# UNIVERSITY OF LOUISVILLE.

# PDF ACCESSIBILITY REPAIR MANUAL

# Created by Lianna Lamorena

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Publication date July 30, 2018 Copyright © 2018 Lianna Lamorena A compiled and thorough repair workflow for the Accessibility Checker in Adobe Acrobat Pro. This manual serves a step by step guide to fix each section within the Accessibility Checker list.

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If you are still experiencing issues with making your PDF document(s) ADA Compliant, please go to <u>louisville.edu/piba/digital-web-services</u> and fill out the form for PDF help and attach the file.

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This table of contents is structured to the order of Adobe Acrobat Accesibility Checker.

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# **Purpose**

Why make online documents accessible?

In accordance with Section 508 of the Rehabilitation Act and Section 255 of the Communication Act, the final rule of the U.S Access Board published on January 18, 2017 states that under the law, federal agencies, contractors, and employers must comply with online accessibility standards. As a federal and state funded entity, the University of Louisville must comply with these standards.

#### Rehabilitation Act of 1973

"The Rehabilitation Act of 1973 requires access to programs and activities that are funded by Federal agencies and to Federal employment. The law also established the Access Board (section 502). Later amendments strengthened requirements for access to electronic and information technology in the Federal sector (Section 508). With passage the Patient Protection and Affordable Care Act in 2010, a new provision (section 510) was added to address access to medical diagnostic equipment. The Board plays a lead role in developing and maintaining standards for electronic and information technology under section 508 and medical diagnostic equipment covered by section 510."

https://www.access-board.gov/the-board/laws/rehabilitation-act-of-1973

#### Section 508

Federal Electronic and Information Technology "On August 7, 1998, President Clinton signed into law the Rehabilitation Act Amendments of 1998 which covers access to federally funded programs and services. The law strengthens section 508 of the Rehabilitation Act and requires access to electronic and information technology provided by the Federal government. The law applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology. Federal agencies must ensure that this technology is accessible to employees and members of the public with disabilities to the extent it does not pose an *undue burden*. Section 508 speaks to various means for disseminating information, including computers, software, and electronic office equipment. It applies to, but is not solely focused on, Federal pages on the Internet or the World Wide Web. It does not apply to web pages of private industry.

The Board is responsible for developing accessibility standards for such technology for incorporation into regulations that govern Federal procurement practices. The net result will be that Federal agencies will have to purchase electronic and information technology that is accessible except where it would cause an *undue burden*. The law also provides a complaint process under which complaints concerning access to technology will be investigated by the responsible Federal agency."

https://www.access-board.gov/the-board/laws/rehabilitation-act-of-1973#508

# Web Content Accessibility Guidelines (WCAG)

WCAG are standards that are overall acknowledged as technical requirements created by the World Wide Web Consortium (W3C) that explains who to make web content more accessibility to those with disabilities. WCAG Version 2.0 was publiched in December 2008 and is the most complete and up-to-date guidelines for web accessibility. However, a recommendation to WCAG Version 2.1 has been published in June 2018. The WCAG Version 2.1 functions as an extension to Version 2.0 and it not final in content.

#### **WCAG 2.0**

As a resource, this guide follows the Web Content Accessibility Guidelines (WCAG) Version 2.0 and Web Accessibility Initiative (WAI) documentation for best practices. Authors routinely deliver PDF documents as web content, so it is important to understand what constitutes an accessible PDF file. The most reliable way to generate an accessible PDF is to create a Tagged PDF file. To promote continuity across WAI documents and to assist in understanding accessibility principles, they have chosen to place each PDF checkpoint under the most appropriate one of the four WCAG 2.0 Guidelines.

#### WCAG 2.0 Guidelines

WCAG Guideline 1: PRESENTATION WCAG Guideline 2: INTERACTION WCAG Guideline 3: COMPREHENSION

WCAG Guideline 4: TECHNOLOGY CONSIDERATIONS

# **PDF Checkpoints**

WCAG Guideline 1: PRESENTATION

PDF Checkpoint 1:

Ensure That The Text of the Document is Accessible

Checkpoint 1.1: Render Characters and Words in Reading Order within the Page

Checkpoint 1.2: Separate words explicitly with spacing characters

Checkpoint 1.3: Use soft hyphens and hard hyphens appropriately

Checkpoint 1.4: Use the ActualText attribute

Checkpoint 1.5: Ensure that all characters codes map reliably to Unicode

PDF Checkpoint 2:

Provide Text Alternatives for Images and Graphics

PDF Checkpoint 3:

Provide Structural Grouping

Checkpoint 3.1: Provide logical structure

Checkpoint 3.2: Tag artifacts in the page contents with /Artifact

PDF Checkpoint 4:

Design for User Control of Color and Contrast

Checkpoint 4.1: Avoid drawing rectangles behind text that are not background elements

Checkpoint 4.2: Text should not be placed on top of images

Checkpoint 4.3: Avoid the use of Color as the Only Means to Convey Information

PDF Checkpoint 5:

Identify the Natural Language of all Text in the Document Checkpoint 5.1: Identify the documents primary language

Checkpoint 5.2: Identify when a language change occurs on the page

WCAG Guideline 2: INTERACTION

PDF Checkpoint 6:

**Document Navigation** 

Checkpoint 6.1: Use bookmarks to provide navigation aids into a document.

Checkpoint 6.2: Use links within a document

Checkpoint 6.3: If the value of the link does not describe the target clearly and

accurately, provide Alt attributes

Checkpoint 6.4: Provide a clear descriptive name for all form fields

WCAG Guideline 3: COMPREHENSION

PDF Checkpoint 7:

Provide Expansions for Acronyms and Abbreviations

WCAG Guideline 4: TECHNOLOGY CONSIDERATIONS

PDF Checkpoint 8:

Set Document Protections to Permit Access

#### Adobe Acrobat Pro DC

Adobe Acrobat Pro is a paid software by Adobe that primarlily works with PDFs (portable document format). In the program, you can edit PDFs, add text, replace pictures, create forms. and make accessible PDFs. If you do not have the paid version of the program, you will not be able to access the tools that can make ADA complaint doucments.

Acrobat Pro DC or as part of the Adobe Creative Cloud subscription are version that has the tools to create and validate PDFs to meet accessbility requirements for people with disabilities.

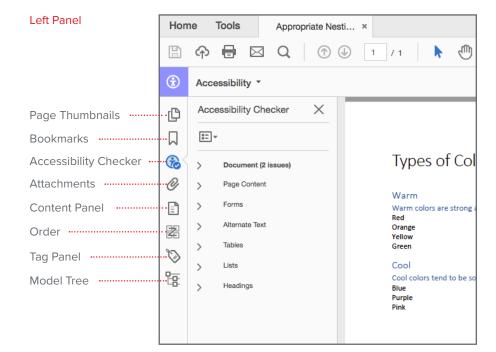
DO NOT BUY ACROBAT STANDARD DC. Although this is a paid version of Acrobat, this version does not have the tools for accessibility as well as the capability to turn scanned documents into editable and searchable PDFs.

