# Creating Accessible PDF Documents

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## 1. General Considerations

A PDF document is accessible when its text is searchable and it includes other "hidden" features, called tags that are added for accessibility purposes only and have no visible effect on the PDF. Most PDF's created using a scanner are considered inaccessible because they are simply images of the page, which means that a screen reader cannot recognize any text on the page (see Section 2 of this guide for how to scan an accessible PDF).

PDF's that are created by conversion from another type of file (e.g. Word or PowerPoint) may or may not be accessible depending on the accessibility of the source document. If you follow accessibility guidelines when creating your source document, and then save it as a PDF, the accessibility features such as headings or Alt Text for images will carry over into your PDF document (see Section 3 of this guide).

## 2. Creating an accessible PDF using OCR enabled scanners

Most scanned PDF files are comprised of a single image for each page and are therefore inaccessible to screen readers since they cannot recognize the text within the image. If you have to scan an existing text, such as book pages, use **optical character recognition** (OCR) software if possible to produce accessible PDF files. Most scanners, including those for home use, include this option – or come with additional OCR software packages you can install on your computer – and most libraries offer book scanners with OCR capabilities.

This process is also referred to as creating a "searchable PDF," which might be listed on the scanner's "Options" screen.

Since the procedures for creating accessible documents via scanning will be different for each scanner and software, ask your librarian for help. *It is also advisable to first look for electronic forms of articles or book chapters that might already be accessible.* If you must scan from a hard copy, try to find a clean, crisp version for scanning without hand-written notes or highlighting.

## 3. Generating an accessible PDF from another type of file

If you create your source document in another application such as Word or PowerPoint and you follow accessibility principles – e.g. using "Styles" to format headings and adding Alt Text to images, etc. – it is very easy to turn that source document into an accessible PDF. For **PowerPoint** and **Excel**, simply click "Save As," and change the file type to "PDF."

In **Word**, click "File," and then click "Save As." Change the format to "PDF," and then click "Options." On the Options pop-up window, make sure the boxes for "Create bookmarks using: Headings" and "Document structure tags for accessibility" are checked, then click OK. Click "Save" to save as PDF.
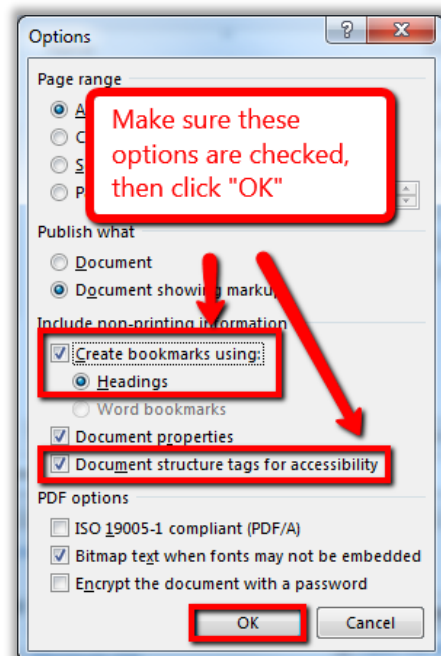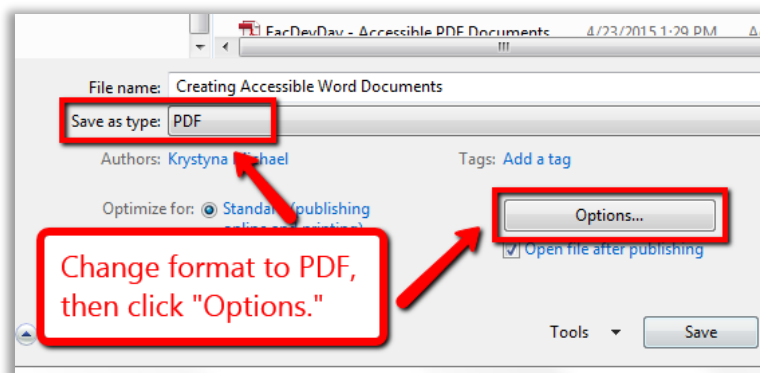




**Note for Mac users:** Accessibility features will remain when creating a PDF from a Word document on a Mac in *Microsoft Office 365* and *Open Office.* Documents created in earlier versions of Word on a Mac cannot be saved as fully accessible PDFs since these files do not retain any structure tags (headings, Alt Text, etc.) from the original document.

