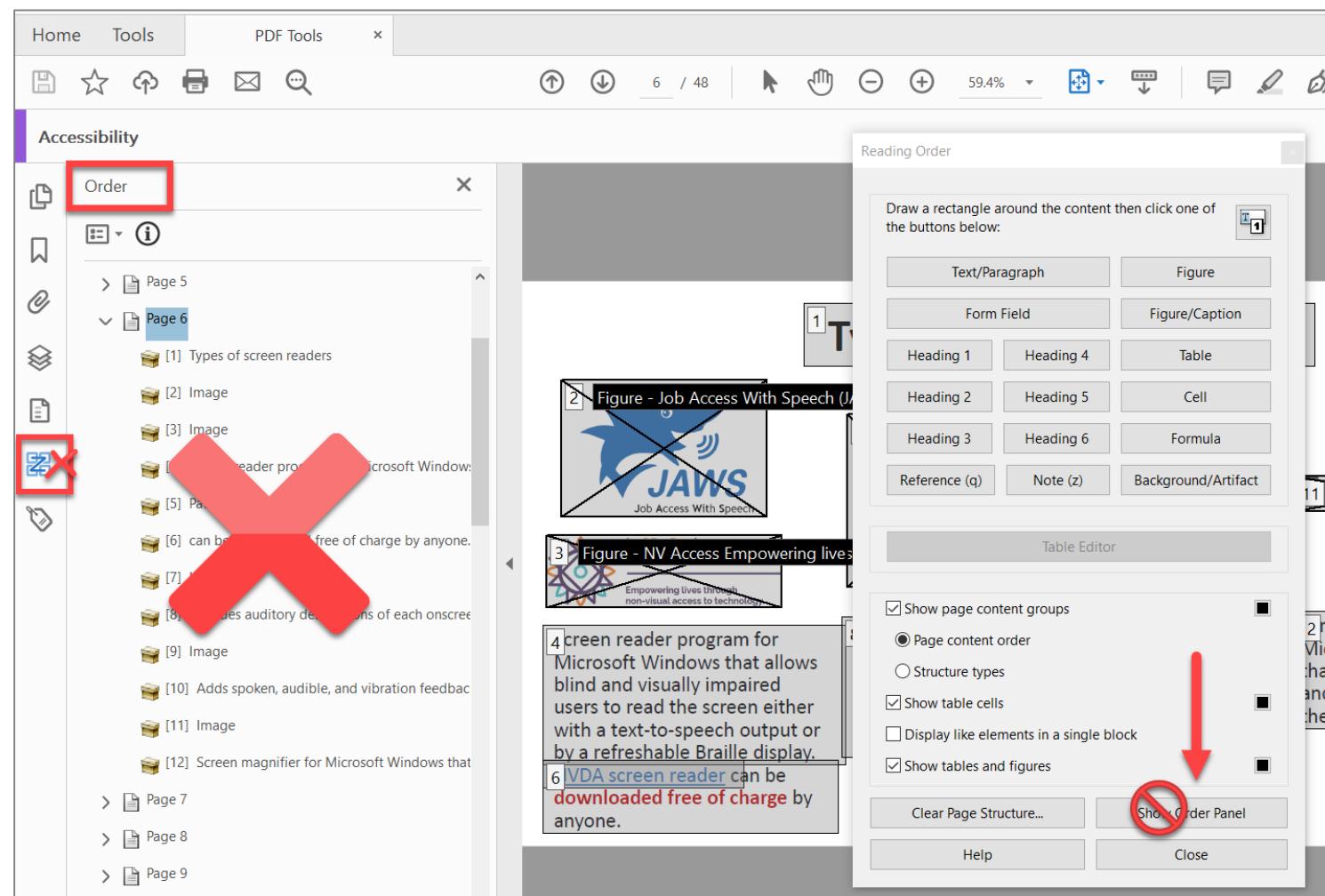
Need assistance or have a question not answered here? Please contact the [Universal Design Center \(UDC\)](mailto:UDC@csun.edu) at [UDC@csun.edu](mailto:UDC@csun.edu) or, during business hours (Monday through Friday, 8am to 5pm Pacific time), at (818) 677-5898.

### 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.

# Order Pane

- **DO NOT** use Order Pane to rearrange logical reading order in sequence. Screen readers like JAWS, NVDA, VoiceOver don't use Order Pane to read the document instead they use **TAGS** to read the document.
- In theory the Order Pane and Tags Pane are supposed to match but often they don't for more complex or untagged documents.
- If the reading order is incorrect order, go to **TAGS** Pane to rearrange the correct order.



