

Basic PDF Remediation for Accessibility

Presentation by Jeremy Webster

JUNE

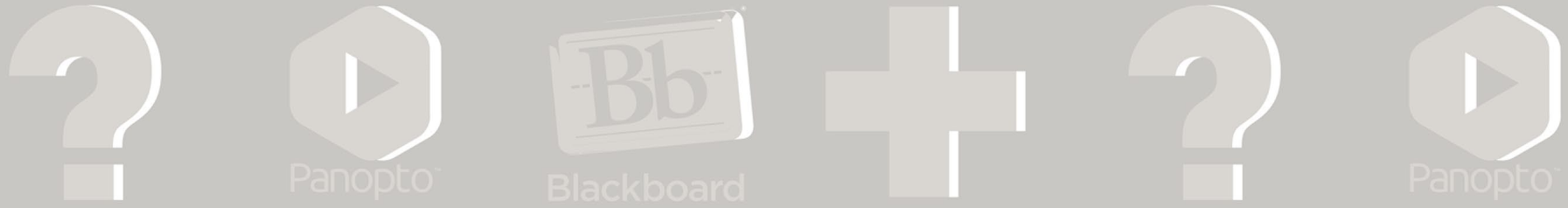


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Pre-Remediation Considerations

Section 1



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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
- OU Campus features a robust accessibility scanner, and the MRC Web Team is happy to assist with webpage-based accessibility issues

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

Obtaining Adobe Acrobat Pro DC

Section 2

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2. Obtaining Adobe Acrobat Pro DC

Adobe Acrobat Pro DC is required for PDF accessibility remediation

- Acrobat Pro DC is available to WSU Faculty and Staff
- If you do not currently have Acrobat Pro DC submit a request for Adobe Creative Cloud to helpdesk@wichita.edu
- The Adobe Creative Cloud service allows users to download and utilize a large variety of Adobe applications
- Helpdesk will provide instructions on accessing and downloading the applications

Setting Up Adobe Acrobat Pro DC

Section 3



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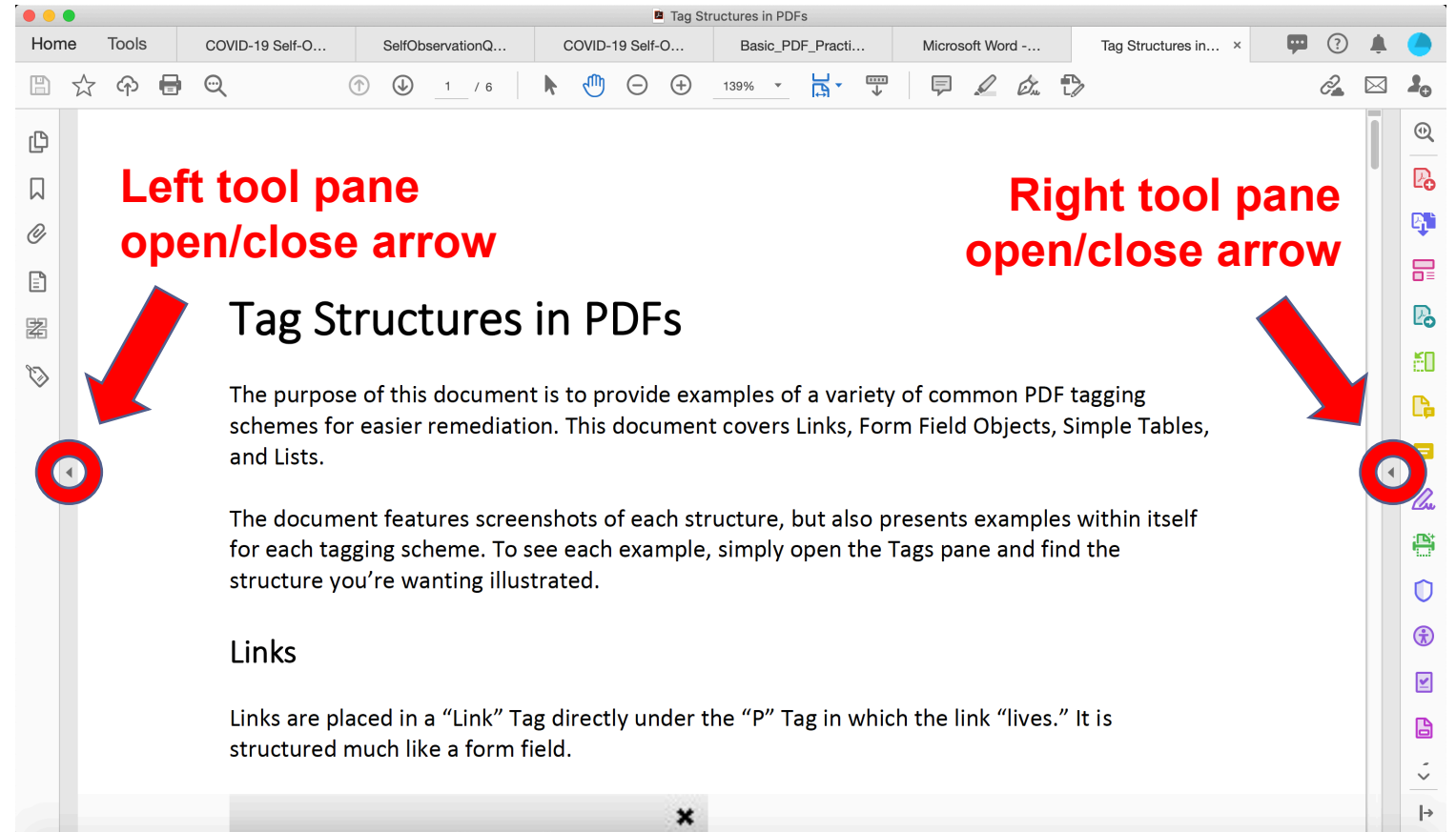
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3a. Setting Up Acrobat Pro DC

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

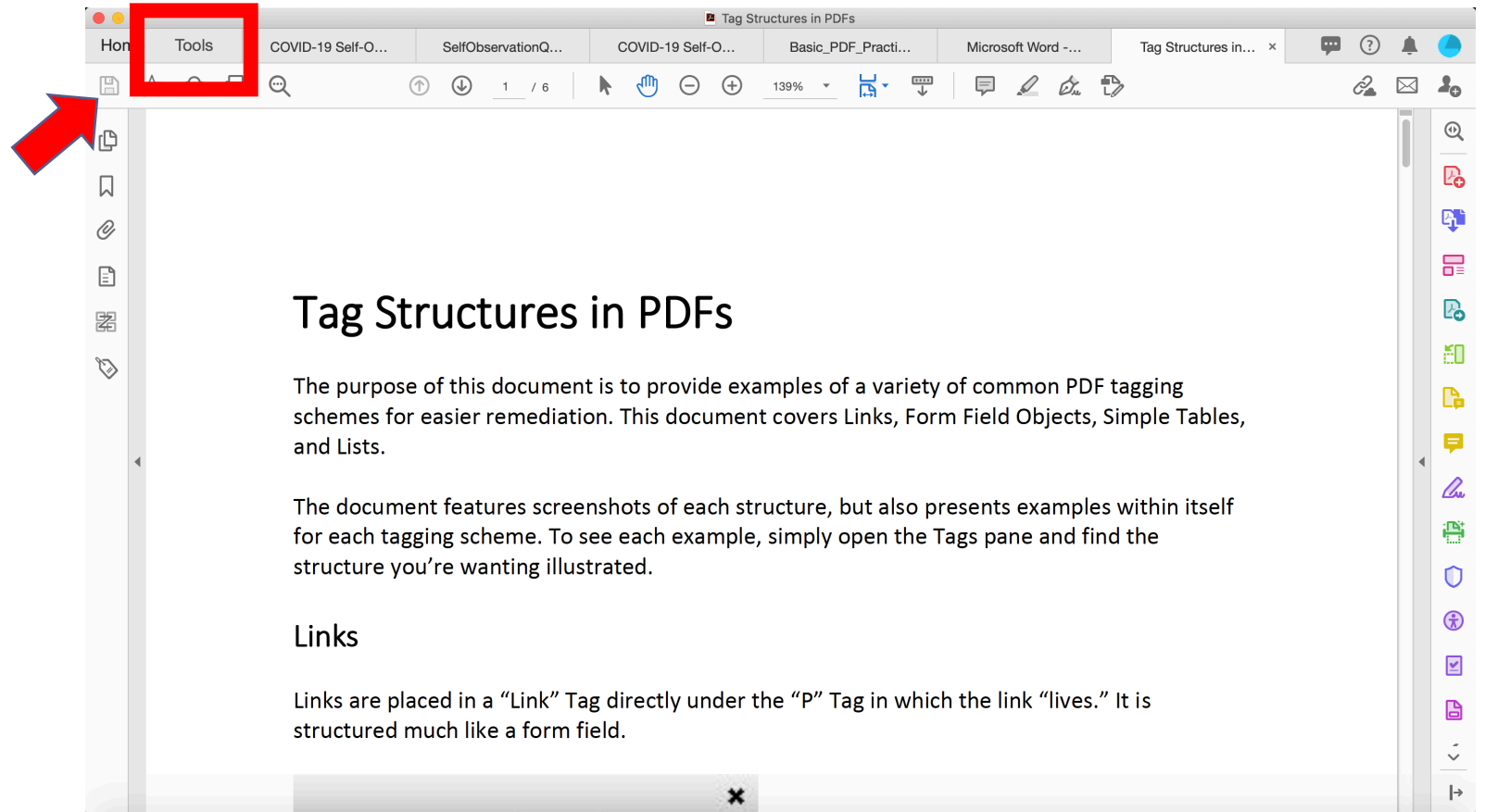
These panes can be opened and closed by clicking on the arrows in the center of each.





