

Submitting Your Thesis as a PDF

How to keep your work easy to read on screen and in print

Last updated: August 2026

A document that looks perfect in Word can look considerably worse after exporting to PDF. Word automatically downsamples images when saving, charts turn into pixel images, and axis labels become illegible.

The three decisions that matter

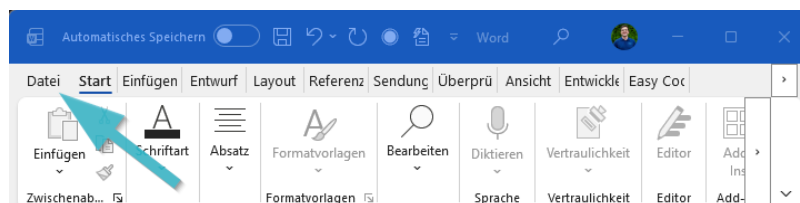
- **Turn off compression before inserting images.** By default, Word downsamples figures to 220 ppi. That is borderline for photos and too low for screenshots and charts.
- **Embed anything with lines and text as a vector graphic.** Charts, drawings, CAD views and flowcharts do not belong in the document as screenshots, but as *EMF*, *SVG* or *PDF*. Vector graphics stay sharp at any zoom level.
- **When exporting, choose the quality setting, not the size setting.** “Minimum size” is the most common cause of blurry figures.

Part 1: Configuring Word correctly

Once per document, ideally right at the start of your work. The setting only applies to images inserted afterwards. Images that have already been compressed are not restored and must be inserted again.

STEP 1

Open the “File” tab



Click “File” at the top left of the ribbon.

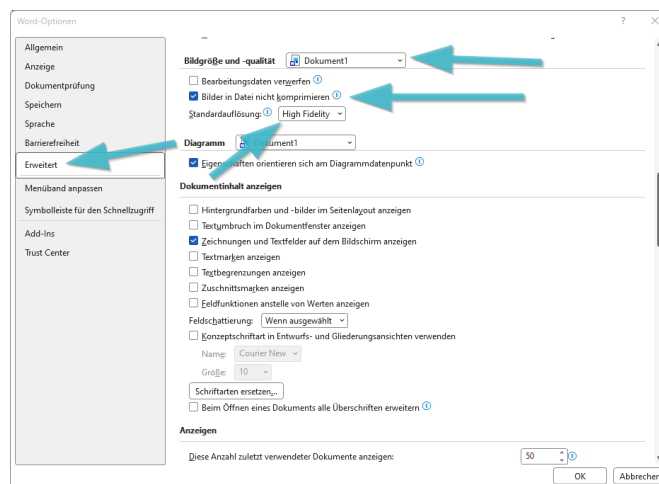
STEP 2**Select “Options” at the bottom left**

“Options” is at the bottom of the left-hand pane (in some versions under “More...”).

STEP 3**“Advanced” → “Image Size and Quality”**

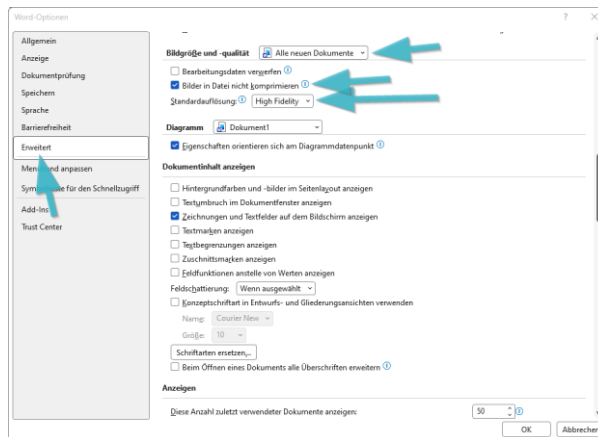
Select **Advanced** on the left and scroll down to the **Image Size and Quality** section.

Check **Do not compress images in file** and set the default resolution to **High fidelity**.



“High fidelity” means that Word does not downsample anything at all.

Tip: Set the drop-down list at the top to **All New Documents**. The setting will then apply automatically from now on – you will never have to think about it again.



