

# Convert File Formats Using Pandoc

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Mathematical formulas and pictures can be converted successfully! - Convert Latex to other formats - Convert other formats to PDF

## Convert Latex to other formats

### Steps

**Step 1. Install the latest pandoc** - Pandoc installer - For Windows system, download pandoc-3.1.11-windows-x86\_64.msi

**Step 2. Run in cmd:** `pandoc -s "input_file.format" -o "output_file.format"` - Remember to assign desired filename extension behind the input & output files - Convert Latex to Word: `pandoc -s "input_file.tex" -o "output_file.docx"`

- Convert Latex to Markdown: `pandoc -s "input_file.tex" -o "output_file.md"`

## Convert other formats to PDF

### Alternative way: no pandoc

- 後來發現用 VScode 上的套件比較快: Markdown PDF
- 自行更改 `markdown-pdf.css` 到 `Settings.json`

### Steps

**Step 1. Install the latest pandoc** - See the above.

**Step 2. Install a LaTeX distribution** - (Not recommended) Download the network install from the official website: TeX Live (it involves downloading and installing required files from the source server, which may take several hours). - (Recommended) Download the pre-packaged installation image (\*.iso) at once: - Enter 清华大学镜像站 and download `texlive2024.iso` - Open the downloaded ISO file and double-click `install-tl-windows.bat` to install.

**Step 3. Find a valid Chinese font (if the document has Chinese)** - Run in cmd to see the available Chinese font:

`fc-list :lang=zh` The font name follows the font file location. For example, `C:/WINDOWS/Fonts/mingliu.ttc`: MingLiU, 細明體, font name is called MingLiU. - Or download more fonts: Google Fonts / DaFont

**Step 4. Set styling for the output pdf** - Download the `head.tex` into the same folder with your `input.md` to render document styles.

```
\usepackage{fancyvrb,newverbs}
\usepackage{hyperref}
\usepackage[top=2cm, bottom=1.5cm, left=2cm, right=2cm]{geometry}
```

```
% change background color for inline code
```

```
\definecolor{bgcolor}{HTML}{E0E0E0}
\let\oldtexttt\texttt
\renewcommand{\texttt}[1]{
  \colorbox{bgcolor}{\oldtexttt{#1}}
}
```

```
%% color and other settings for hyperref package
```

```
\hypersetup{
  bookmarksopen=true,
  linkcolor=blue,
  filecolor=magenta,
  urlcolor=RoyalBlue,
}
```

- Or download an existing LaTeX template: follow how to set up Latex template

**Step 5. Run in cmd:** `pandoc "input_file.format" -o "input_file.format" --pdf-engine=xelatex -V mainfont='font_`

- Convert Markdown to PDF using custom styling: `pandoc README.md -o README.pdf --pdf-engine=xelatex -V CJKmainfont=`

- Convert Markdown to PDF using an existing template (Eisvogel is used here): `pandoc README.md -o README.pdf --pdf-engine=xelatex -V eisvogel`

## Reference

About TeX Live installation - Pandoc with Chinese - 安裝 TeX Live 鏡像

About rendering styles in TeXLive - Eisvogel: pandoc-latex-template - customizing-pandoc

<!-- head.tex 中的指令 1 - head.tex 中的指令 2 -->