Section 508 Guide
How to Identify Errors in PDF
Contents

Purpose ..................................................................................................................................................... 3
Introduction .............................................................................................................................................. 3
Tools.......................................................................................................................................................... 4
   How to Use a Tool to Evaluate a PDF.................................................................................................... 4
General Evaluation.................................................................................................................................... 5
   Document Properties............................................................................................................................ 5
   Back-End Text Errors .......................................................................................................................... 7
   Bookmarks ............................................................................................................................................ 8
   Accessibility Checker ............................................................................................................................. 9
Evaluating Color ...................................................................................................................................... 11
   Color Contrast for text ........................................................................................................................ 11
   Conveying Information with Color ...................................................................................................... 13
   Link Color ............................................................................................................................................ 15
Evaluating the Tag Structure................................................................................................................... 17
   Order & Inclusion ................................................................................................................................. 18
Figures ................................................................................................................................................. 20
Headings .............................................................................................................................................. 23
Lists ...................................................................................................................................................... 25
Links .................................................................................................................................................... 27
Link Text .............................................................................................................................................. 29
Standard vs. Alternate Tags ................................................................................................................ 30
Tables .................................................................................................................................................. 32
Paragraphs ........................................................................................................................................... 37
Language of Foreign Words or Phrases ............................................................................................... 39
Footnotes and Endnotes ..................................................................................................................... 41
Table of Contents ................................................................................................................................ 44
Tips and Tricks......................................................................................................................................... 45
Additional Resources .......................................................................................................................... 45
Purpose
The purpose of this document is to guide authors and reviewers in analyzing the accessibility of a PDF document based on WCAG 2.0 AA.

Introduction
Original section 508 standards did not explicitly provide technical standards for electronic documents. However, refreshed standards do explicitly include electronic documents and must adhere to the specific standards stated in the Web Content Accessibility Guidelines (WCAG 2.0). All public-facing documents are required to be compliant when posted to a site, distributed across the agency, or used as a sole means of information.

PDF has become a popular alternate to HTML for certain content, but with that comes extra care needed to ensure all users have access to the same information. In order for a PDF to be accessible, both the content and the back end structure must be free from issues that would alter or block information to users with disabilities. In PDFs, the back-end structure is referred to as the Tag structure, and it allows Assistive Technology (AT) users a way to interpret the content of the document in the same manner of a typical user.

This guide aims to help those tasked with reviewing PDFs to ensure 508 compliance through WCAG 2.0 by showing the basic steps for checking a document in its final version. Checks are listed in order of difficulty. Compliant and non-compliant examples are provided for each type of error.

Notes:
- This guide does not address PDF forms.
- The screenshots in this guide are from Acrobat XI and may appear different in other versions, however the concepts are universal.
- The most common issues are listed with examples; for a full list go to the HHS Common Accessibility issues to avoid page for PDF.
- Certain WCAG 2.0 guidelines do not apply because of the exception stated in E205.4 of the ICT Refresh, these are:
  - 2.4.1 Bypass Blocks;
  - 2.4.5 Multiple Ways;
  - 3.2.3 Consistent Navigation;
  - 3.2.4 Consistent Identification.
Tools

The following table shows the tools most commonly used during testing at ASPA/DCD.

<table>
<thead>
<tr>
<th>Tool Name</th>
<th>How it is Best Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adobe Accessibility Checker</td>
<td>Adobe’s built in checker has logic that finds common tagging issues within the PDF. While a <strong>clean check does not guarantee compliance</strong>, it is a good check to get an overall feel.</td>
</tr>
<tr>
<td>PAC PDF Accessibility Checker 2.0</td>
<td>PAC is a tool that checks to ensure the PDF conforms to PDF-UA, an ISO standard that is also referenced in the 508 refresh. While the checks are good and give more coverage than the Adobe checker, there are a few that the ASPA 508 team does not view as required fixes for either 508 or WCAG 2.0. However, the screen reader preview feature is a great tool for quickly checking the tag structure, especially for ensuring the table structure.</td>
</tr>
<tr>
<td>Colour Contrast Analyser</td>
<td>The tool is used for measuring the exact color contrast between two colors. It is best to visually identify text against background that seems to be low then use the tool to measure the exact contrast ratio.</td>
</tr>
<tr>
<td>Colbis</td>
<td>Colbis is a color blindness simulator. It can be used when an evaluator feels there may be an issue with conveying information through color. A screenshot needs to be uploaded and run through the types of color blindness tests Colbis provides.</td>
</tr>
</tbody>
</table>