3b. Setting Up Acrobat Pro DC

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



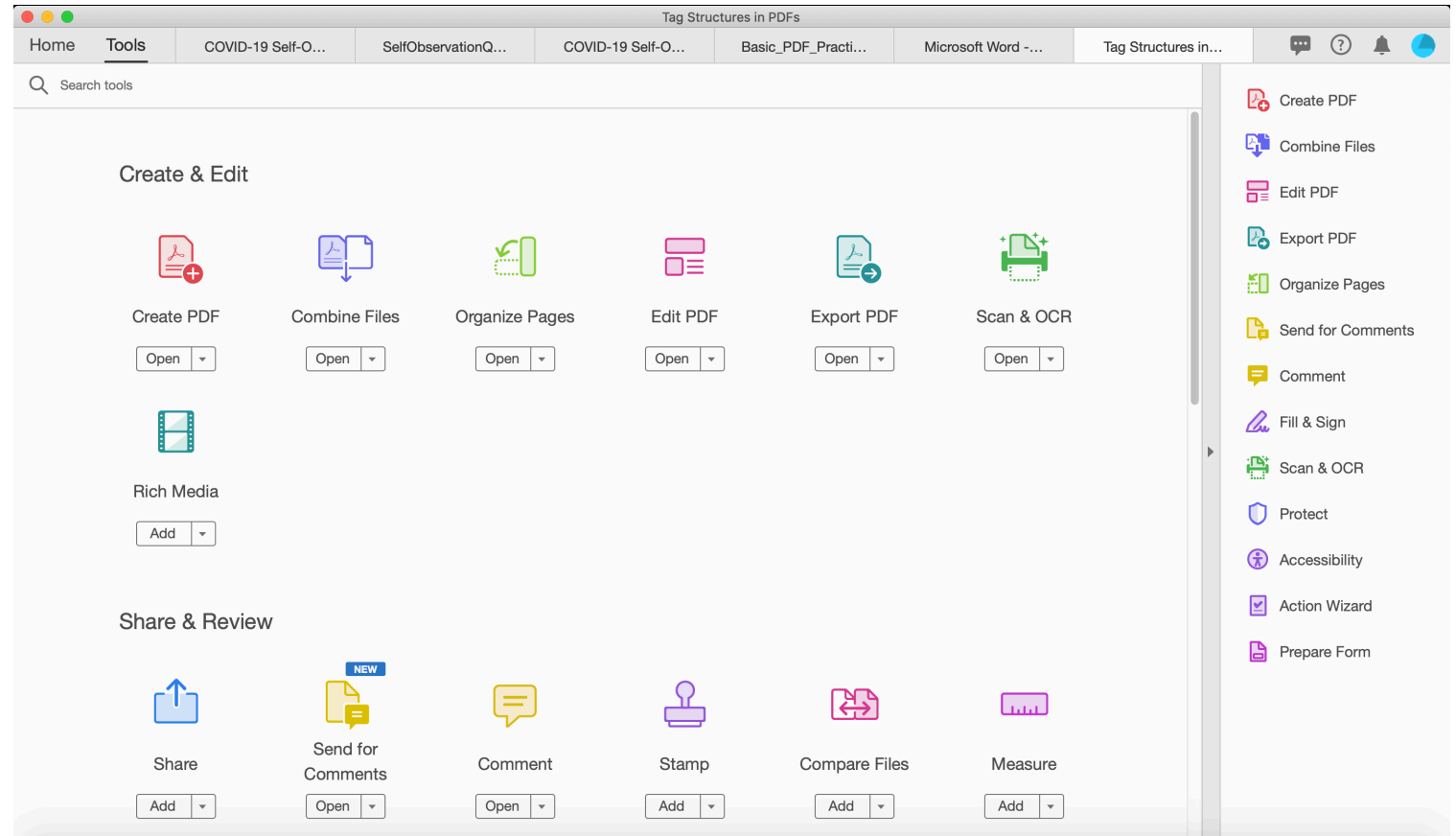


3c. Setting Up Acrobat Pro DC

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



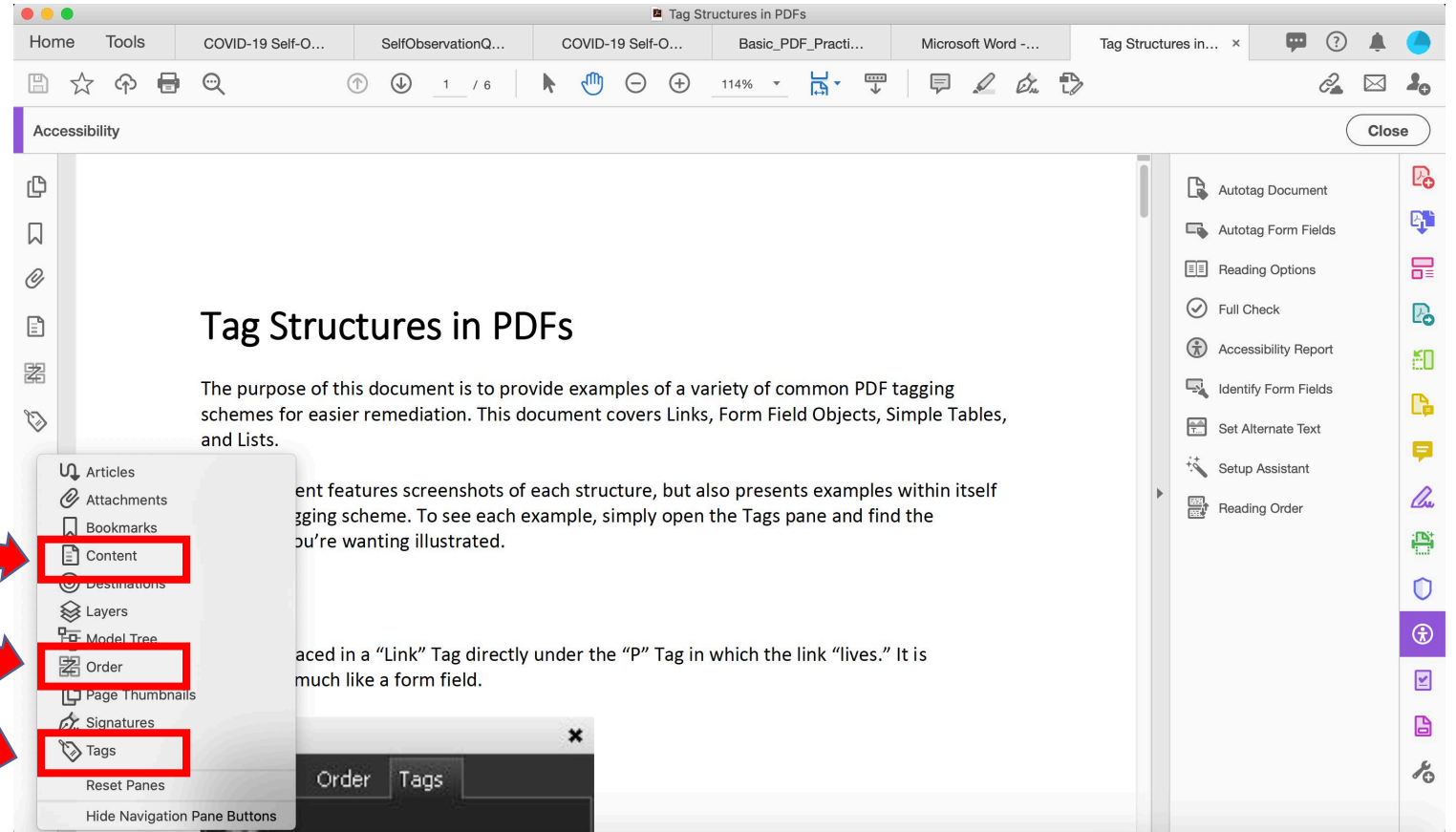


3d. Setting Up Acrobat Pro DC

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 4

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4a. OCR (Optical Character Recognition)

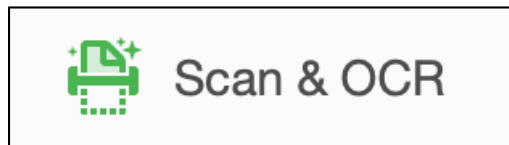
If a PDF is a scan of a physical copy rather than a digitally-created document, the OCR tool is necessary to recognize text

- Before OCR is used, all text in the document 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



4b. OCR (Optical Character Recognition)

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



