

PDF accessibility

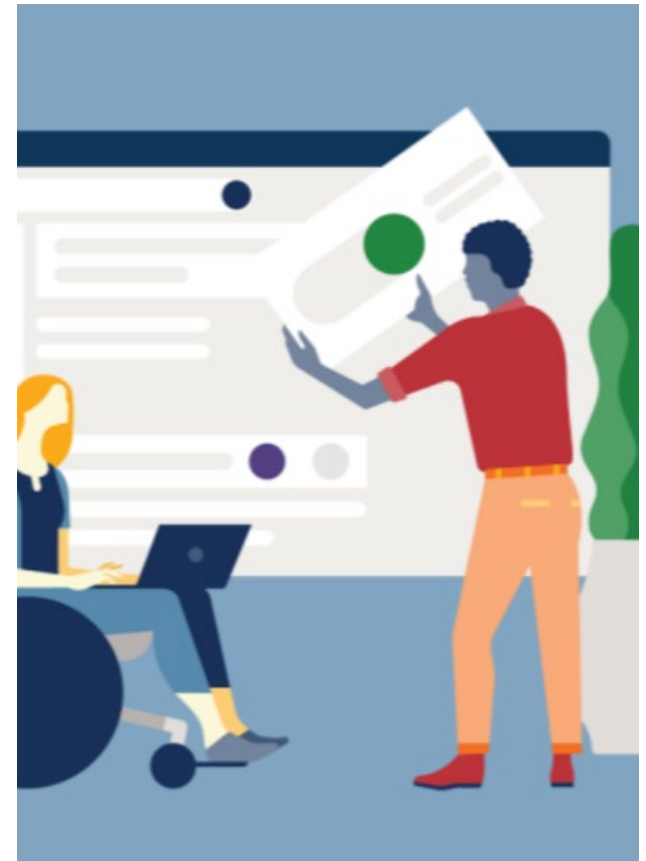
Basic Recommended Guidelines for 508 Compliant Documents Accessibility Compliance Training

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Agenda

- Background
- Optimization of Source Documents
 - Microsoft Word
 - PowerPoint
- Creating a Tagged PDF
- Website Content & Design
- Summary
- Resources
- Questions





Background to Section 508



Section 508 – part of the Rehabilitation Act of 1973

- Requires Federal agencies to make electronic and information technology (EIT) accessible to people with disabilities

508 Compliance: web-based standards applied to EIT, enabling equal access to information for all persons with sensory impairments

- Facilitates use of assistive technology software to interpret content and either provide screen captions or have content read aloud


Relevance for CT Balance of State CoC

All federal contractors & agencies - ensure websites & content are accessible

PDF documents and forms must be accessible to those with visual impairments, both employees and the general public



For persons with visual or cognitive impairments, document creation can make the difference between understanding or not



Example of non-optimized
document vs. optimized

A photograph of a wooden boardwalk winding through a grassy dune landscape. The boardwalk is made of light-colored wooden planks and curves from the bottom left towards the middle of the frame. The landscape is covered in green grass and some purple flowers. In the background, there are sand dunes and a line of trees under a cloudy sky. A white silhouette of a person's head and shoulders is overlaid on the right side of the image, partially obscuring the text.

Three Steps to an Accessible PDF

- There are Three Steps to an accessible PDF:
 - Optimize source document
 - Convert it to a tagged PDF
 - Touch-up resulting PDF

Optimization of Source Documents





Optimize Source Document

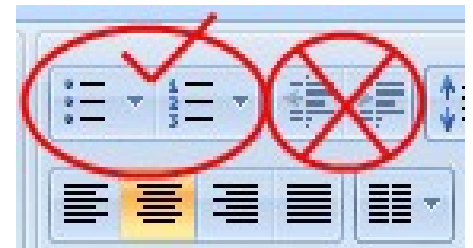
- The simple goal is to use as much of the accessibility features in your source document as possible so that when you're converting it to a PDF, most of those accessibility attributes are preserved.
- There is a range of accessibility features/attributes, but most common ones are:
 - Headings
 - Lists
 - Document and passage-specific language
 - Images
 - Hyperlinks
 - Headers/Footers
 - Footnotes
 - Tables
 - Forms

For Microsoft Word:

- Using Styles and Headers
- Proper creation of hyperlinks
- Proper labeling of images with alternate text
- Creating lists and using bullets
- Use of Tables and Labeling of cells
- Helpful Resource: <https://accessible-docs.com/accessible-word-document-checklist/>

Microsoft Word – Bullets and Lists

- Use the Bullet and Numbering preformatted lists as a tool to make your lists accessible.
- Do not use the "Increase Indent" or "Decrease Indent" features to create lists or tables.
- Try to use only the standard bullets of disk, open circle, square and open square. These are often the only types of bullets recognized and tagged correctly after being converted to PDF.