**How to Use a Tool to Evaluate a PDF**

Tools included above are used specifically to fit into a process that identifies the greatest number of issues in the least amount of time. These tools are not required for evaluation. If other tools are used, the following types of, and progression through are encouraged:

1. Use a document scanning tool to find specific accessibility issues, and problematic areas of the PDF.
2. Use regulation-specific tools to aid in evaluation of content appropriate to that regulation.
3. Use manual evaluation to supplement and confirm ALL results from automated tools.

Tools are used in our testing process to aid in the evaluation of the 508 standards for Information and Communications Technology (ICT) and to increase efficiency. However, they are in no way a replacement for the knowledge necessary to manually evaluate the results of automated checks within the tools, nor is there a single or set of tools that alleviates the need to manually evaluate and use human judgment to ascertain the accessibility of a website or piece of content.
General Evaluation

Document Properties

Inspecting the document properties is a quick check to see if the most basic measure of accessibility, PDF tagging, has occurred. It also indicates whether the document properties were properly filled out.

Steps to check

1. Open the PDF.
2. Select File > Properties.
3. In the description tab, look for the field ‘Tagged PDF’.
4. Ensure the field is set to Yes.
5. Inspect the Title, Author, and Subject fields.
6. Ensure the values are appropriate.

Common Issues

1. PDF is Untagged
   - Tagged PDF: No
2. Document Properties are Not Filled Out Properly

Correct Example

1. Tagged PDF values is Yes
2. Title, Author, and Subject fields are populated (Author should be set to the owning Opdiv, office, or simply DHHS)

![Document Properties](image)

**Notes**

- An untagged PDF is not compliant; there is no need to perform the Tag inspection checks outlined in this document when a PDF is untagged.
- “Author” should always be the agency that produces the original document per HHS policy.
- You can also tell the source file on the properties window from the Application field. If it was not originally Office, be sure to inspect Back-End Text carefully.
  
  **Application:** Adobe InDesign CC 2014 (Macintosh)

- Additional Resources:
  - [Adobe Tagged PDF Error Help](Adobe Tagged PDF Error Help)
  - [Adobe PDF Properties](Adobe PDF Properties)
**Back-End Text Errors**

Though text may look accurate visually, on the back end there may be typos or additional spacing that will cause screen readers to announce incorrect content. This can occur in any document, but is more common to occur when a program other than Office was used to construct the original document.

**Steps to check:**

1. Open the PDF.
2. Select File > Save as other > More Options > Text (Plain).
3. Select a save location.
4. Select Save.
5. Navigate to and open the text file in Word
6. Using built in tools for grammar and spell checking, look for typos or spacing issues
7. Compare results to the visual document.

**Common Issues**

1. Tagged text does not match visual text

   “Follow these directions to ensure a positive migration experience”

**Correct Example**

Text in the Word document matches the visual text of the PDF

**Notes**

- This issue will NOT be caught by the Adobe Accessibility checker.
- Reading order issues can also be spotted here, but they are easier to spot with the technique further down in this document.
- Alt text of images will be included in the document, so typos can be spotted there as well
- Issues can be fixed in the PDF, but it’s better for authors to diagnose the issues in the source so as to avoid in future documents.
- The initial save as the text file seems to replicate the closest experience as to what assistive-technology users’ experience, as such it is NOT recommended to save directly as a Word file in this evaluation.
**Bookmarks**

Bookmarks in long documents allow users to locate content benefiting not only those with cognitive disabilities, but all users. HHS requires bookmarks for all PDF’s 10 pages or greater.

