



# Basic PDF Remediation for Accessibility

Presentation by Jeremy Webster



# Pre-Remediation Considerations

Section 1



# 1. Pre-Remediation Considerations

Can it be built as a webpage instead?

- Webpages handle a great amount of accessibility issues automatically, requiring far less effort

Was it made accessible in its source application?

- Documents made accessible in their source applications (examples: MS Word and PowerPoint, Adobe InDesign) will typically carry over most, if not all, of their accessibility when exported to PDF



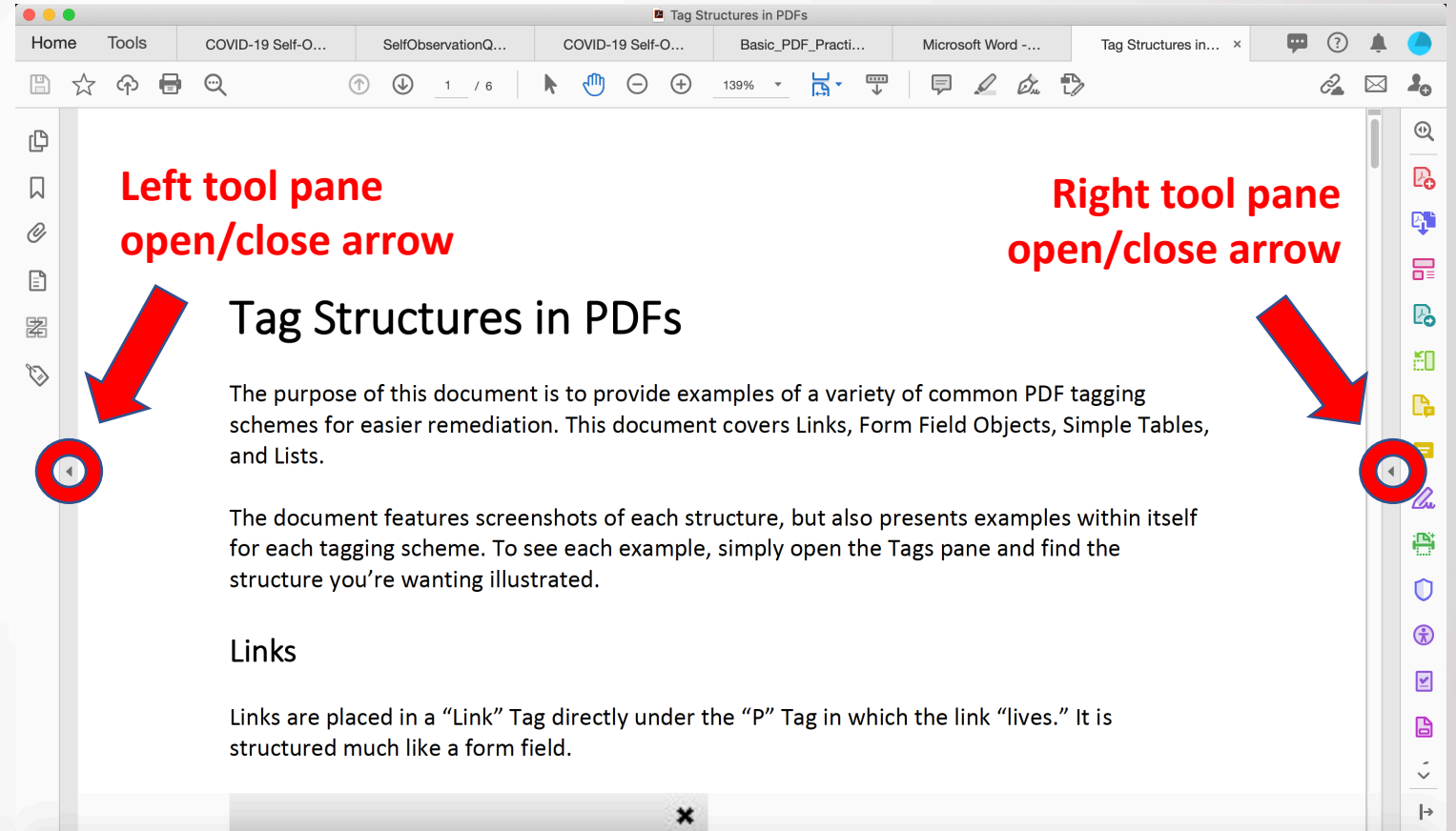
# Setting Up Adobe Acrobat Pro DC

Section 2

# 2a. Setting Up Acrobat Pro DC

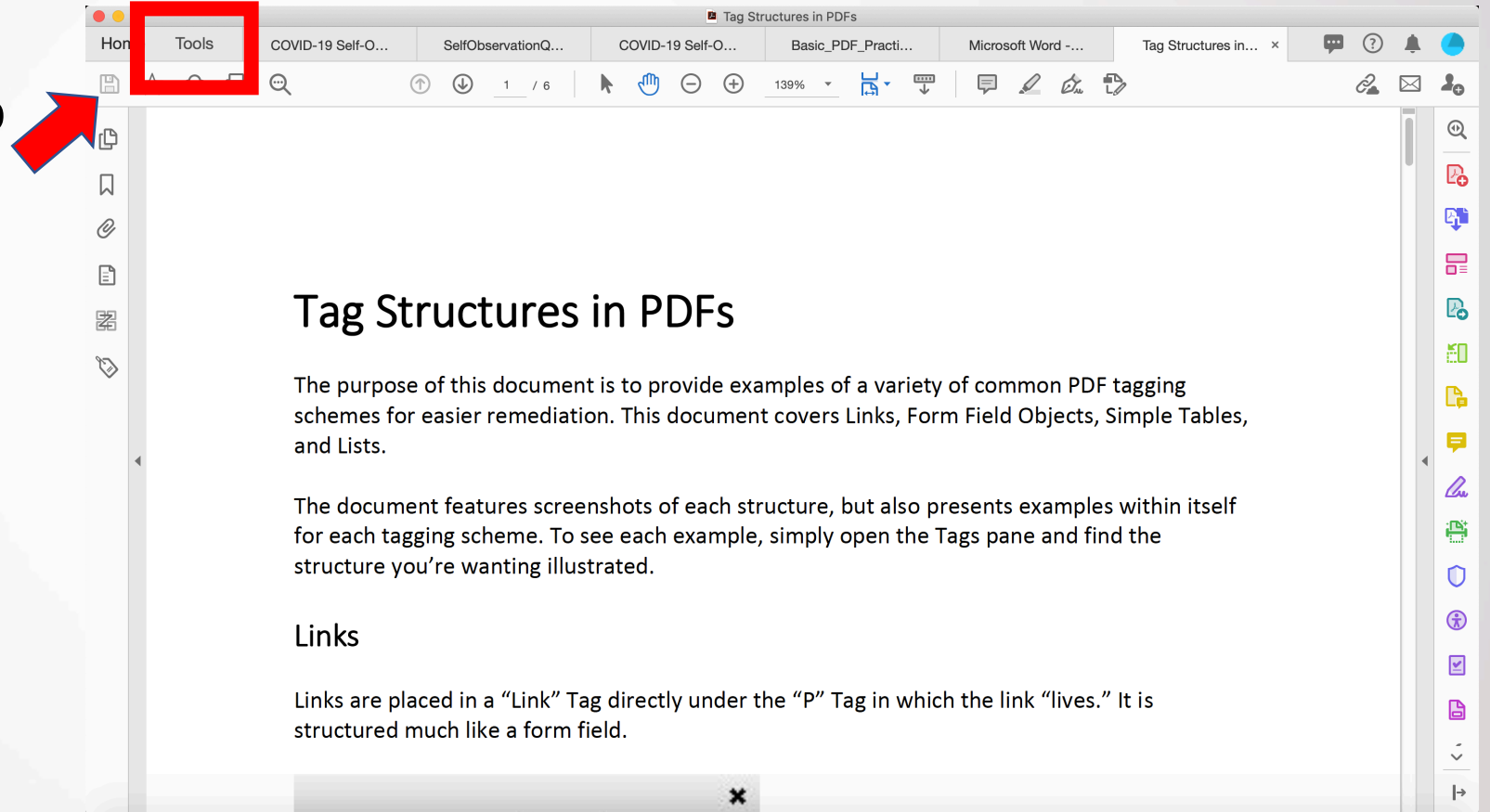
Once you have Acrobat Pro DC, you will need to add a number of tools to both the left and right tool panes.

These panes can be opened and closed by clicking on the arrows in the center of each.



# 2b. Setting Up Acrobat Pro DC

To add tools to the right pane, click the “Tools” tab in the upper left corner.

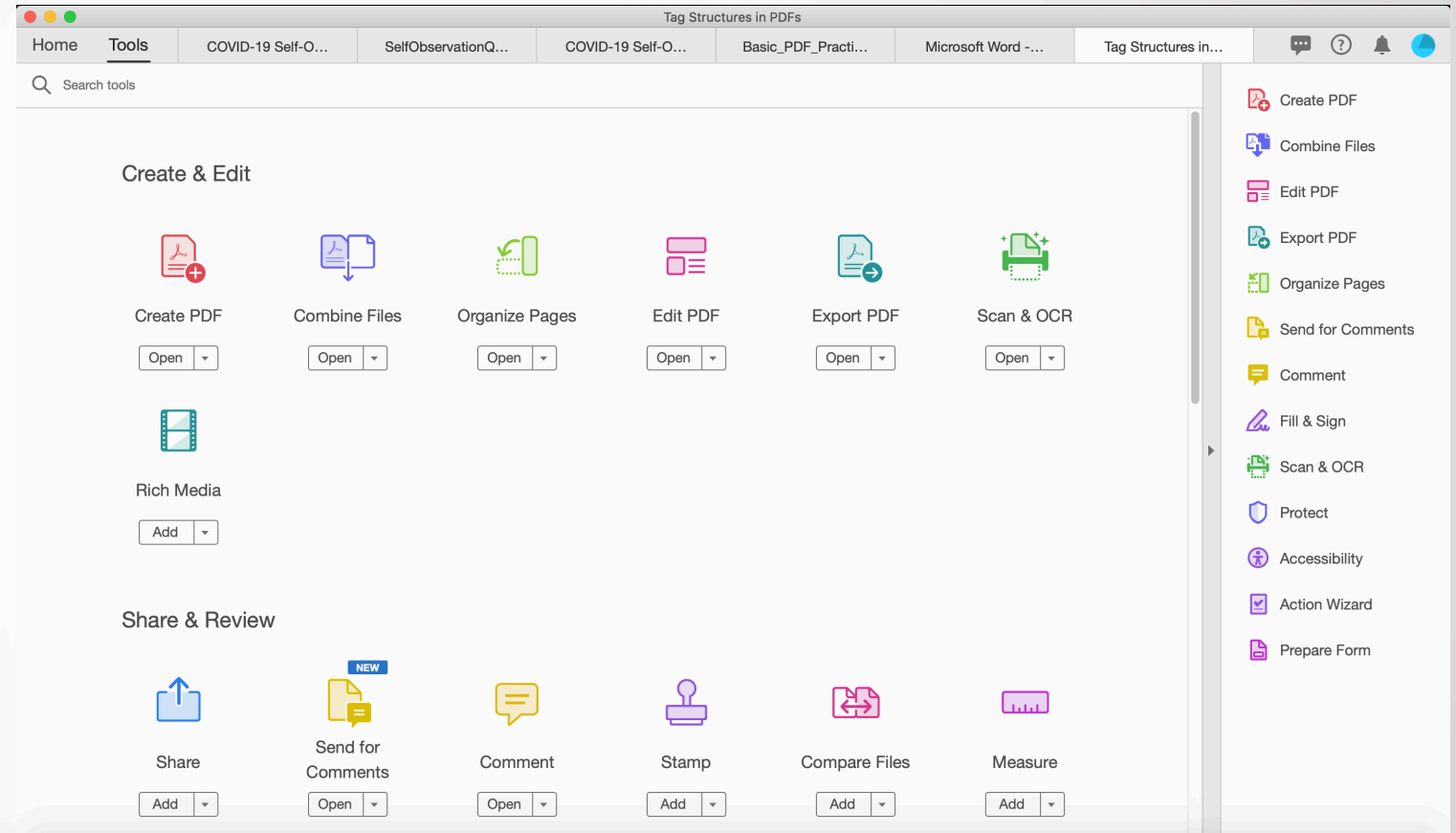


# 2c. Setting Up Acrobat Pro DC

To add a tool, click the “Add” button below its icon. Add the following tools:

- Scan & OCR
- Fill & Sign
- Prepare Form
- Accessibility
- Action Wizard

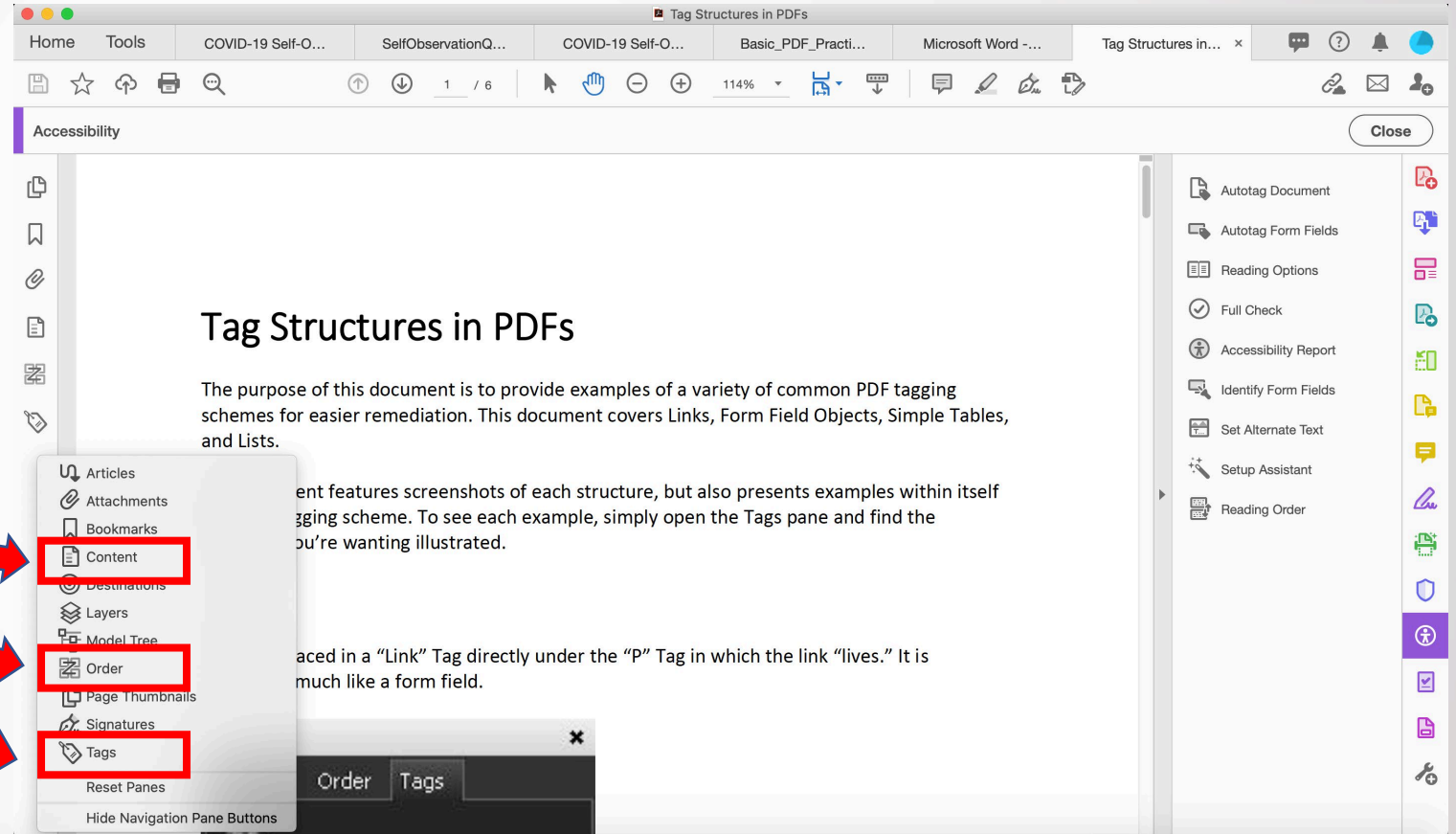
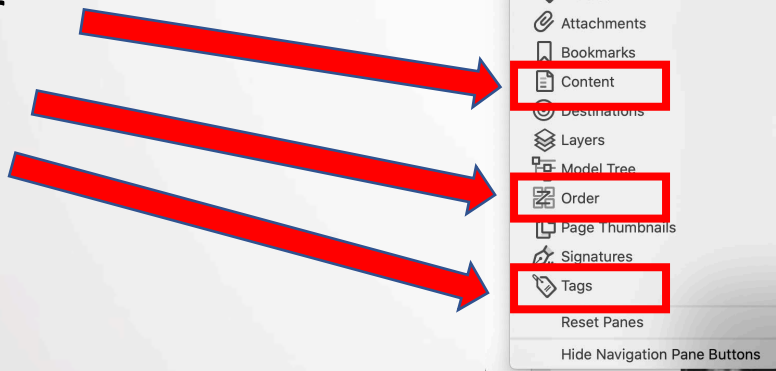
Exit the tool tab by clicking any right pane tool button



# 2d. Setting Up Acrobat Pro DC

To add tools to the left pane, first open the pane  
Right-clicking on the pane will show all available tools  
– select the following:

- Content
- Order
- Tags







# OCR (Optical Character Recognition)

Section 3

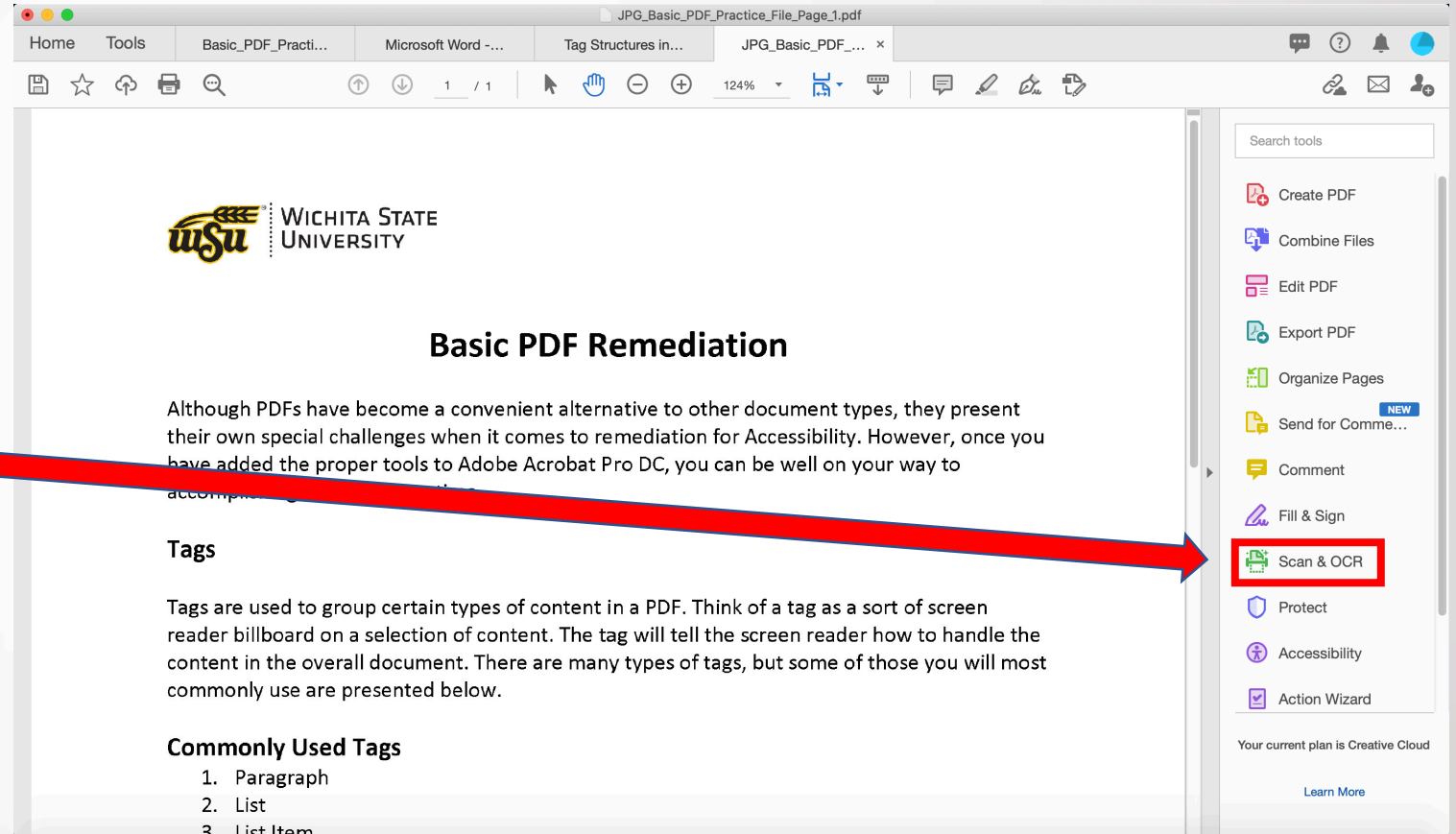
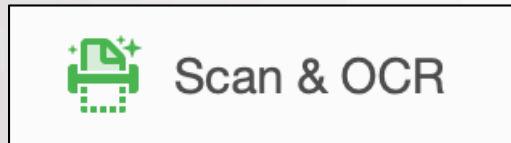
## 3a. OCR (Optical Character Recognition)

If a PDF is a scan of a physical copy rather than a digitally-created document, the OCR tool is necessary to recognize text

- Before OCR is used, all text on a page is technically simply part of a single image
- OCR searches through this image for things that are likely text characters and marks them as such
- The cleaner the scan, the better OCR will be able to recognize what is and is not text in the document

# 3b. OCR (Optical Character Recognition)

Open the right tool pane  
Select the “Scan & OCR”  
tool

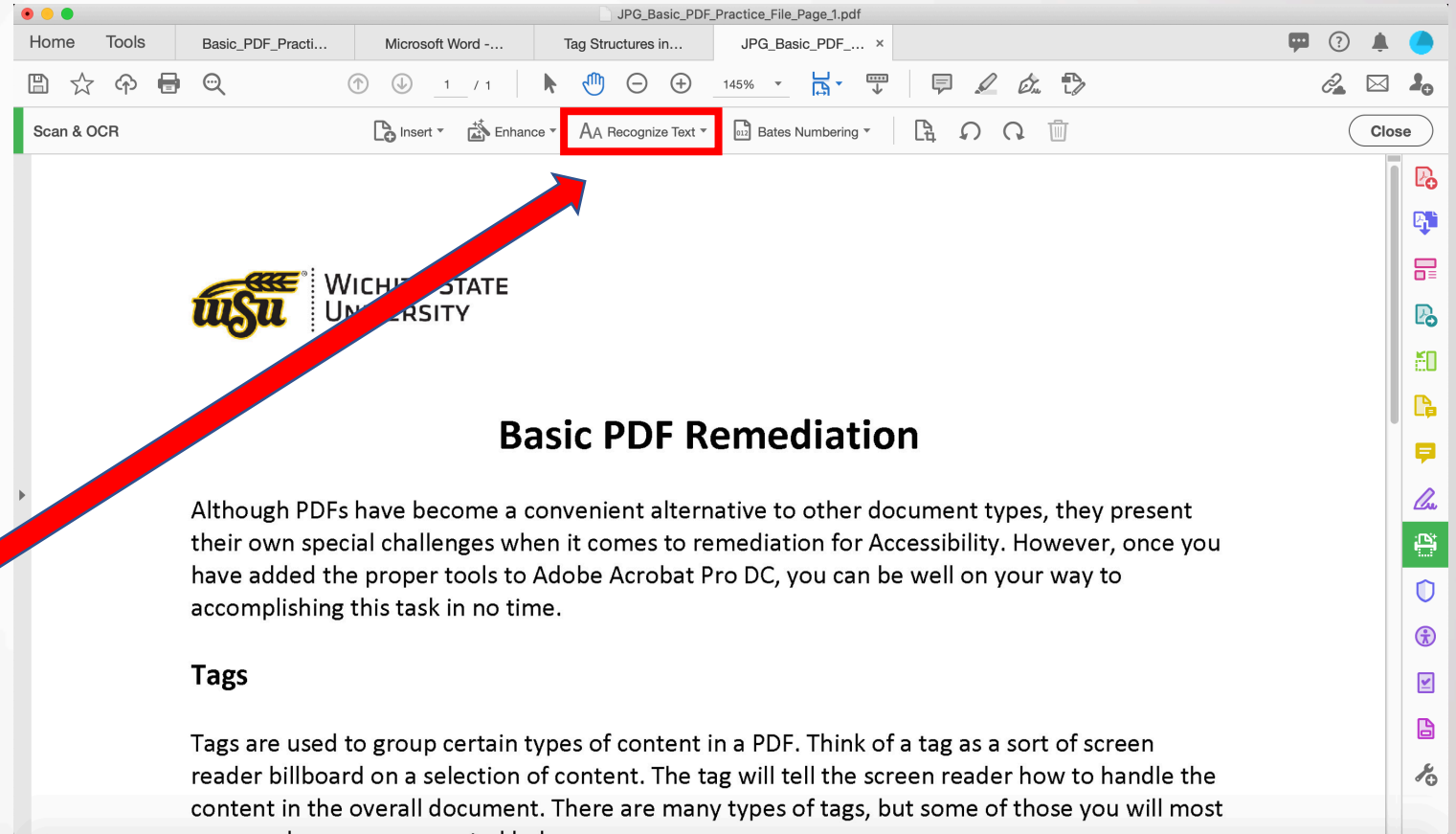
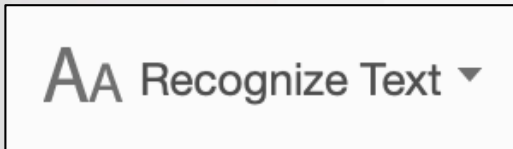




