PDF File 508 Checklist

Introduction

In October 2012, subject matter experts from several federal agencies developed an Accessible Electronic Document Community of Practice (AED COP) with the goal of improving accessible content, advancing the field of accessibility, and creating accessible artifacts reusable across many agencies.

SECTION508.GOV

The section508.go website was intended to be a place for a variety of stakeholders to easily find guidance, tools, and resources for Section 508 procurements with the ultimate goal of ensuring **equal participation for people with disabilities by improving Information and Communication Technology (ICT) accessibility**.

The section for creating **Accessible Electronic Documents** (Word, Excel, Powerpoint, PDF etc.) can be found at: https://www.section508.gov/content/build/create-accessible-documents

WEBAim

WebAIM (Web Accessibility in Mind) is a non-profit organization based at Utah State University in Logan, Utah. WebAIM has provided web accessibility solutions since 1999. WebAIM's mission is to expand the potential of the web for people with disabilities by providing the knowledge, technical skills, tools, organizational leadership strategies, and vision that empower organizations to make their own content accessible to people with disabilities.

We recommend that you take some time to become familiar with the content at: http://webaim.org/intro/

SCREENREADERS

For a good overview of disability types, the popularity of different screen readers, operating systems and web browsers employed by the accessibility community:

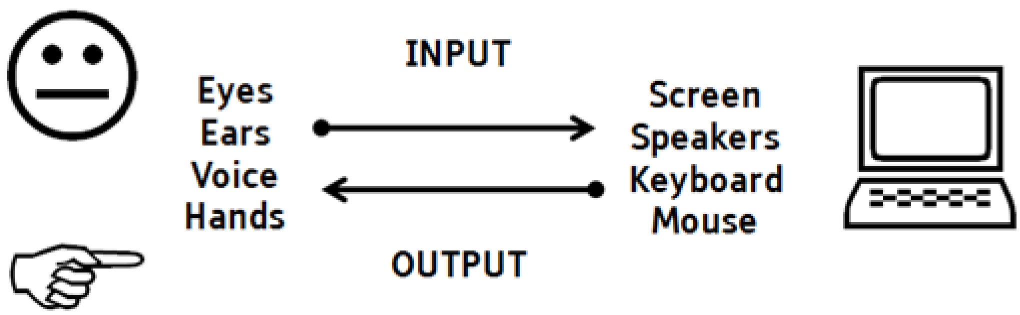
We recommend that you take some time to look at the survey data at: http://webaim.org/projects/screenreadersurvey6/

Which of the following disabilities do you have?

Response	# of Respondents	% of Respondents
Blindness	1610	64%
Low Vision/Visually-Impaired	973	38.7%
Cognitive	44	1.7%
Deafness/Hard-of-Hearing	157	6.2%
Motor	60	2.4%
Other	65	2.6%

Screen Reader	# of Respondents	% of Respondents
JAWS	743	30.2%
ZoomText	545	22.2%
Window-Eyes	508	20.7%
NVDA	360	14.6%
VoiceOver	188	7.6%
System Access or System Access To Go	36	1.5%
ChromeVox	8	0.3%
Other	72	2.9%

Reading Technologies, and Implications for Document Design



Screen Reader Software:

Someone who is totally blind cannot use their eyes, so they cannot see the screen and they cannot use the mouse. Instead, they can use talking software, called a Screen Reader and they use the keyboard to control the Screen Reader software.

Screen Magnification:

Someone who has low vision can compensate by using Screen Magnification software. Depending on their preferences, they may use a combination of Screen Magnification and Screen Reader software.

Speech Recognition:

Someone who has no ability to use hands may use Speech Recognition software. They cannot use the keyboard or mouse, so all commands are spoken (e.g., "Page Up... Page Up... Move to Top...").

It is important to know that in order for these alternate interface mechanisms to work, the documents need to be designed to be accessible.