**Steps to check:**

1. Open the PDF
2. Determine if there are at least 10 pages in the document
3. Select the bookmarks icon
4. Determine if there are bookmarks
5. Expand and select a sample of bookmarks
6. Ensure the links are accurate

**Common Issues**

Bookmarks are not present on a document with 10 pages or greater

![Bookmarks](image)

**Correct Example**

Bookmarks are present and accurate

**Notes**

- Additional Resources:
  - [WCAG 2.0 PDF Technique 2](#)
Accessibility Checker

There is a built-in accessibility checker in Acrobat. Although it does not guarantee a compliant document (even if it passes all checks), it does show basic errors. A fail for any of the checks means the document is probably not compliant.

Steps to Check:

1. Open the PDF.
2. Select View > Tools > Accessibility.
3. Select Full Check and keep the defaults.
4. Select Start Checking.
5. Expand any category denoted with issues.
6. Inspect the results.

Common Issues

1. PDF fails general accessibility check
2. Tab Order is Not Specified
3. Primary Document Language not Set
4. Document Title is not Showing in Title Bar

Correct Example

There are no fails in the accessibility checker. Any issues flagged are ones that need manual checks:
Notes

- A clean report does not necessarily mean a compliant document, the tag structure must still be inspected manually.
- Most flagged errors are issues found in the tag tree. To further analyze the error, right click on the error and select Explain. An Adobe help page will be displayed with an explanation and instructions to fix.

- To find specific instances of the errors, expand and select the individual elements which usually highlights the element in the main view of the document when ‘highlight content’ is enabled.

- If available, Show in Tags Panel and Show in Content Panel can take you directly to the element with the issue.
- Additional Resources:
  - Adobe Accessibility Checker Help
Evaluating Color

Before inspecting the tag structure, review the document page by page to inspect the content for visual issues related to color.

Color Contrast for text

With the exception of logos, all text must have sufficient color contrast so it is easily visible to all users. The preferred tool to measure the contrast is the Colour Contrast Analyser which is a free tool that measures the contrast ratio between text and background. The minimum contrast ratio for text of all size at HHS is 4.5:1.

Steps to Check:

1. Open the PDF.
2. Go page by page and identify any color schemes with seemingly low color contrast.
3. Use the Contrast tool to capture the color of the background adjacent to the text.
4. Use the Contrast tool to capture the color of the text.
5. Analyze the contrast ratio to ensure a value of at least 4.5:1.

Common Issues

Color Contrast is Insufficient

Correct Example

Contrast ratio of text against background is at or greater than 4.5:1
Notes

- This issue will NOT be caught by the Adobe Accessibility checker.
- HHS requires all text, no matter the size, to have a contrast ratio of 4.5:1 or greater. Therefore, the Pass/Fail values in the tool should be ignored.

- In cases where background or text color varies at different points (e.g. a gradient), use the lowest measurement as the contrast ratio value.
- This maps only to WCAG 2.0 and is the only issue currently required by HHS that does not map directly to Section 508 standards.
- Additional Resources:
  - WCAG 2.0 Understanding 1.4.3
  - Webaim - Contrast
**Conveying Information with Color**

No information should be conveyed with color alone. There must be a non-color method available so colorblind users can access all information.

**Steps to Check:**

1. Open the PDF.
2. Go page by page and identify any color information which may be conveyed with color.
3. Analyze the content itself and surrounding content to see if the same information is conveyed without the use of color.
4. For content where it’s hard to tell, print in black and white and analyze the hard copy.

**Common Issues**

1. Distinctions Beyond Color-Only are Missing

   List of 5 mammals, **heavy ones appear in red**
   - Cat
   - **Elephant**
   - Dog
   - Hamster
   - Whale

2. Charts/Graphs rely on color only legend

**Correct Example**

Pie chart uses visual labels in addition to a color only legend
Notes

- This issue will NOT be caught by the Adobe Accessibility checker.
- An alternative to the print in black/white test is to take a screenshot of the content and run it through a simulator such as Cobli to verify that no information is missed by ANY colorblind types.
- Surrounding text or data tables with equivalent information are considered non color methods for charts/graphs.
- Additional Resources:
  - WCAG 2.0 Understanding 1.4.1
  - Webaim - Color-blindness
Link Color

When reviewing hyperlinks, be sure to consider the following:

- First, whether the hyperlink is a different color from the surrounding text. It should be a different color and contain a contrast greater than 3:1 when compared to surrounding text.
- Second, whether the actual linked text is understandable within the context of the surrounding text. It should either be understandable on its own, or be in the same tag with text that gives sufficient context.