# 3c. OCR (Optical Character Recognition)

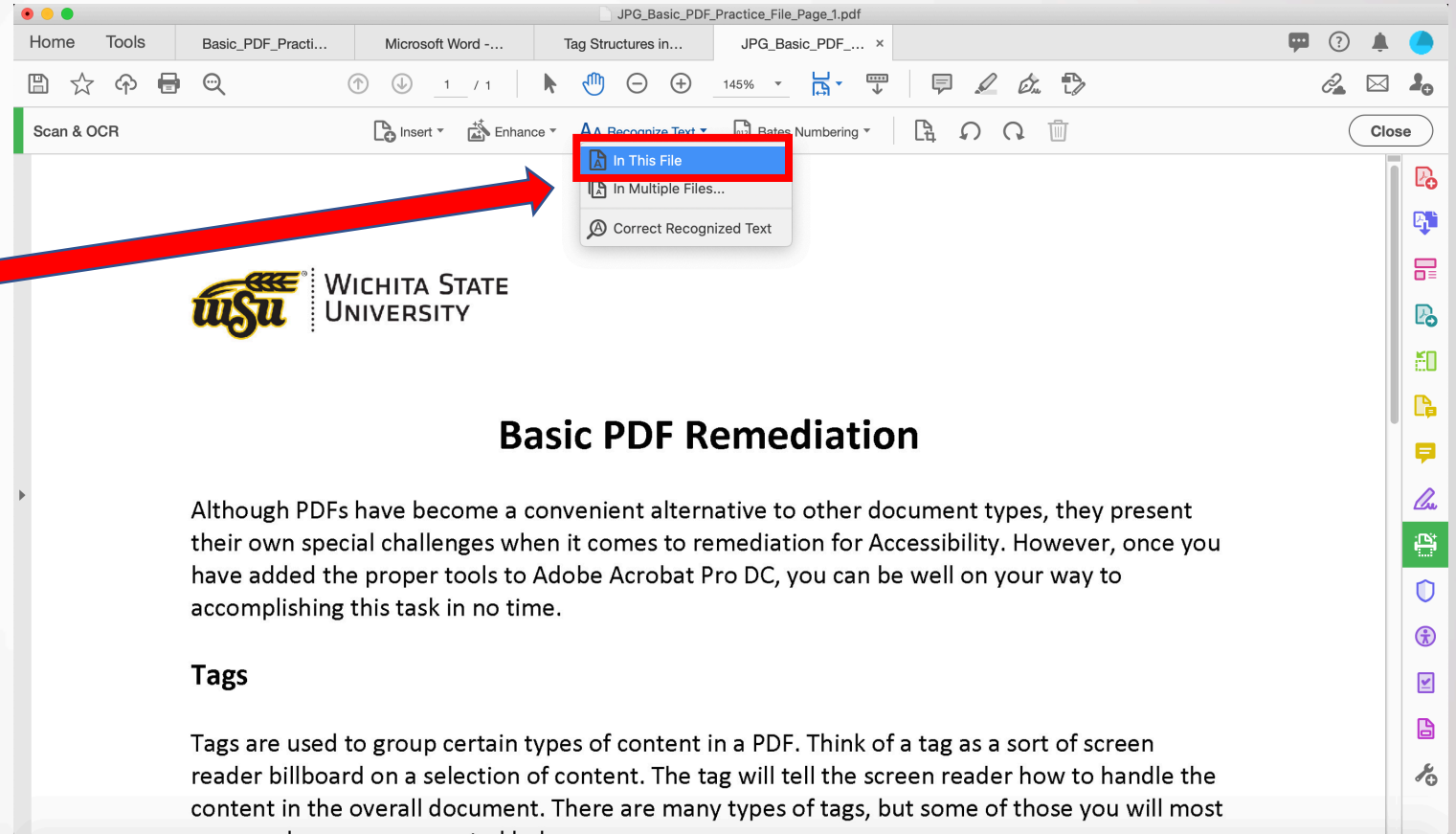
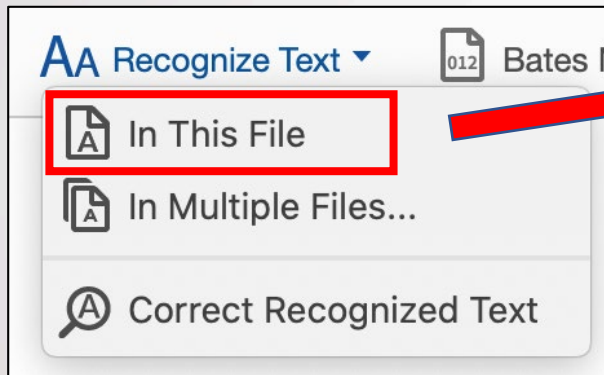
The "Scan & OCR" Toolbar will show toward the top of the window

Click the "Recognize Text" dropdown button on the toolbar



# 3d. OCR (Optical Character Recognition)

Select “In This File” from the dropdown



## Basic PDF Remediation

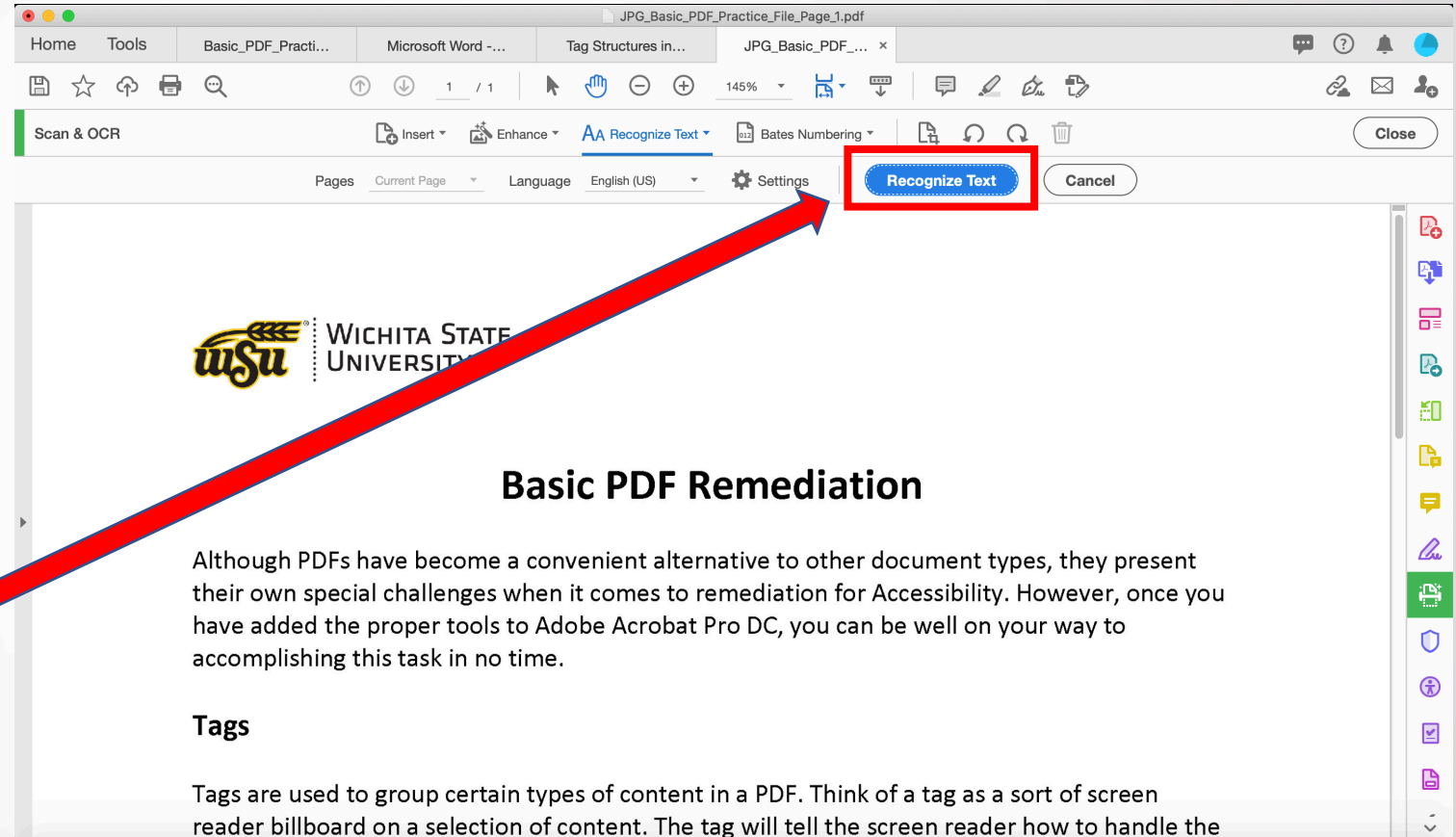
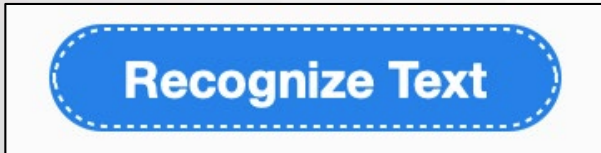
Although PDFs have become a convenient alternative to other document types, they present their own special challenges when it comes to remediation for Accessibility. However, once you have added the proper tools to Adobe Acrobat Pro DC, you can be well on your way to accomplishing this task in no time.

### Tags

Tags are used to group certain types of content in a PDF. Think of a tag as a sort of screen reader billboard on a selection of content. The tag will tell the screen reader how to handle the content in the overall document. There are many types of tags, but some of those you will most

# 3e. OCR (Optical Character Recognition)

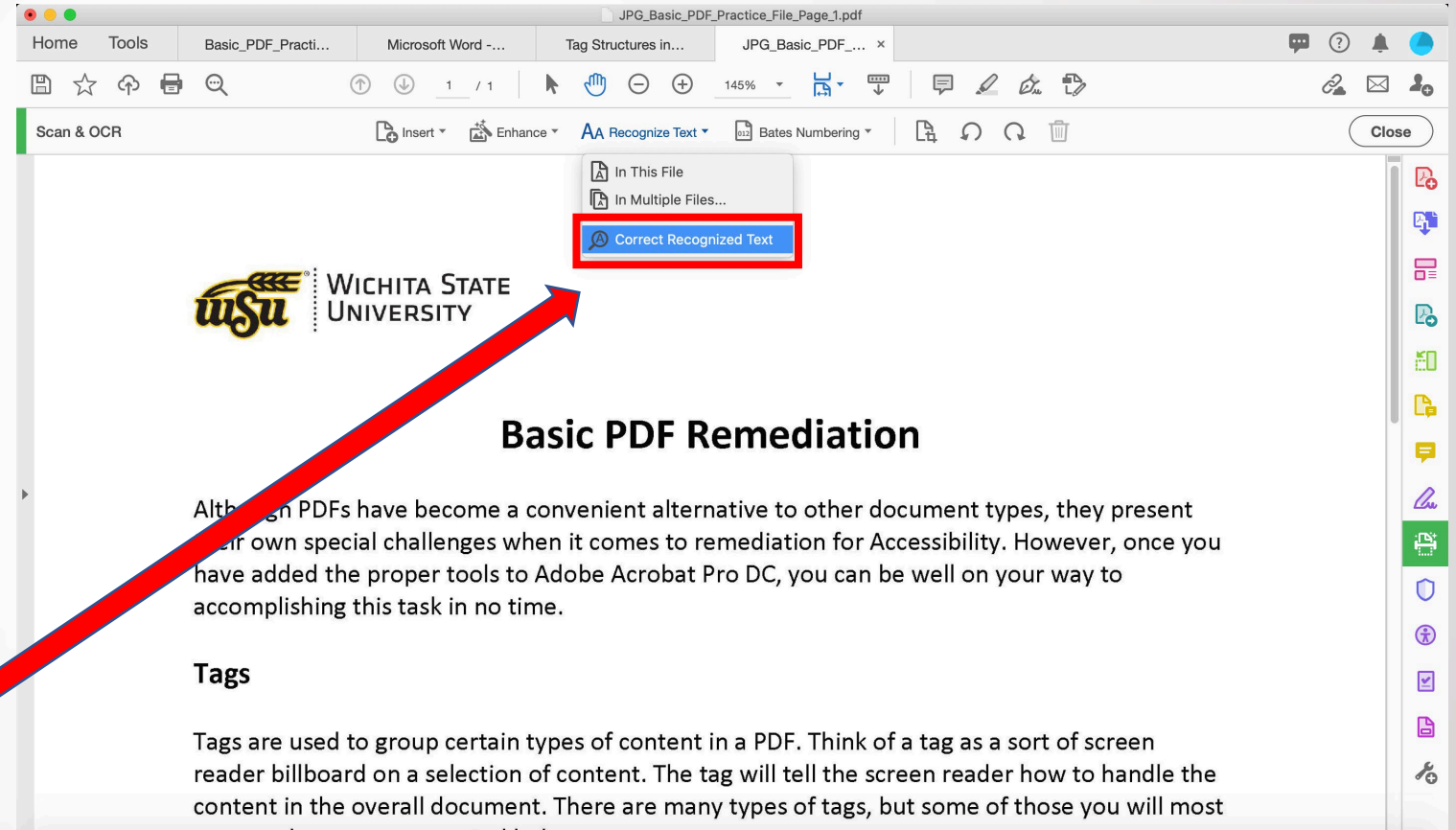
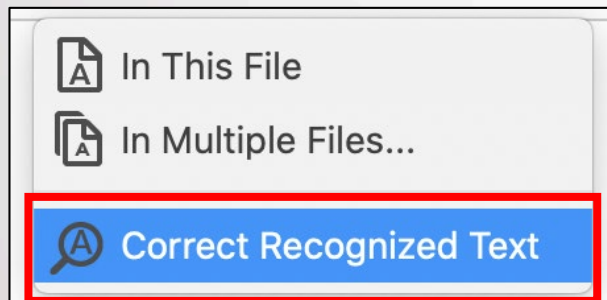
A secondary toolbar with more nuanced options will open. Select the “Recognize Text” button on this toolbar to launch OCR.



# 3f. OCR (Optical Character Recognition)

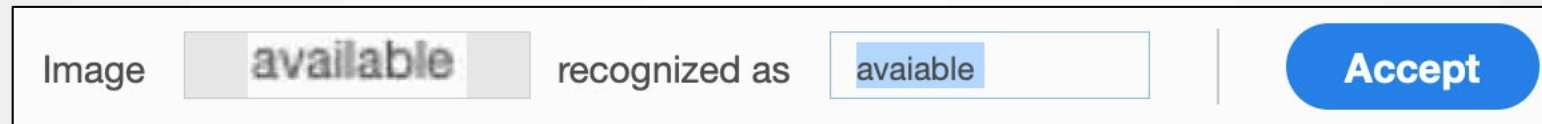
The secondary toolbar will disappear when OCR completes

Re-open the “Recognize Text” dropdown and select “Correct Recognized Text.”