The screenshot shows the Adobe Acrobat Pro DC interface. The main window displays a PDF document titled 'Basic PDF Remediation' from Wichita State University. The document content includes a logo, a title, and several paragraphs of text. The right-hand tool pane is open, and the 'Scan & OCR' tool is highlighted with a red box. A red arrow points from the 'Scan & OCR' button in the foreground to the highlighted tool in the right-hand pane.

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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 your goals.

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

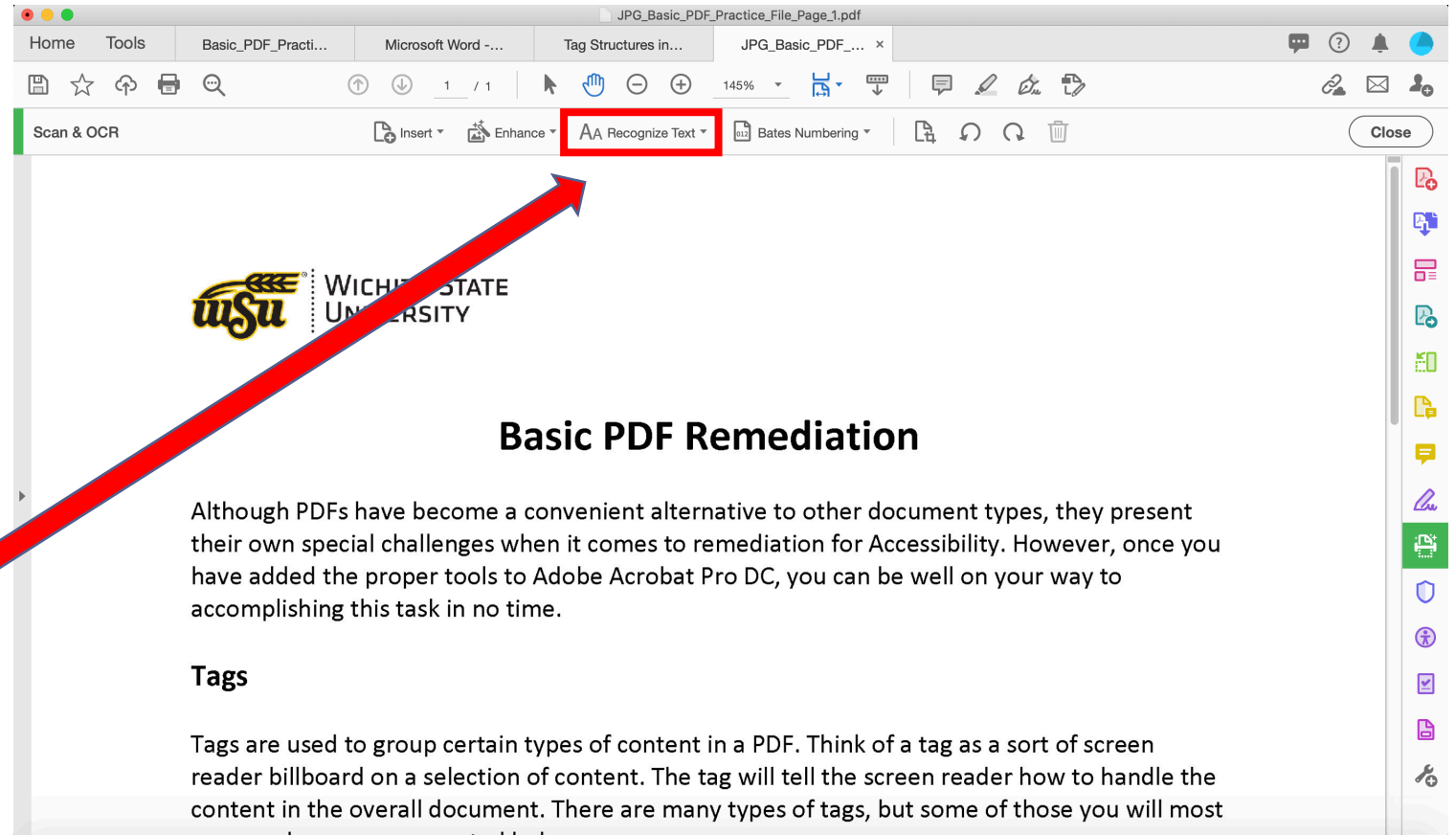
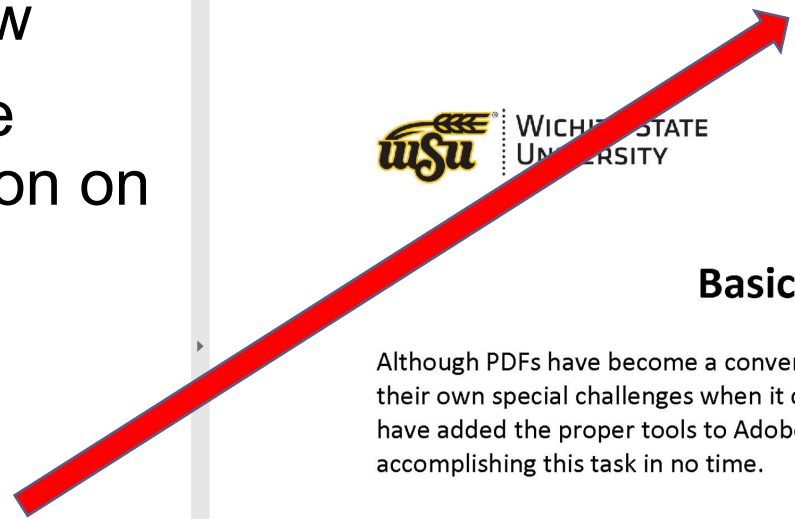
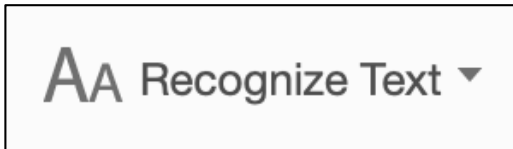
1. Paragraph
2. List
3. List Item