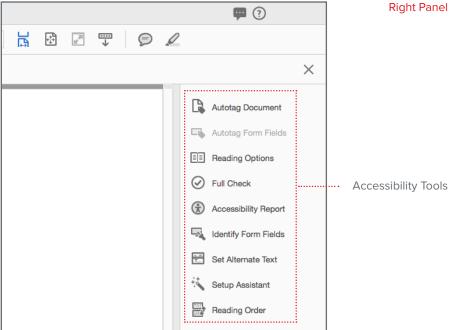
Adobe Reader DC is the free program that only allows people to view, print, and annotate PDFs. You cannot create a PDF, export, set security parameters, or make PDFs accessibility standard compliant.

#### **Accessibility Workspace**

Use the Accessibility Full Check command to perform a thorough check for many characteristics of accessible PDFs, such as the use of alternative text on images, the presence of tags, document language, and fonts that can be mapped reliably to Unicode text.

It is possible to choose which kinds of accessibility issues to look for in Full Check by using the Accessibility Checker Options. There are also options to view and save the results.





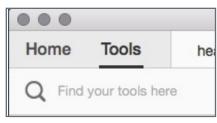
# **Accessibility Checker**

Use Full Check command under the Accessibility Tool, to perform a thorough check for many characteristics of accessible PDFs, such as the use of alternative text on images, the presence of tags, document language, and fonts that can be mapped reliably to Unicode text.

It is possible to choose which kinds of accessibility issues to look for in Full Check by using the Accessibility Checker Option. There are also options to view and save the results.

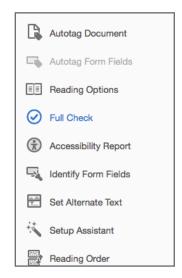
To run the Accessibility Full Check:

1. Under the Tools tab, select Accessibility.

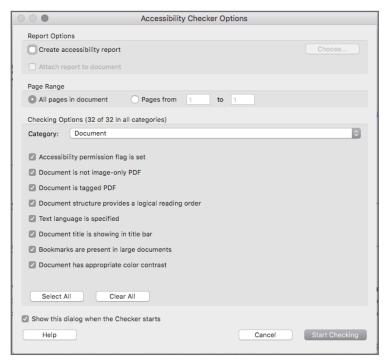




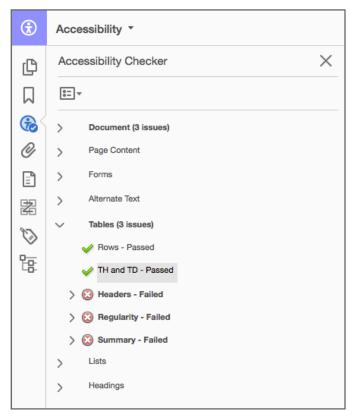
2. On the right side panel, select Full Check.



3. An Acessibility Checker Options dialog box will open. Make sure the Page Range is set to All pages in document and that all the checkboxes under Checking Options are selected, then click Start Checking.



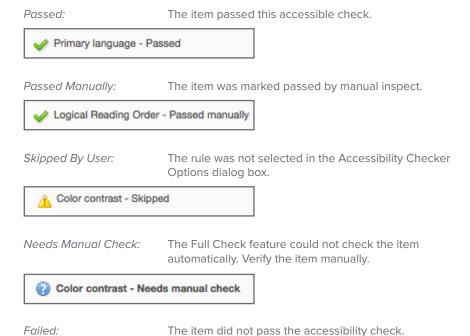
4. After the check is complete, the results are displayed via the Accessibility Checker panel.



#### **Accessibility Checker Panel**

Title - Failed

Once a report has been run, the issues that have been found are displayed in the Accessibility Checker panel. The results tree displays one of the following states for each rule check (See "Figure 6. Accessibility Rule Check State").



#### Standard PDF Tags

This section describes the standard tag types that apply to tagged PDFs. These standard tags provide assistive software and devices with semantic and structural elements to use to interpret document structure and present content in a useful manner.

The PDF tags architecture is extensible, so any PDF document can contain any tag set that an authoring application decides to use. In other words, the software that the original document was created in defines the standard tags applied within the file. For example, a PDF can have XML tags that came in from an XML schema. However, additional information is often necessary for accurate notation.

Custom tags that you define (such as tag names generated from paragraph styles of an authoring application) need a role map. The role map matches each custom tag to a standard tag here. When assistive software encounters a custom tag, the software can check this role map and properly interpret the tags.

Tagging PDFs by using one of the methods described here generally produces a correct role map for the document.

# **Container Elements**

Container elements are the highest level of element and provide hierarchical grouping for other block-level elements.

Document Document element. The root element of a document's tag tree.

Part Part element. A large division of a document; may group smaller units of content together, such as division

elements, article elements, or section elements.

Division element. A generic block-level element or group of block-level elements.

Art Article element. A self-contained body of text considered to be a single narrative.

Sect Section element. A general container element type, comparable to Division (DIV Class="Sect") in HTML, which

is usually a component of a part element or an article element.

# **Heading And Paragraph Elements**

Heading and paragraph elements are paragraph-like, block-level elements that include specific level heading and generic paragraph (P) tags. A heading (H) element should appear as the first child of any higher-level division. Six levels of headings (H1 to H6) are available for applications that don't hierarchically nest sections.

### Label and List Elements

Label and list elements are block-level elements used for structuring lists.

List element. Any sequence of items of similar meaning or other relevance; immediate child elements should

be list item elements.

LI List item element. Any one member of a list; may have a label element (optional) and a list body element

(required) as a child.

LBL Label element. A bullet, name, or number that identifies an element from others in the same list.

LBody List item body element. The descriptive content of a list item.

# **Special Text Elements**

Special text elements identify text that isn't used as a generic paragraph (P).

BlockQuote One or more paragraphs attributed to someone other than the author of the immediate surrounding text.

Caption Caption element. A brief portion of text that describes a table or a figure.

Index Index element. A sequence of entries that contain identifying text and reference elements that point out the

occurrence of the text in the main body of the document.

TOC Table of contents element. An element that contains a structured list of items and labels.

Total Table of contents item element. An item contained in a list associated with a table of contents element.

#### **Table Elements**

Table elements are special elements for structuring tables.

Table A two-dimensional arrangement of data or text cells that contains table row elements as child

elements and may have a caption element as its first or last child element.