Steps to check:

1. Open the PDF.
2. Inspect the PDF for links that are distinguished by color (and do not have another distinguisher such as an underline).
3. Ensure the link has contrast greater than 3:1 when compared to surrounding text.
4. Inspect the link text.
5. Ensure link text is either understandable on its own or is understandable within the context of the surrounding text (surrounding text must be in the same tag).

Common Issues

1. Links are Only Identified Visually by Color

![Example of link only identified by color](image1)

2. Generic Link Text is Present

![Example of generic link text](image2)

We are hosting an exciting event next week!

Read More

In this case context is not sufficient because the link is in a separate paragraph tag.

Correct Example

The hyperlink “register with Grants.gov” text is understandable out of context. Though it is blue, it is always underlined in addition to having sufficient contrast from surrounding text (only 1 is needed to be sufficient).
Notes

- Automated tools can aid in the inspection as some show the presence of generic text. However, manual inspection is required to determine whether the link has enough surrounding context and whether links have a non-color indicator or sufficient contrast from the surrounding text.

- Additional Resources:
  - WCAG 2.0 General Technique 183
  - WCAG 2.0 Understanding 2.4.4
  - WCAG 2.0 Failure 63
  - Webaim - Links
Evaluating the Tag Structure

Inspecting the tag structure is the most demanding part of checking a PDF for accessibility, but it is also the most important as it defines how assistive technology is going to announce the content of the document to users. The steps below rely on only inspecting the tag tree, as sometimes there is a conflict (especially when checking for logical order) between the tree and the touchup reading order tool. In these cases, the tag tree is always the most reliable. Some of these issues also may be flagged by the accessibility checker.

Alternatively, the PAC tool screen reader preview feature can be used to evaluate the tag structure and some may find it to be more usable.

To access the tag structure, select the tags icon in the navigation pane.

---

Note: If a PDF is untagged, it is automatically inaccessible.
**Order & Inclusion**

Ensure the order of the content in the tag structure is logical. The order in the tag structure is the order assistive technology will announce the content. Also ensure all informational content is contained within the tree structure.

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Use the down arrow key to go line by line.
4. Compare the order of the content (denoted with a box icon) in the tags tree to the typical visual reading order.
5. Ensure logical reading order.
6. Ensure all informational content is tagged.

**Common Issues**

1. Tag Structure does not reflect Logical Reading Order

2. Informational content is not Tagged

3. Informational Image is tagged as background
Correct Example

All informational content is tagged and appears in a logical order when navigating the tags tree

Notes

- These issues will generally NOT be caught by the Adobe Accessibility checker.
- Though it is important to go by the tag structure, the touchup reading order tool can show content that is not tagged (as seen in the screenshots in common issue 2 and 3).
- Alternatively, the PAC tool screen reader preview feature can be used to evaluate reading order
- Additional Resources:
  - WCAG 2.0 PDF Technique 3
**Figures**

A figure is an image, which can be a screenshot, photograph, drawing, chart or a graph. Some figures are important and convey information while others add no information (non-informational) to the document content. Informational figures should be contained in the Figure tag.

```
<Figure>
```

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Find all figure tags.
4. Ensure that the content is appropriate as an image.
5. Right click on the figure tag and select Properties.
6. Compare the Alternative text field to the figure.
7. Ensure the alt text captures all information that can be obtained by a visual user.

**Common Issues**

1. Image is Missing Alternative Text

2. Alternative Text is Incorrect
3. Decorative Images are not Tagged as Background

4. Complex Images are Missing Detailed Descriptions
5. Content is an image of a data table or text instead of an actual data table or text

Correct Example

An informational image is tagged as a figure and the Alternate text in the properties of the figure tag conveys the same information gained by a sighted user.