Visual versus programmatic formatting

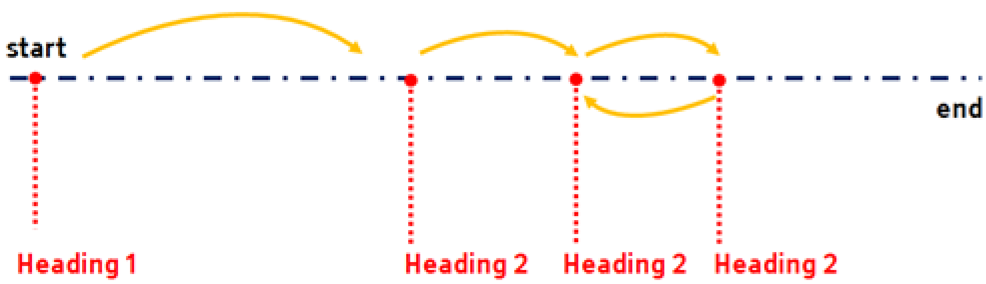
To a sighted reader of a document, a **'heading'** looks like a heading when it is visually formatted differently to other text. Things like centering, bold, underlining and capitalization etc.

The problem for Screen Reader software is that because this type of formatting can be applied in either a heading or a paragraph of text, **there is no way for the software to detect which one it is**—is it a heading or a regular paragraph?

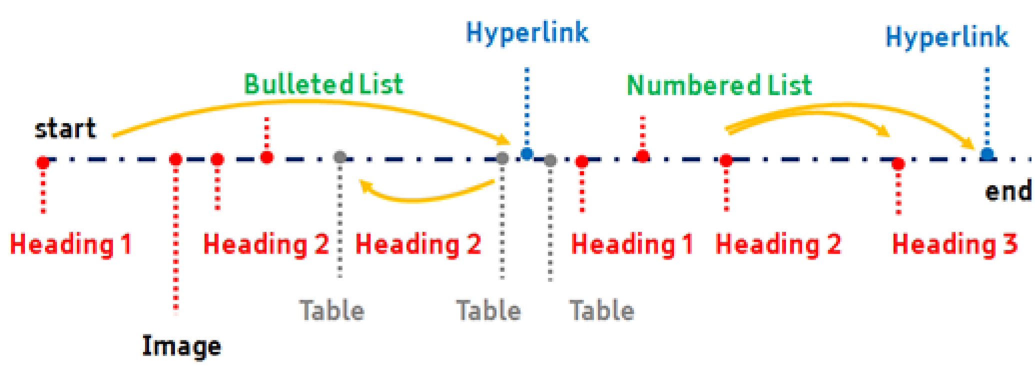
For a sighted reader, removing the visual formatting of headings makes the page much more difficult to read. But for a non-sighted user, the text is spoken only one word at a time, with no way to skip over sections to the next heading.

What is missing is a **programmatic identification of headings in the document**. This can be applied easily by **use of styles in MS Word.** The heading can still look the same way as it did before (bold, underline etc.), but some non-visible code gets added to the piece of text that says, (essentially) 'this is a heading'.

In MS Word and in PDFs, heading styles can be applied programmatically. The heading styles can have associated levels, just as with visual differentiation (i.e., level 1, level 2, level 3 etc.) to give a hierarchical structure to a document's content. **When heading styles are applied, the Screen Reader software can, at the command of the user, jump to the next heading in the document:**



By adding this programmatic formatting, the Screen Reader user can now navigate the document much more easily. We can also provide programmatic formatting on other parts of the text, such as**: Images (graphics), Tables, Bulleted Lists, Numbered Lists, Hyperlinks, etc**.



PDF File 508 Checklist

This document contains a checklist of the minimum steps required to make PDF File Section 508 accessible and acceptable for posting to a website

If you are responsible for creating or signing off on PDF files, you can use this checklist as part of your process. You may find it helpful to review the checklist before you create your file, and also to print out the checklist and check off each item after you have created your file, or when you receive the file.

