

Kazakh language support for Xe^LA^TE^X, Lua^LA^TE^X and pdf^LA^TE^X

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Introduction

We recently developed a hyphenation dictionary for the Kazakh language. After completing this project, the natural question arose of developing official support for the Kazakh language in T_EX. Kazakh language support has been implemented to work with Xe^LA^TE^X, Lua^LA^TE^X, and pdf^LA^TE^X macro packages, they all work with `babel` package.

Xe^LA^TE^X and Lua^LA^TE^X are also compatible with `polyglossia`.

We provide three sample files, `test_xelatex.tex`, `test_lualatex.tex` and `Kazakh-pdflatex-Test.tex` to show the work of our package. Bib_TE_X database file `refs.bib` is also included to demonstrate compatibility with Bib^LA^TE^X.

Bib_TE_X database file

`refs.bib`

```
@book{latex_guide,  
  author   = {Lamport, Leslie},  
  title    = {LaTeX: A Document Preparation System},  
  year     = {1994},  
  publisher = {Addison-Wesley}  
}
```

Xe^LA^TE^X support

Run these commands to process the file `test_xelatex.tex`

```
xelatex test_xelatex.tex  
biber test_xelatex  
xelatex test_xelatex.tex
```

test_xelatex.tex

```
\documentclass{report}
%\usepackage[english, kazakh]{babel}
\usepackage[english]{babel}
\babelprovide[import, main]{kazakh}
\usepackage{fontspec}
\usepackage[backend=biber]{biblatex}% if kazakh.lbx is present, Bibliography name will be in Kazakh
%\usepackage[backend=biber, language=kazakh]{biblatex}

%\setmainfont{FreeSerif}
\setmainfont{FreeSerif}[
  Extension = .ttf,
  UprightFont = *,
  BoldFont = FreeSans,
  ItalicFont = FreeSerifItalic,
]
\addbibresource{refs.bib}

\begin{document}

\chapter{XeLaTeX Тесті}
\section{Кіріспе}
Бұл XeLaTeX ортасындағы бабел мен библиографияны тексеруге арналған құжат.
Мұнда әдебиеттер тізіміне сілтеме бар \cite{latex_guide}.

\printbibliography

\end{document}
```

Lua^AT_EX support

Run these commands to process the file `test_lualatex.tex`

```
lualatex test_lualatex.tex
biber test_lualatex
lualatex test_lualatex.tex
```

test_lualatex.tex

```
\documentclass{report}
%\usepackage[english, kazakh]{babel}% Causes error, use the next two strings with babel
\usepackage[english]{babel}
\babelprovide[import, main]{kazakh}
\usepackage{fontspec}
\usepackage[backend=biber]{biblatex}% if kazakh.lbx is present, Bibliography name will be in Kazakh
```

```

%\usepackage[backend=biber, language=kazakh]{biblatex}

%\setmainfont{FreeSerif}
\setmainfont{FreeSerif}[
  Extension = .ttf,
  UprightFont = *,
  BoldFont = FreeSans,
  ItalicFont = FreeSerifItalic,
]
\addbibresource{refs.bib}

\begin{document}

\chapter{LuaLaTeX Тесті}
\section{Кіріспе}
Бұл LuaLaTeX ортасындағы бабел мен библиографияны тексеруге арналған құжат.
Мұнда әдебиеттер тізіміне сілтеме бар \cite{latex_guide}.

\printbibliography

\end{document}

```

pdfL^AT_EX support

Kazakh-pdflatex-Test.tex

```

\documentclass{article}
\usepackage[T2A]{fontenc}
\usepackage[utf8]{inputenc}
\usepackage[kazakh]{babel}

\begin{document}

\selectlanguage{kazakh}
. . .

\begin{thebibliography}{99}
. . .

\end{document}

```

Run this command to process the file `Kazakh-pdflatex-Test.tex`
`pdflatex Kazakh-pdflatex-Test.tex`