TR One row of headings or data in a table; may contain table header cell elements and table data cell elements.

Table data cell element. A table cell that contains nonheader data.

TH A table cell that contains header text or data describing one or more rows or columns of a table.

#### Inline-Level Elements

Inline-level elements identify a span of text that has specific formatting or behavior. They are differentiated from block-level elements.

Bibliography entry element. A description of where some cited information may be found.

Quote Quote Quote entry element. An inline portion of text that is attributed to someone other than the author of the text

surrounding it.

Span entry element. Any inline segment of text; commonly used to delimit text that is associated with a set of

styling properties.

#### Special Inline-Level Elements

Similar to inline-level elements, special inline-level elements describe an inline portion of text that has special formatting or behavior.

Figure Figure entry element. A graphic or graphic representation associated with text.

Form Form entry element. A PDF form annotation that can be or has been filled out.

Formula entry element. A mathematical formula.

Link Link entry element. A hyperlink that is embedded within a document. The target can be in the same

document, in another PDF document, or on a website.

Note Note entry element. Explanatory text or documentation, such as a footnote or endnote, that is referred to in

the main body of text.

Reference Reference entry element. A citation to text or data that is found elsewhere in the document.

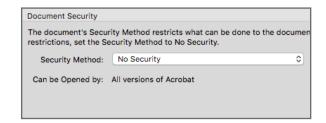
#### **Accessibility Permission Flag**

A document author can specify that no part of an accessible PDF is to be copied, printed, extracted, commented on, or edited. This setting could interfere with a screen reader's ability to read the document, because screen readers must be able to copy or extract the document's text to convert it to speech.

If the report shows that this section failed, it is required that you turn on the security settings that will allow accessibility.

To fix:

- 1. Go to File > Properties > Security
- 2. Under the Document Security section, select No Security from the drop-down.



#### Image-Only PDF

Reports whether the document contains non-text content that is not accessible. If the document appears to contain text, but doesn't contain fonts, it could be an imageonly PDF file.

Scanned documents most often appear as image-only PDFs. We do not recommend scanning documents as a method to generate PDFs. Although there is a possible fix, it is extremely inaccurate unless the text is minimal. Creating a PDF from the original file is highly recommended and the easier approach to fixing this issue. However, you may attempt to manually fix this rule through scanning the document for recognizable text. Some aesthetic alteration in the letters and words may result.

To fix:

- 1. Go to Tools > Enchanced Scans
- 2. On the taskbar above, click Recognize Text > In This File > Recognize Text (bold)



#### Tagged PDF

If this rule check fails, the document isn't tagged to specify the correct reading order.

Checking if the PDF is tagged should be the first thing you should immediately try to fix because it may automatically fix other tagging-related issue within the file.

To fix:

1. In **Accessibility Checker** panel, right click **Tagged PDF** and click **Fix** from the drop-down. Acrobat automatically adds tags to the PDF.



#### **Logical Reading Order**

Verify this rule check manually. Make sure that the reading order displayed in the Tags panel coincides with the logical reading order of the document. The full check feature is not capable of verifying the reading order automatically; therefore, a manual check over the document's reading order is required. In the event that changes are needed within the reading order, open the Order panel and drag contents within the list. If the Order panel icon does not show, right-click anywhere on the left sidebar. A drop-down list will open, select Order Panel.



# **Primary Language**

Setting the document language in a PDF enables some screen readers to switch to the appropriate language. This check determines whether the primary text language for the PDF is specified. If the check fails, set the language.

#### To fix:

1. In **Accessibility Checker** panel, right-click **Primary Language** and click **Fix** from the drop-down.



2. A pop-up box called, **Set Reading Language** will appear, select the appropriate language for the document and then click **OK**.



# Title

Reports whether there is a title in the Acrobat application title bar.

# To fix:

- 1. In **Accessibility Checker** panel, right-click **Title** and click **Fix** from the drop-down. In some instances, Acrobat will automatically fix the title.
- 2. If this doesn't occur, a **Description** dialog box will appear. Uncheck **Leave As Is**, below the **Title** field and type the correct title, and click  $\mathbf{OK}$ .

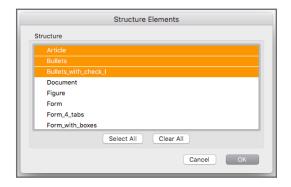


#### **Bookmarks**

A fail in bookmarks occurs when a document has 21 or more pages, but doesn't have bookmarks that parallel the document structure.

#### To fix:

- 1. In **Accessibility Checker** panel, right-click **Bookmarks** and click **Fix** from the drop-down.
- 2. In the **Structure Elements** dialog box, select the elements you want to use as bookmarks, and click **OK**.



#### **Color Contrast**

When a color contrast check fails, it's possible that the document contains content that isn't accessible to people who are color-blind.

This section is a manual fix and must adhere to the guidelines in WCAG section 1.4.3 or include a recommendation in the PDF viewer to use high-contrast color.

#### To fix:

- 1. In Edit, click Preference (Windows) or in Acrobat, click Preferences (Mac).
- 2. Accessibility > uncheck Replace Document Colors > select Use High-Contrast Colors. Choose a color combination from the drop-down, then click OK.

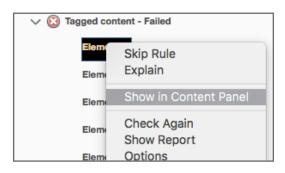




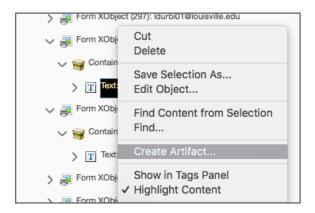
# **Tagged Content**

A tagged content check reports whether all content in the document is tagged. You must make sure that all content in the document is either included in the Tags tree, or marked as an artifact. To fix:

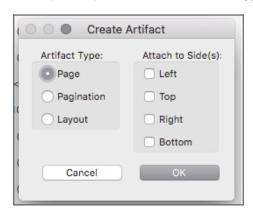
- 1. In **Accessibility Checker** panel, left-click **Tagged Content** to decollaspe the list of elements.
- 2. Right-click **Element 1**, click **Show in Content Panel** from the drop-down.



3. In the Content Panel, locate the highlighted content and right-click > **Create Artitifact** from drop-down.



4. In the **Create Artifact** dialog box, select the appropriate **Artifact Type**, then click **OK**. Repeat Step 1-4 until all elements are tagged.

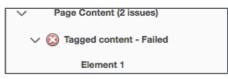


# **Tagged Annotations**

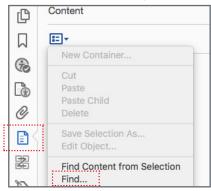
This rule checks whether all annotations are tagged. Make sure that annotations such as comments and editorial marks (such as insert and highlight) are either included in the Tags tree or marked as artifacts.