## 3g. OCR (Optical Character Recognition)

In a new secondary toolbar OCR will go one-by-one through any items it found questionable. The image of the item as it appears in the document will appear at the left. OCR's "recognized" attempt at recognizing the item will appear in a field at the right



- If OCR's guess was correct, click the "Accept" button to continue to the next item, if there are any
- If OCR's guess is incorrect, type the correction in the "recognized field" and click the "Accept" button
- If the item is not actually text, delete anything in the "recognized as" field. This will change the field to read, "this is not text." Click "Accept" to proceed.
- Upon completion of this process the PDF is ready for tagging. Be sure to save the PDF in its current state





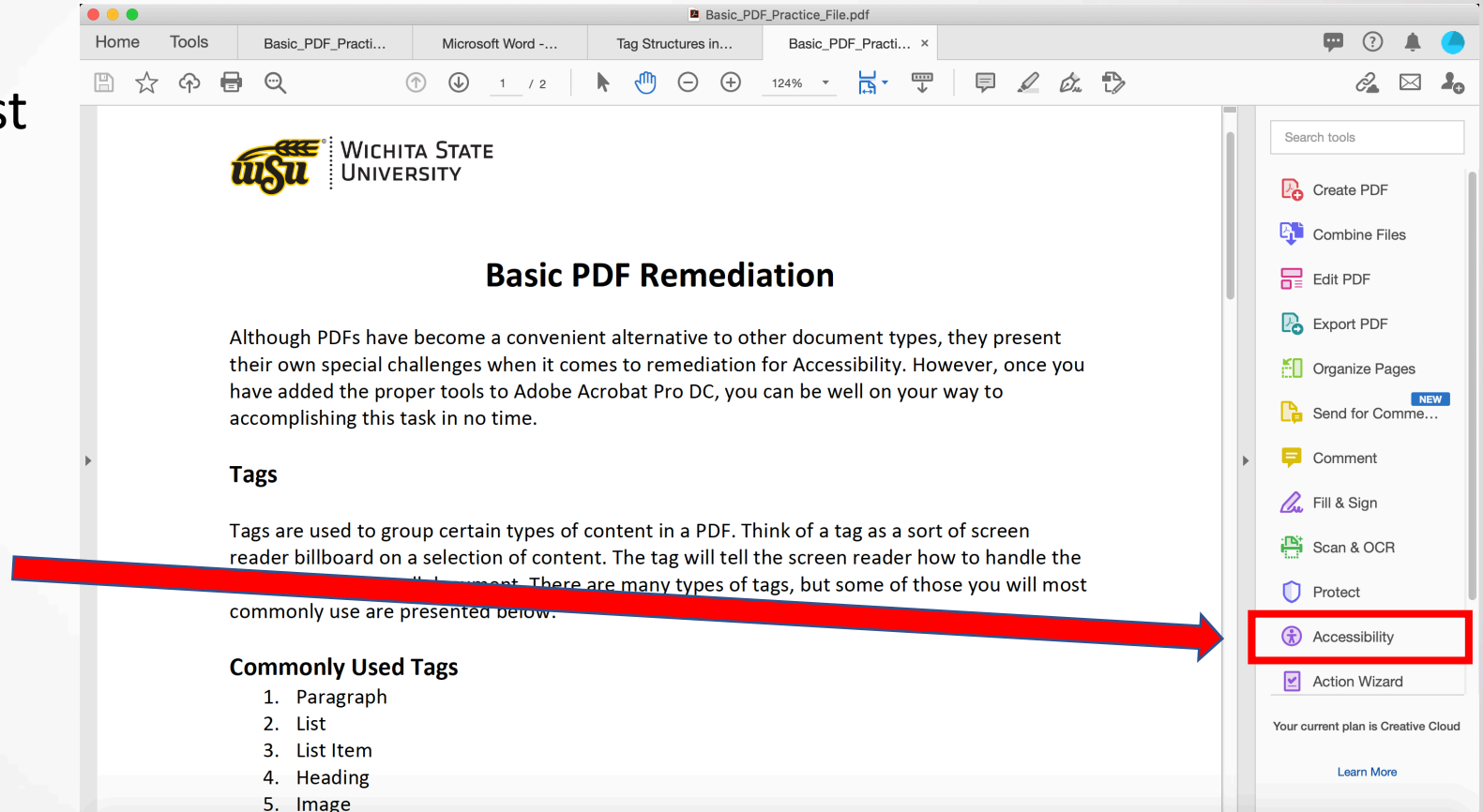
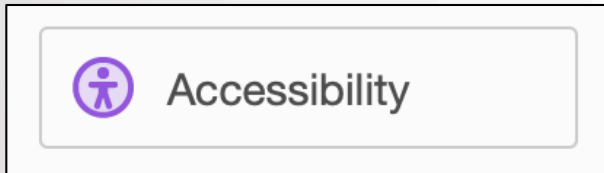
# Checking PDF Accessibility

Section 4

# 4a. Checking PDF Accessibility

To run an accessibility check on a PDF, we will first have to enter the accessibility toolset

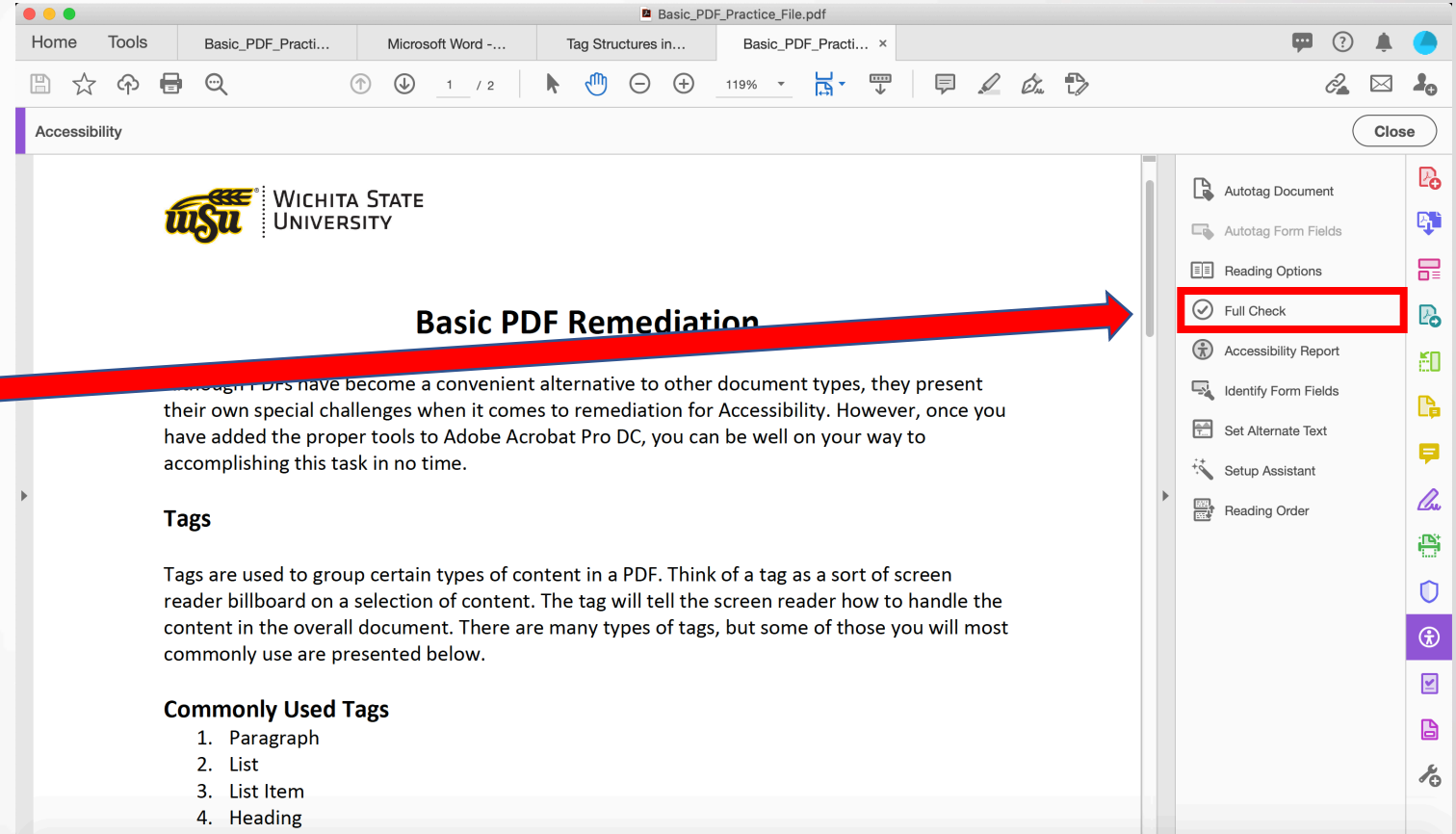
Select the “Accessibility” tab in the right tool pane



# 4b. Checking PDF Accessibility

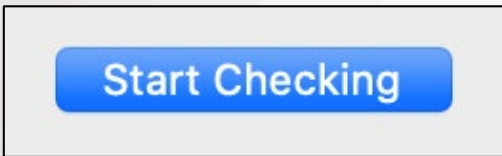
The Accessibility toolset will now be open

Select “Full check” in the Accessibility toolset

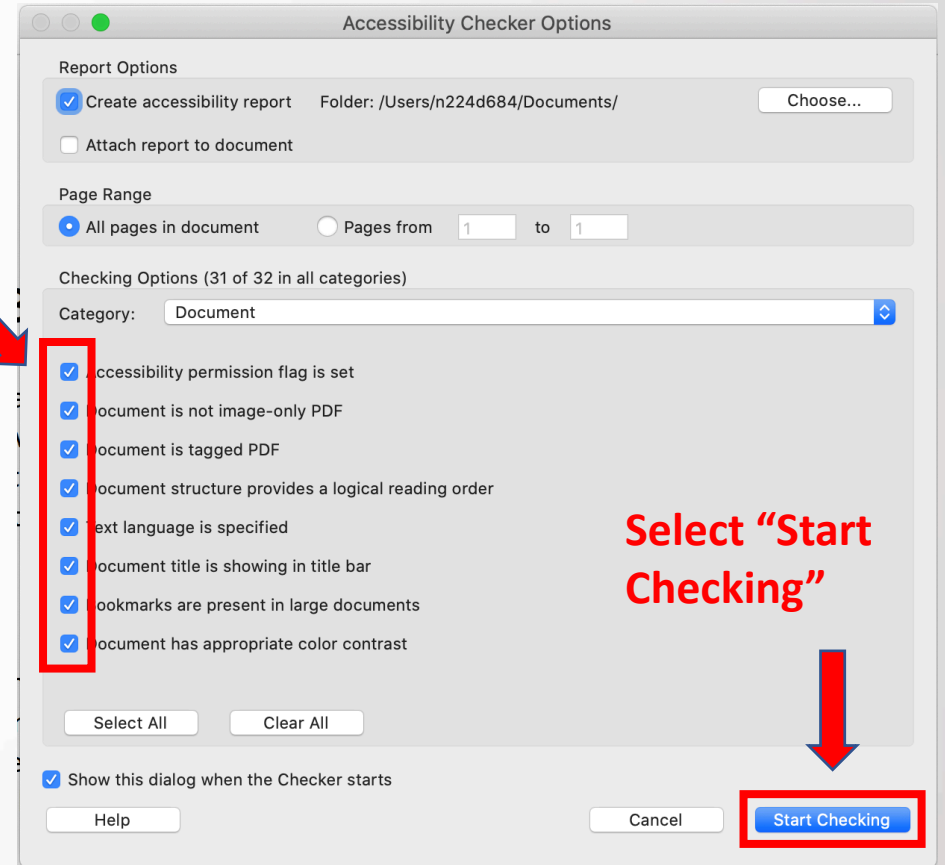
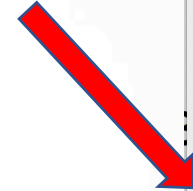


# 4c. Checking PDF Accessibility

The “Accessibility Checker Options” dialogue box will open  
Make sure all Checkable Options are selected  
Select “Start Checking” in the bottom right corner



