

Writing in Kurdish language inside \LaTeX

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February 20, 2019

Short list of \LaTeX compilers and editors

- Compilers

- pdf \LaTeX
- Xe \LaTeX
- lua \LaTeX
- \LaTeX
- Latexmk

- Editors

- Offline
 - TeXstudio, Kile, Texmaker
- Web based
 - Overleaf , Share \LaTeX

There are two ways to write in Kurdish using \LaTeX

- Using **arabtex** package
- Using **xepersian** package

Using arabtex

① Advantages

- ① Compiles using **pdf~~l~~atex** (faster compiling)
- ② Doesn't require any external fonts

② Disadvantages

- ① Uses a weird English+symbol syntax (high learning curve)
- ② There is an auto converter but its not perfect
- ③ Harder to edit afterwards

Using xepersian

① Advantages

- ① Easy to write and edit

② Disadvantages

- ① Compiles using **xelatex** (slower than pdflatex)
- ② Somewhat confusing sometimes when mixing with English
- ③ Only a few fonts are 100% compatible
- ④ Some \LaTeX packages do not produce expected results using **xelatex** compiler

xepersian package incompatibility

```
\begin{frame}[fragile]
\frametitle{Example for arabtex}
\begin{semiverbatim}
  \begin{\frame\}
  \end{\frame\}
\end{semiverbatim}
\end{frame}

\end{document}
```



Example for arabtex

```
\begin{frame}
\end{frame}
```

Figure: pdflatex

```
\begin{frame}[fragile]
\frametitle{Example for arabtex}
\begin{semiverbatim}
  \begin{\frame\}
  \end{\frame\}
\end{semiverbatim}
\end{frame}

\end{document}
```



Example for arabtex

```
""""\begin{frame}
""""\end{frame}
""""
```

Figure: xelatex

Example for arabtex

```
\documentclass{article}
```

```
\usepackage{arabtex}
```

```
\begin{document}
```

```
  \begin{arabtex}
```

```
    \setkurdish
```

```
    s^lAw ^cony bA^sy
```

```
  \end{arabtex}
```

```
\end{document}
```

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Example for xepersian

```
\documentclass{article}  
\usepackage{xepersian}  
\settextfont{XB Titre}  
\begin{document}
```

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```
\end{document}
```

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Compatible fonts for xepersian

The ones that i tested and worked are

- Nizar Nastaliq Kurdish
- Ubuntu Kurdish 0.81 met
- HSAIBasimB
- The fonts that start with X in `kurdfonts.com`, like XB Titre

Some notes

- All the fonts can be simply found in google search
- The name of the font is should be the complete name with spaces, otherwise the compiler won't find it
- It should also be installed on the system, to make sure try to find the font in Microsoft Word first.

The Unicode to latex syntax conversion for **arabtex**

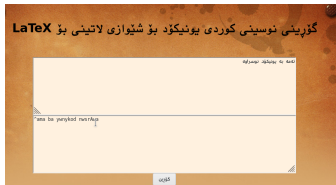
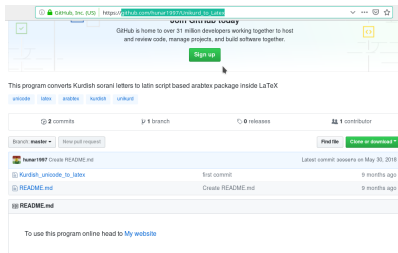
There are two ways to write in this syntax

- Learning the syntax through documentation
 - **A Kurdish tutorial** https://issuu.com/asadabozed/docs/kurdish_alphabet_in_latex1
 - **arabtex documentation** <ftp://ftp.dante.de/tex-archive/language/arabic/arabxetex/arabxetex.pdf>
- **Using an auto converter**
https://github.com/hunar1997/Unikurd_to_Latex

The Auto converter for arabtex

- I made a converter based on the documentation and shared the code on github so that anyone can help to improve it
- You will also find this presentation there, all the links are clickable in the pdf, along with a link to a live website that contains the converter
- Or you can download the single **.html** file and run it using any web browser

Converter



Useful places to explore and learn xepersian

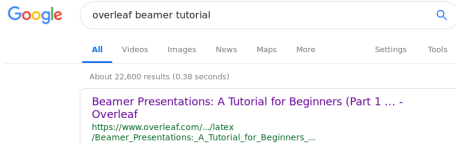
- There is a Kurdish Facebook page that uses xepersian package to write amazing useful documents

<https://www.facebook.com/latexforkurdish>



Source recommendation for learning \LaTeX

- I recommend <https://www.overleaf.com/> which is an online compiler, you can sign up for free and use it, both privately and publicly
- This website also has extremely clear, to the point, video and text+image, and beginner friendly tutorials to learn \LaTeX for making theses, books, articles, presentations, etc.. i learned how to make this presentation from scratch in two hours
- It contains a large number of templates to get you started quickly
- Just type in google (overleaf **subject** tutorial)



Thank you for your time
if you have any question or problem, feel free
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