## 4. Creating an accessible PDF using Adobe Acrobat Pro

Use this option when you have an existing PDF that is not accessible (for example a document that was scanned without text recognition software).

First, we recommend you check to see if you can find an accessible version of your document either from the publisher, your library (ask your librarian), or on the internet. If no accessible version is available, use optical character recognition (OCR) software, which will make the text in your document accessible to screen readers. Adobe Acrobat Pro, available on most faculty computers, in computer labs and/or in the library, offers such an OCR feature.

To run OCR in **Adobe Acrobat Pro**, open the document and click on the "Tools" tab in the upper-right hand corner. Click on "Recognize Text" to expand that menu, click on "In This File," and follow the prompts to run OCR on the entire document. Then, save the PDF to your computer.
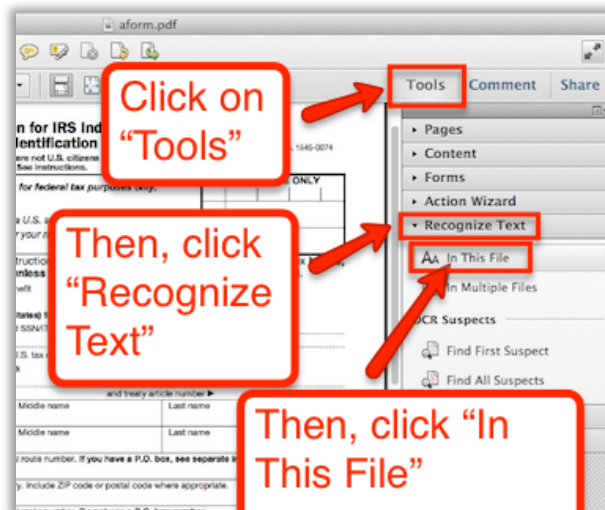


See the following links for step-by-step instructions on creating accessible PDFs in **Acrobat Pro DC.**

If you do not have access to Adobe Acrobat Pro or DC, there are a few free OCR programs available, such as Free-OCR.com, but they often come with limitations (e.g. some of them can only process one page at a time).

**Note:** OCR tools will only recognize the text in the PDF; it will not add other accessibility features such as headers, Alt text for images, clickable hyperlinks, etc. For instructions on how to add these features, see *Section 5: Tagging an Existing PDF* below.

## 5. Advanced Option: Tagging an existing PDF

After following instructions in Section 2 or 4 above, you now have a PDF with searchable text but without any other accessibility features, such as headers, Alt text for images, table headers, etc.

Some software, such as Adobe Acrobat Pro, offer an advanced option called "Tagging" to add these accessibility features as tags to a PDF. These tags are not visibly displayed in the document, but they are used by screen readers to understand the document's structure as they indicate the location of elements such as section headings, tables, images, hyperlinks, etc.

**Characteristics of fully accessible PDFs**:

1. Searchable text.
2. Alt Text added for images and charts, or descriptions are included as part of the document.
3. Tables are correctly tagged to represent the table structure.
4. Navigational aids have been added (enabling users to navigate within the document using their keyboards) such as links, bookmarks, hyperlinks, or formatted headings.
5. Interactive form fields and defined tab order (enabling users to use the Tab key to navigate within the document).

Proper security settings that won't interfere with a screen reader.

For instructions on how to tag an existing PDF in various Acrobat versions, see the following links:
- Adobe Acrobat Pro
- Adobe Acrobat DC
- Adobe Acrobat X.