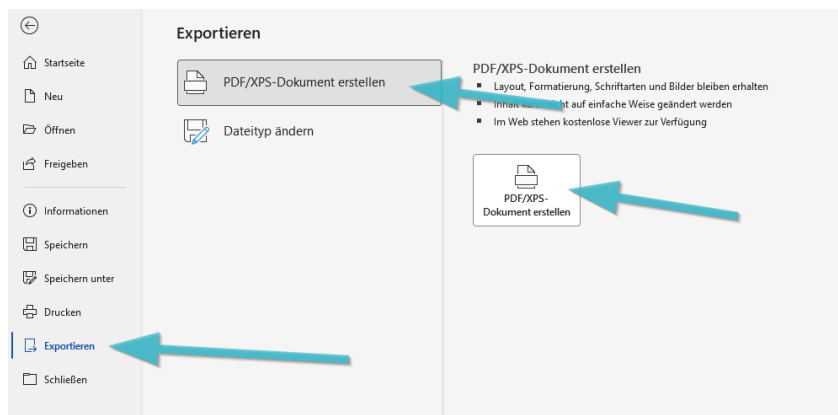
The same setting, applied to all new documents.

If **“High fidelity” is missing** – in older Word versions – select **330 ppi** instead. That is sufficient for printing, but still compresses slightly.

Part 2: Exporting to PDF

STEP 4

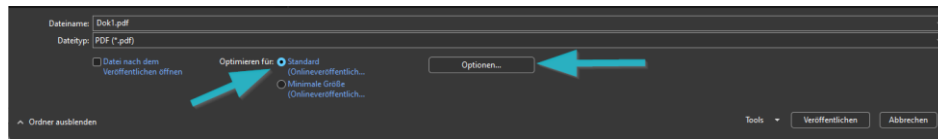
File → Export → Create PDF/XPS Document



Do not use “Print → Microsoft Print to PDF” – this loses bookmarks and hyperlinks.

STEP 5

Select “Optimize for: Standard”, then “Options...”

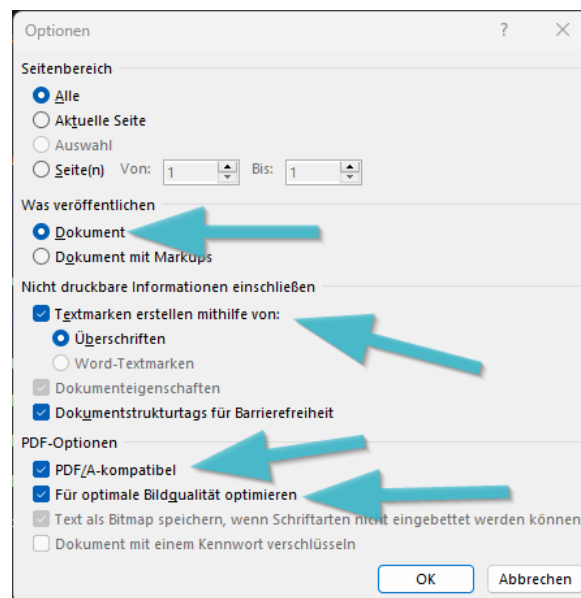


“Minimum size” is the wrong choice – it downsamples all figures.

STEP 6

Enable PDF/A and bookmarks

Check **Create bookmarks using: Headings, PDF/A compliant** and **Optimize for image quality**. The bookmarks create a clickable table of contents in the PDF and make your examiners’ work noticeably easier.



The four key settings in the Options dialog box.

Note on PDF/A: Word produces PDF/A-1b. This standard does not allow transparency; semi-transparent shapes or PNGs with soft edges are converted and may look different. Check the result. If it deviates visibly, a regular PDF is also acceptable – PDF is required, PDF/A is preferred.

Figures and charts: the right approach for each source

Rule of thumb: If a figure contains text, lines or axes, it must be embedded as a vector graphic. Only genuine photos belong in the document as raster images.