4c. OCR (Optical Character Recognition)

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

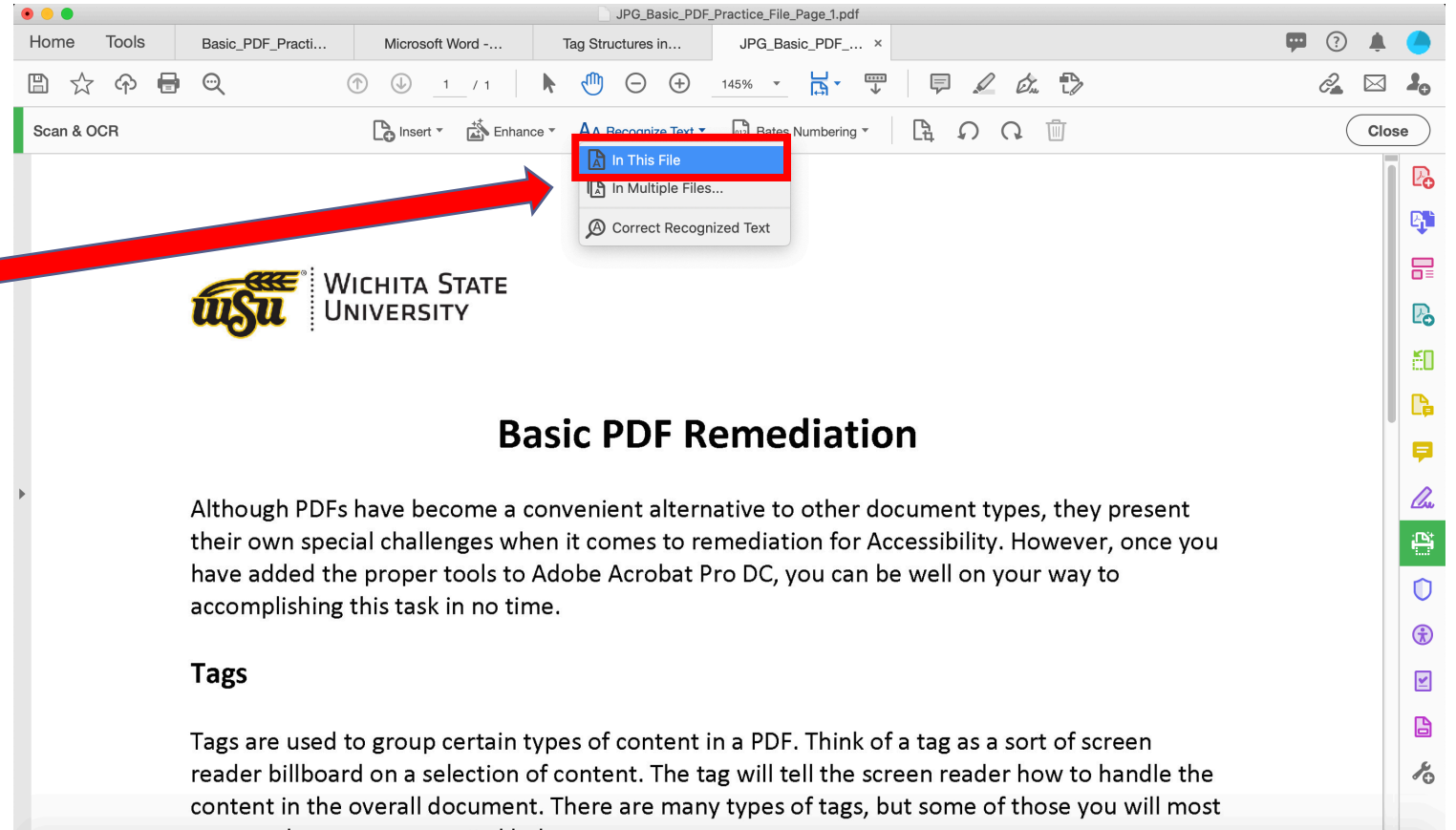
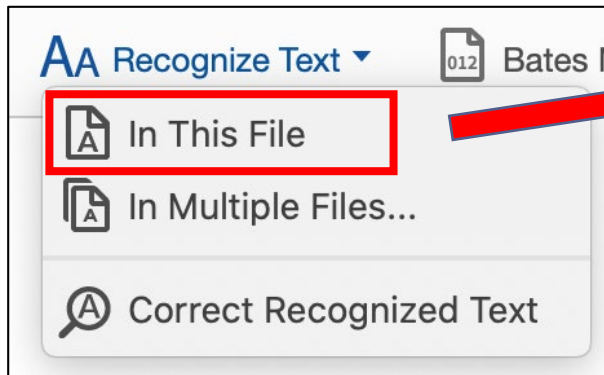
Click the "Recognize Text" dropdown button on the toolbar





4d. OCR (Optical Character Recognition)

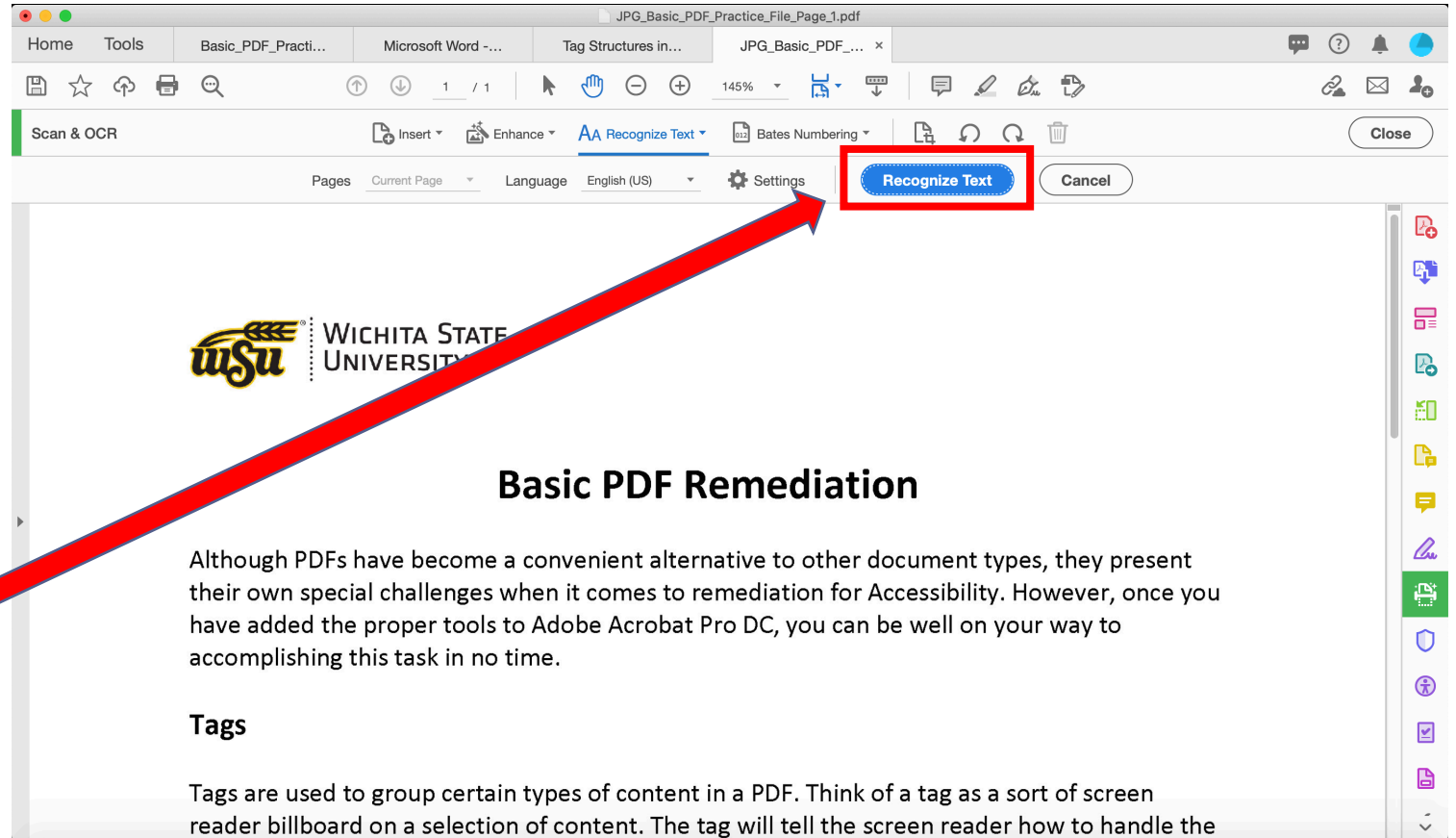
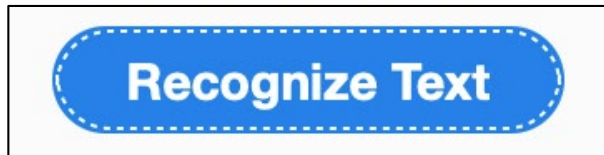
Select “In This File” from the dropdown





