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CHECK ACCESSIBILITY OF PDFS

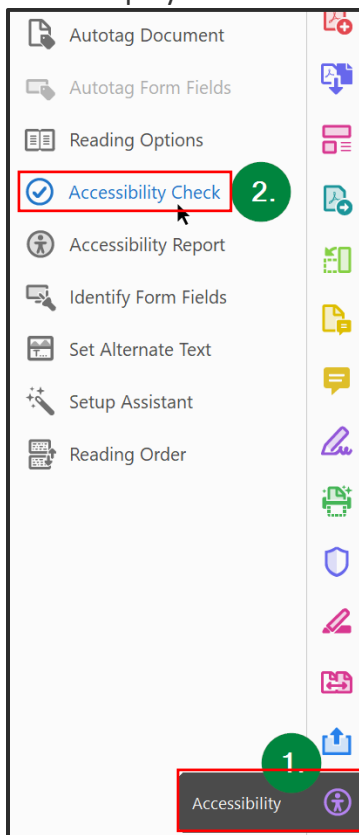
A good way to check the accessibility of a document is to use tools that your readers will use. Even if you do not have access to those tools, Adobe Acrobat provides an automated way to check the accessibility of a PDF file. You will need to have access to **Adobe Acrobat Pro**.

FULL CHECK/ACCESSIBILITY CHECK

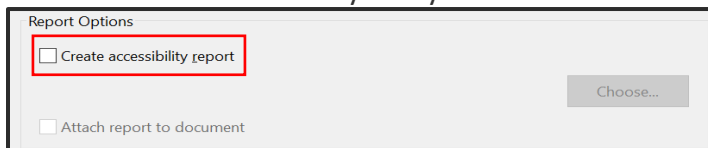
The **Full Check/Accessibility Check** feature in Acrobat checks a PDF for many of the characteristics of accessible PDFs. You can choose which accessibility problems to look for and how you want the results reported.

Follow these steps to run the **Full Check/Accessibility Check**:

1. Choose **Tools** then **Accessibility**. The Accessibility toolset is displayed in the secondary toolbar.
2. In the secondary toolbar, click **Full Check/Accessibility Check**. The Accessibility Checker Options dialog box is displayed.



3. In the **Report Options** section, select options for how you want to view the results. You can save the results as an HTML file on your system or attach the results file to the document itself.



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4. Select a page range if you prefer to check individual pages of a document.

Note: When you have a large document, running a full check/accessibility check one page at a time can be more efficient.

5. Select one, more or all of the **Checking Options**.

6. Click **Start Checking**. The results are displayed in the **Accessibility Checker** panel on the left, which also has helpful links and hints for repairing issues. If you created a report in **step 2**, the results are available in the selected folder.

THE REPORT

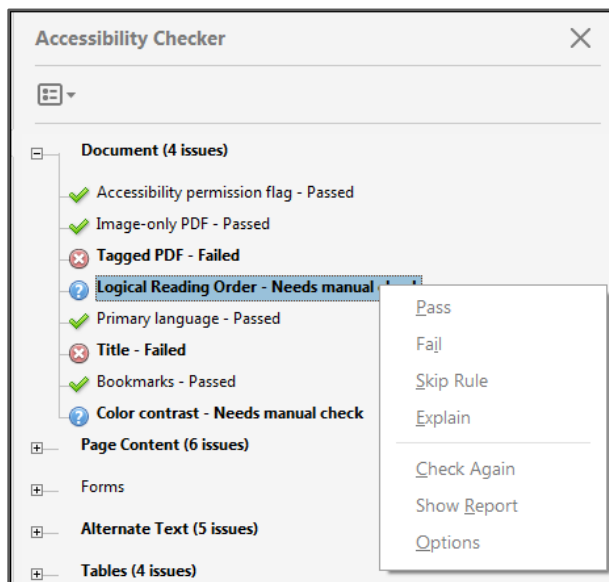
Because the **Full Check/Accessibility Check** feature cannot distinguish between essential and nonessential content types, some issues it reports don't affect readability. It's a good idea to review all issues to determine which ones require correction.

The report displays one of the following statuses for each rule check:

- **Passed:** The item is accessible.
- **Skipped By User:** Rule was not checked because it wasn't selected in the **Accessibility Checker Options** dialog box.

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- **Needs Manual Check:** The **Full Check/Accessibility Check** feature couldn't check the item automatically. **Verify** the item manually.
- **Failed:** The item didn't pass the accessibility check.



NOTE:

In addition to **Full Check/Accessibility Check**, Acrobat provides other methods to check PDF accessibility:

- Use **Reflow** view to quickly check the reading order.
- Use **Read Out Loud** to experience the document as readers who use the text-to-speech conversion tool experience it.
- Save the document as accessible text and then read the saved text file in a word-processing application. This exercise enables you to emulate the end-user experience of readers who use a braille printer to read the document.
- Use the **Reading Order tool**, **Order**, **Tags**, and **Content** panels to examine the structure, reading order, and contents of a PDF.