Microsoft Word – Tables and Labeling Cells

- ***Tables should only be used for including data and never for layout.*** Use Templates, Styles and Formatting, or Page Layout options to arrange text and images.
- Microsoft Office does not provide an easy method for creating accessible tables. If you have complex tables it is highly recommended that a description or explanation of the table contents be included in the text of the document. If at all possible, construct the table so it will read logically from left to right, top to bottom order.
- Tables with column headings in the top row must have the top row formatted as a header row. This often results in the table being read in the proper order and the structure being maintained if the document is ever converted to PDF format.

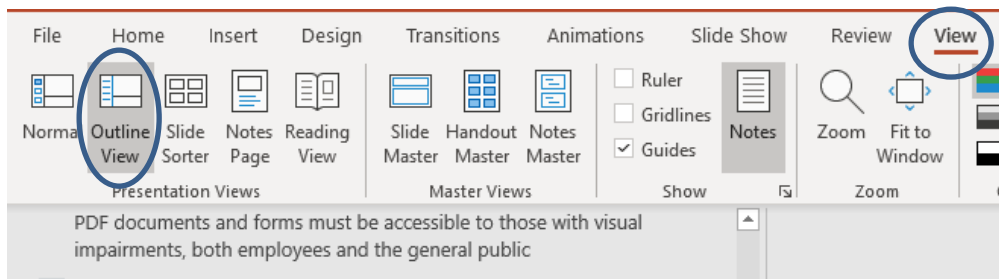
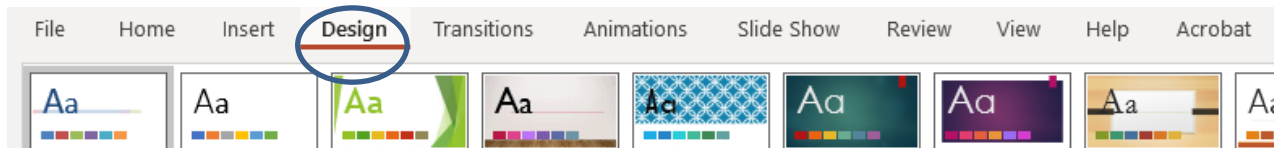


Example of Word Document

Review of Accessibility Features

For PowerPoint:

- Encouraging use of predesigned slide layouts
- Using the Outline and Notes Panels



PowerPoint - Encouraging use of Predesigned Slide Layouts

- Every version of PowerPoint since at least 2000 contains a series of highly-accessible slide layouts. PowerPoint is designed to encourage the use of these slide layouts, especially in newer versions. Using these templates will ensure that your files have correctly structured headings and lists, proper reading order, etc.
- The correct use of slide layouts is probably the most significant thing you can do to ensure that your content is accessible. It sets up the text to be interpreted by PDF creation software and accessibility technology similar to Styles and Formatting in Microsoft Word.



Image(s) without Alternative Text (All Document Types)

Check and add alternate text for images and figures

In order for screen readers to describe graphics and images that illustrate important concepts in a document, you must provide the description using alternate text. Content tagged as a "Figure" is not recognized or read by a screen reader unless you add alternate text to the tag properties.

Providing descriptions is a best practice.