To fix:

1. In Accessibility Checker panel, left-click Tagged Annotations to decollaspe the list of failed elements. Right-click Element 1, click Show in Content Panel from the drop-down and then the Content Panel will automatically highlight the failed element.



2. Once you have indentified the highlighted untagged content, click the option icon, and select **Find** in the drop-down.

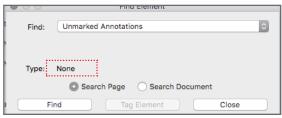


3. A **Find Elements** dialog box will open. Select **Unmarked Annotations** from the drop-down. Click the **Search Page** circle > **Find**.



NOTE: Your selection for within the Find drop-down menu should be determined by what you think is best used to appropriately tag the content.

4. The **Type** that will appear in the dialog box are the untagged annotation within the Page. Select **Tag Element**, for the untagged content item.



4. A **New Tag** dialog box will appear. Select the appropriate type drop-down > **OK**. In **Find Element** dialog box, click **Find Next**. Repeat steps 3-4 until all unmarked annotations have been tagged.





#### Tab Order

Because tabs are often used to navigate a PDF, it's necessary that the tab order parallels the document structure.

#### To fix:

1. In **Accessibility Checker** panel, right click **Tab Order** and click **Fix** from the dropdown. Acrobat will automatically fix the tab order.



# **Character Encoding**

Specifying the encoding helps PDF viewers' present users with readable text. Most character-encoding issues aren't repairable within Acrobat.

#### Tagged Multimedia

The tagged multimedia checks whether all multimedia objects are tagged. Make sure that content is either included in the Tags tree or marked as an artifact.

To ensure proper encoding, do the following:

- Verify that the necessary fonts are installed on your system.
- In the original document, change the font, and then re-create the PDF.
- Re-create the PDF file with a newer version of Acrobat Distiller.

#### To fix:

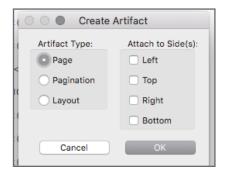
 In Accessibility Checker panel, left-click Tagged Multimedia to decollaspe the list of elements. Right-click Element 1, click Show in Content Panel from the drop-down.



2. In the Content Panel, locate the highlighted content and right-click > **Create Artitifact** from drop-down.



3. In the **Create Artifact** dialog box, select appropriate **Artifact Type**, click **OK**. Repeat Step 1-4 until all elements are tagged.



#### Screen Flicker

Elements that make the screen flicker, such as animations and scripts, can cause seizures in individuals who have photosensitive epilepsy. These elements can also be difficult to see when the screen is magnified.

If the Screen Flicker rule fails, manually remove or modify the script or content that causes screen flicker in the original program the PDF file was created in.

\*This section of the Accessibility Checker is only applicable to interactive PDFs.

#### **Scripts**

Content cannot be script-dependent unless both content and functionality are accessible to assistive technologies. Make sure that scripting doesn't interfere with keyboard navigation or prevent the use of any input device.

Check the scripts manually. Remove or modify any script or content that compromises accessibility in the original program the PDF file was created in.

\*This section of the Accessibility Checker is only applicable to interactive PDFs.

# **Timed Responses**

This rule check applies to documents that contain forms with JavaScript. If the rule check fails, make sure that the page does not require timed responses. Edit or remove scripts that impose timely user response so that users have enough time to read and use the content.

Manually edit or remove scripts that impose timely user response so that users have enough time to read and use the content. The scripts can be modified in the original program the PDF file was created in.

\*This section of the Accessibility Checker is only applicable to interactive PDFs.

#### **Navigation Links**

For URLs to be accessible to screen readers, they must be active links that are correctly tagged in the PDF.

If this failure occurs, check navigation links manually and verify that the content does not have more than two identical links. Also, provide a way for users to skip over URLs that appear multiple times.

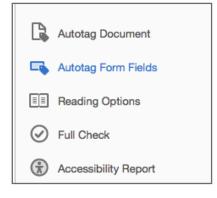
\*This section of the Accessibility Checker is only applicable to PDFs with hyperlinks.

#### Tagged Form Fields

In an accessible PDF, all form fields are tagged and are a part of the document structure. In addition, you can use the tool tip form field property to provide the user with information or to provide instructions.

#### To Fix:

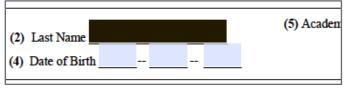
1. On the right panel, select **Autotag Form Fields.** Acrobat automatically adds tags to the form fields.



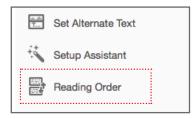
If the previous fix did not work, the element must be manually tagged.

1. Identify the untagged form field by clicking on the field list. Upon clicking, the content will highlight within the document.

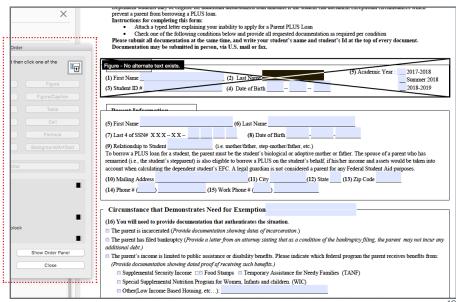




2. On the right panel, select **Reading Order**. A **Reading Order** dialog box will open, you will noticed that the buttons are unclickable. Drag box, to the side of your screen vvso that the document is viewable.







Date of Birth

check one of the following conditions octow and provide an requested documentation as Reading Order e your student's name and student r fax. Draw a rectangle around the content then click one of the **T** 1 buttons below: Text/Paragraph Figure Form Field Figure/Caption Birth Heading 1 Heading 4 Table Cell Heading 2 Heading 5 Name Heading 3 Heading 6 Formula

3. Drag and draw a rectangle over the form field that was highlighted. Buttons within the **Reading Order** dialog box will become avaliable and click, **Form Field**.

4. Close the dialog box and return to the failed **Tagged Form Field** list in **Accessibility Checker.** Right click **Tagged Form Field** > **Check Again** from the dropdown.

Background/Artifact



Note

Reference

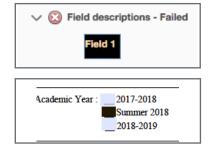
5. Repeat Steps 1 - 4 until the failed **Tagged Form Field** list passes and a green check mark shows.

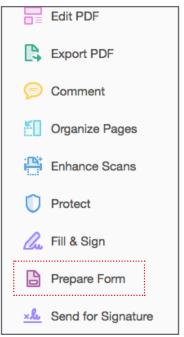
# **Field Descriptions**

For accessibility, all form fields need a text description. This section is called the Tool Tip Field.