All items should be selected

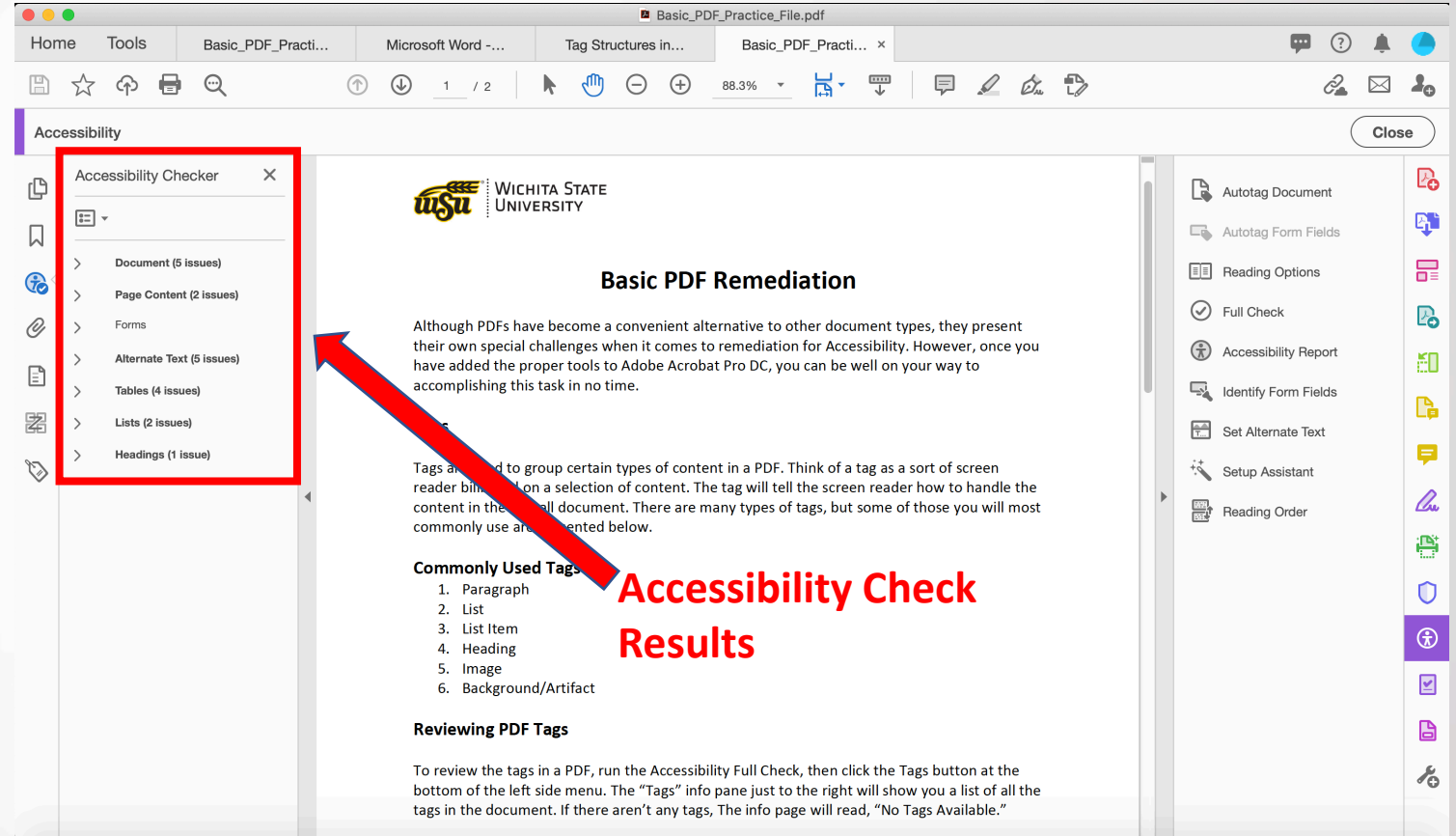


Select “Start Checking”



# 4d. Checking PDF Accessibility

Results of the scan will show in the left pane



The screenshot shows the Adobe Acrobat interface with the Accessibility Checker tool open. The left pane displays a tree view of the document's accessibility issues, with the following categories listed:

- Document (5 issues)
- Page Content (2 issues)
- Forms
- Alternate Text (5 issues)
- Tables (4 issues)
- Lists (2 issues)
- Headings (1 issue)

The main content area displays the document page, which includes the Wichita State University logo and the title "Basic PDF Remediation". The text on the page discusses the challenges of PDF remediation and lists commonly used tags:

**Commonly Used Tags**

1. Paragraph
2. List
3. List Item
4. Heading
5. Image
6. Background/Artifact

**Reviewing PDF Tags**

To review the tags in a PDF, run the Accessibility Full Check, then click the Tags button at the bottom of the left side menu. The "Tags" info pane just to the right will show you a list of all the tags in the document. If there aren't any tags, The info page will read, "No Tags Available."

A red arrow points from the "Accessibility Check Results" text to the Accessibility Checker tool pane.

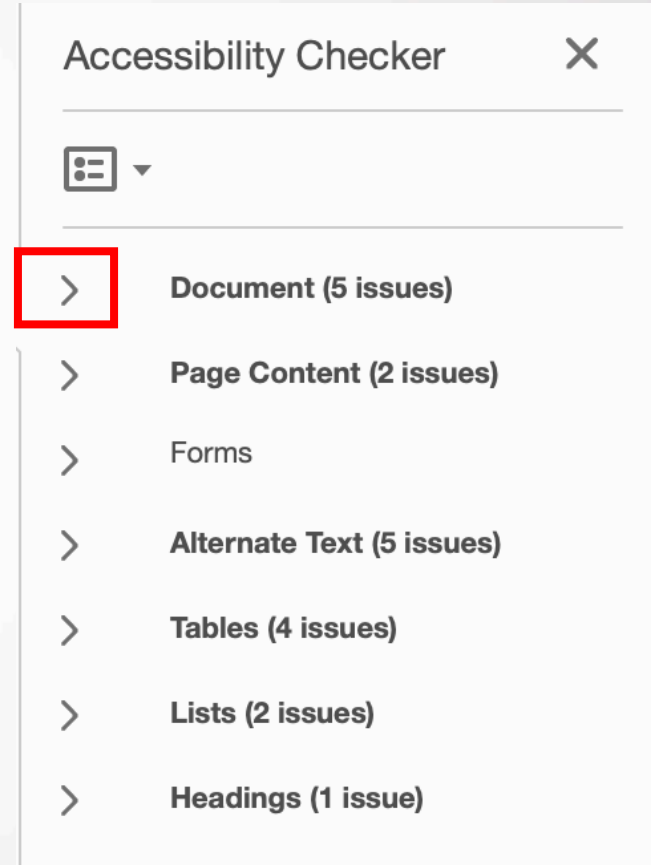
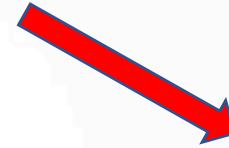
# 4e. Checking PDF Accessibility

Results can be seen under a series of topic headings – “Document,” “Page Content,” etc.

If there are accessibility issues, the topic heading will state how many

Click the arrow to the left of each topic to expand the list of issues

Click to expand issues list

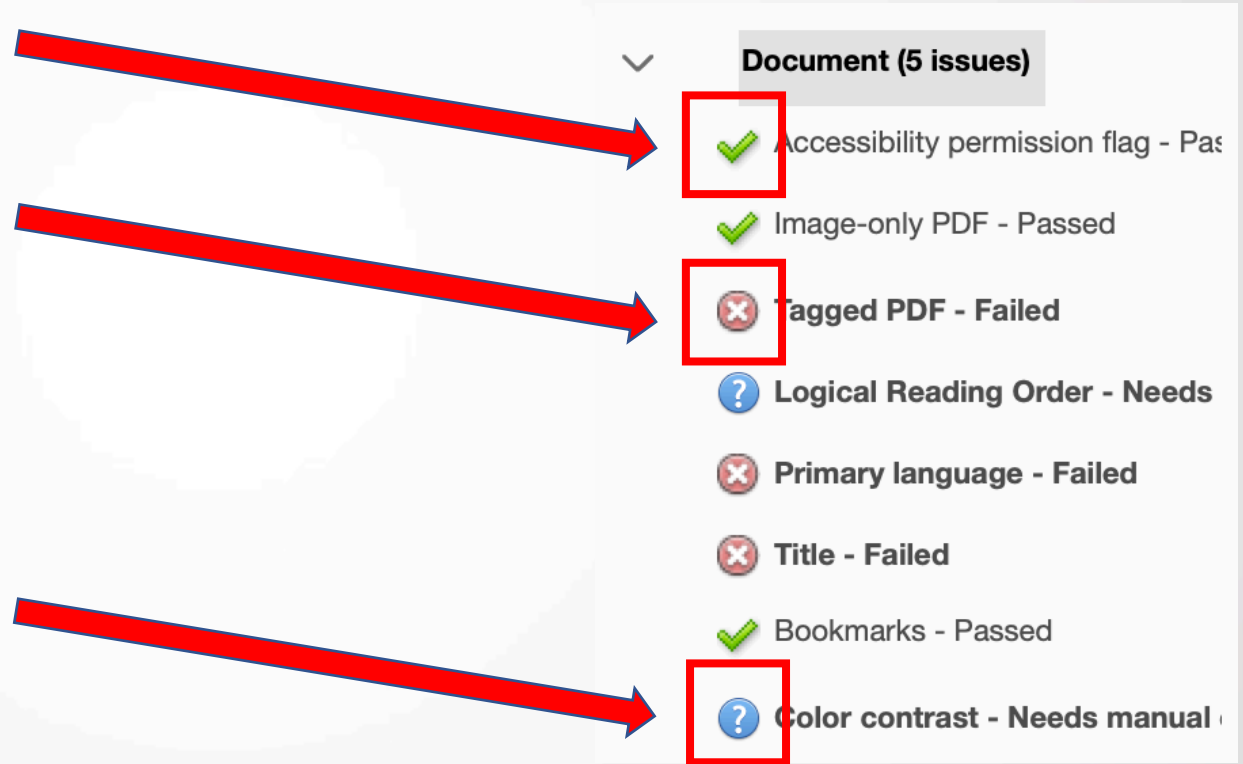
The screenshot shows the 'Accessibility Checker' window. At the top, it says 'Accessibility Checker' with a close button (X) on the right. Below that is a list of categories with expandable arrows (chevrons) to their left. The categories are: 'Document (5 issues)', 'Page Content (2 issues)', 'Forms', 'Alternate Text (5 issues)', 'Tables (4 issues)', 'Lists (2 issues)', and 'Headings (1 issue)'. The first chevron, next to 'Document (5 issues)', is highlighted with a red square, and a red arrow points to it from the text 'Click to expand issues list'.

# 4f. Checking PDF Accessibility

A green checkmark means that the subtopic has cleared the check with no issues

A white X in a red circle means that the subtopic has issues that need to be repaired

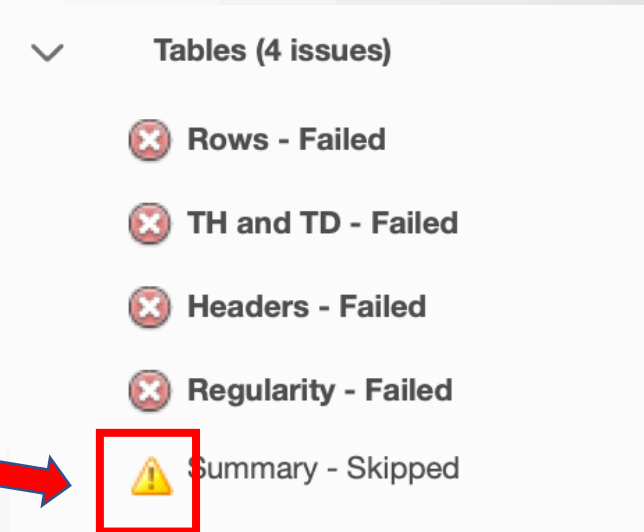
A white question mark in a blue circle indicates that the checker cannot determine whether the subtopic passes or not – a person has to do a manual check to make sure the topic is in compliance

A screenshot of a PDF accessibility checker interface. The interface shows a list of issues for a document. The list is titled "Document (5 issues)" and contains the following items: "Accessibility permission flag - Passed" (green checkmark), "Image-only PDF - Passed" (green checkmark), "Tagged PDF - Failed" (white X in a red circle), "Logical Reading Order - Needs manual check" (white question mark in a blue circle), "Primary language - Failed" (white X in a red circle), "Title - Failed" (white X in a red circle), and "Bookmarks - Passed" (green checkmark). Three red arrows point from the text on the left to the icons for "Accessibility permission flag - Passed", "Tagged PDF - Failed", and "Logical Reading Order - Needs manual check".

# 4g. Checking PDF Accessibility

A yellow triangle with an exclamation mark in it typically indicates a subtopic that the system was not able to check because the element on the page (in this case a table) has not been constructed in such a way to allow it

In this case, there is a table in the document but, since the content that makes up the table hasn't been properly tagged as such, the system cannot perform this check

A screenshot of an accessibility checker interface. It shows a dropdown menu for 'Tables (4 issues)'. The list includes: 'Rows - Failed', 'TH and TD - Failed', 'Headers - Failed', 'Regularity - Failed', and 'Summary - Skipped'. A red arrow points from the text on the left to a yellow warning triangle icon next to 'Summary - Skipped', which is also enclosed in a red square box.