4e. OCR (Optical Character Recognition)

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

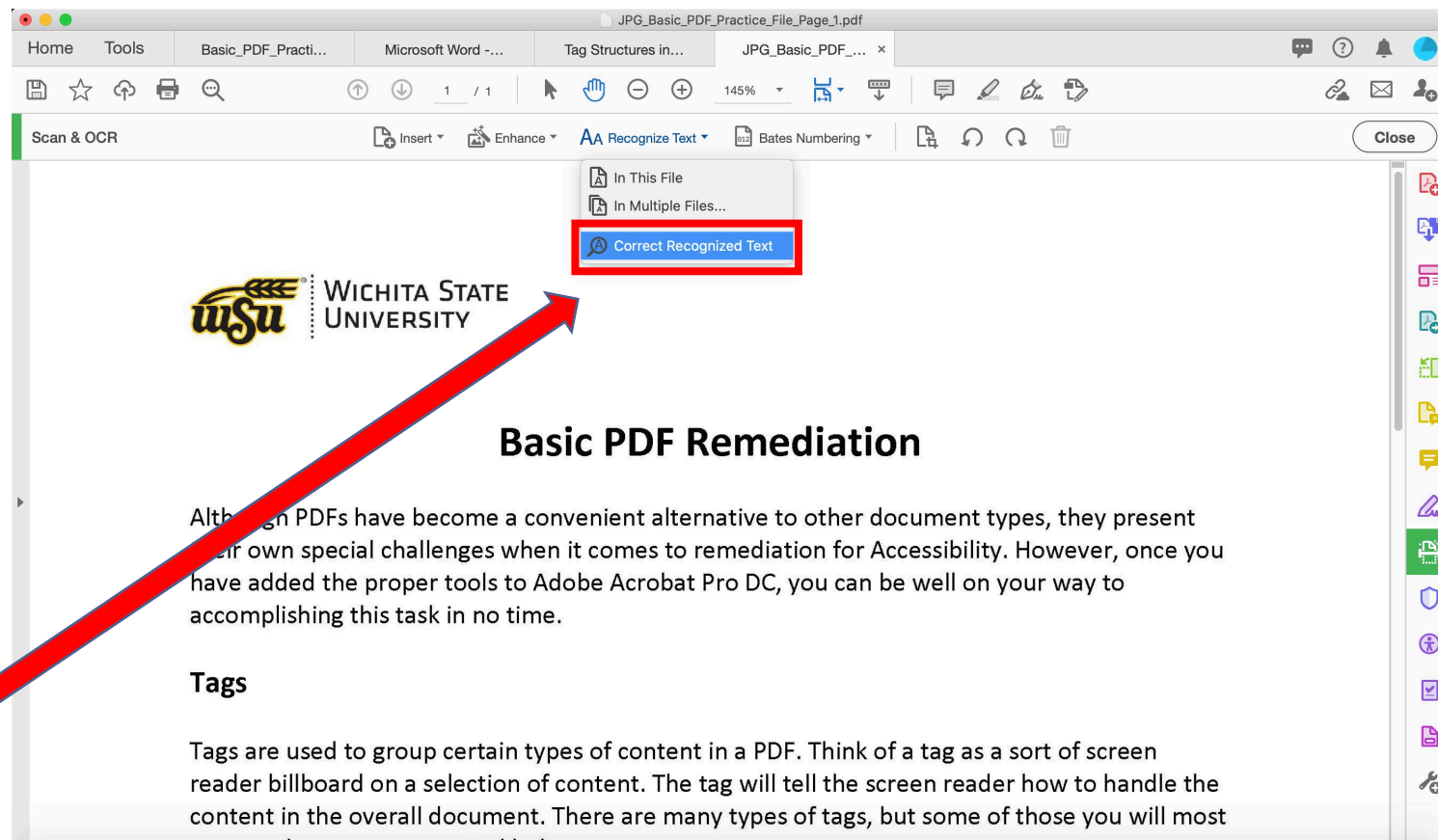
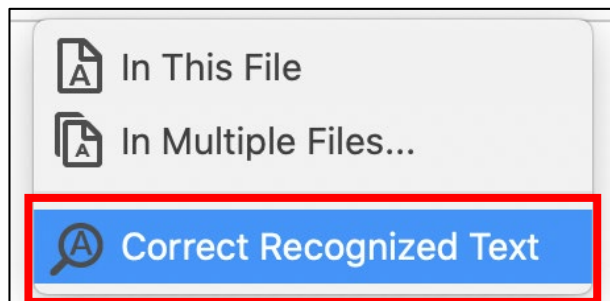




4f. OCR (Optical Character Recognition)

The secondary toolbar will disappear when OCR completes

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





4g. 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

Image recognized as

- 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 5



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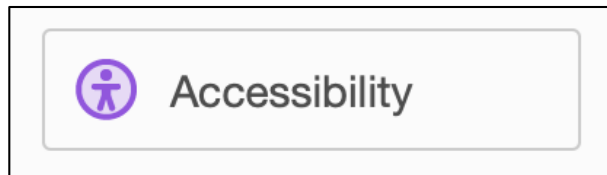
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5a. Checking PDF Accessibility

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



The screenshot shows the Adobe Acrobat Pro DC interface. The main document is titled 'Basic PDF Remediation' and features the Wichita State University logo. The document content includes a title, an introductory paragraph, a 'Tags' section, and a 'Commonly Used Tags' list. On the right side, the 'Tools' pane is open, and the 'Accessibility' tool is highlighted with a red box. A red arrow points from the 'Accessibility' button in the foreground image to this red box in the screenshot.