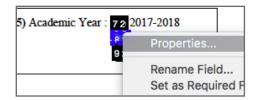
# To Fix:

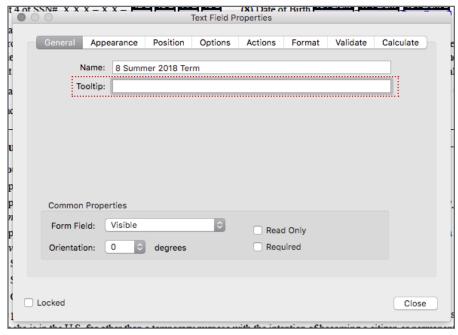
1. Identify the Field by clicking on the failed field in the **Accessibility Checker** and will become highlighted in document. Select **Prepare Form** from the tool panel.





2. Right-click the form field, click **Properties** from the drop-down. A **Text Field Properties** dialog box will open. Select **General**, locate **Tool Tip** field, type a description of the form field, and close when finished.





# Figures Alternate Text

You must make sure that images in the document has an alternate text for screen readers to describe images to the listener.

#### To fix:

1. In **Accessibility Checker** panel, right-click **Figures Alternate Text** and click **Fix** from the drop-down.



2. A **Set Alternate Text** dialog box will open. Type a description of the highlighted image into the **Alternate Text** field. Repeat steps until all images have an alternate text, then click **Save & Close**.



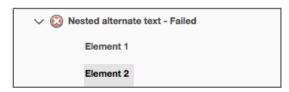
NOTE: If the image is solely used for aesthetic purposes, check the **Decorative Figure** box.

#### **Nested Alternate Text**

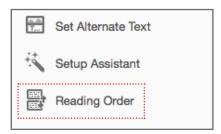
This issue comes from having an alternate text within an image that already contains an alternate text. Screen readers aren't able to read the alternate text for nested elements. Therefore, don't apply alternate text to nested elements.

To fix:

1. In **Accessibility Checker** panel, click under **Nested Alternate Text** and identify the highlight failed content.



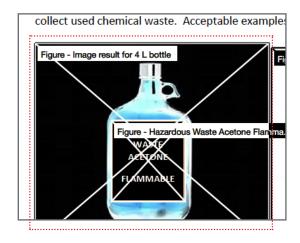
2. After identifying the element, click **Reading Order** in the panel to the right.

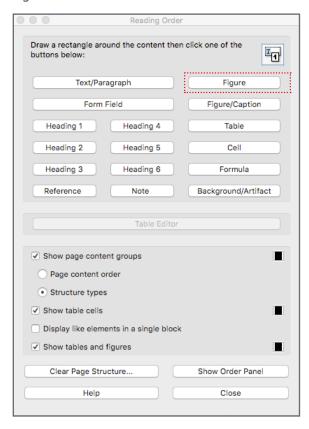


3. A **Reading Order** dialog box will open, you will noticed that the buttons are unclickable. Drag box, to the side of your screen so that the document is viewable.



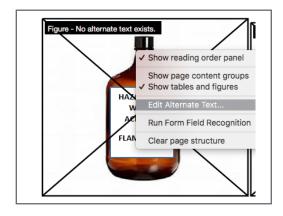
4. Drag and draw a rectangle over the highlighted figure with the nested alternate text. Make sure to include the entire element within the drawn rectangle.





5. The buttons within the **Reading Order** dialog box will become avaliable. Click **Figure.** 

6. The elements will become a single figure and an alternate text needs to be added. Right-click within the figure box and click, **Edit Alternate Text** from the drop down and an **Alternate Text** dialog box will appear. Manually type out an accurate description of the figure then click **OK**.



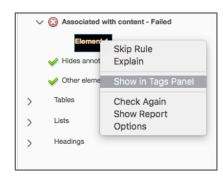


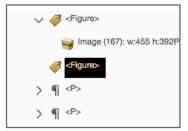
#### **Associated with Content**

You must make sure that alternate text is always an alternate representation for content on the page. If an element has alternate text but does not contain any page content, there is no way to determine which page it is on.

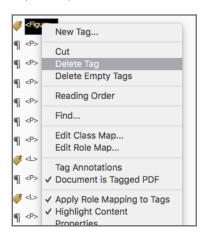
#### To Fix:

1. In Accessibility Checker panel, left-click Associated with Content to decollaspe the list of failed elements. Right-click **Element 1**, click **Show in Tags Panel** from the drop-down and then the Tags Panel will automatically highlight the failed element.





2. Right-click the highlighted element and click **Delete Tag** from the drop-down. Repeat steps 1-2 until all failed element tags have been removed.



# **Hidden Annotation**

Alternate text can't hide an annotation. If an annotation is nested under a parent element with alternate text, then screen readers cannot see it. Hidden annotations within an element are alternate texts that are hidden under another alternate text. Fix the failure by removing the alternate text from parent (top) element. If the alternate text in the parent element is needed, drag the object with of the sibling (sub) tag so that it becomes it's own parent (top) tag.

#### To Fix:

1. In **Accessibility Checker** panel, left-click **Hides Annotation** to decollaspe the list of failed hidden annotation element. Right-click **Element 1**, click **Show in Tags Panel** from the drop-down and then the Tags Panel will automatically highlight the failed element.





NOTE: If element has no tag, click **Show in Content Panel**, right-click highlighted content, then click **Show in Tag Panel**.

NOTE: If element still shows no tag within selection, refer to the section on **Tagged Annotation**, to create a tag for the failed annotation element.



2. The tag structure may vary in complexity. Identify the tag with the alternate text that is hiding an annotation tag within the parent tag.



3. In the Tags Panel, right-click and drag the hidden annotation tag from within the parent tag, to below the parent tag so that it now becomes its own parent tag.



4. Close the dialog box and return to the failed **Hides Annotation** list in **Accessibility Checker**. Right click **Hides Annotation** > **Check Again** from the drop-down.

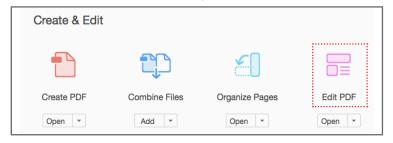
#### Other Elements Alternate Text

This report checks for content, other than figures, that requires alternate text (such as multimedia, annotation, or 3D model). You must make sure that alternate text is always an alternate representation for content on the page. If an element has alternate text but does not contain any page content, there is no way to determine which page it is on.

Since this section searches for content other than figures, there are various ways to fix the failed elements. In most cases, the failed element is an invisible figure box over a group of text such as an empty text box or a square outline with no stroke or fill color. These invisible boxes typically comes from the original program when the author fails to delete the excess box.