FIX ACCESSIBILITY ISSUES (ACROBAT PRO)

To fix a failed check after running **Full Check/Accessibility Check**, right-click (Windows) or Ctrl-click (Mac OS) the item in the **Accessibility Checker** panel. Choose one of the following options from the context menu:

- **Fix:** Acrobat either fixes the item automatically or displays a dialog box prompting you to fix the item manually.
- **Skip Rule:** Deselects this option in the **Accessibility Checker Options** dialog box for future checks of this document and changes the item status to **Skipped**.
- **Explain:** Opens the online **Help** where you can get more details about the accessibility issue.
- **Check Again:** Runs the checker again on all items. Choose this option after modifying one or more items.
- **Show Report:** Displays a report with links to tips on how to repair failed checks.

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- **Options:** Opens the **Accessibility Checker Options** dialog box, so you can select which checks are performed.

ACCESSIBILITY ISSUES IN DOCUMENTS

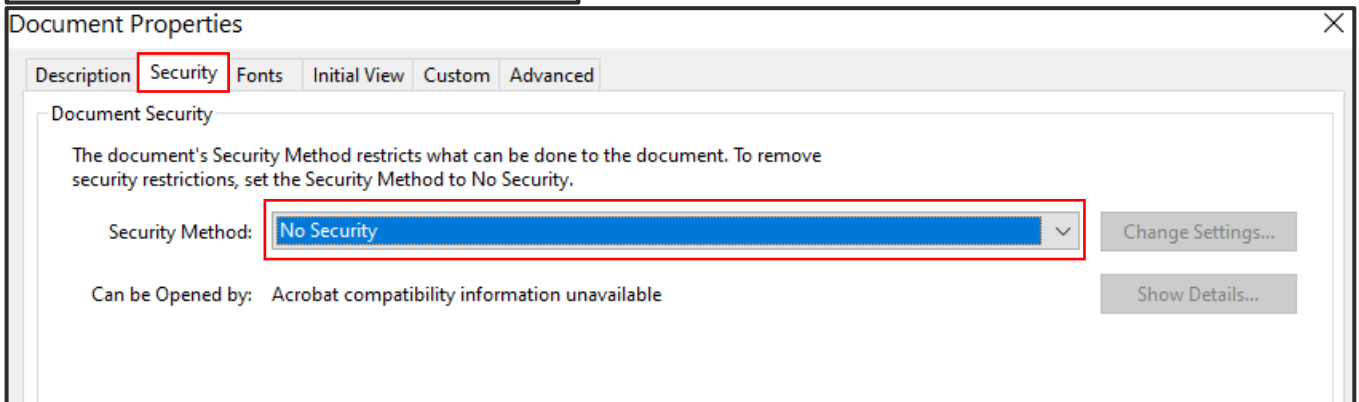
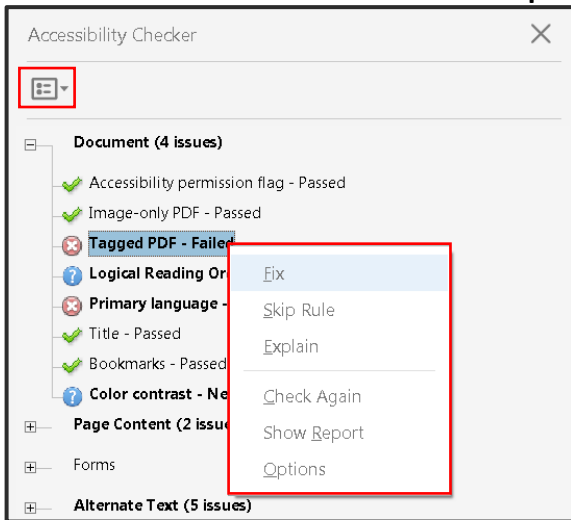
PREVENT SECURITY SETTINGS FROM INTERFERING WITH SCREEN READERS

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. This flag reports whether it's necessary to turn on the security settings that allow accessibility.

To fix the rule automatically, select **Accessibility Permission Flag** on the **Accessibility Checker** panel. Then, choose **Fix** from the **Options**  menu.

Or fix accessibility permissions manually:

1. Choose **File > Properties > Security**.
2. Choose **No Security** from the **Security Method** drop-down list.
3. Click **OK** and close the **Document Properties** dialog box.



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If your assistive technology product is registered with Adobe as a Trusted Agent, you can read PDFs that might be inaccessible to another assistive technology product. Acrobat recognizes when a screen reader or other product is a Trusted Agent and overrides security settings that would typically limit access to the content for accessibility purposes. However, the security settings remain in effect for all other purposes, such as to prevent printing, copying, extracting, commenting, or editing text.