- Tables (4 issues)
  - Rows - Failed
  - TH and TD - Failed
  - Headers - Failed
  - Regularity - Failed
  - Summary - Skipped



# 4h. Checking PDF Accessibility

Some subtopics can be further expanded to look at individual occurrences of an issue

In this example, three figures or images – called “elements” – do not have proper alternative text

Selecting each element will highlight it in the document

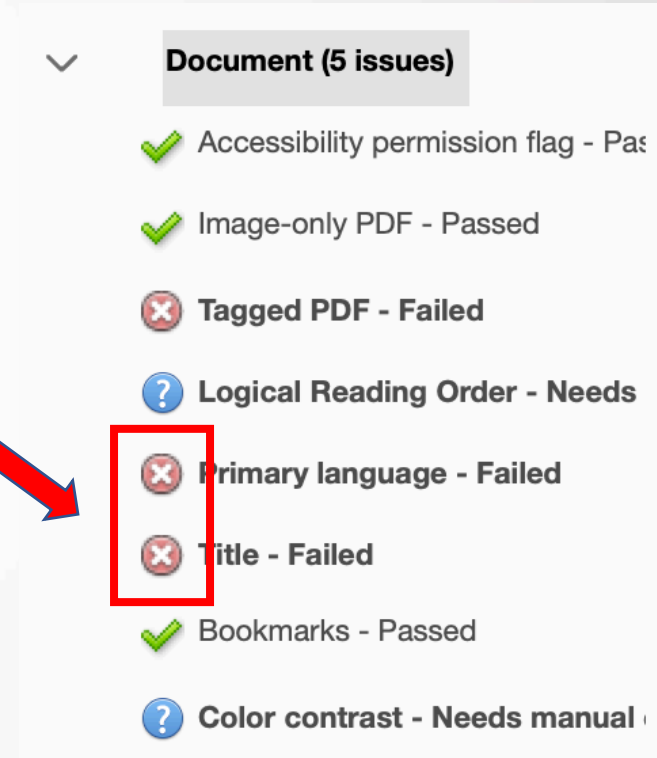
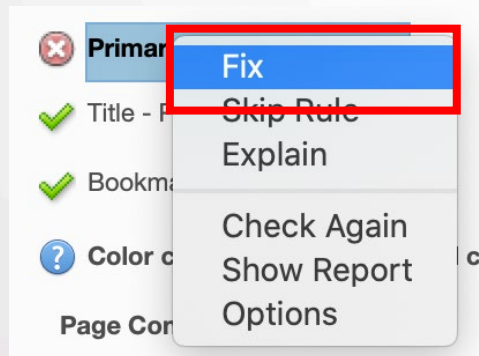
Right clicking each element opens a menu by which the element can be repaired



# 4i. Checking PDF Accessibility

Many PDFs will report errors for Primary Language, Title, or both

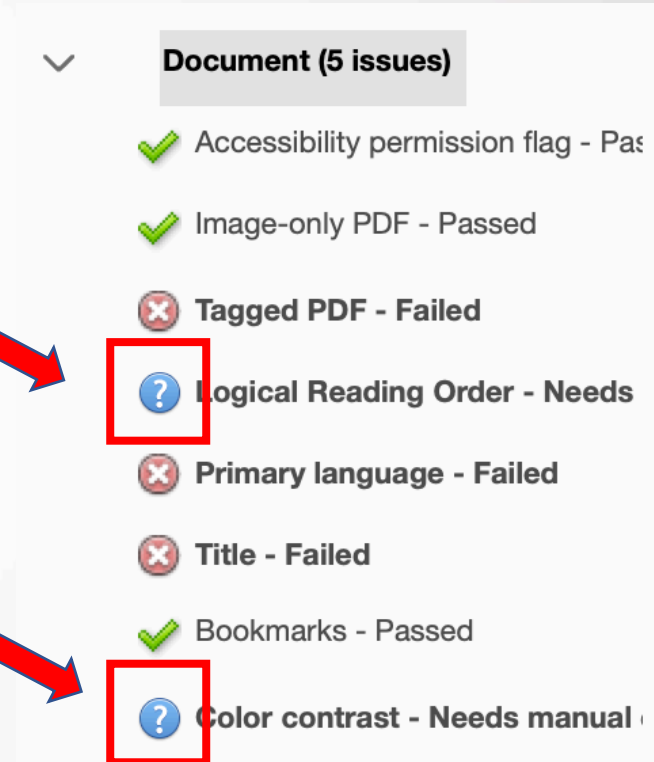
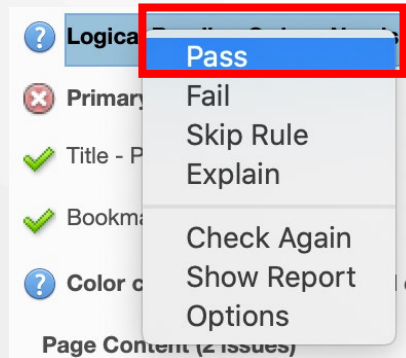
Both can be easily fixed by right clicking on the topic, selecting "Fix," and, if an additional option box opens, simply selecting or supplying the answer



# 4j. Checking PDF Accessibility

For subtopics that require manually checking, right click and select “Pass”

NOTE: Only do this AFTER you have checked the item to make sure it’s in compliance.





## 4k. Checking PDF Accessibility

A PDF may pass the checker but still not be accessible

- For example, the system cannot determine if reading order or color contrast is accessible – the document creator(s) and/or editor(s) must check these for themselves
- Do not assume a PDF is accessible even if it says it is – always take a look at the tags and reading order to make sure everything is as it should be



# An Introduction to Tags

Section 5



# 5a. An Introduction to Tags

## What are tags?

- As Adobe themselves put it, "Tagging is essential for PDF accessibility. Tags establish logical reading order and provide a means for indicating structure and type, adding alternative text descriptions to non text elements, and substitute text (referred to as actual text) for elements in the PDF document."

Tags are used to indicate two things in a PDF:

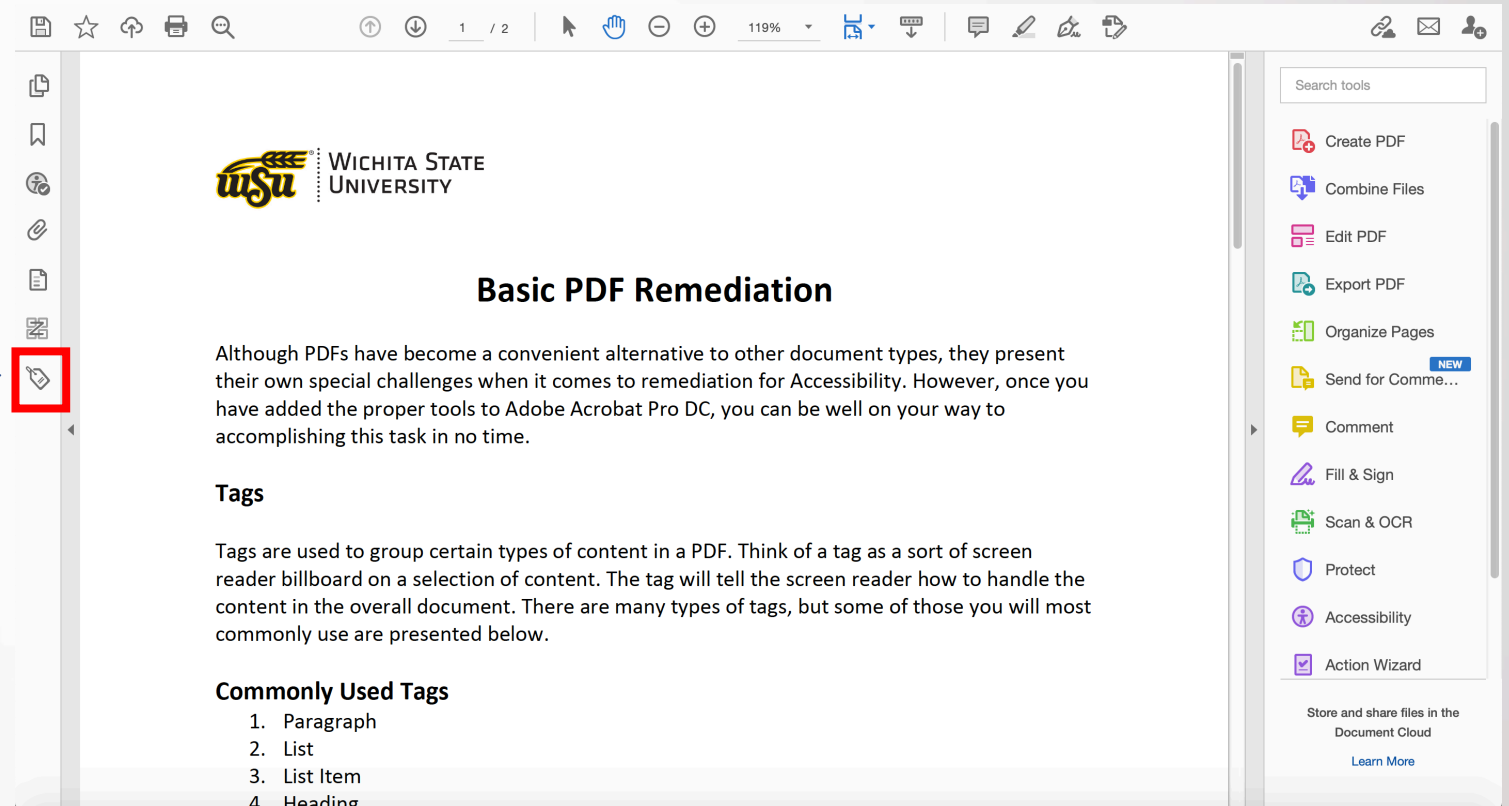
- The existence of content
- The type of content (Heading, Paragraph, List, Table, Figure, etc.)

Most of the work necessary to remediate a PDF will normally be done with tags

# 5b. An Introduction to Tags

To access the tags view:

- Open the left side tool pane
- Select the Tags button

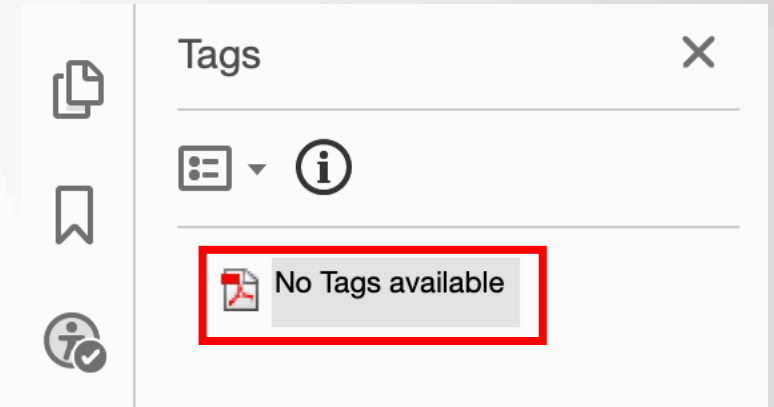
A screenshot of the Adobe Acrobat Pro DC interface. The main document area displays the title 'Basic PDF Remediation' and the WSU logo. The text in the document discusses the challenges of PDF remediation and lists 'Commonly Used Tags' such as Paragraph, List, List Item, and Heading. On the left-hand side, the tool pane is open, and the 'Tags' button is highlighted with a red square. The right-hand side of the interface shows a search bar and various tool options like 'Create PDF', 'Combine Files', 'Edit PDF', etc.

## 5c. An Introduction to Tags

As we can see here, this PDF does not have any tags – the document will have to be tagged as part of the process of making it accessible

Depending on the source of a document, it may have tags and it may not – documents should be checked for tags beforehand

It may be necessary to delete tags and retag a document to make it accessible





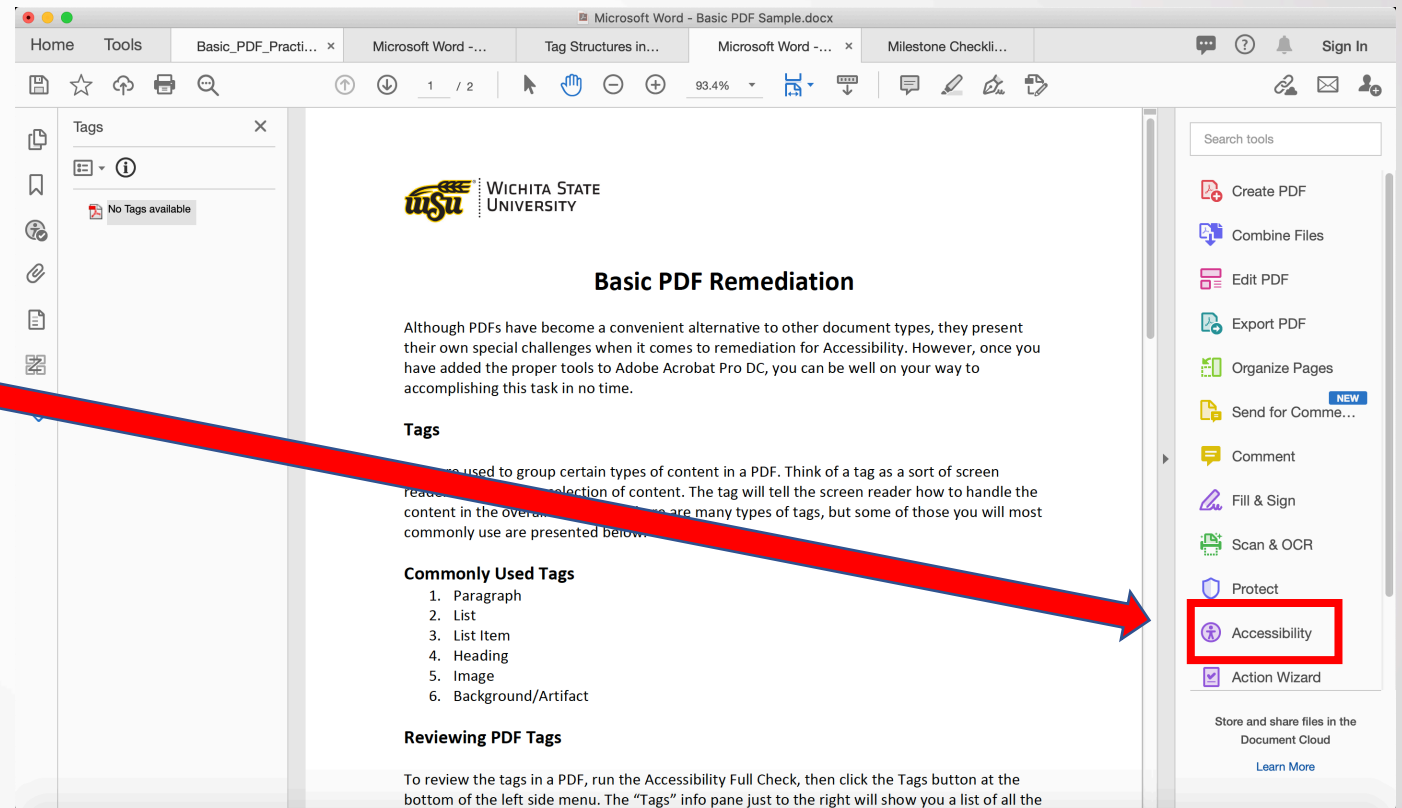
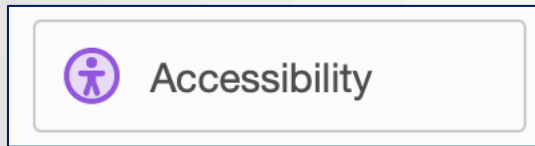
## 5d. An Introduction to Tags