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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 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

Tools pane (right):

- Create PDF
- Combine Files
- Edit PDF
- Export PDF
- Organize Pages
- Send for Comment...
- Comment
- Fill & Sign
- Scan & OCR
- Protect
- Accessibility**
- Action Wizard

Your current plan is Creative Cloud

[Learn More](#)



5b. Checking PDF Accessibility

The Accessibility toolset will now be open

Select “Full check” in the Accessibility toolset



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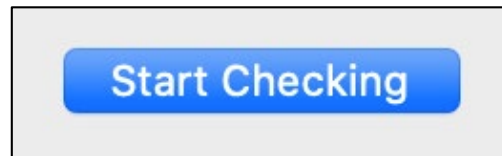


5c. Checking PDF Accessibility

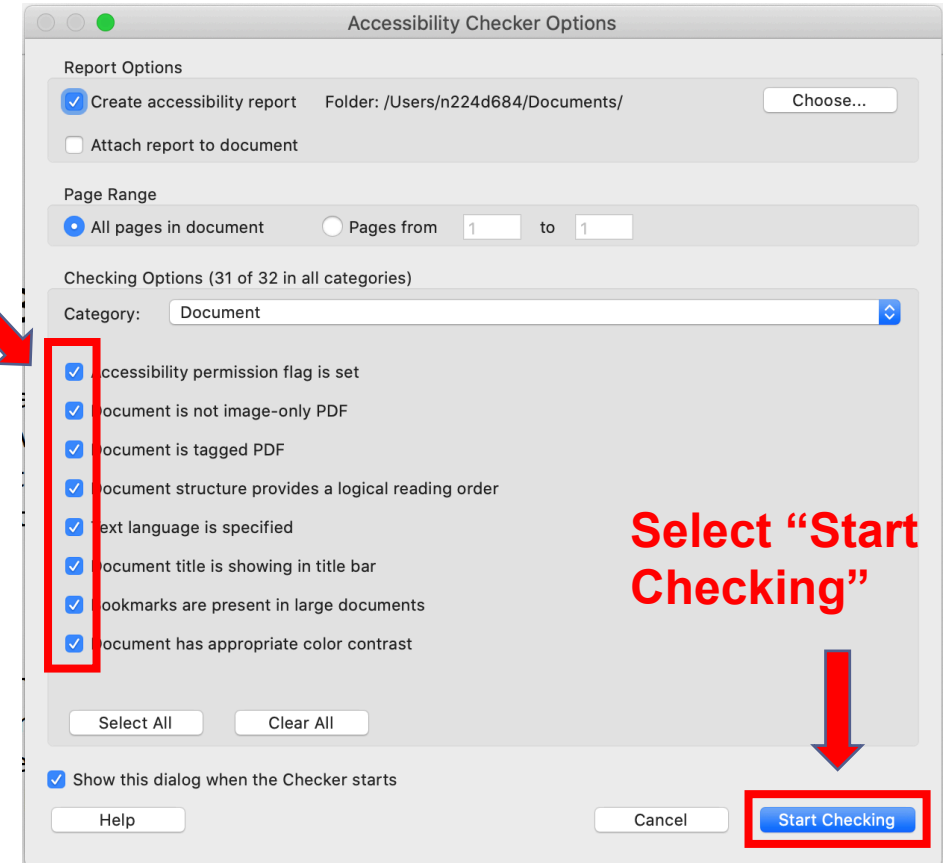
The “Accessibility Checker Options” dialogue box will open

Make sure all Checkable Options are selected

Select “Start Checking” in the bottom right corner



All items should be selected





5d. Checking PDF Accessibility

Results of the scan will show in the left pane

Accessibility

Accessibility Checker

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

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Basic PDF Remediation

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Tags are used to group certain types of content in a PDF. Think of a tag as a sort of screen reader binoculars on a selection of content. The tag will tell the screen reader how to handle the content in the full 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 tags in the document. If there aren't any tags, The info page will read, "No Tags Available."

Autotag Document

Autotag Form Fields

Reading Options

Full Check

Accessibility Report

Identify Form Fields

Set Alternate Text

Setup Assistant

Reading Order

Accessibility Check Results



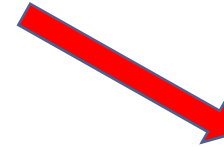
5e. Checking PDF Accessibility

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



Accessibility Checker [X]

[Menu Icon] ▾

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



5f. 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

Document (5 issues)

- Accessibility permission flag - Passed
- Image-only PDF - Passed
- Tagged PDF - Failed
- Logical Reading Order - Needs manual check
- Primary language - Failed
- Title - Failed
- Bookmarks - Passed
- Color contrast - Needs manual check



5g. 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

Tables (4 issues)

- ✘ Rows - Failed
- ✘ TH and TD - Failed
- ✘ Headers - Failed
- ✘ Regularity - Failed
- ⚠ Summary - Skipped



5h. 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

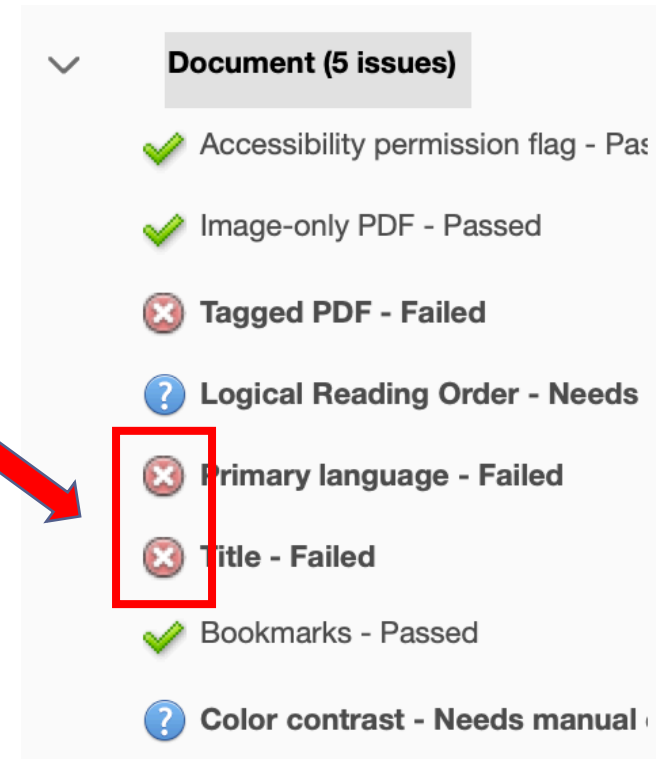
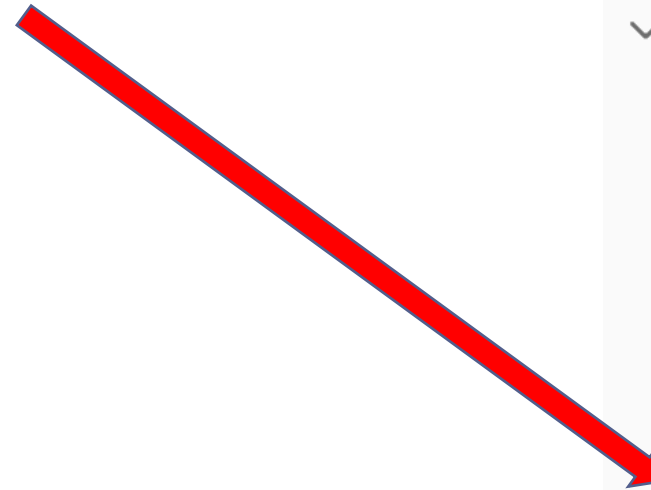
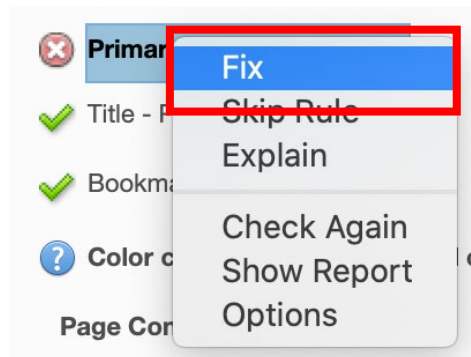