ID	**1.0.Master Requirements for all Documents**	**Yes (Pass)**	**No (Fail)**	**N/A**
1.1	Does the document file name not contain spaces and/or special characters?			
1.2	Is the document file name concise, generally limited to 20–30 characters, and does it make the contents of the file clear?			
1.3	Have the Document Properties for Title, Author Keywords, and Language been filled out?			
1.4	Does the document utilize recommended fonts (i.e., Times New Roman, Verdana, Arial, Tahoma, Helvetica, or Calibri)?			
1.5	Have comments been removed and formatting marks been turned off?			
1.6	Does the document refrain from using flashing/flickering text and/or animated text?			
1.7	Do all URLs contain descriptive hyperlinks (i.e., avoid generic phrases like “Click here” and, instead, use phrases that let users know about the content of the linked page prior to selecting it)?			
1.8	Are all URLs linked to correct Web destinations?			

ID	1.0.Master Requirements for all Documents	Yes (Pass)	No (Fail)	N/A
1.9	Are all internal links/TOC entries functioning correctly (if linked)?			
1.10	Are links (including e-mail addresses) keyboard accessible?			
1.11	Has a separate accessible version of the document been provided when there is no other way to make the content accessible? And is there a way for the user to access the alternative version from the document			
1.12	Is the color contrast ratio between foreground text and background color at least 4.5:1?			
1.13	Has the document been reviewed in Print Preview for a final visual check?			
1.14	Is the document free of background images or watermarks? and is watermark and/or header and footer information duplicated in the main body of the document.			
1.15	If security settings have to be used, have you ensured that **"Enable text access for screen reader devices for the visually impaired"** is checked?			

ID	2.0. General Layout and Formatting Requirements	Yes (Pass)	No (Fail)	N/A
2.1	Is the document free of scanned images of text?			
2.2	Have bookmarks been included and are they logical?			

ID	**2.0. General Layout and Formatting Requirements**	**Yes (Pass)**	**No (Fail)**	**N/A**
2.3	Are decorative images marked as background/artifact?			
2.4	Have all scanned signatures been removed from the PDF? (see http://webstandards.hhs.gov/standards/41)			
2.5	If there is an automated accessibility checker in the program used to create the PDF, has that been run and does it pass?			
2.6	Is the document free of layout tables?			
2.7	Do images/graphics appear crisp and legible?			
2.8	If a table of contents (TOC) is present, are the page numbers correct, and, if linked, does the TOC function correctly?			

ID	**3.0.Accessibility Tagging and Reading Order**	**Yes (Pass)**	**No (Fail)**	**N/A**
3.1	Have PDF tags been added to the document?			
3.2	Does the order of the PDF Tags match that of the order that the content should be read in?			
3.3	Has the PDF been formatted using Style elements (i.e., the title of the document as Heading 1, the first-order heading as Heading 2, etc.?)			
3.4	Are heading styles organized in a hierarchal and logical fashion, with consecutive headings (i.e., no missing heading levels).			

ID	**3.0.Accessibility Tagging and Reading Order**	**Yes (Pass)**	**No (Fail)**	**N/A**
3.5	Have documents with multicolumn text, tables, or call-out boxes been checked for correct reading order?			
3.6	Are any footnotes or references tagged with standard Note and Reference tags and placed in the proper logical reading order?			

ID	**4.0. Document Images Requirement**	**Yes (Pass)**	**No (Fail)**	**N/A**
4.1	Is the document free of background images or watermarks? And if needed does that content appear somewhere in the main body of the document			
4.2	Are multiple associated images on the same page (e.g., boxes in an organizational chart) grouped as one object?			
4.3	Have all multilayered objects been flattened into one image and does that image use one alternative text description for the image?			
4.4	Do all images, grouped images, and nontext elements that convey information have meaningful alternative-text descriptions?			
4.5	Do complex images (i.e., charts and graphs) have descriptive text near the image (perhaps as a caption)?			