Use Check Accessibility Feature in PowerPoint

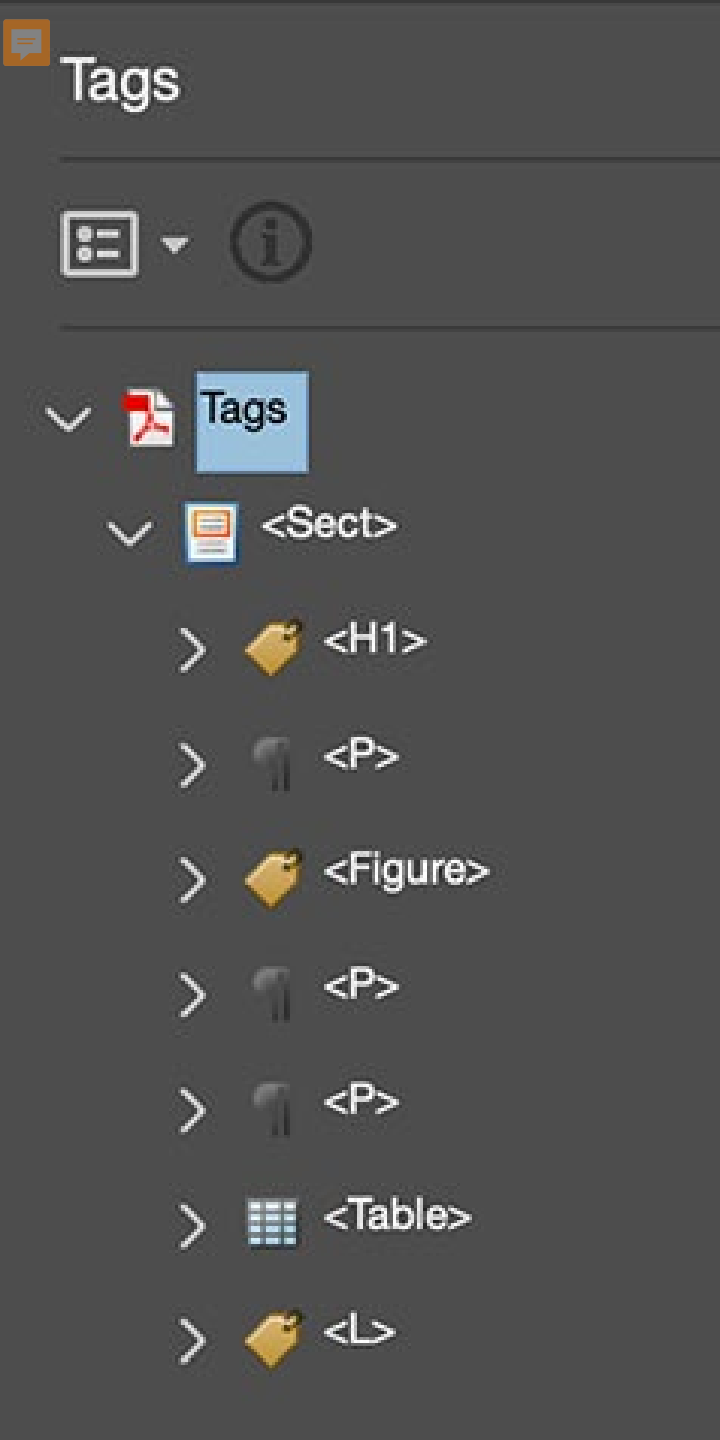


Example of PowerPoint

Review of Accessibility Features

Creating a Tagged PDF Document





PDF – Creating a Tagged Document

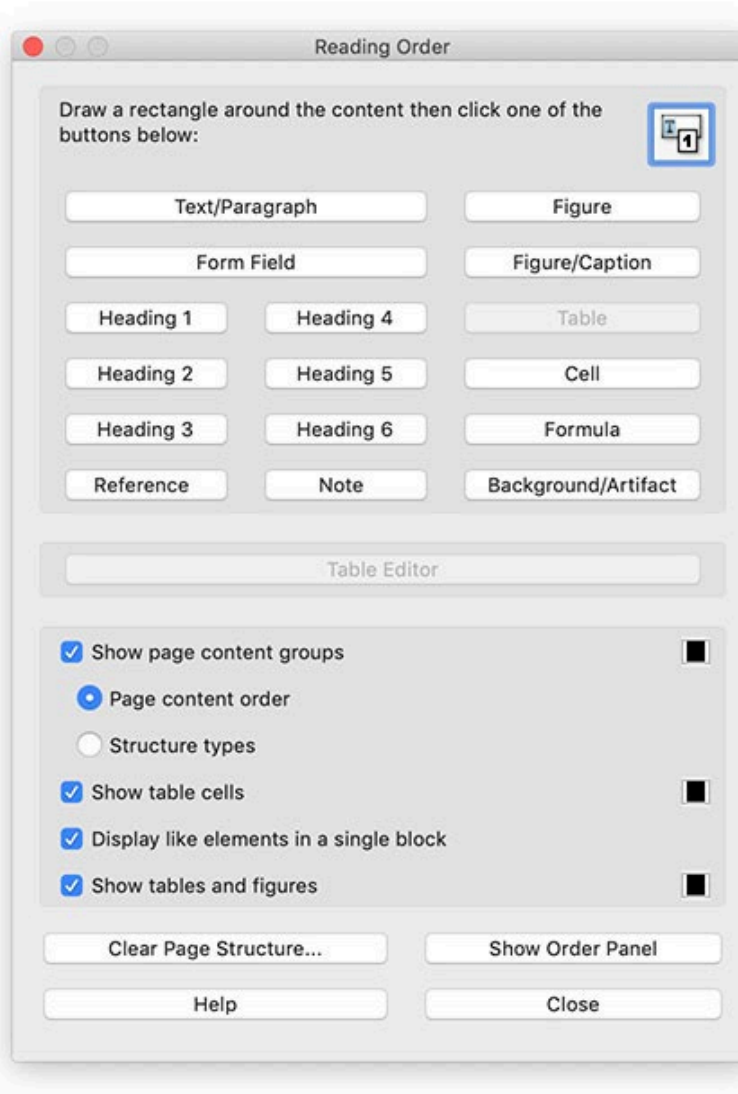
- Accessible PDF files usually are referring to "tagged" PDF files, even though there is more to an accessible PDF than tags.
- PDF tags provide a hidden, structured, textual representation of the PDF content that is presented to screen readers and other assistive technologies. They exist for accessibility purposes only and have no visible effect on the PDF file.