5i. Checking PDF Accessibility

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

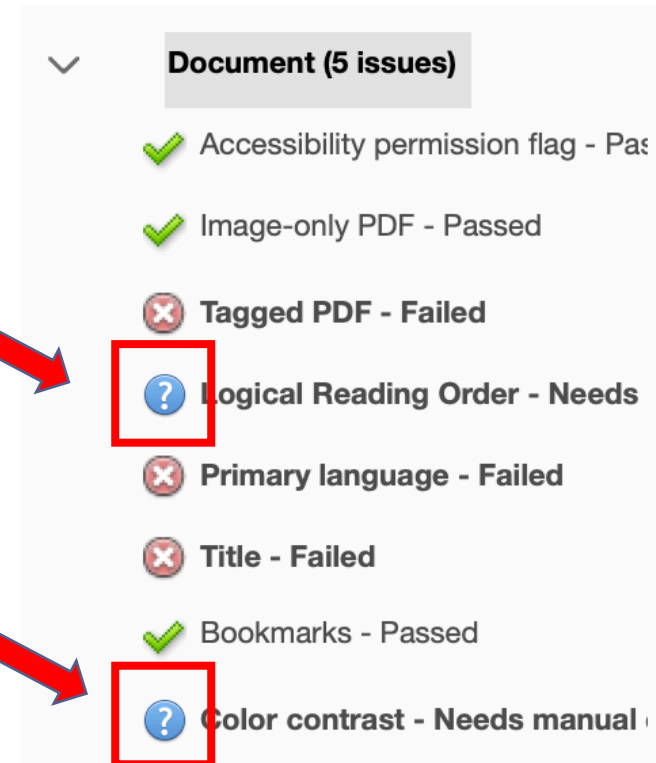
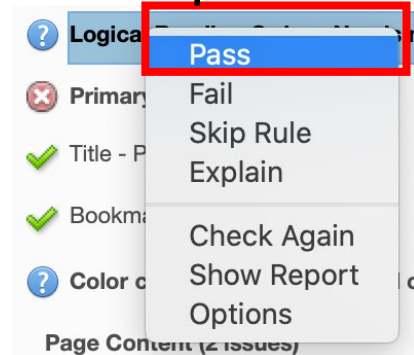




5j. Checking PDF Accessibility

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.





5k. Checking PDF Accessibility

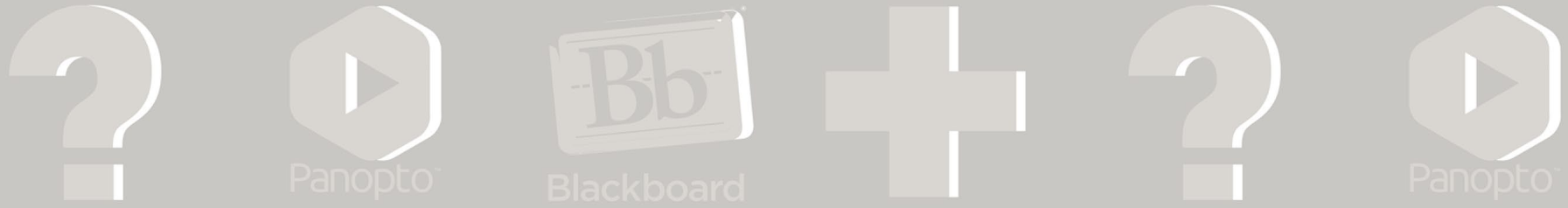
A PDF may pass the checker but still not be accessible

- 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 6



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6a. 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



6b. An Introduction to Tags

To access the tags view:

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



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Basic PDF Remediation

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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
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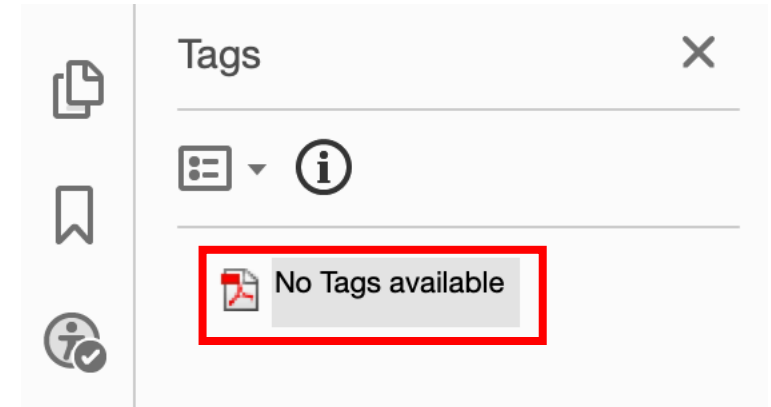


6c. An Introduction to Tags

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





6d. 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



6e. An Introduction to Tags

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

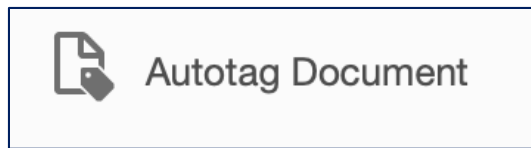


The screenshot shows the Adobe Acrobat Pro DC interface. The main window displays a PDF document titled "Basic PDF Remediation" from Wichita State University. The right-hand tool pane is open, and the "Accessibility" tab is selected and highlighted with a red box. A red arrow points from the callout box to this tab. The tool pane also shows other options like "Create PDF", "Combine Files", "Edit PDF", "Export PDF", "Organize Pages", "Send for Commenting", "Comment", "Fill & Sign", "Scan & OCR", "Protect", and "Action Wizard".



6f. An Introduction to Tags

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



Microsoft Word - Basic PDF Sample.docx

Home Tools Basic_PDF_Practi... Microsoft Word -... Tag Structures in... Microsoft Word -... x Milestone Checkli...

Accessibility

Tags

No Tags available

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Autotag Document

Autotag Form Fields

Reading Options

Full Check

Accessibility Report

Identify Form Fields

Set Alternate Text

Setup Assistant

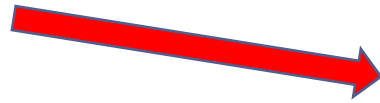
Reading Order



6g. 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



Microsoft Word - Basic PDF Sample.docx

Home Tools Basic_PDF_Practi... Microsoft Word -... Tag Structures in... Microsoft Word -... x Milestone Checkli...

Accessibility

Recognition Report

Add Tags Report for Basic_PDF_Practice_

Summary

- [Introduction](#)
- [1 reduced confidence pages](#)
- [3 figures missing AltText](#)
- [Hints for Repair](#)

Reduced Confidence Pages

Page 2: [Previous Page](#)

- [Regions to check. \(How To Fix Region Tagging\)](#)
 1. [Medium-High confidence](#)

Accessibility

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](#))

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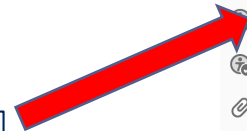
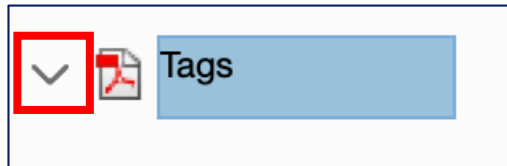
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To review the tags in a PDF, run the Accessibility Full Check, then click the Tags button at the bottom of the left side menu. The "Tags" info pane just to the right will show you a list of all the



6h. 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



The screenshot shows the Microsoft Word interface with the Accessibility pane open on the left. The 'Tags' button is highlighted with a red box. The main document content is visible in the center, and the Accessibility pane options are on the right.