ID	5.0. Lists and PDF Tables	Yes (Pass)	No (Fail)	N/A
5.1	Have lists been tagged completely, making use of all four of the following tags: L, LI, Lbl, and LBody tags?			
5.2	If the document has a tabular appearance, was that tabular structure made using the table option (as opposed to manual tabs and/or spaces)?			
5.3	Are blank cells avoided?			
5.4	Do tables have a logical read order left to right, top to bottom?			
5.5	Do all data tables in the document have Row/Column headers?			
5.6	Do header rows repeat across pages if the table is multiple pages?			
5.7	Are all table cells, with the exception of those in the Header Rows or columns, designated as data cells?			
5.8	Are data cells set so they do not split across pages?			
5.9	If the table is a simple table, does it have scoping applied to the appropriate Row/Column Headers?			
5.10	If the table is complex, does it have id and header attributes to associate the data cells with the column/row headers?			
5.11	Are all tables described and labeled (where appropriate)? Note: In some cases naming/numbering of tables may not be appropriate. For example, a small data table in a presentation may not need a reference.			

ID	6.0. Form Fields	Yes (Pass)	No (Fail)	N/A
6.1	Do all form fields have correct labels and markups: Form fields must have a visual text label next to the form tag and there must be a tool tip. Is the value attribute used on buttons? Is the label element not being used on hidden input fields (e.g., input type =”hidden”)?			
6.2	Are all form fields keyboard accessible?			
6.3	Are all multiple-choice answers keyboard accessible and grouped together as form-field sets? The value attribute needs to match the text next to the answer. Make sure the name attribute is the same.			

Checking And Fixing Accessibility Issues in PDF Documents

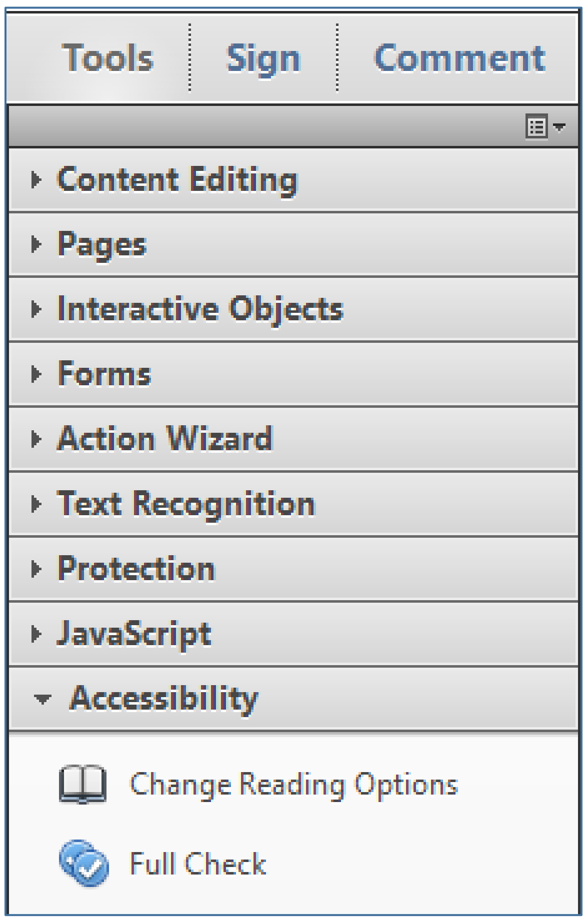
The 'Accessibility Full Check'

The 'accessibility full check' is a tool within Acrobat Pro, used to provide an overview (but not necessarily a complete list) of accessibility problems that may need to be remediated (fixed).

Although this check is not absolutely necessary to do, it does offer a useful place to start with any newly created PDF to get an overview of the type and number of problems.