To Fix:

1. Click **Edit PDF** under the **Tools** tab, click the invisible box and delete.

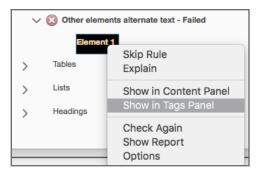


2. In the **Accessibility Checker,** right click **Other Elements Alternate Text**, then click **Check Again** from the drop-down.

In other cases, the failed element needs to be tagged as a figure and add the alternate text manually.

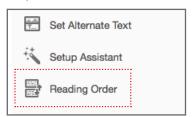
To Fix:

1. In Accessibility Checker panel, left-click Other Elements Alternate Text to decollaspe the list of failed elements. Right-click Element 1, click Show in Tags Panel from the drop-down and then the Tags Panel will automatically highlight the failed element.



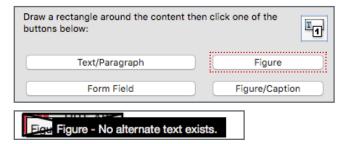
NOTE: If the element does not have a tag, click **Show in Content Panel.** The Content Panel will automatically highlight the failed element.

2. Identify the highlight content, select **Reading Order** in the right panel. A **Reading Order** dialog box will open, you will noticed that the buttons are unclickable. Drag box, to the side so that the document is viewable.

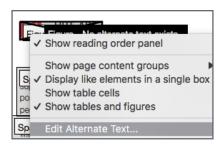




3. Drag and draw a rectangle over the highlighted element. The buttons within the **Reading Order** dialog box will become avaliable and click, **Figure.** 

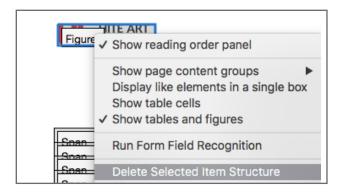


4. The element will become a single figure and an alternate text needs to be added. Right-click within the figure box and click, **Edit Alternate Text** from the drop down and an **Alternate Text** dialog box will appear. Manually type out an accurate description of the figure then click **OK**.





NOTE: If you do not see the **Edit Alternate Text...** in the drop down, redraw the box around the element, right click and choose **Delete Selected Item Stucture** from the drop down. Repeat step 3-4 to recreate the tag and add an alternate text.



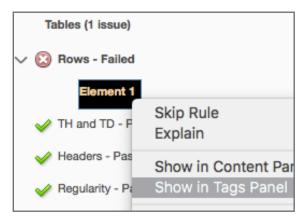
# Rows

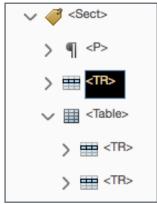
This rule checks whether each TRow in a table is a child of Table, THead, TBody, or TFoot (See standard tag PDF section for tag definitions).

Use the Reading Order tool to make sure that tables are tagged correctly. If you need to structure figures and text within the cells of your table, we highly suggest to re-create the table in the authoring application before you convert it to an accessible PDF. Adding tags on a cell level in Acrobat is a labor-intensive procedure.

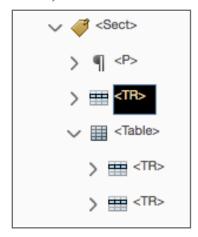
#### To Fix:

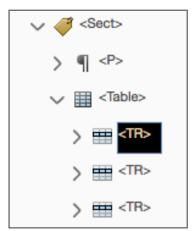
1. In **Accessibility Checker** panel, left-click **Rows** to decollaspe the list of failed elements. Right-click **Element 1**, click **Show in Tags Panel** from the drop-down and then the Tags Panel will automatically highlight the failed element.



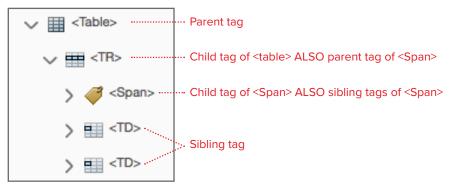


2. Identify the <TR> element that is not a child tag of a element. In order to correct the structure, a <TR> must be placed with in a element. Click and drag the stray <TR> below the element.





NOTE: While dragging the tag, an underline will appear and follow your cursor within the Tags Panel to indicate where you are dragging within the tag structure. The line length will indicate whether you are placing the tag has a Parent, Child or Sibling tag.



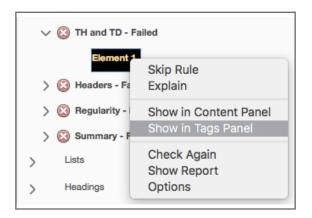
3. Return the **Accessibility Checker**, right click **Rows**, then click **Check Again** from the drop-down. Repeat steps 1-2 until all failed elements has been fixed.

# TH and TD

In a proper table structure, TH and TD are children of TR. This check fails when a TH or TD is not nested under a TR (See standard tag PDF section for tag definitions).

#### To Fix:

1. In **Accessibility Checker** panel, left-click **TH and TD** to decollaspe the list of failed hidden annotation element. Right-click **Element 1**, click **Show in Tags Panel** from the drop-down and then the Tags Panel will automatically highlight the failed element.



2. Identify the <TD> or <TH> element that is not a child tag of a <TR> element. In order to correct the structure, the <TD> or <TH> must be placed with in a <TR> element. Click and drag the stray <TD> or <TH> below the <TR> element.





3. Return the **Accessibility Checker**, right click **TH** and **TD**, then click **Check Again** from the drop-down. Repeat steps 1-2 until all failed elements has been fixed.

#### Headers

For accessibility, it's necessary that all tables in the PDF have a header. To pass this check, ensure that all tables contain table header cells (See standard tag PDF section for tag definitions).

# To Fix:

1. In **Accessibility Checker** panel, left-click **Headers** to decollaspe the list of failed hidden annotation element. Right-click **Element 1**, click **Show in Tags Panel** from the drop-down and then the Tags Panel will automatically highlight the failed element.

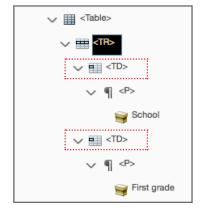




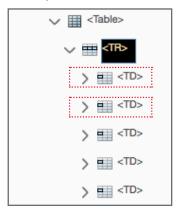
2. Identify the table row that needs the <TD> to be changed to <TH>.