Accessibility

Tags

Autotag Document

Autotag Form Fields

Reading Options

Full Check

Accessibility Report

Identify Form Fields

Set Alternate Text

Setup Assistant

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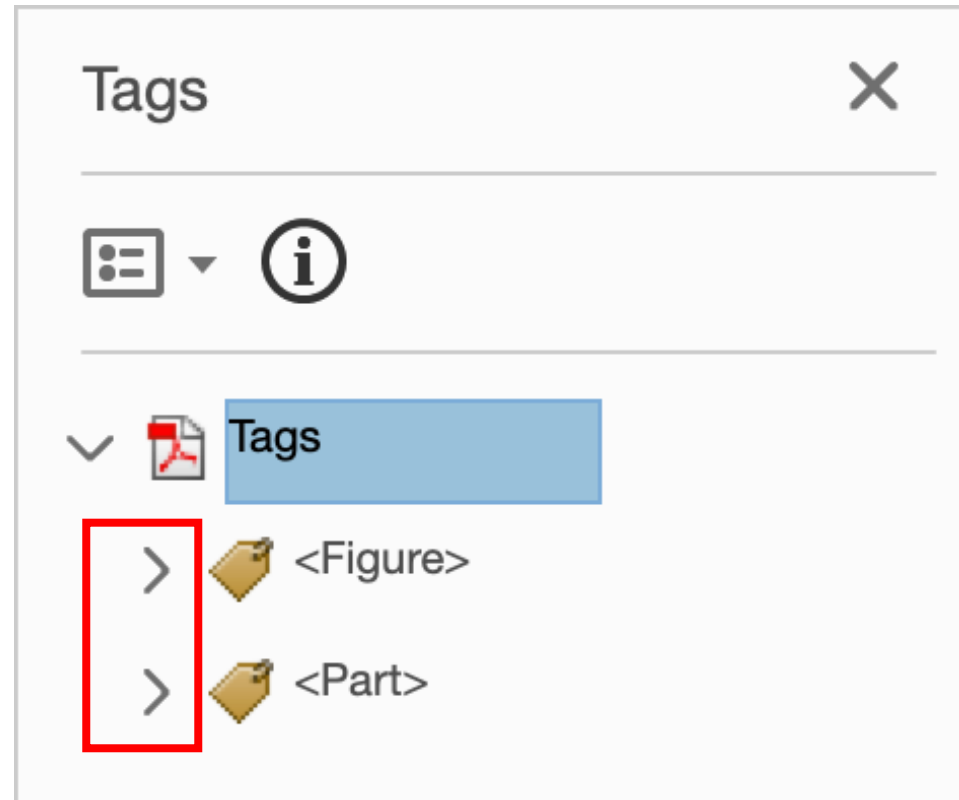
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6i. An Introduction to Tags

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.

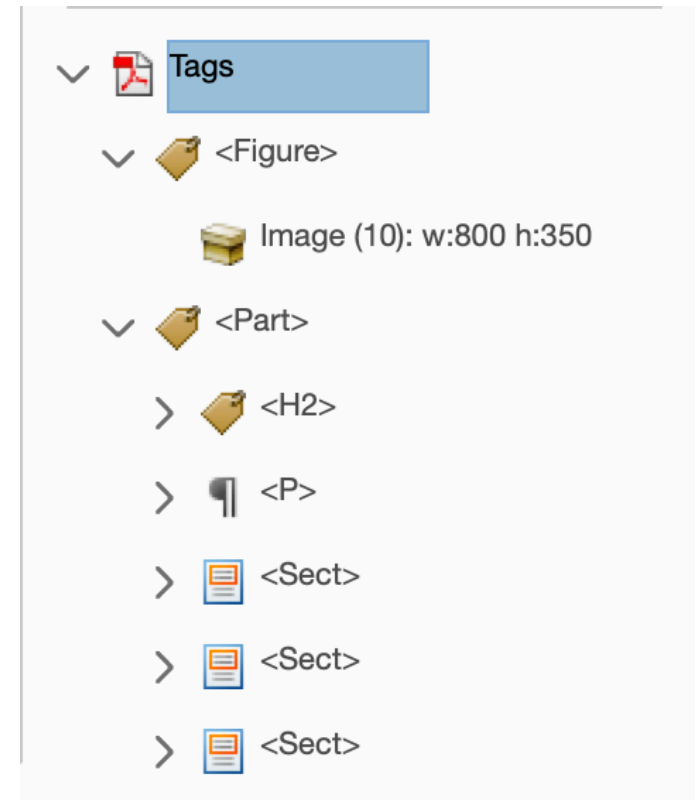




6j. An Introduction to Tags

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.





6k. An Introduction to Tags

Some commonly used tag types include:

Heading (1 through 6):  `<H2>`

Paragraph:  `<P>`

Figure:  `<Figure>`

List:  `<L>`

List Item:  ``


Table:  `<Table>`

Table Row:  `<TR>`

Table Data Cell:  `<TD>`



6I. An Introduction to Tags

Some common tag structure examples include:

List



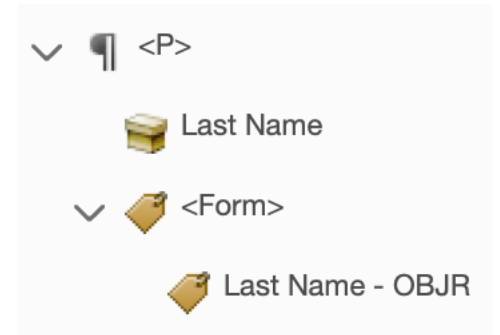
Table



Link



Form





6m. 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>

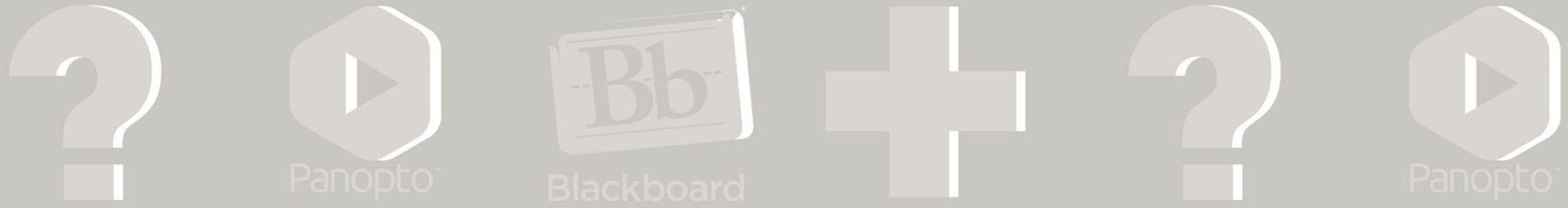
You will find:

- 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 7



JUNE



ARC 2020



7a. 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



7b. Checking Reading Order

Select the "Order" tab in the left tool pane



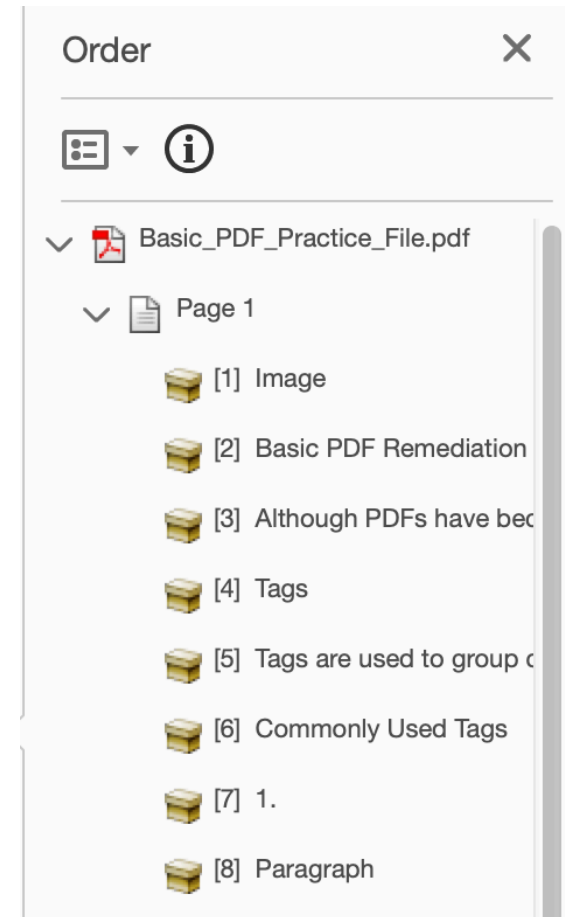
The screenshot shows the Microsoft Word interface with the Accessibility pane open. The 'Order' tab is selected in the left tool pane. The main content area displays a document titled 'Basic PDF Remediation' from Wichita State University. The document text includes an introduction to PDF remediation, a list of commonly used tags (Paragraph, List, List Item, Heading, Image, Background/Artifact), and a section on reviewing PDF tags. The right-hand side of the Accessibility pane shows various tools like 'Autotag Document', 'Full Check', and 'Reading Order'.



7c. 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!

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