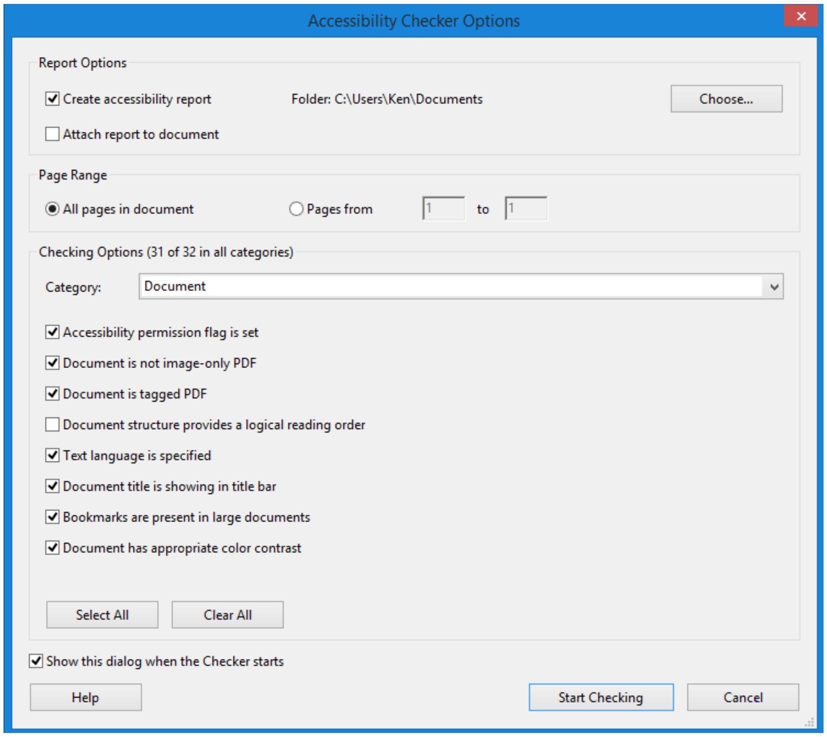
Running the Accessibility Full Check

In Acrobat select **View Tools, Accessibility**

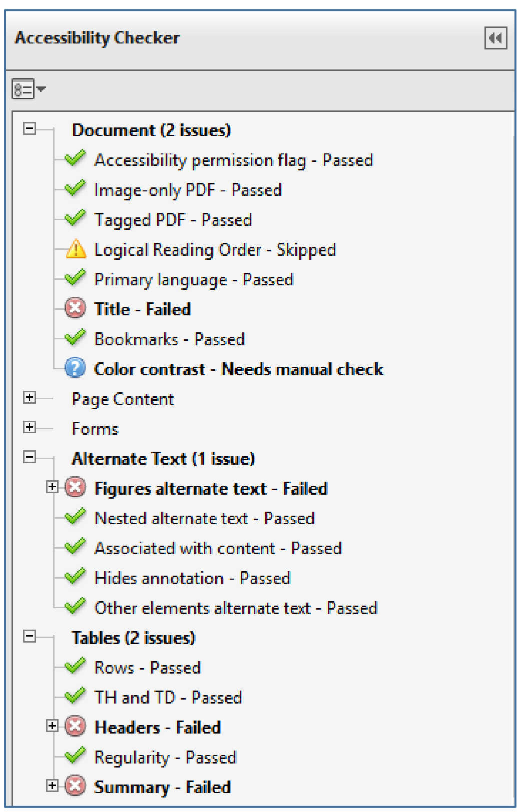


Select **Full Check**

The following dialog box appears



Select **Start Checking** and the following report appears detailing which parts of the document passed the accessibility check and which did not.



You can open the Accessibility Report to see more detailed results

Accessibility Report

Summary

The checker found problems which may prevent the document from being fully accessible.

- Needs manual check: 1
- Passed manually: 0
- Failed manually: 0
- Skipped: 1
- Passed: 26
- Failed: 4

Detailed Report

Document

Rule Name	Status	Description
Accessibility permission flag	Passed	Accessibility permission flag must be set
Image-only PDF	Passed	Document is not image-only PDF
Tagged PDF	Passed	Document is tagged PDF
Logical Reading Order	Skipped	Document structure provides a logical reading order
Primary language	Passed	Text language is specified
Title	Failed	Document title is showing in title bar
Bookmarks	Passed	Bookmarks are present in large documents
Color contrast	Needs manual check	Document has appropriate color contrast