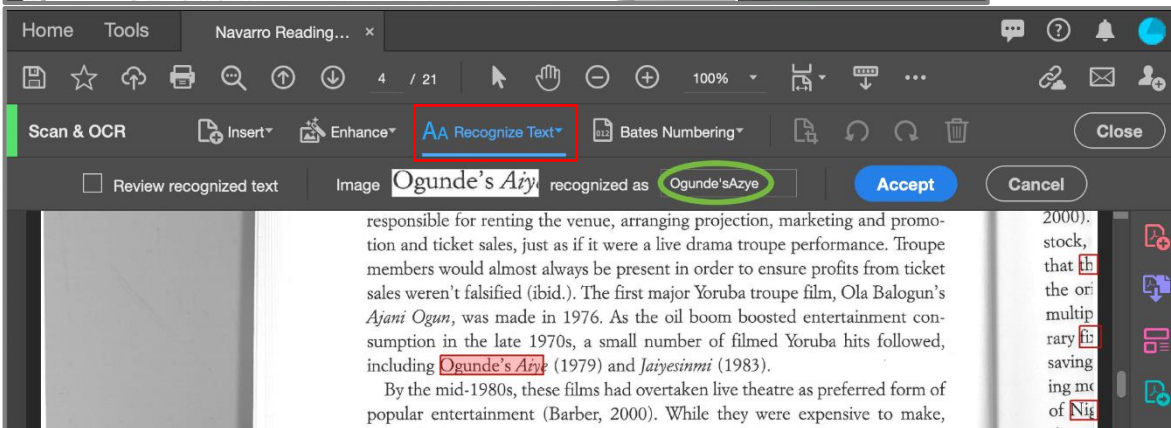
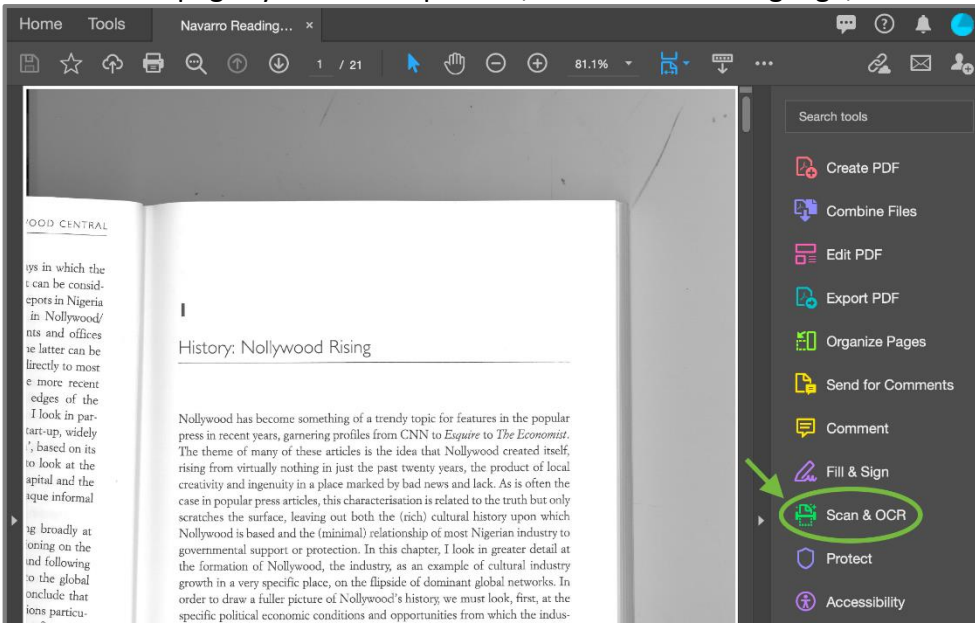
IMAGE-ONLY PDF

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 image-only PDF file.

To fix this rule check automatically, select **Image-only PDF** on the **Accessibility Checker** panel, and choose **Fix** from the Options  menu.

Or, to fix this rule check manually, use OCR to recognize text in scanned images:

1. Choose **Tools > Scan & OCR**. The Scan toolset is displayed in the secondary toolbar.
2. In the secondary toolbar, choose **Recognize Text > In This File**.
3. Select the pages you want to process, the document language, and then click **Recognize Text**.




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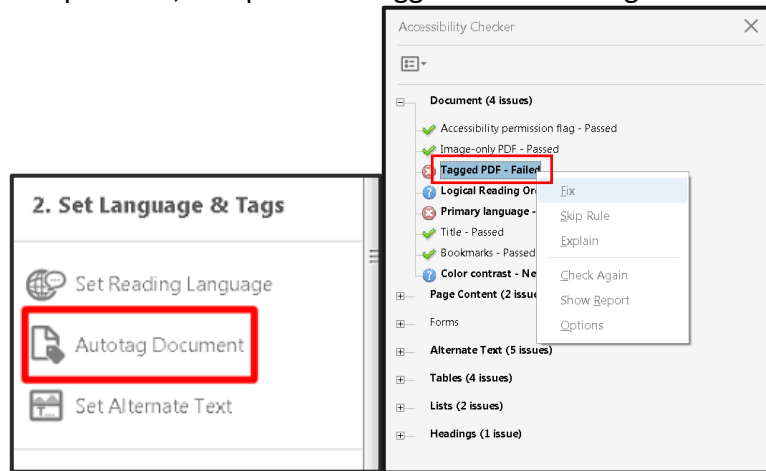
TAGGED PDF