Source	Recommended approach	Avoid
Excel chart	Copy in Excel, then in Word use "Paste Special" to paste as "Picture (Enhanced Metafile)"	Screenshot of the chart
Python / Matplotlib	<code>savefig("figure.pdf")</code> or <code>savefig("figure.svg")</code> ; SVG can be inserted directly into Word and remains a vector graphic	<code>savefig("figure.png")</code> at default resolution
MATLAB	<code>exportgraphics(gcf,"figure.pdf","ContentType","vector")</code>	Screenshot or print -dpng
draw.io, Visio, PowerPoint	Export as PDF, EMF or SVG and insert	Screenshot of the canvas
CAD, simulation plots	Export from the application as PDF or EMF	Screenshot of the viewport
Photos, microscopy	High-quality PNG or JPEG, at least 300 dpi at final size	JPEG files that have been re-saved multiple times
Screenshots	Zoom to 150–200 % in the source application first, then capture and save as PNG	JPEG screenshots, photos of the screen

SVG files can only be inserted in Word 2016 or later. In older versions, EMF is the format of choice.

If you work with LaTeX

- **Generate PDF/A.** Load `\usepackage[a-2b]{pdfx}` as early as possible in the preamble and create a file `\jobname.xmpdata` containing `\Title{...}` and `\Author{...}` next to the .tex file. Compile with pdflatex or lualatex. Important: pdfx loads hyperref itself – do not load hyperref separately before it, otherwise conflicts will occur.
- **Fonts: don't forget `\usepackage{lmodern}`.** With `\usepackage[T1]{fontenc}` and the default Computer Modern fonts, pdflatex produces **Type 3 bitmap fonts**. They look blurry on screen, print poorly and are not searchable. **lmodern** (or alternatively the cm-super package) provides genuine Type 1 vector fonts. This is the most common cause of LaTeX PDFs that look blurry.
- **Check the result with `pdffonts thesis.pdf`.** The “type” column must never show “Type 3”, “emb” must show “yes” throughout, and so must “uni” – otherwise the text cannot be searched or copied.
- **Typeset charts with `pgfplots` or `TikZ`.** They are then vector graphics anyway, and the labels match the body text.
- **Include external figures as PDF.** pdflatex only handles EPS via automatic conversion with epstopdf; using PDF directly is more reliable and PDF/A-compatible.
- **Raster images only for genuine photos**, at least 300 dpi at final size.

An advantage over Word: PDF/A-2b allows transparency. So you do not need to avoid semi-transparent elements – unlike with PDF/A-1b, which Word produces.

If you work with LibreOffice

- File → Export As → Export as PDF...
- “General” tab: select “Lossless compression”, or alternatively “JPEG compression” with a quality of at least 90 %
- Uncheck “Reduce image resolution”
- Check “Archive (PDF/A, ISO 19005)”

Self-check before submission – five minutes

- **Zoom to 400 %.** Body text and chart lines must stay sharp. If they become pixelated, the figure is a raster image – replace it.
- **Look at every figure individually.** Are axis labels and legends legible at 100 %? Are there grey smudges around lines?
- **Check the file size.** A thesis with many figures is typically between 2 and 20 MB. Well below 1 MB indicates excessive compression.
- **Check PDF/A.** When opening a compliant file, Adobe Acrobat Reader displays a blue notification bar. The free tool veraPDF provides a more thorough check.
- **Cross-check.** Open the file on a different computer and in a different application. In addition, print a page with the most critical figure in black and white.

Common errors at a glance

Symptom	Cause	Remedy
Charts washed out, axis text blurry	Chart inserted as a screenshot	Re-insert as EMF, SVG or PDF
Photos dull, visible block artifacts	Word's default compression to 220 ppi	Turn off compression, re-insert images
PDF conspicuously small and blurry throughout	Exported with "Minimum size"	Re-export with "Standard"
Fonts look different on other computers	Fonts not embedded	Use PDF/A export; with LaTeX, check with pdffonts
Semi-transparent areas altered	PDF/A-1b does not allow transparency	Build the figure without transparency or submit a regular PDF
Fine lines disappear in print	Line weight below 0.25 pt	Increase the line weight in the charting application