- PDF files are usually created from other Document Types like MS Word Files and PowerPoints. The accessibility of the PDF depends on the accessibility of the original document.

Most Common Methods of Converting a Source Document to a PDF



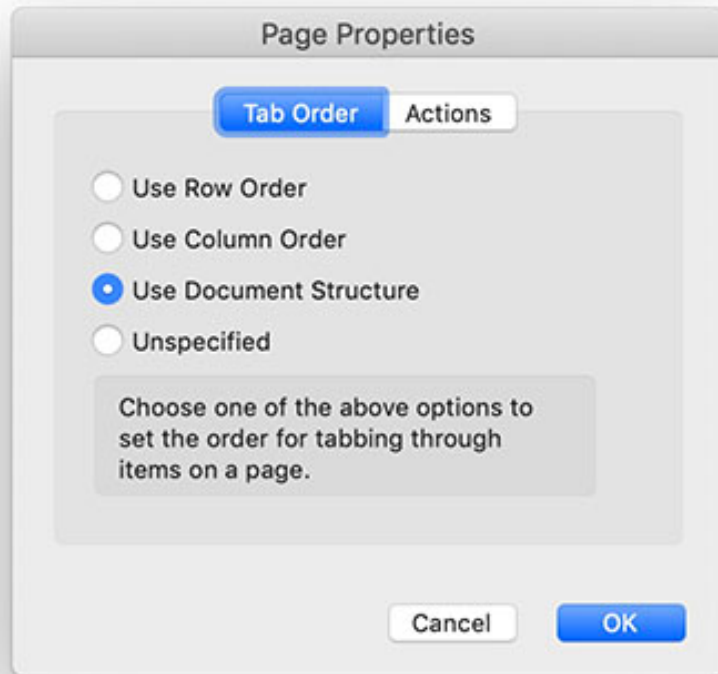
One of the worse methods is "**Printing to a PDF**" as no accessibility features will be preserved. Do Not Use this method.

- Using plugins in document authoring tools (such as MS Office, Firefox, etc.)
- Opening and converting documents directly in Adobe Acrobat Pro
- Using a third-party conversion tool