There are two methods of tagging a document – Autotagging and Manual Tagging

- Autotagging is generally a significant time saver – the system will automatically look for and tag all content in a document to the best of its ability
- There will usually be corrections needed afterwards via manual tagging
- Manual Tagging involves using the Reading Order tool to manually select content and tag it
- Is usually more exact than Autotagging, but takes far longer to do
- The easiest, most time-efficient answer is usually Autotagging the entire document, then use Manual Tagging to clean it up

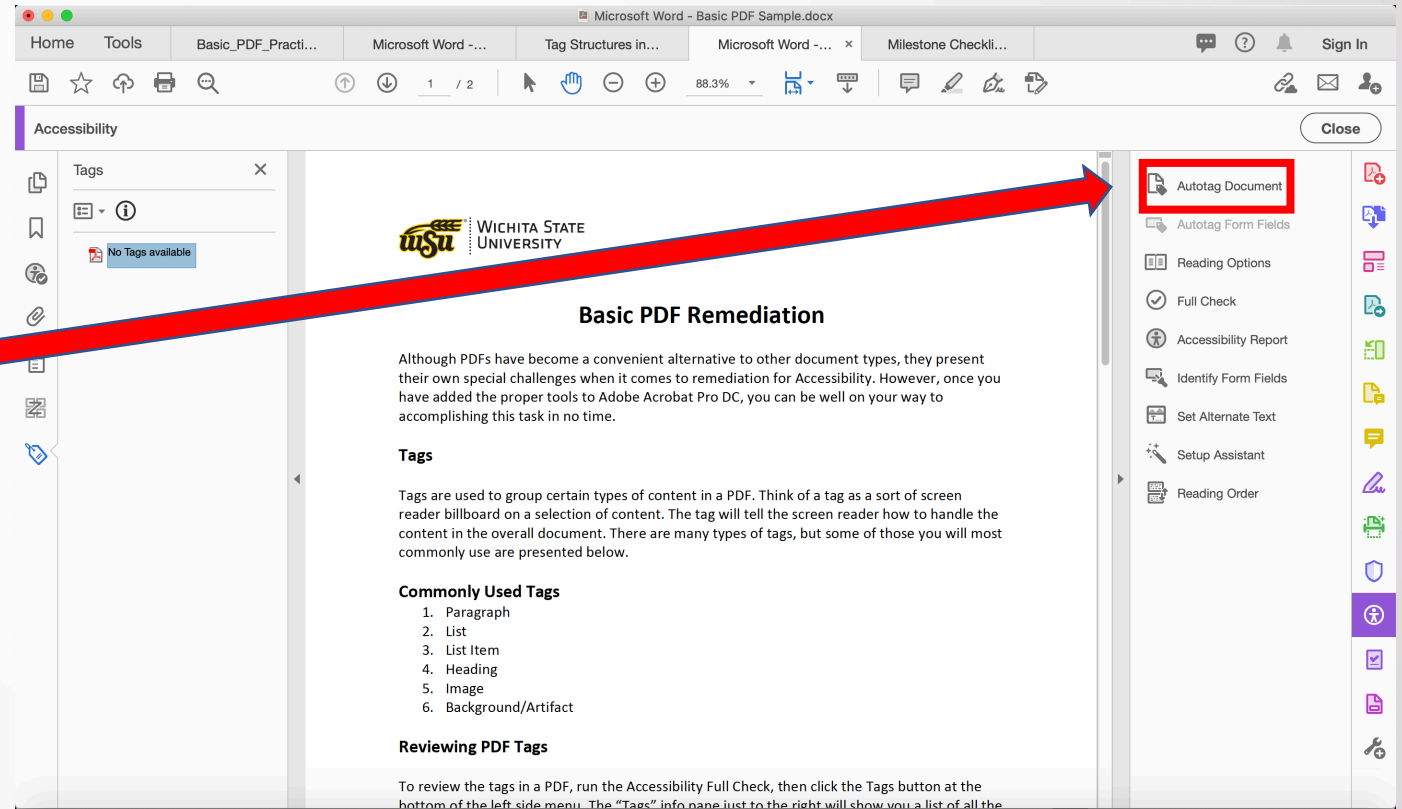
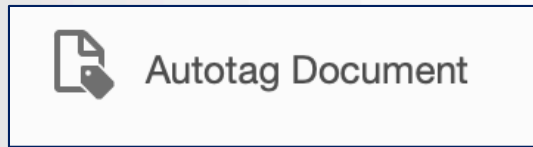
# 5e. An Introduction to Tags

To Autotag our document, first select the “Accessibility” tab on the right tool pane



# 5f. An Introduction to Tags

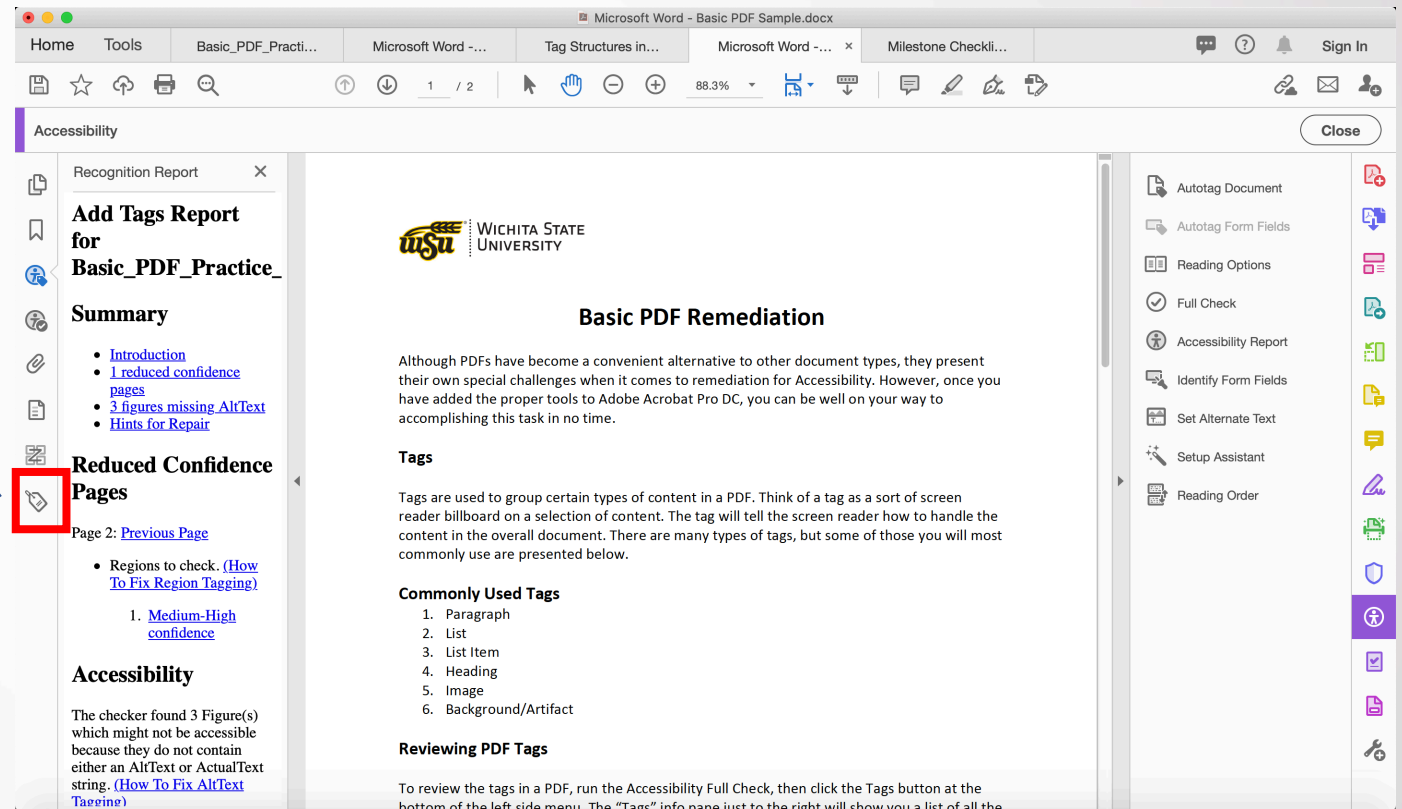
Select the “Autotag Document” tab at the top of the Accessibility tool pane



# 5g. An Introduction to Tags

The left tool pane will now show a summary report for the Autotag action

In the left tool pane select the Tags button again



The screenshot shows the Microsoft Word interface with the Accessibility tool pane open on the left. The tool pane displays a 'Recognition Report' for 'Basic PDF Remediation'. The report includes a 'Summary' section with the following items:

- Introduction
- 1 reduced confidence pages
- 3 figures missing AltText
- Hints for Repair

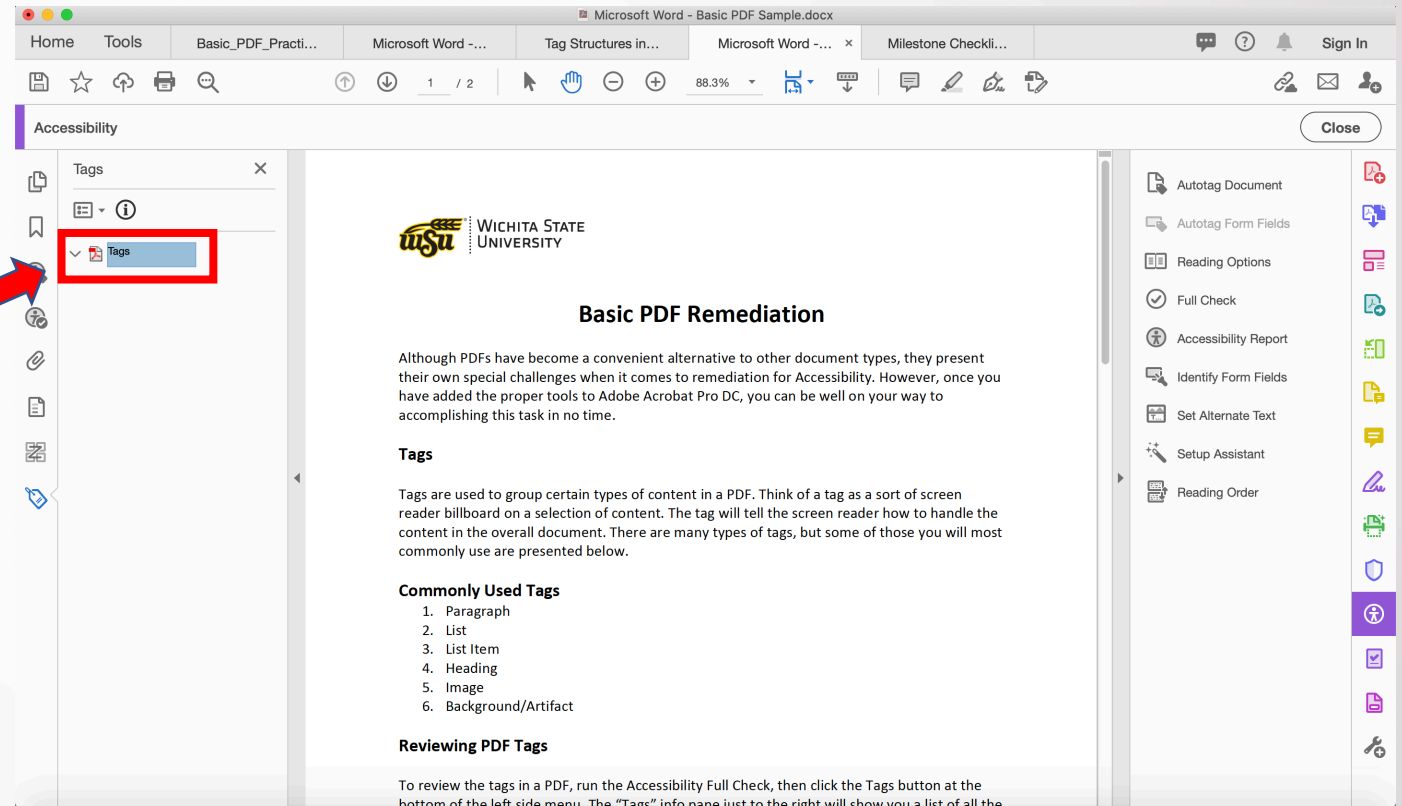
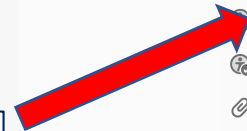
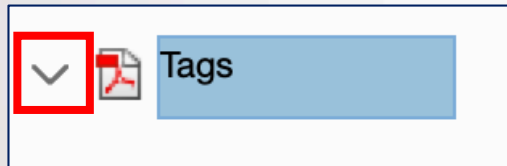
Below the summary is a 'Reduced Confidence Pages' section, which is highlighted with a red box. It indicates 'Page 2: Previous Page' and lists 'Regions to check' with one item: '1. Medium-High confidence'. The 'Accessibility' section at the bottom states: 'The checker found 3 Figure(s) which might not be accessible because they do not contain either an AltText or ActualText string. (How To Fix AltText Tagging)'.

The main document area shows the 'Basic PDF Remediation' report content, including an introduction to PDF remediation, a 'Tags' section explaining their use, a list of 'Commonly Used Tags' (Paragraph, List, List Item, Heading, Image, Background/Artifact), and a 'Reviewing PDF Tags' section.

The right-hand side of the interface shows the 'Autotag Document' tool pane with various options like 'Autotag Form Fields', 'Reading Options', 'Full Check', 'Accessibility Report', 'Identify Form Fields', 'Set Alternate Text', 'Setup Assistant', and 'Reading Order'.