Notes

- The Adobe Accessibility checker can find figures that have no alt text but manual inspection is needed to determine if the alternative text of figures is accurate.
- For complex charts and graphs, descriptive text is necessary. Describe exactly what the chart/graph is depicting along with detailed data and trend information.
- There is no official limit on the alt text field, however best practices recommend limits ranging from 120-250 characters. As such, complex images should adhere to the following guidelines:
  - WCAG 2.0 Complex image tutorial
  - Webaim - Complex Images
- Additional Resources:
  - WCAG 2.0 PDF Technique 1
  - WCAG 2.0 PDF Technique 4
  - WCAG 2.0 Understanding 1.4.5
**Headings**

Visual Headings and subheadings indicate titles or sections of a PDF document. When used, assistive technology users must have a way to understand that a piece of text is a heading. Visual headings should be contained in Heading tags (H1 to H6) in hierarchical order.

### Steps to Check:

1. Open the PDF.
2. Select the Tags icon.
3. Use the down arrow key to go line by line.
4. Compare visual heading text to the tags used.
5. Compare heading tags used to the visual text.
6. Ensure heading tags are used for all visual headings.
7. Ensure the appropriate heading level is used.
8. Ensure the text of the heading accurately describes the section of content.

### Common Issues

1. Heading Tags are Missing

2. Heading levels Improperly Structured and/or skipped

3. Heading tags used on decorative text
Correct Example

Visual headings are tagged with heading tags and follow a logical progression.

Notes

- The Adobe accessibility checker will flag heading tags that are out of order, but manual inspection is needed to determine if visual headings are using heading tags.
- Heading Level 1 (h1) tag should preferably be for the main title of the document.
- Additional Resources:
  - WCAG 2.0 PDF Technique 9
**Lists**

A list is text such as short phrases, single words, sentences or paragraphs that are grouped together as a category. They are often distinguished by numbers, letters and/or bullets. Visual lists should be contained in structured list tags.

![Structured List Diagram]

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Find all List tags.
4. Compare visual lists to the tags used.
5. Ensure the list structure accurately portrays the visual list.

**Common Issues**

1. Visual lists are incorrectly tagged

   ![Incorrectly Tagged List Example]

   1. Are about natural persons, and
   2. Are about both individuals under the Privacy Act;
   3. Are about other persons who are not individuals under the Privacy Act, and
   4. Contain some terrorism-related information.

2. Multiple List Items are Combined

   ![Combined List Example]

3. List items are broken into multiple list structures
Correct Example

A visual list contains a single List tag that includes 1 Li tag per item, which contains a label tag for the number and a LBody tag for the content. (Label tags are optional but encouraged).

Notes

- The Adobe accessibility checker will flag List tags that do not follow proper structure, but manual inspection is needed to determine if proper List tags were used and are reflective of the visual content.
- Additional Resources:
  - WCAG 2.0 PDF Technique 21
Links

URLs should be accessible to all screen readers; they must function as active links that have been correctly tagged in the PDF. The link must provide a connection to the target site. Link text and the hyperlink tag should be contained in the Link tag.

Steps to Check:

1. Open the PDF.
2. Select the tags icon.
3. Find all link tags.
4. Ensure the proper link text is contained in the Link tag.
5. Ensure a LINK-OBJR tag is included in the link tag.
6. Ensure the link goes to the correct destination.

Common Issues

1. Link tags are missing from tag structure

2. Link-OBJR tag is not present in the Link tag

3. Link text is not accurately reflected in the Link Tag

Correct Example

A paragraph contains a link where the link tag contains the visual link text and the appropriate Link – OBJR tag.
For more information on mental health problems, visit MentalHealth.gov.

Notes

- The Adobe Accessibility checker will flag physical links that have not been tagged, but manual inspection is required to verify proper link text and correct destination.
- Look out for URLs that spread across more than one line, sometimes they can be broken
- Additional Resources:
  - WCAG 2.0 PDF Technique 11
**Link Text**

Descriptive link text lets users know where they will be going if they activate the hyperlink. Whenever possible, the link text should be descriptive enough to be understood out of context. However, at minimum, proper context must be given in the surrounding text when generic link text is used.