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

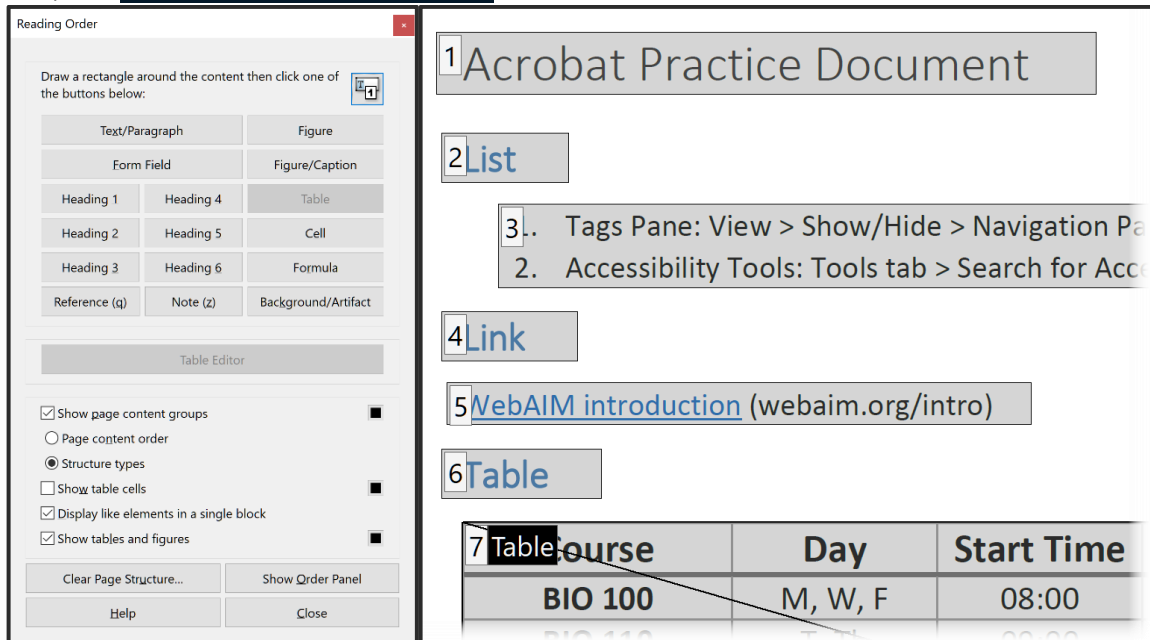
To fix this item automatically, select **Tagged PDF** on the **Accessibility Checker** panel, and then choose **Fix** from the **Options**  menu. Acrobat automatically adds tags to the PDF.

To specify tags manually, do one of the following:


- Enable tagging in the application in which the PDF was authored and re-create the PDF.
- Choose **Tools > Accessibility > Auto tag Document** in Acrobat. The **Add Tags Report** appears in the navigation pane if there are any issues. The report lists potential problems by page, provides a navigational link to each problem, and provides suggestions for fixing them.

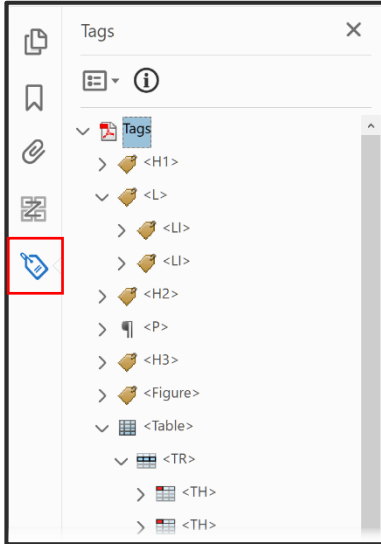


- Choose **Tools > Accessibility > Reading Order** in Acrobat and create the tags tree. For more information, see [Reading Order tool overview](#).



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- Open the **Tags**  panel and create the tags tree manually. To display the **Tags** panel, choose **View > Show/Hide > Navigation Panes > Tags**. For more information, see [Edit document structure with the Content and Tags panel](#).




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. (Screen shot coming soon)

DOCUMENT 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 set the language automatically, select **Primary Language** in the **Accessibility Checker** tab, and then choose **Fix** from the **Options**  menu. Choose a language in the **Set Reading Language** dialog box, and then click **OK**.

To set the language manually, do one of the following:

- Choose **File > Properties > Advanced** and then select a language from the drop-down list in the **Reading Options** section. (If the language doesn't appear in the drop-down list, you can enter the ISO 639 code for the language in the **Language** field.) This setting applies the primary language for the entire PDF.




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- Set the language for all text in a subtree of the tags tree. Open the **Tags**  panel. Expand the Tags root and select an element. Then choose **Properties** from the **Options**  menu. Choose a language from the **Language** drop-down list. (To display the **Tags** panel, choose **View > Show/Hide > Navigation Panes > Tags.**)
- Set the language for a block of text by selecting the text element or container element in the **Content**  panel. Then, right-click (Windows) or Ctrl-click (Mac OS) the text and choose **Properties** from the context menu and choose a language from the Language drop-down list. (To display the **Content** panel, choose **View > Show/Hide > Navigation Panes > Content.**)

(Screen shot coming soon)