PDF - Touch Up Reading Order

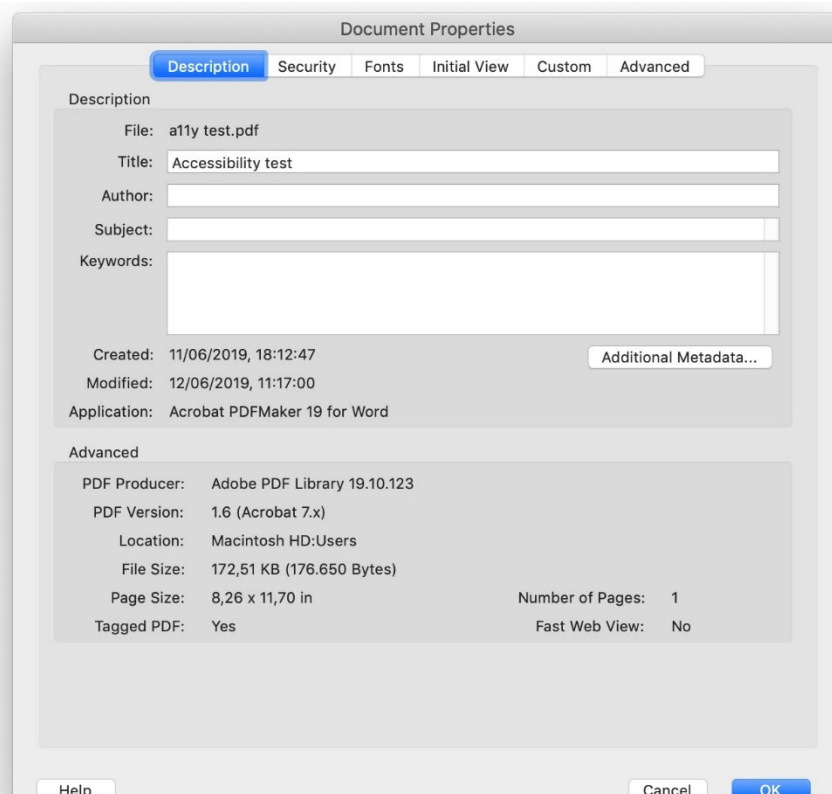
- All of your tag modifications happen within Adobe Acrobat Pro with either Tags panel or via Touch Up Reading Order panel. Tags panel is more code-based (you see actual tags) and more comprehensive, while Touch Up Reading Order is a more visually-based tool.



PDF – Tab Order

- Make sure the Use Document Structure is selected as an option in Page Properties - Tab order tab.

PDF Metadata



- PDF metadata are essentially document properties such as document title, language, whether it's a tagged PDF or not, etc. There are just a few metadata attributes, but they need to be provided for an accessible PDF.



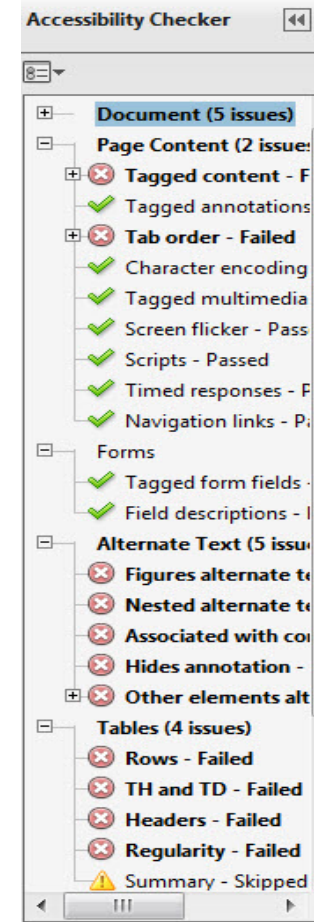
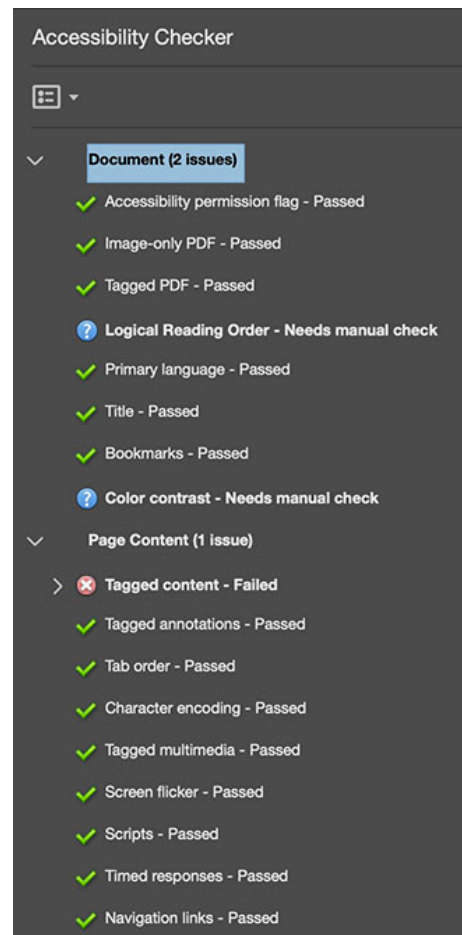
PDF - Elements Not Contained in the Document Structure Tree

This is the most complicated of all the common accessibility issues. It can have several sources. Most of these problems can be solved by creating a PDF from an accessible document to start.