**Steps to Check:**

1. Open the PDF
2. Find all links
3. Ensure link text is understandable out of context
4. If it is not, ensure the surrounding text gives enough context to understand the purpose of the link
5. Ensure the surrounding text and the link tag are contained in the same parent tag

**Common Issues**

A generic link has no context

Read More

A generic link has context, but is contained in a separate tag

Correct Example

Link text has content and the destination is understandable without the context

For more information, visit the HHS.gov Home Page

**Notes**

- Manual inspection is required
- Check the properties of the Link tag, an acceptable method is to provide alternate text to the link
- Additional Resources:
  - WCAG 2.0 General Technique 53
  - WCAG 2.0 General Technique 91
  - WCAG 2.0 PDF Technique 13
**Standard vs. Alternate Tags**

Role mapping allows you to add, change, and delete uniquely defined tags. Mapping custom tags to predefined tags in Acrobat ensures correct announcement to a screen reader user.

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Use the down arrow key to go line by line.
4. For alternate tags, compare the alternate tag to the content.
5. Open the Role Map.
6. Analyze the role mapping of the alternate tag.
7. Ensure the alternate tag maps to the appropriate Adobe tag.

**Common Issues**

Nonstandard Tags are Used and Improperly Mapped

![Role Map Diagram]

**Correct Example**

Nonstandard tags are used but properly associated to the standard adobe tags.
Notes

- These issues will generally NOT be caught by the Adobe Accessibility checker.
- Most custom tags are generated through the conversion from the source file to the PDF.
**Tables**

A table is a systematic way to display data in rows and columns. For tables to be understood by users of assistive technology, header cells must be defined and related to data cells. Visual data tables should be contained in structured table tags.

![Table Structure Diagram]

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Use the down arrow to go line by line.
4. Compare visual tables to the tags used.
5. Ensure the table structure accurately portrays the visual table.
6. Ensure all header cells are tagged with TH.
7. If there is 1 set of column and 1 set of row header cells:
   a. Open the properties of each header cell.
   b. Ensure the appropriate scope attributes are correctly implemented on the TH cells.
8. If there is more than 1 set of column and/or row header cells,
   a. Open the properties of each header and data cell.
   b. Ensure each TH cell has an ID attribute and is correctly related to the appropriate data cells.
9. Compare Table tags to the visual text.
10. Ensure Table tags are only used on data tables.

**Common Issues**

1. Tables Used for Layout Purposes
2. Incorrect Table Structure

3. Table Headers Missing TH Tags

4. Table Header Cells are not correctly associated with Data Cells
Correct Example

A visual table is correctly structured with a single Table tag, appropriate number of Table Row tags, and Table cell tags. Header cells are marked as TH, data cells are marked as TD. Column and Row header cells are properly scoped.

Notes

- The Adobe Accessibility checker will flag tables that do not have at least 1 TH cell, but manual inspection is required to verify proper table structure and association of header cells to data cells.
- Use the Table Editor in the Touch Up Reading Order tool and to aid in the evaluation of table structure and association of header to data cells. The lines drawn by the table editor should match the intended structure of the table.
An alternate to the table editor is to use the PAC tool screen reader preview (This is especially useful for more complex tables which may need special values set for cells that span rows or columns)

There are two methods to get to the needed properties of a cell. In the table editor, right click the cell and select “Table Cell Properties”

However, because of structure issues, sometimes the table editor can’t be used. In those cases, right click the cell in the tag structure and select Properties > Edit Attribute Objects
• Additional Resources:
  o WCAG 2.0 PDF Technique 20
  o WCAG 2.0 Tables Tutorials
Paragraphs

A paragraph is a block of text within the document. Each visual paragraph should be tagged as a paragraph.

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Use the down arrow key to go line by line.
4. Analyze the paragraph tag in relation to the highlighted content on screen.
5. Ensure the paragraph tag accurately represents the visual text.