Other commercial products which allow you to run OCR and tag a PDF are OmniPage Pro and Abbyy FineReader.
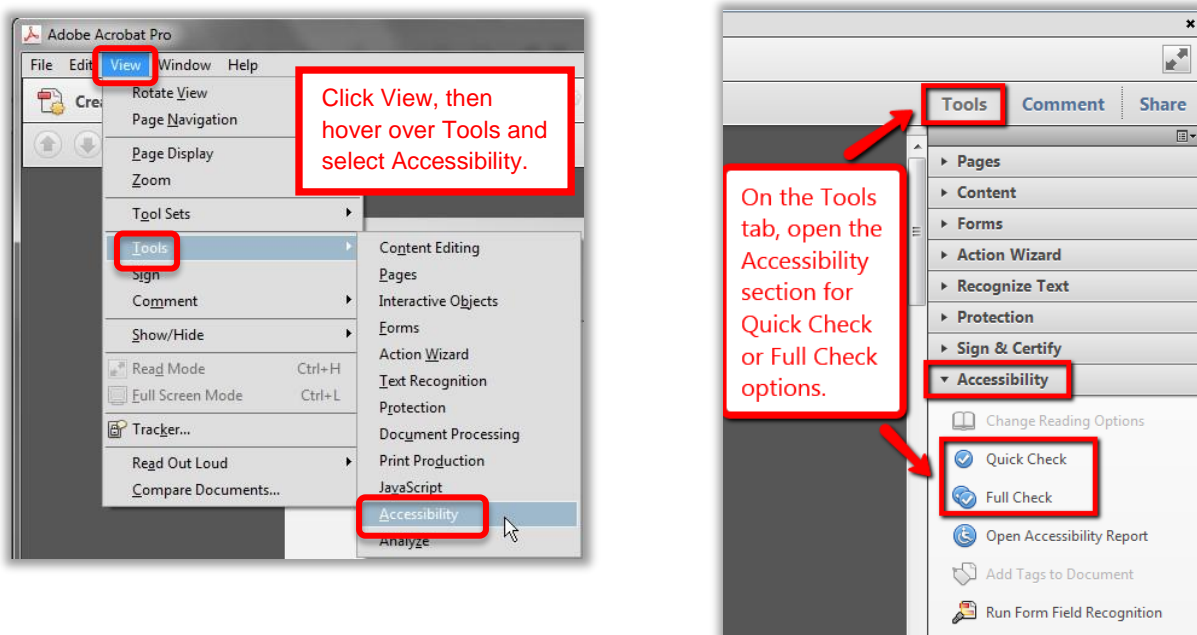

## 6. Accessibility Checker

Both Adobe Acrobat Reader and Pro include an Accessibility Checker that allows you to check for accessibility problems in your PDF. The checker presents accessibility problems, feedback about the importance of each item, as well as tips on how to repair them.

**Note:** Acrobat *Reader*, a free program, includes the Accessibility Quick Check, and Adobe Acrobat Pro includes both Quick Check and Full Check options.

In **Acrobat Reader**, the Accessibility Quick Check is run by clicking on "Edit" in the toolbar that runs along the top of the page, hover over "Accessibility" in the drop-down menu, and then click "Quick Check." The keyboard shortcut to start Quick Check is Shift + Ctrl + 6 on a PC, or Shift + Command + 6 on a Mac.

In **Acrobat Pro**, first make sure that the accessibility section is included in your Tool section by clicking on "View" in the toolbar that runs along the top of the page, hovering over "Tools" in the dropdown menu, and clicking on "Accessibility."  Then, click on the Tools tab on the upper right and open the Accessibility section. Select either the Accessibility "Quick Check" or "Full Check" option from the list.

See the following links for step-by-step instructions on using the Accessibility Checker in **Adobe's Acrobat X** and **Acrobat Pro DC**.

**References**

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Adobe Systems Incorporated (2012). Adobe accessibility training resources. Retrieved from http://www.adobe.com/accessibility/products/acrobat/training.html (accessed April 15, 2016).

Buffalo State SUNY Instructional Design Website (accessed April 15, 2016).

Office of Disability Services at Suffolk University. Quick Guide: Accessible PDFs.