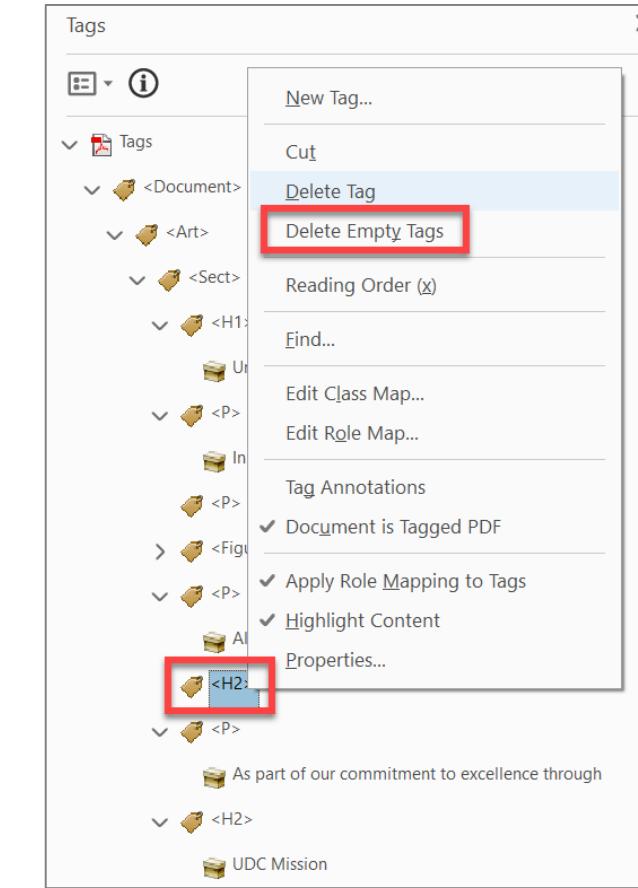
Tags

The Tags pane displays the following structure:

- <Document>
- <Art>
- <Sect>
- <H1>
  - Universal Design Center
- <P>
  - Initiative (ATI) of the California State Universit...
  - <P> (highlighted with a red box)
  - > <Figure>
  - <P>
    - All CSU programs, services, and activities should b...
    - <H2> (highlighted with a red box)
    - <P>
    - As part of our commitment to excellence through
    - <H2>
    - UDC Mission
    - <P> (highlighted with a red box)
    - > <H3>
    - <P>

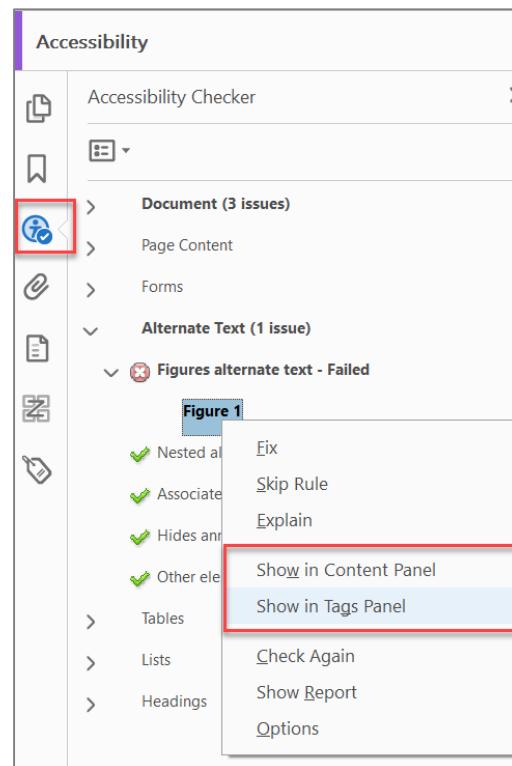
# Delete Empty Tags

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”.



# Launch the Tags Pane or the Content Pane

- If you have errors in an Acrobat Accessibility Check, you should have the option to show the error in either the Content Pane or the Tags Pane 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 Panes takes you right to the problem.



The screenshot shows the 'Accessibility' pane in Adobe Acrobat. A specific error for 'Figure 1' is highlighted. A context menu is open over the error, with the 'Show in Content Panel' option selected and highlighted with a red box. Other options in the menu include 'Fix', 'Skip Rule', 'Explain', 'Check Again', 'Show Report', and 'Options'. To the right of the pane, there is a sidebar with the title 'What is Accessibility? What is Universal Design?' and a detailed description of the concepts. Below that is the 'Universal Design Center Mission' section, which outlines the UDC's role in supporting campus accessibility. There is also a small accessibility logo featuring a person icon inside a circle.