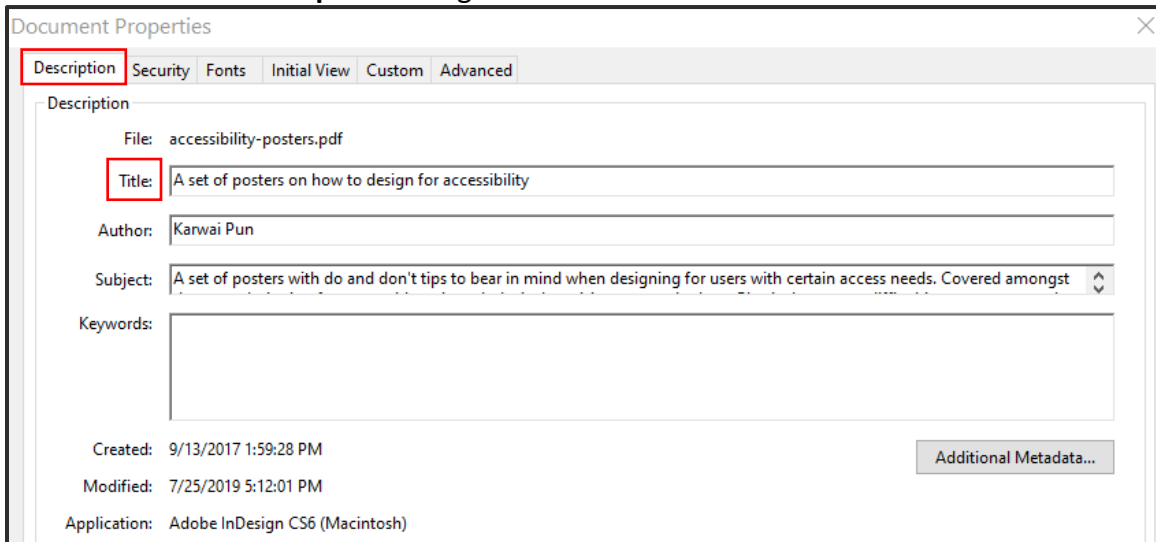
TITLE

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

To fix the title automatically, select **Title** in the **Accessibility Checker** tab, and choose Fix from the **Options**  menu. Enter the document title in the **Description** dialog box (deselect **Leave as Is**, if necessary).


Or fix the title manually:

1. Choose **File > Properties > Description**.
2. Enter a title in the **Title** text box.
3. Click **Initial View**, and then choose **Document Title** from the **Show** drop-down list.
4. Click **OK** to close the **Description** dialog box.



BOOKMARKS

This check fails when the document has 21 or more pages but doesn't have bookmarks that parallel the document structure.

To add bookmarks to the document, select **Bookmarks** on the **Accessibility Checker** panel, and choose **Fix** from the **Options**  menu. In the **Structure Elements** dialog box, select the elements that you want to use as

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bookmarks, and click OK. (You can also access the **Structure Elements** dialog box by clicking the **Options** menu on the **Bookmark** tab and selecting the New Bookmarks from Structure command.)

(Screen shot coming soon)

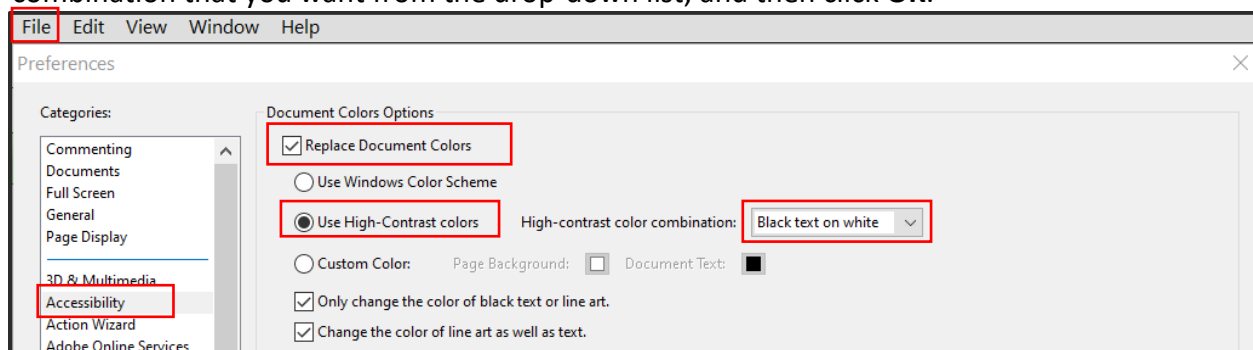
COLOR CONTRAST

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

To fix this issue, make sure that the document's content adheres to the guidelines outlined in [WCAG](#) section 1.4.3.

Or include a recommendation that the PDF viewer use high-contrast colors:

1. Choose **Edit > Preferences** (Windows) or **Acrobat > Preferences** (Mac OS).
2. Click **Accessibility**.
3. Select **Replace Document Colors**, and then select **Use High-Contrast Colors**. Choose the color combination that you want from the drop-down list, and then click **OK**.





ACCESSIBILITY ISSUES IN PAGE CONTENT

TAGGED CONTENT

This check reports whether all content in the document is tagged. Make sure that all content in the document is either included in the **Tags** tree or marked as an artifact.

Do one of the following to fix this rule check:



- Open the **Content**  panel and right-click (Windows) or Ctrl-click (Mac OS) the content that you want to mark as an artifact. Then, select **Create Artifact** from the context menu. (To display the **Content** tab, choose **View > Show/Hide > Navigation Panes > Content**.)
- Tag the content by choosing **Tools > Accessibility > Reading Order**. Select the content, and then apply tags as necessary.
- Assign tags using the **Tags**  panel. Right-click (Windows) or Ctrl-click (Mac OS) the element in the **Tags** tree and choose **Create Tag from Selection**. Items such as comments, links, and annotations don't always appear in the **Tags** tree. To find these items, choose **Find** from the **Options** menu. (To display the **Tags** panel, choose **View > Show/Hide > Navigation Panes > Tags**.)

