

# Work with PDF documents

PDF documents are designed to provide a consistent reading experience across all platforms and are viewable by a huge number of programs including web browsers. They are specifically **not intended to be modified**, but sometimes that is necessary.

## An Analogy

You can think of a PDF document as a kind of photo album with every page protected by a sealed, transparent cover. The person handing it to you doesn't really want you to modify the pictures (or they wouldn't have sealed the protective cover), but sometimes you need to separate the pages of a large album to hand to different people. Other times you need to add information for the next person to whom you pass the PDF document. There is a lot you can do without breaking the protective seal and spoiling the original document. This analogy isn't perfect, but the [green text below tries to tie into this analogy](#).

## Types of Modification

There are 7 major types of PDF modifications you may want to make in (order of difficulty and/or commonality):

*(Acrobat Pro is the only commercial application listed below. All other named applications are no cost or open source and linked to additional information.)*

Type	Description	Example capable apps
1. Form filling	Some PDF documents have embedded code so that most programs capable of displaying the PDF can allow you enter text and check boxes/radio buttons in specific locations and save the result. Usually, a PDF form document that is filled out and saved can be re-opened and the fields modified. <b>This is a bit like the protective cover being too slick for a pencil or pen to write, but having certain areas where the plastic has been textured – like the label area of a freezer bag. All you need is a simple, standard writing device to fill in those spaces.</b>	Most (but not all) viewers
2. Creating /Printing	Many programs (including MS Office) allow you to "save as" or export your work to a PDF document. Windows 10 has a built in PDF (virtual) printer ("Microsoft Print to PDF"), and there are numerous free and commercial software packages that will allow you to create a PDF from any program that can send work to a physical printer. <b>This is creating and sealing a photo album for others to enjoy (but not modify).</b>	Many including "Microsoft Print to PDF" built into Windows 10.
3. Markup	When you need to "draw" on top of a document as if it were printed and you have an array of office supplies. Markup can be: highlighting, underlining, crossing out, circling/boxing, adding arrows, adding notes (like a sticky note), typing over top (in a blank area or not), stamping and other possibilities. <b>This is adding an additional protective layer to the page(s) with your own writing on top of it like stacking transparencies; The original is still viewable, but it appears like you have written on it.</b>	Acrobat Pro, Acrobat Reader, PDF-XChange Editor, FoxIt Reader and others.
4. OCR Indexing	("Optical Character Recognition" indexing.) Sometimes PDF documents are created from a picture of a document rather than from the program that edited the text of the document. In order for the document to be searchable or quotes to be copied from the PDF, the picture of the characters need to be recognized as characters and the text needs to be indexed and saved within the PDF format. Usually, the text is invisibly overlaid onto the picture of the document so you appear to be selecting the text in the picture, but are actually selecting the text as it was recognized. <b>This doesn't have a great analogy to a photo album. It is a closer analogy to adding video subtitles for the hearing impaired; It is a layer of the same information in a different form than the originals underneath.</b>	Acrobat Pro, PDF-XChange Editor, NAPS2
5. Rearrangement	Sometimes called "split and merge", this is any modification at the page level. Combing documents, removing pages, rearranging pages, or rotating pages within a larger document. <b>Some applications rearrange with thumbnails of the pages that can be visually moved around, and some applications rearrange logically using only lists and ranges of page numbers. This is like pulling entire pages (or copies of pages) that are still behind their protective cover out of an album and rearranging them or creating a new album with just those page(s) you want.</b>	Acrobat Pro, PDFsam, PDFtk, jPDF Tweak, LibreOffice Draw, NAPS2
6. Content editing	When you need to change the words or pictures on the page or rearrange the sub-components of a page or pages. <b>This is when you cut away the seal on the protective cover and pull out the original document and use an eraser or white-out to alter the contents possibly to file them in a different format. It is distinctly not the intent of the original album's creator.</b>	Acrobat Pro, LibreOffice Draw, PDF-XChange Editor(?)

7. Form Creation	Making the kind of PDF document that allows others to fill it in easily. This can include code to set rules around entry format, calculations, and other features. (Think: online tax forms.) This is very similar to "printing" a PDF above, but with the special cover that allows a simple pen/pencil to write in specific places. It is much more complex than simple printing however.	Acrobat Pro
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## PDF Compression

Compression is simply a reduction in size with no or negligent loss of information. While compression is a modification in the sense that it alters or creates a document, it doesn't change the practical information content or interaction, which is why it isn't in the table above. There is a plethora of online PDF compression options, and there are some commercial trialware or sketchy freeware applications that claim to (only) do PDF compression. The easiest, safest, free option for reducing the size of PDF files is probably to be an open source program, [FileOptimizer](#). However, [LibreOffice Draw](#), [PDFsam](#), and [jP DF Tweak](#) all appear to also have some compression ability.

## Different versions of Adobe Acrobat

Everybody has heard of Adobe Acrobat, but there are a number of different versions with subtle name differences that have changed over the years.

Name	A.K.A.	Versions	Free?	Still supported
Adobe Acrobat Reader	Adobe Reader	8, 9, X, XI	Yes	No
Adobe Acrobat Reader DC	Acrobat Reader	2015, 2017, 2019, 2020	Yes	Yes*
Adobe Acrobat Standard	Acrobat	8, 9, X, XI	No	No
Adobe Acrobat Pro	Acrobat Pro	8, 9, X, XI	No	No
Adobe Acrobat Standard DC	Acrobat	2015, 2017, 2019, 2020	No	Yes*
Adobe Acrobat Pro DC	Acrobat Pro	2015, 2017, 2019, 2020	No	Yes*

\* Generally, only the two or three most recent versions are supported.