School	First grade	Second grade	Third grade	Fourth grade
Elm Street	23	24	26	22
Spruce Street	25	30	26	23
Locust Street	24	28	22	27
Maple Street	26	26	21	29

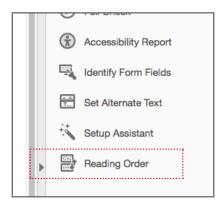
#### collapsed

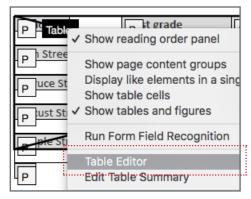


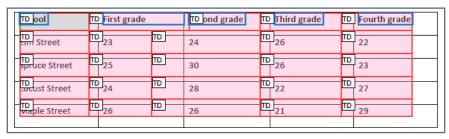
#### decollapse



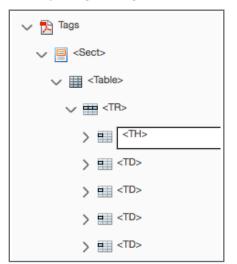
3. Show the table tags by clicking the  ${f Reading\ Order}$  tool, right-clicking the table and selecting  ${f Table\ Editor}.$ 

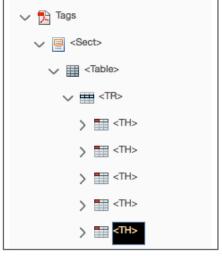






4. After you have identified which table row of  $\TD>$  tags need to be changed, open the Tags panel and return to the failed element. Double click the first  $\TD>$  and manually change the tag to  $\TD>$ .





5. Repeat steps 1-4 until all failed elements has been fixed.

# Regularity

To be accessible, tables must contain the same number of columns in each row, and rows in each column. You must ensure that each table row has the same number of columns or the ColSpan and RowSpan properties of a cell are set properly to account for all cells in a row.

To Fix:

1. In **Accessibility Checker** panel, left-click **Regularity** to decollaspe the list of failed hidden annotation element. Right-click **Element 1**, click **Show in Tags Panel** from the drop-down and then the Tags Panel will automatically highlight the failed element.

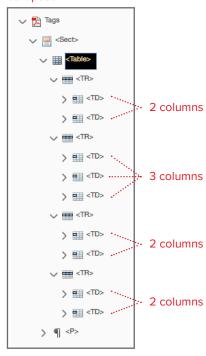


2. In the **Tags Panel** panel, decollaspe the highlighted failed element to identify the irregular number of rows or columns.

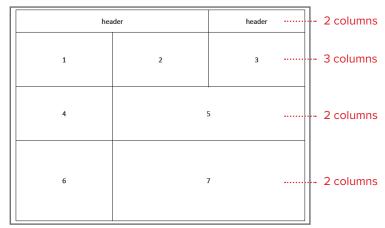
#### decollapse



# collapsed

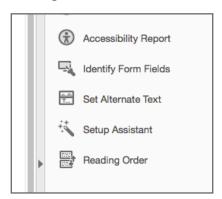


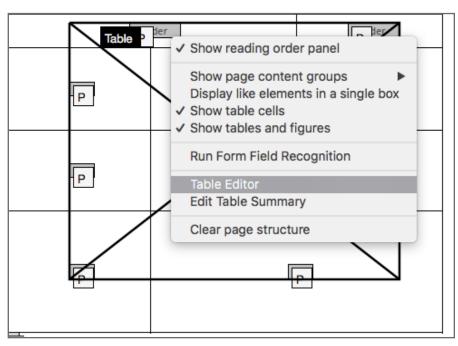
# table sample

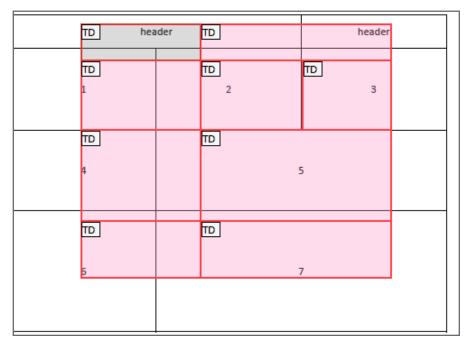


NOTE: This table example was created in Microsoft Word and exported with **Create PDF** feature under the **Adobe** tab. Notice that row 5 & 7 span the width of two columns. This property must be manually specified within the **Table Cell Properties**.

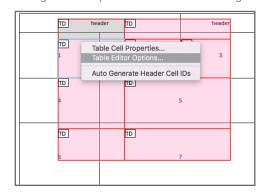
3. Show the table tags by clicking the  $\bf Reading\ Order\ tool$ , right-clicking the table and selecting  $\bf Table\ Editor$ .





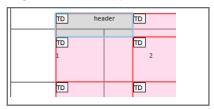


4. Right-click the table and select **Table Editor Options**. A **Table Editor Options** dialog box will open and show the meaning of the colored cells.





5. Identify which cells need to span multiple rows/column, then select the cell so that a light blue outline appears.

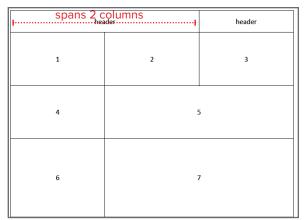


6. Right-click the outlined cell and select **Table Cell Properties**. A **Table Cell Properties** dialog box will open and show the cell type and attributes.





7. Below the **Attribute** section, indicate how many rows or columns the selected cell spans then click **OK.** The change may or may no cause the cell to change color.





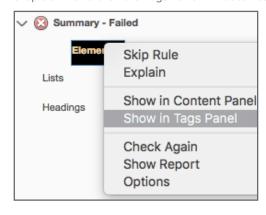
8. After clicking **OK**, you may get a message stating that the cell change may cause a malfunction in viewing the table. Disregard this message, continue steps 5-7 until the table passes the regularity check and all columns and rows are indicated to its appropriate span.

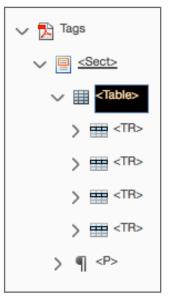
# Summary

Table summaries are optional unless the table data cannot be understood by the accessibility reader. Summaries can improve accessibility in complex data tables or when the way in which the data is read may be important. Provide a table summary for data tables where it is needed to make the data easier to understand, or to provide instructions on the data reviewed.

#### To Fix:

1. In **Accessibility Checker** panel, left-click **Summary** to decollaspe the list of failed hidden annotation element. Right-click **Element 1**, click **Show in Tags Panel** from the drop-down and then the Tags Panel will automatically highlight the failed element.





2. On the right panel, select the Reading Order tool. A **Reading Order** dialog box will open and you will noticed that the buttons are unclickable.

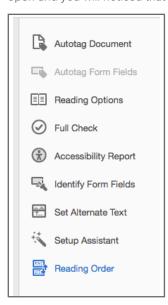




Table Summary

Table Summary:

3. Right-click the table and select Edit Table Summary. A Table Summary dialog box will open, type a description or summary about the table then click **OK**. Repeat steps 1-3 until all tables have a summary and pass the acessibility check.