- Adding Tags to a PDF Document
- Inaccessible Page Content
- Inaccessible Link

PDF – Adobe Acrobat Pro Accessibility checker

Adobe Acrobat Pro has its own Adobe Acrobat Pro Accessibility checker - an automated solution which checks for accessibility issues.



PDF – Accessibility Checker

- By default, the Adobe PDF standards will be selected
- Below the pull-down menu, you can see the available accessibility issues that the Adobe PDF option checks
- Click the **Start Checking** button.

Accessibility Check

Accessibility

Accessibility Full Check

Report and Comment Options

☒ Create Accessibility Report Folder: C:\Documents and Settings\polk...\My Documents [Choose...](#)

☒ Include repair hints in Accessibility Report

☐ Create comments in document

Page Range

☒ All pages in document ☐ Pages from to

Checking Options

Name: [Adobe PDF](#)

☒ Alternative descriptions are provided

☒ Text language is specified

☒ Reliable character encoding is provided

☒ All content is contained in the document structure

☒ All form fields have descriptions

☒ Tab order is consistent with the structure order

☒ List and table structure is correct

[Select All](#) [Clear All](#)

Disclaimer

[Show Disclaimer](#)

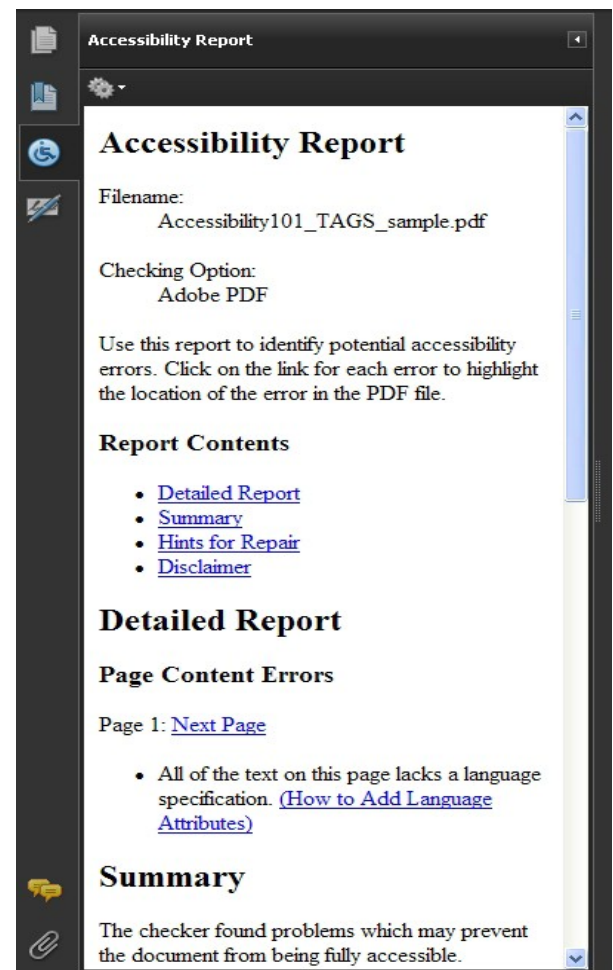
[Help](#) [Start Checking](#) [Cancel](#)

PDF – Common Accessibility Check Issues

If your check generated **Content Errors**, follow the prompts in the Accessibility Report to correct them

Common Issues:

- Establish Table Headings for Tables
- Elements not contained in the document structure tree
- Tab order may be inconsistent with the structure order
- Image(s) without alternate text
- All text on this page lacks a language specification