**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.

**Universal Design Center Mission**

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.

# 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.

# Accessibility Tips



## Accessibility Tips

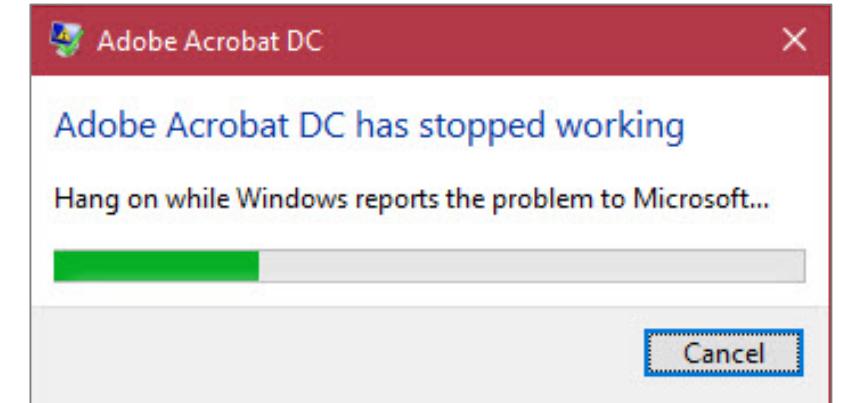
- Always save your PDF as you add TAGS accessibility markup
- When modifying extensive content in reading order, drag content down not up
- Delete empty tags
- Header, footer, and page numbers, decorative lines or shapes tag as “Background/artifact”



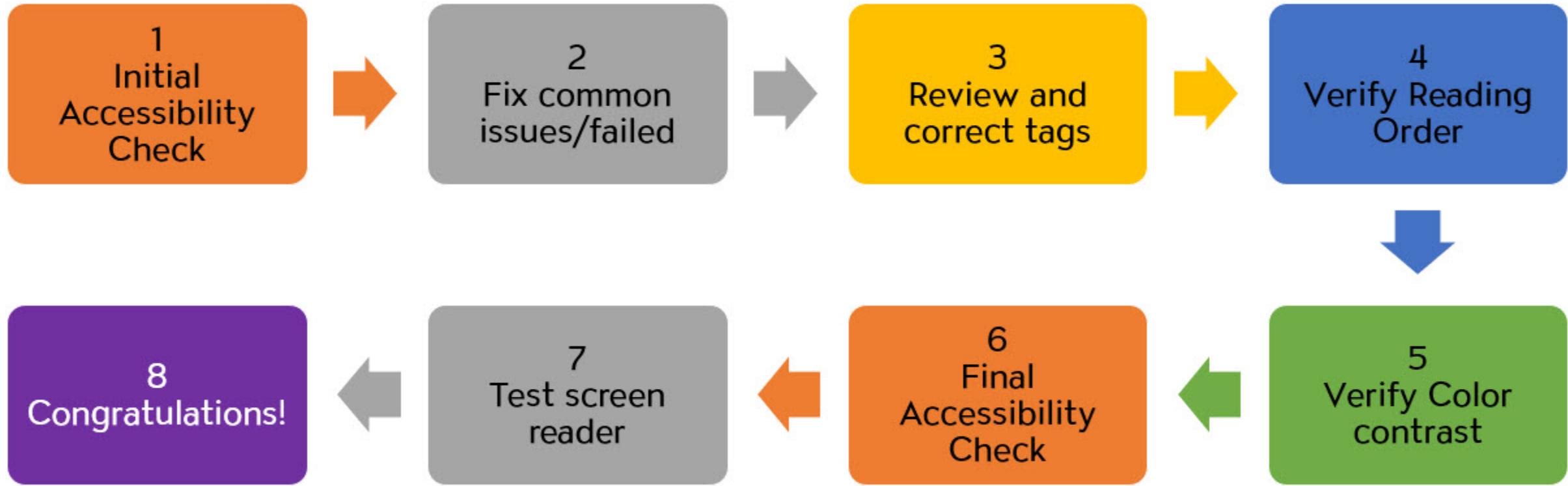
# Always SAVE your PDF as you add TAGS accessibility markup



Save it OFTEN to avoid  
Adobe unpredictable crashes!



# PDF Accessibility Iterative Process



# How can we help you make a difference?



***Universal Design means design for everyone***



## Universal Design Center Offers

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