(Screen shot coming soon)

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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.


- Open the **Content**  panel, and right-click (Windows) or Ctrl-click (Mac OS) the content that you want to mark as an artifact. Then, select **Create Artifact** from the context menu. (To display the **Content** panel, choose **View > Show/Hide > Navigation Panes > Content**.)
- Tag the content by choosing **Tools > Accessibility > Reading Order**. Select the content, and then apply tags as necessary.
- Assign tags using the **Tags**  panel. (To display the **Tags** panel, choose **View > Show/Hide > Navigation Panes > Tags**.)

To have Acrobat assign tags automatically to annotations as they're created, choose **Tag Annotations** from the **Options** menu on the **Tags** panel.


(Screen shot coming soon)

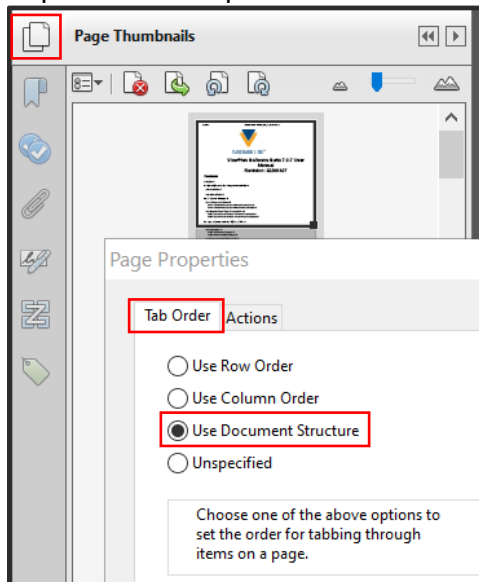
TAB ORDER

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

To fix the tab order automatically, select **Tab Order** on the **Accessibility Checker** panel, and choose **Fix** from the **Options**  menu.

To manually fix the tab order for links, form fields, comments, and other annotations:

1. Click the **Page Thumbnails** panel on the navigation pane.
2. Click a page thumbnail, and then choose **Page Properties** from the **Options**  menu.
3. In the **Page Properties** dialog box, choose **Tab Order**. Then, select **Use Document Structure**, and click **OK**.
4. Repeat these steps for all thumbnails in the document.



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CHARACTER ENCODING


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

To ensure proper encoding, do the following:


- Verify that the necessary fonts are installed on your system.
- Use a different font (preferably OpenType) in the original document, and then re-create the PDF.
- Re-create the PDF file with a newer version of Acrobat Distiller.
- Use the latest Adobe Postscript driver to create the PostScript file, and then re-create the PDF.

TAGGED MULTIMEDIA

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

Open the **Content**  panel and right-click (Windows) or Ctrl-click (Mac OS) the content that you want to mark as an artifact. Then, select **Create Artifact** from the context menu. (To display the **Content** panel, choose **View > Show/Hide > Navigation Panes > Content.**)

Tag the content by choosing **Tools > Accessibility > Reading Order**. Select the content, and then apply tags as necessary.

Assign tags using the **Tags**  panel. Right-click (Windows) or Ctrl-click (Mac OS) the element in the **Tags** tree and choose **Create Tag from Selection**. (To display the **Tags** panel, choose **View > Show/Hide > Navigation Panes > Tags.**)

(Screen shot coming soon)

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.

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.

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.

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ACCESSIBLE LINKS

For URLs to be accessible to screen readers, they must be active links that are correctly tagged in the PDF. The best way to create accessible links is with the **Create Link** command, which adds all three links that screen readers require to recognize a link. Make sure that navigation links are not repetitive and that there is a way for users to skip over repetitive links.

If this rule check fails, check navigation links manually and verify that the content does not have too many identical links. Also, provide a way for users to skip over items that appear multiple times. For example, if the same links appear on each page of the document, also include a "Skip navigation" link.

ACCESSIBILITY ISSUES IN FORMS

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 filed property to provide the user with information or to provide instructions.

To tag form fields, choose **Tools > Accessibility > Auto tag Form Fields**.

FIELD DESCRIPTIONS

For accessibility, all form fields need a text description (tool tip).

To add a text description to a form field:

1. Select one of the **Form** tools, and then right-click (Windows) or Ctrl-click (Mac OS) the form field.
2. Choose **Properties** from the context menu.
3. Click the **General** properties tab.
4. Enter a description of the form field in the **Tooltip** field.



(Screen shot coming soon)

ACCESSIBILITY ISSUES IN ALTERNATE TEXT

FIGURES ALTERNATE TEXT

Make sure that images in the document either have alternate text or are marked as artifacts.

If this rule check fails, do one of the following:

- Select **Figures Alternate Text** in the **Accessibility Checker** panel and choose **Fix** from the **Options**  menu. Add alternate text as prompted in the **Set Alternate Text** dialog box.
- Use the **Tags** panel to add alternate text for images in the PDF.
- Open the **Content**  panel and right-click (Windows) or Ctrl-click (Mac OS) the content that you want to mark as an artifact. Then, select **Create Artifact** from the context menu. (To display the **Content** panel, choose **View > Show/Hide > Navigation Panes > Content**.)