Example

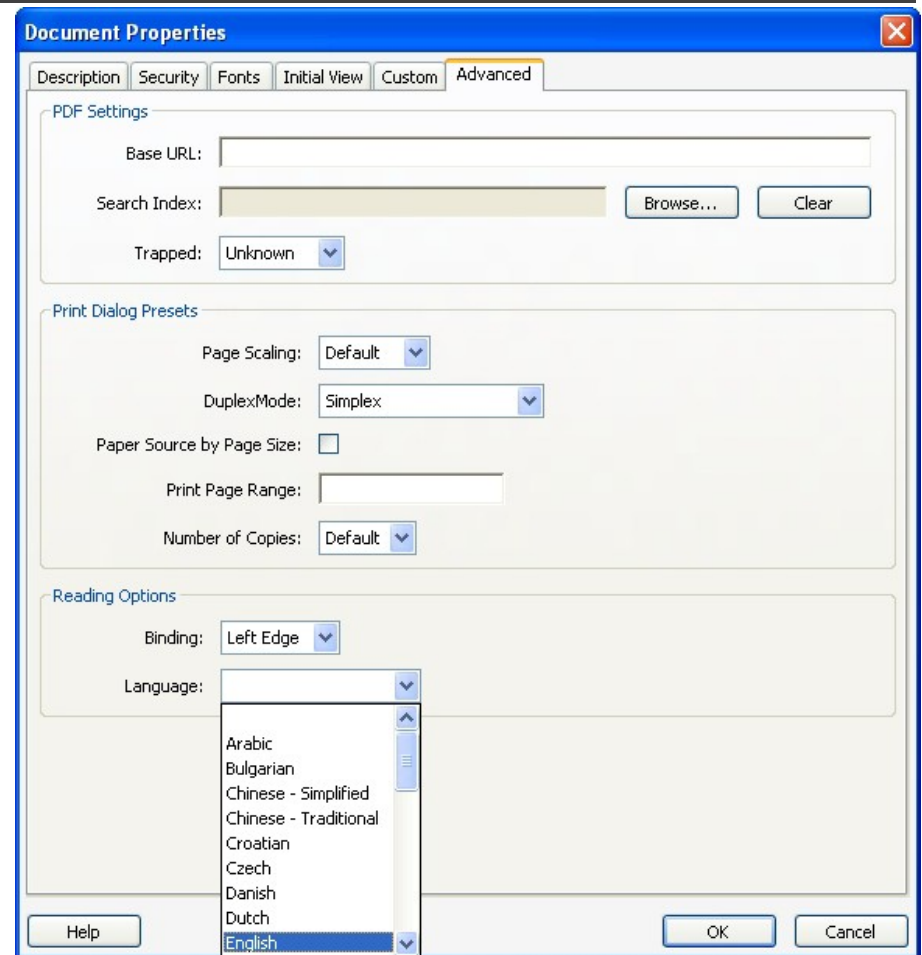
- PDF Touch Up Reading Order
- PDF Tab order
- PDF Metadata
- Using Accessibility Checker

PDF – Common Corrections to Issues:

- Using Styles and Headers
- Proper creation of hyperlinks
- Proper labeling of images with alternate text
- Creating lists and using bullets
- Use of Tables and Labeling of cells
- PDF Conversion Tool: [PDF conversion tool](#)

PDF - All Text on this Page Lacks a Language Specification

- Use the pull-down menu at the bottom under **Reading Options** for **Language** and select the appropriate language for the document.



Website Content and Design

General Practices





Website

All Content Available to All Users

- Avoid overlapping content — graphics or lines of text overlap
- All functionality operable by keyboard
- Pay special attention to these:
 - Images
 - Forms
 - Data Tables
 - Frames
 - Navigational Elements
 - Dynamic Content/Interactivity





Website (2)

Color Contrast: important for all content

Embedded Content: Properly format iFrames

- Embedding from YouTube
 - Ensure video has title and description
 - Video needs closed captioning, audio description if necessary
 - Activate closed caption when uploading to YouTube

Headers and Sections: Use auto-sequential formatting

Labeling: Label all items on page



Website (3)

Line spacing: Ensure no empty lines between sections or text

Links: Style so there are visible indicators of “link” status

Menus: Preferred coding to use hover vs. drop-down menus

- Resource:

<https://www.w3.org/WAI/tutorials/menus/>

Phone numbers: clickable on smart phones

Tables: Build with labels for headers

- <https://www.w3.org/WAI/tutorials/tables/>





Summary

Electronic Information Technology accessible to all

Utilize the accessibility tools within the software

- Pre-designed styles, layouts and headers
- Use lists and bullets
- Label images

Attention to:

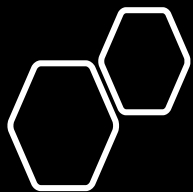
- Color contrast
- Simplify flow and spacing of content

Keep resources on hand





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Questions

