Accessibility Help Guide

Making PDF Documents Accessible

What it does: Tips to produce accessible pdfs

A document or application is considered accessible if meets certain technical criteria and can be used by people with disabilities. This includes access by people who are mobility impaired, blind, low vision, deaf, hard of hearing, or who have cognitive impairments.

Accessibility features in Adobe Acrobat, Adobe Reader and in the Portable Document Format (PDF) make it easier for people with disabilities to use PDF documents and forms, with and without the aid of assistive technology software and devices such as screen readers, screen magnifiers, text-to-speech software, speech recognition software, alternative input devices, Braille embossers, and refreshable Braille displays

What it helps with:

At university we create thousands of documents each day with tools such as Microsoft Office and Google Docs, plus convert them to PDFs and digitise printed documents.

But all are accessible only if you make them scannable, searchable, legible, and readable. There are tools available when creating PDFs to help you with this.

What it works with:

Any device with Adobe Acrobat or PDF reader.

Time commitment:

Altering an individual resource to consider accessibility is not time consuming but it can take time to switch your mindset to consider these elements automatically.

Determine the Accessibility Path for each PDF Document:

PDF files are created in a variety of ways, from a variety of applications, and for a variety of purposes. Achieving the desired accessibility goals for an individual PDF file requires understanding the nature of the PDF and its intended use.

Although Adobe Acrobat Pro DC provides several tools to evaluate and fix issues that can impact accessibility, the first and easiest step is to check accessibility in the original application.

Please check the LTE guides for Microsoft Word, Powerpoint and accessibility help

Start with an accessible document:

The PDF format is a destination file format. PDF files are typically created in some other application. Optimally document accessibility should begin in the native document format. For example, many documents are created in a word processing or desktop publishing application, and then exported as PDF documents.

There many things that can be done in native document applications to support accessibility, such as adding alternative text for images; defining structural headings, lists, and data tables; providing document language; and setting document properties such as titles. Please refer to the Making Word Documents Accessible and Using the Accessibility Checker help guide for this.

If the native document is not available, in most cases, the document can still be made fully accessible. Without accessibility in the native format there will likely be more manual work required in the PDF to properly tag the document.

There are some items such as choosing sufficient contrast between foreground and background colors that must be implemented in the native document.

Characteristics of Accessible PDF files:

Searchable text. A document that consists of scanned images of text is inherently inaccessible because the content of the document is a graphic representing the letters on the page, not searchable text.

Assistive technology software cannot read or extract the words in a graphical representation. Furthermore, users cannot select or edit the text or manipulate the PDF for accessibility. Scanned images of text must be converted into to searchable text using optical character recognition (OCR) before addressing accessibility in the document.

Fonts that allow Characters to be Extracted to Text.
The fonts in an accessible PDF must contain enough information for Acrobat to correctly extract all of the characters to text for purposes other than displaying text on the screen.

When a screen reader or the Read Out Loud tool is used, or when you save as text for a Braille embosser, Acrobat extracts characters to Unicode text. This extraction fails if Acrobat cannot determine how to map the font to Unicode characters. So non standard fonts should not be used.

Interactive Labeled Form Fields with Accessible Error Messages and No Timing. Some PDFs contain interactive forms that people fill out using a computer. To be accessible, form fields must be interactive; that is, a user must be able to enter values into the form fields.

Interactive PDF forms also have a defined tab order which allows users of assistive technology to use the Tab key in order to progress from one form field or interactive control to the next in a logical manner.
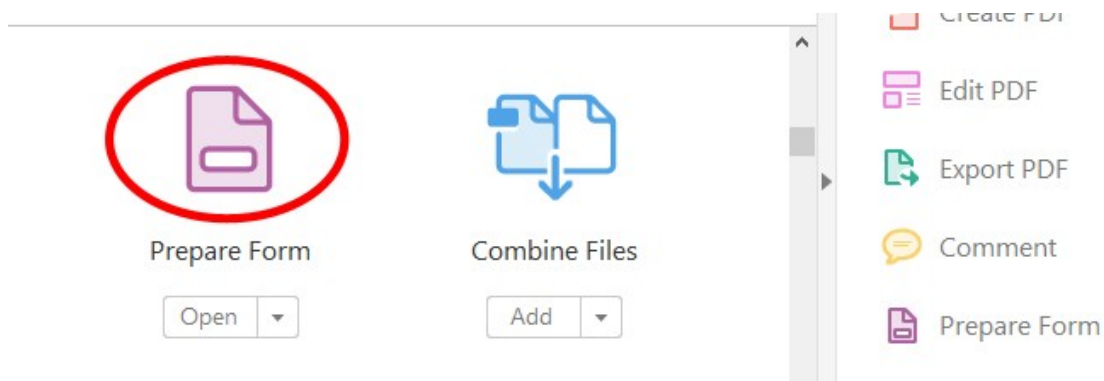
Other Interactive Features: Hyperlinks and Navigational Aids. Navigational aids in a PDF — such as links, bookmarks, headings, a table of contents, and a preset tab order for form fields — assist all users in using the document without having to read through the entire document, word by word.

Bookmarks are especially useful and can be created from document headings. These features can be accessed using the keyboard without relying on the mouse, and allow for multiple way for users to navigate content.

Document Language and Title Indication. Specifying the document language in a PDF enables some screen readers to switch the current speech synthesizer to the appropriate language, allowing correct pronunciation of content in different languages. Providing a document title allows the user to locate and identify the document.

*Security that will not Interfere with Assistive Technology.*Some authors of PDFs restrict users from printing, copying, extracting, editing or adding comments to text.

The text of an accessible PDF must be available to a screen reader. Acrobat's security settings can be set to protect document content while not interfering with a screen reader's ability to convert the on-screen text to speech or Braille.

Document Structure Tags and Proper Reading Order. To read a document's text and present it in a way that makes sense to the user, a screen reader or other text-to-speech tool requires that the document be structured.

Document structure tags in a PDF define the reading order and identify headings, paragraphs, sections, tables and other page elements. The tags structure also allows for documents to be resized and reflowed for viewing at larger sizes and on mobile devices.

Alternative Text Descriptions for Non-Text Elements.
Document features such as images and interactive
form fields cannot be understood by the user of a
screen reader unless they have associated
alternative text.

Though link text is available to screen reader users, it
is possible to provide more meaningful descriptions
via replacement (actual) text. Alternative text for
images and tooltips can aid many users, including
those with learning disabilities. Equivalents for
multimedia, including any audio and video elements,
must also be present

More information:

The following link provides more information on accessibility standards and guidelines for the Adobe family of software:

https://www.adobe.com/accessibility/products/acrobat.html