#### **List Items**

The check reports whether each List Item (LI) is a child of List (L). When this check fails, a LI tag is out of order within the stucture. Lists must have the following structure: A List element must contain List Item Elements. List Item Elements can only contain Label Elements (LbI) and List Item Body Elements (LBody).

Depending on the software used to create or export the PDF (such as exporting from Microsoft Words), some list structure will not be utilizing the label element tag <Lbl>. Adobe InDesign CC will export with the <Lbl> tag to define bullet point, numbers, and etc. Either structure will pass the check as long as they remain in the appropriate order.

# **Original List**

List 1

Item 1

Item 2

Item 3

Item 4

Item 5

# Exported from Microsoft Word

# Exported from InDesign CC



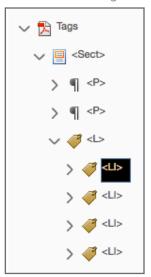
#### To Fix:

In **Accessibility Checker** panel, decollaspe the **List Items** section to view the failed elements. Right-click **Element 1** > **Show in Tags Panel.** The Tags Panel will automatically highlight the failed element.



2. Identify the highlighted element and how it is misplaced. In this example, the <LI> tag is not in the correct order. <LI> is a child element of a <L> tag and must be manually dragged to be reposition within the <L> tag.





3. Repeat steps 1-2 to restructure misplaced list elements. If this check continues to fail, it is highly recommended to recreate the document or simplify the list in its original file prior to exporting it as a PDF.

# Lbl and LBody

When this check fails, the list structure is not in appropriate order due to a misplaced Lbl or LBody tag.

Please refer to the section on List Items for the correct order of a list structure.

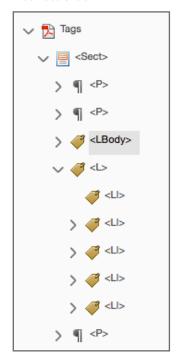
#### To Fix:

1. In **Accessibility Checker** panel, decollaspe the **Lbl and LBody** section to view the failed elements. Right-click **Lbl/LBody 1** > **Show in Tags Panel.** The Tags Panel will automatically highlight the failed element.



2. The highlighted element indicates the LbI or LBody tag that is out of order. Refer to the correct list order and determine where the misplaced tag should be repositioned.

# **Incorrect Order**

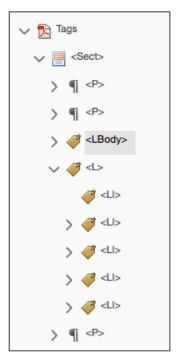


**Example of Correct Order** 

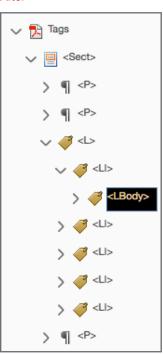


3. Manually drag <LBody> tag below a <LI> tag. If there is a <LbI> tag present, make sure <LBody> is placed after <LbI>.

# Before



# After

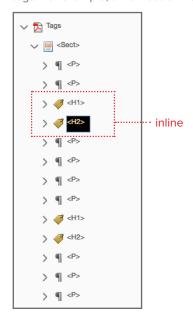


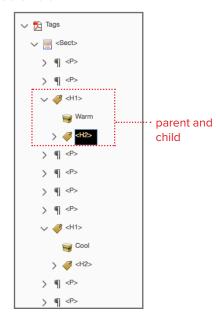
4. Repeat steps until all the misplaced tags has been appropriately repositioned. If this check continues to fail, it is highly recommended to recreate the document or simplify the list in its original file prior to exporting it as a PDF.

# **Appropriate Nesting**

This rule checks nested headings. When this check fails, headings are not nested properly. Headers must be in a linear descending order inline such as H1, H2, H3, and does not skip or ascend in order. However headers can be repeated as long as the order does not ascend, such as H1, H2, H2, H3.

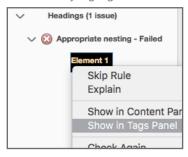
Headers must also be in linear descending order when pertaining to parent and child tags. For example, a H3 header must be a child of H2.

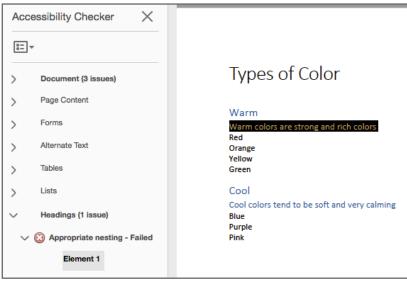




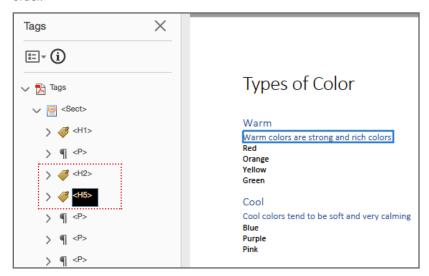
To Fix:

In Accessibility Checker panel, decollaspe the Appropriate Nesting section to view the failed elements. Right-click **Element 1** > **Show in Tags Panel.** The Tags Panel will automatically highlight the failed element.

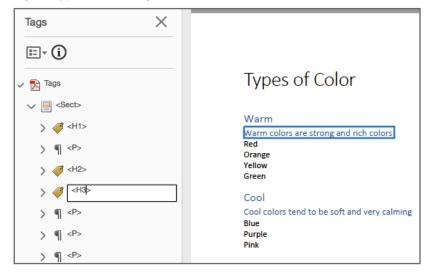




2. Identify the highlighted element and how the heading tag is not in its appropriate order.



3. Change the heading tag to its appropriate order. In the **Tags Panel**, double-click tag and type in correct tag.



#### Resources

Information and content has been collected rephrased from these links. All credits for copied content goes to the rightful owner of these web pages. All screenshots and images are original.

https://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html

https://helpx.adobe.com/acrobat/using/reading-pdfs-reflow-accessibility-features.html

https://www.adobe.com/accessibility/products/acrobat/using-acrobat-pro-accessibility-checker.html

https://helpx.adobe.com/acrobat/user-guide.html?topic=/acrobat/morehelp/accessibility\_tags\_and\_reflow.uq.js

https://www.adobe.com/accessibility/products/acrobat/pdf-repair-repair-tables.html

https://www.adobe.com/accessibility/products/acrobat/pdf-repair-repair-tags-advanced.html

https://forums.adobe.com/thread/1270583

https://www.w3.org/TR/WCAG20-TECHS/PDF6.html#PDF6-examples

https://www.w3.org/Consortium/mission

https://www.w3.org/standards/

https://www.w3.org/WAI/GL/WCAG-PDF-TECHS/Overview.html

https://www.w3.org/TR/WCAG20-TECHS/PDF21.html

https://www.w3.org/TR/WCAG21/