**Common Issues**

1. Paragraph Tagging is Insufficient

2. Paragraph Tagging is Excessive

**Correct Example**

A single paragraph tags is used for a single visual paragraph.
Notes

- For paragraphs which run onto the next page, make sure to tag under the same paragraph tag to keep the paragraph flowing.
- Converted files may contain extra empty `<p>` tags. Remove these by changing them to artifacts and deleting the tag.
**Language of Foreign Words or Phrases**

If there are foreign words or phrases in the document, then the language of the tag that contains the word or phrase must be set to the correct language.

**Steps to Check:**

1. Open the PDF.
2. Inspect the document for foreign words or phrases
3. Find the tag containing the foreign word or phrase
4. Right click and select Properties
5. Ensure the Language is correctly set

**Common Issues**

Foreign words or phrases have the default language of the document:

**Correct Example**

The tag containing the foreign phrase has the language correctly set in the properties:
Notes

• Additional Resources:
  • WCAG 2.0 PDF Technique #19
**Footnotes and Endnotes**

Footnotes or endnotes are a combination of a reference in the main body of the document that cite a note on the bottom of the same page or at the end of a document, connected by a unique identifier. It is important to ensure not only the citation and notes are tagged correctly, but also the reading order is logical so that screen reader users understand the sentence in relation to the reference.

![Diagram of Footnote and Endnote Tags](image)

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Compare visual Footnotes to the tags used.
4. Ensure the reference number / letter / etc. in the paragraph uses the reference tag.
5. Ensure the actual footnote uses the Note tag.
6. Ensure the Note tag either follows the reference tag, or follows the tag containing the reference tag.
7. If endnotes are used, repeat steps 3 and 4.
8. For endnotes, they can either be in individual note tags, or part of a list structure.

**Common Issues**

References and Notes are tagged as flat text:

Proin nec ipsum rutrum, blandit massa euismod, bibendum lectus.


Ut volutpat nisi ultricies, ac convallis leo ullamcorper. Duis finibus venenatis dolor in venenatis.


Notes interrupt an unrelated paragraph:

fames ac turpis egestas. Quisque id leo ac nulla mollis dapibus in
Correct Example

A Reference tag is used on a citation and a child of the paragraph tag. A note tag is used on the footnote and it immediately follows the paragraph tag that contains the reference. Optionally, a label tag is used on the citation number within the note tag.
Notes

- If Footnotes or Endnotes contain physical links, then the link-OBJR should be a child of the reference tag.
- It is recommended that footnotes do not contain physical links.
- In most cases, it is recommended that the note follow the tag containing the reference tag rather than following the reference tag to preserve the meaning of the original sentence.
- Additional Resources:
  - PDF32000_2008
**Table of Contents**

A table of contents provides users an overview of the main information in the document and the ability to quickly navigate to those sections.

**Steps to Check:**

1. Open the PDF.
2. Select the Tags icon.
3. Compare visual table of contents to the tags used.
4. Ensure the table of contents tags accurately portrays the visual items.

**Common Issues**

Table of Contents tagged as flat text

**Correct Example**

A visual table of contents is contained in a single TOC tag and each visual item is contained in a TOCI tag.

**Notes**

- Multiple table of contents can exist in a single document, for example if there is an additional list of tables, figures, etc.
- If the table of contents is physically linked, each Link-OBJR should appear in the Link/Reference tag for each table of contents item
- Additional Resources:
  - [WCAG 2.0 General Technique 64](#)
Tips and Tricks

A couple tips and tricks to help in the evaluation of PDFs for Section 508:

1. To get a full view of the tag structure, click on the plus sign while holding down Shift + Ctrl.
2. For larger documents, inspecting a single piece of content can be difficult as it takes time to manually find it in the tag tree. In these cases, the following method can be used to quickly locate.
   - Select View > Tools > Accessibility.
   - Select Touchup reading order.
   - Use the mouse to put a box around a piece of content.
   - Select the Tags icon.
   - Select the Options icon.
   - Select ‘Find Tag from selection’.
   - The highlighted content will be shown (if it exists) in the tags tree.
3. Use the PAC tool to evaluate Table structure.

Additional Resources

- PDF techniques for WCAG 2.0
- Adobe accessibility help
- HHS Making files accessible
- Webaim – PDF Accessibility