# 5h. An Introduction to Tags

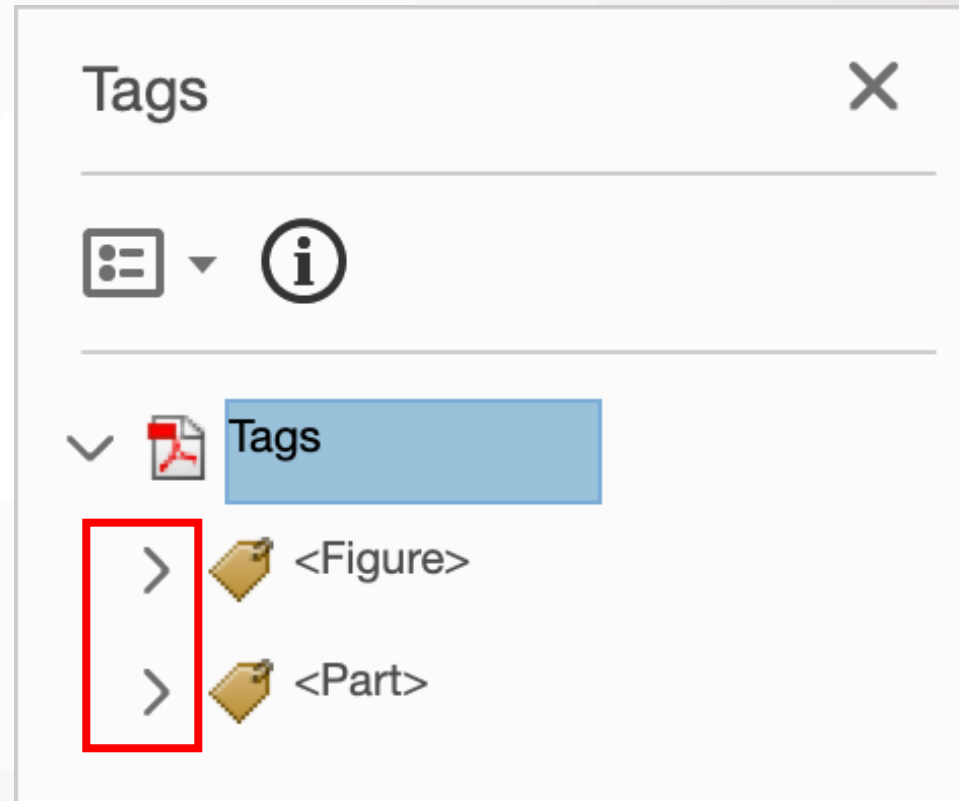
In the Tags pane on the left, click the arrow on the left of “Tags” to close, then click again to re-expand



# 5i. An Introduction to Tags

We can now see our first tags in the document.

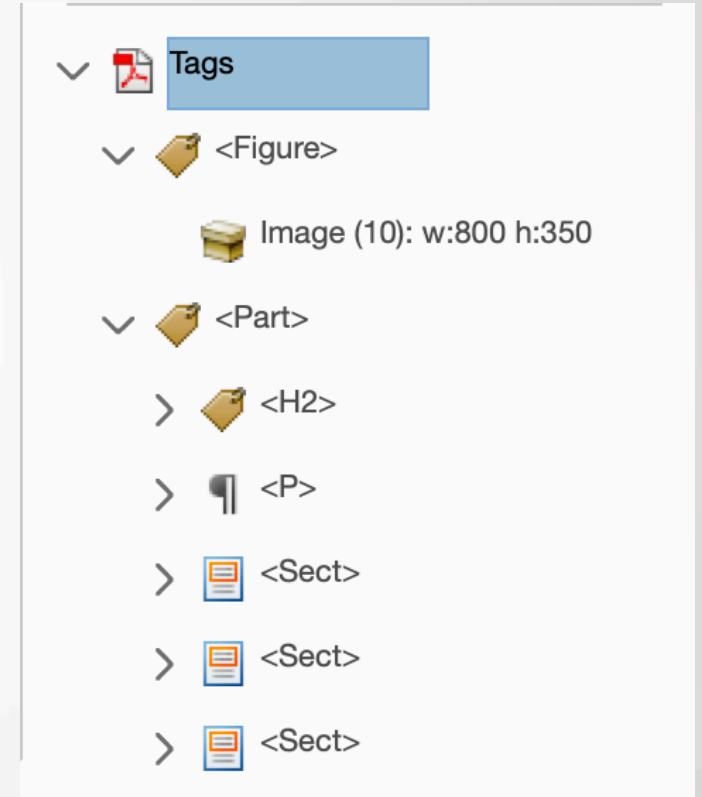
- The “Figure” tag is the WSU Letterhead graphic at the top of the page.
- The “Part” tag contains the rest of the document’s tags.
- Tags frequently subset within other tags - To access the tags within a tag, click the arrow to the left to expand the view.



# 5j. An Introduction to Tags


Here we can see an expanded view of the tags in the document.

- The Figure/Image is the WSU Letterhead logo, which we will need to either apply alternative text to or render as background/artifact
- Under the Part tag we have the document title (<H2>), the following paragraph (<P>), and three <Sect> tags in which are tags for other sections of the document
- <Part> and <Sect> tags are organizational – they help the creator/editor keep the tags in useful, orderly groups and do not effect the document’s accessibility.



# 5k. An Introduction to Tags

Some commonly used tag types include:

Heading (1 through 6):  <H2>



Paragraph:  <P>


Figure:  <Figure>

List:  <L>

List Item:  <LI>

Table:  <Table>

Table Row:  <TR>

Table Data Cell:  <TD>



# 51. An Introduction to Tags

Some common tag structure examples include:

## List



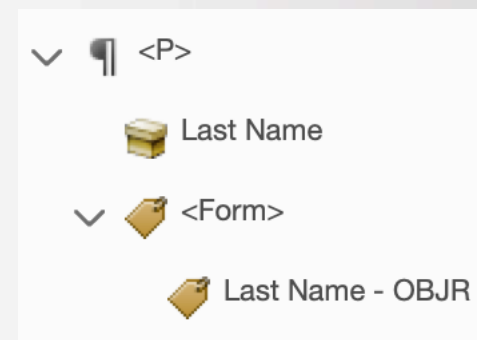
## Table



## Link



## Form





# 5m. An Introduction to Tags

For a thorough look at working with tags in PDFs, please visit the PDF Remediation for Accessibility webpage at <https://wichita.edu/pdfhelp>

You will find:

- Instructional videos that will guide you through the complete remediation of two PDFs
- Download links for unremediated versions of both documents so you can work along with the video or practice on your own
- Download links for remediated versions of both documents you can use to compare your work with or use as references for using various tags and techniques



# Checking Reading Order

Section 6



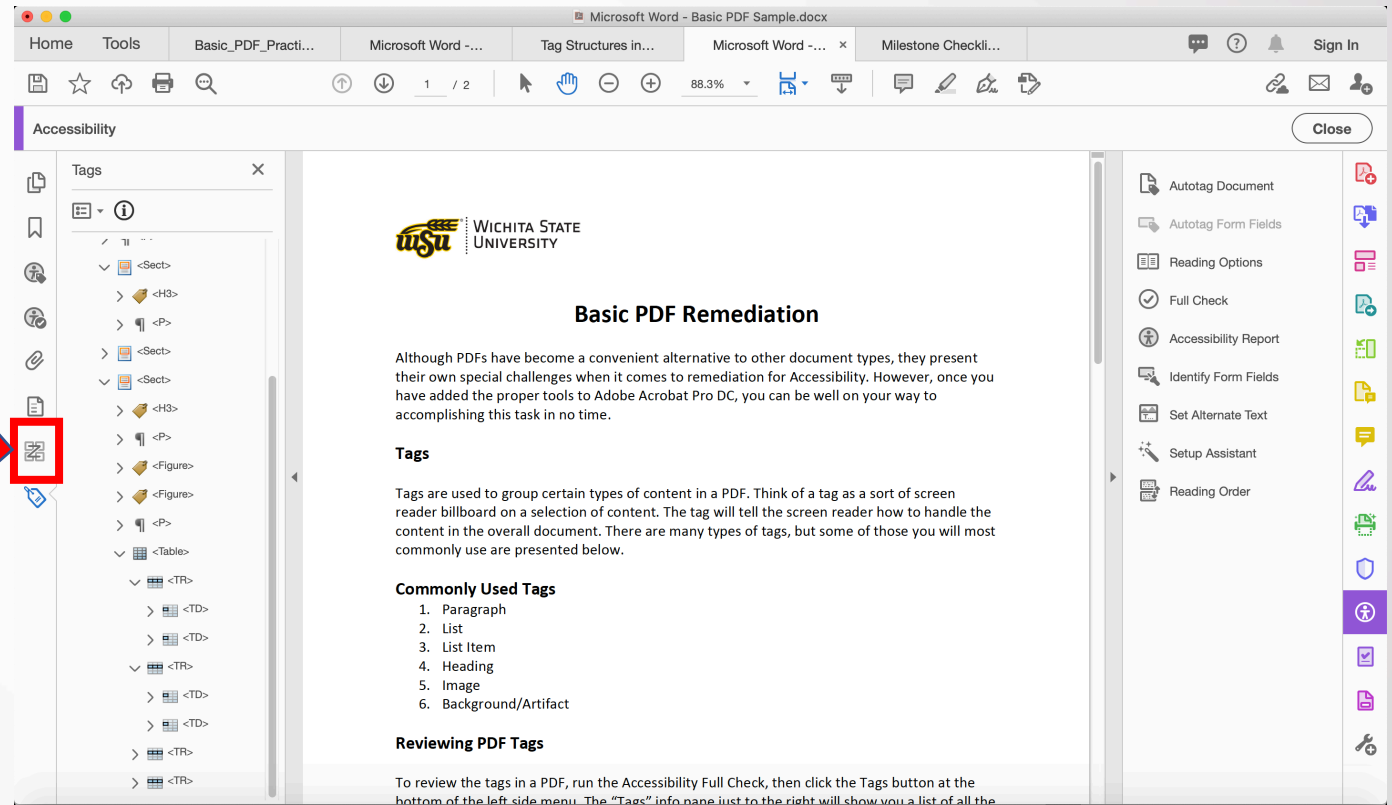
## 6a. Checking Reading Order

Once tag work has been completed it's time to check Reading Order

- Reading order is, quite literally, the order in which content will be presented to the screen reader user
- This is NOT adjusted by rearrangement of tags – Reading Order has to be set on its own
- While tag work will not change Reading Order, working in Reading Order CAN affect tags, particularly subset items in tables and lists
- PDFs with tables and lists may need a number of back-and-forth visits between Tags and Reading Lists to fully complete remediation

# 6b. Checking Reading Order

Select the "Order" tab in the left tool pane



The screenshot shows the Microsoft Word interface with the Accessibility pane open. The 'Reading Order' tab is selected in the left-hand tool pane. The main document content is visible, including the WSU logo and the title 'Basic PDF Remediation'. The document text discusses the challenges of PDF remediation and lists commonly used tags.

**Basic PDF Remediation**

Although PDFs have become a convenient alternative to other document types, they present their own special challenges when it comes to remediation for Accessibility. However, once you have added the proper tools to Adobe Acrobat Pro DC, you can be well on your way to accomplishing this task in no time.

**Tags**

Tags are used to group certain types of content in a PDF. Think of a tag as a sort of screen reader billboard on a selection of content. The tag will tell the screen reader how to handle the content in the overall document. There are many types of tags, but some of those you will most commonly use are presented below.

**Commonly Used Tags**

1. Paragraph
2. List
3. List Item
4. Heading
5. Image
6. Background/Artifact

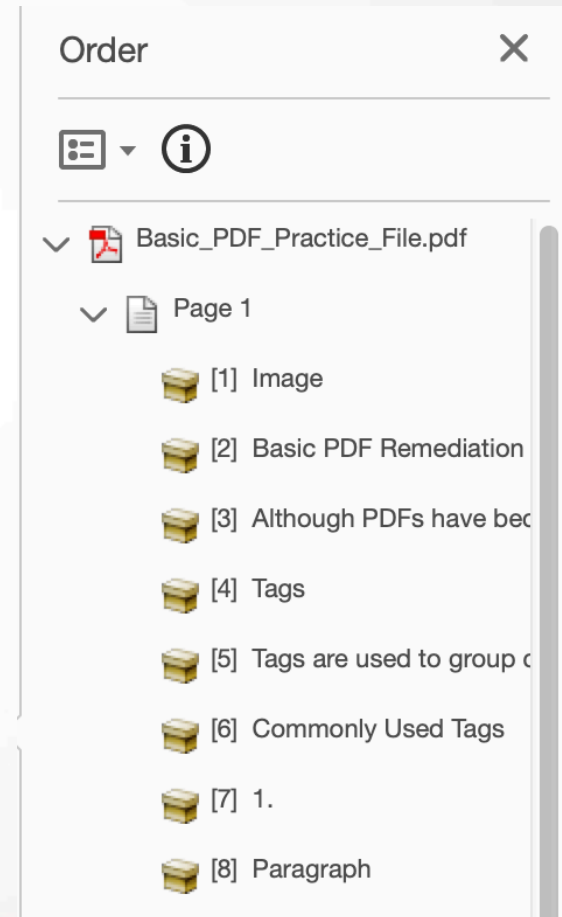
**Reviewing PDF Tags**

To review the tags in a PDF, run the Accessibility Full Check, then click the Tags button at the bottom of the left side menu. The "Tags" info pane just to the right will show you a list of all the

# 6c. Checking Reading Order

The left pane will show a numbered item-by-item list of the content in the PDF.

- When reading order is displayed, all tags in the document will be shown on the page
- Select an item in the list and use the arrow keys to proceed through the document's reading order
- The numbers in the reading order list correspond to the numbers in the top left of every tag
- To move an item in the reading order, left click and drag it to its intended location





Thank you for your time and  
attention!