(Screen shot coming soon)

NESTED ALTERNATE TEXT

Screen readers don't read the alternate text for nested elements. Therefore, don't apply alternate text to nested elements. To remove alternate text from nested elements, do the following:

1. Choose **View > Show/Hide > Navigation Panes > Tags**.


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2. Right-click (Windows) or Ctrl-click (Mac OS) a nested element in the **Tags** panel and choose **Properties** from the context menu.
3. Remove both the **Alternate Text** and the text to which it's applied from the **Object Properties** dialog box, and then click **Close**.

(Screen shot coming soon)

ASSOCIATED WITH CONTENT

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. If the **Screen Reader Option** in the **Reading** preferences is not set to read the entire document, then screen readers never read the alternate text.

1. Right-click (Windows) or Ctrl-click (Mac OS) an item to check.
2. Open it in the **Tags**  panel. (To display the **Tags** panel, choose **View > Show/Hide > Navigation Panes > Tags**.)
3. Remove the **Alternate Text** from the **Tags** panel for any nested item that has no page content.

(Screen shot coming soon)

HIDES ANNOTATION

Alternate text can't hide an annotation. If an annotation is nested under a parent element with alternate text, then screen readers don't see it.

To remove alternate text from nested elements:


1. Choose **View > Show/Hide > Navigation Panes > Tags**.
2. Right-click (Windows) or Ctrl-click (Mac OS) a nested element in the **Tags** panel and choose **Properties** from the context menu.
3. Remove the alternate text from the **Object Properties** dialog box, and then click OK.

(Screen shot coming soon)

OTHER ELEMENTS ALTERNATE TEXT

This report checks for content, other than figures, that requires alternate text (such as multimedia, annotation, or 3D model). 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.

If the **Screen Reader Options** in the **Reading** preferences is not set to read the entire document, then screen readers don't read the alternate text.

1. Choose **View > Show/Hide > Navigation Panes > Tags**.
2. Right-click (Windows) or Ctrl-click (Mac OS) a nested element in the **Tags**  panel and choose **Properties** from the context menu.
3. Remove the alternate text from the **Object Properties** dialog box, and then click **OK**.

(Screen shot coming soon)

ACCESSIBILITY ISSUES IN TABLES

Because table structure can be complex, it is best practice to check them for accessibility manually.

ROWS

This rule checks whether each **TR** in a table is a child of **Table**, **TH**, **TBody**, or **TFoot**.
See [Correct table tags with the Tags panel](#) below.

TH AND TD

In a proper table structure, **TH** and **TD** are children of **TR**.
See [Correct table tags with the Tags panel](#) below.

HEADERS

For accessibility, it's necessary that all tables in the PDF have a header.
See [Correct table tags with the Tags panel](#) below.

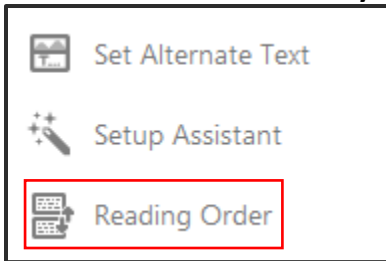
REGULARITY

To be accessible, tables must contain the same number of columns in each row, and rows in each column.
See [Correct table tags with the Tags panel](#) below.

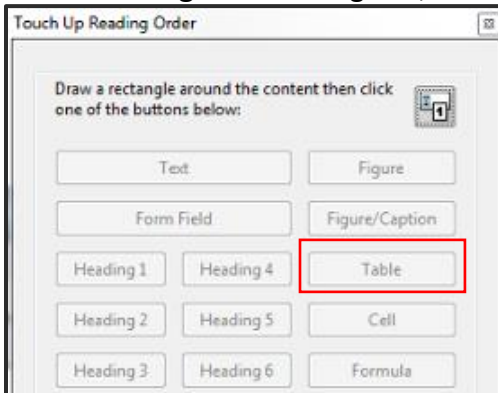
SUMMARY

Table summaries are optional but can improve accessibility:

1. Choose **Tools > Accessibility > Reading Order**.



2. Select the table by drawing a rectangle around it.
3. In the **Reading Order** dialog box, click **Table**.

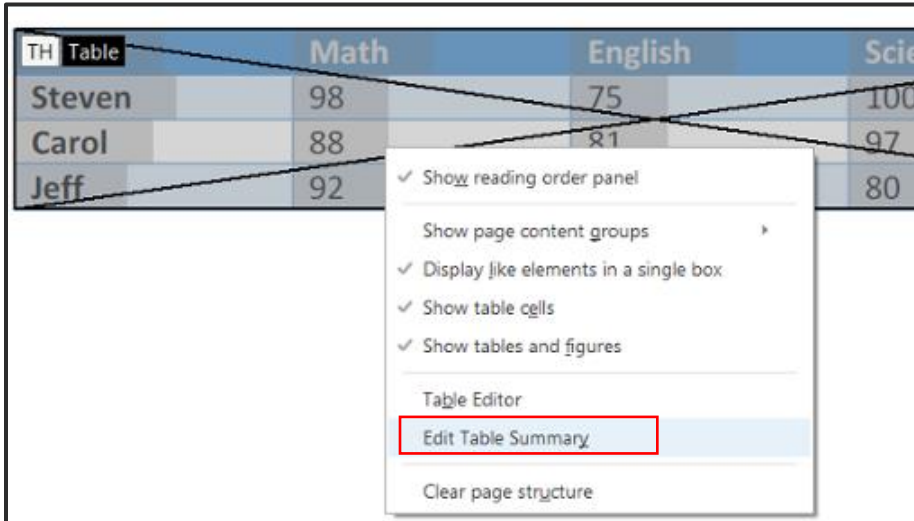


4. Right-click (Windows) or Ctrl-click (Mac OS) **Table**.

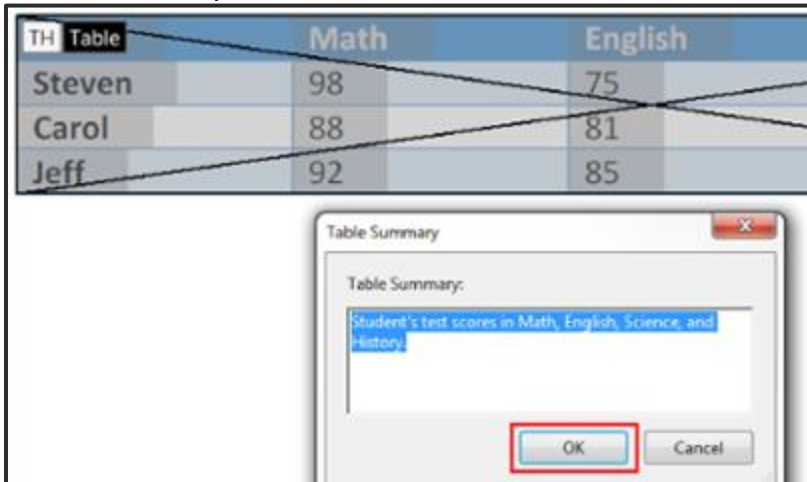
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5. Click **Edit Table Summary**.



6. Enter a summary and click **OK**.



CORRECT TABLE TAGS WITH THE TAGS PANEL

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, you may prefer 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.

Before you make any changes to table elements, use the **Reading Order** tool to determine that the table is tagged correctly.

CHECK TABLE ELEMENTS:

1. In the Tags panel, expand the tags root to view a table tag.
2. Select the table tag **<Table>** and verify that it contains one of the following elements:
 - a. **Table Rows**, each of which contains Table Header **<TH>** or **Table Data<TD>** cells.

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- b. <THead>, <TBody>, and <TFoot> sections, each of which contains **Table Rows**. (The **Table Rows** contain <TH> cells, <TD> cells, or both.)
3. Do one or more of the following:
- If the tag for the table doesn't contain these elements, but rows, columns, and cells appear in the table in the document pane, use the Reading Order tool to select and define the table or individual cells.
 - If the table contains rows that span two or more columns, set ColSpan and RowSpan attributes for these rows in the tag structure.
 - Re-create the table in the authoring application, and then convert it to a tagged PDF.

SET COLSPAN AND ROWSPAN ATTRIBUTES:

1. In the Tags panel, select a <TD> or <TH> element.
2. Choose Properties from the options menu.
3. In the **Touch Up Properties** dialog box, click the Tag panel, and then click Edit Attribute Objects.
4. Select Attribute Objects, and then click New Item to create a new Attribute Object Dictionary.
5. Expand the new dictionary, select the Layout attribute, and then click Change Item.
6. Change the Layout value to Table.
7. Select the Attribute Object Dictionary and click New Item.
8. In the Add Key and Value dialog box, type **ColSpan** or **RowSpan** in the Key box, enter the number of columns or rows spanned in the Value box, choose Integer from the Value Type pop-up menu, and click OK.

(Screen shot coming soon)

ACCESSIBILITY ISSUES IN LISTS

LIST ITEMS

The check reports whether each List Item (**LI**) is a child of List (**L**). When this rule check fails, the structure of this list is incorrect. Lists must have the following structure: A **List** element must contain **List Item Elements**. And **List Item Elements** can only contain **Label Elements** and **List Item Body Elements**.

To fix the list structure:

1. Find the list in the **Accessibility Checker** panel by right-clicking (Windows) or Ctrl-clicking (Mac OS) the failed element and choosing **Show in Tags Panel**.
2. Create elements, change the types of elements, or rearrange existing elements by dragging them.

(Screen shot coming soon)

LBL AND LBODY

Lists must have the following structure: A **List** element must contain **List Item Elements**. And **List Item Elements** can only contain **Label Elements** and **List Item Body Elements**. When this rule check fails, the structure of this list is incorrect.

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To fix the list structure:

1. Find the list in the **Accessibility Checker** panel by right-clicking (Windows) or Ctrl-clicking (Mac OS) the failed element and choosing **Show in Tags Panel**.
2. Create elements, change the types of elements, or rearrange existing elements by dragging them.
(Screen shot coming soon)

ACCESSIBILITY ISSUES IN HEADINGS

- **APPROPRIATE NESTING**

This rule checks nested headings. When this check fails, headings are not nested properly.

To fix the list structure:

1. Find the list in the **Accessibility Checker** panel by right-clicking (Windows) or Ctrl-clicking (Mac OS) the failed element and choosing **Show in Tags Panel**.
2. Create elements, change the types of elements, or rearrange existing elements by dragging them.
(Screen shot coming soon)