# LATEX-Mik: LATEX-Support for GVim on Win32-systems

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Abstract: Vim, one of the most complex text editors is also available on win32 systems. Vim has excellent syntax highlighting for LATEX and BibTEX files. LATEX-Mik has been written for GVim, the graphical version of Vim. It supports authors using MikTEX, a popular win32 TEX/LATEX-implementation. Only minor changes of the script are required to make it suitable for other TEX implementations, e.g. fptex.

# 1 System requirements

At least, installation of MikTeX<sup>1</sup> on a win32-system including **pdflaTeX** and **dvips** is required. For converting laTeX-documents to HTML the script calls **tth**<sup>2</sup>. For printing PostScript documents **Ghostview** and **Ghostscript** should be installed.

### 2 Installation

Please copy the file latex-mik.vim into the vim plugin-directory. If you open a file with the extension .tex or.bib, the LATEX-menu appears.

# 3 LeteX-menu options

## 3.1 BibTEXEntry

The Options of this menu insert empty templates for BibTeX document types into a .bib file<sup>3</sup>. Thus LaTeX→BibTeX→Article inserts

```
@article{,
author = {},
title = {},
year = {},
journal = {},
OPTpages = {},
OPTvolume = {},
OPTmonth = {},
OPTnumber = {}
```

into the text: the template for <code>@article-entries</code>. Fields beginning with <code>OPT...</code> are optional in the context of this document type. The last field of a well-formed <code>.bib-file</code> is not closed by a comma (,). Also the other document types: book, booklet, inbook, incollection, inproceedings, manual, mastersthesis, misc, phdthesis, proceedings, techreport, unpublished are implemented.

### 3.2 Environment on region, Empty environment

LaTeX—Environment on region only works if a region is selected "linewise visual" (with 'V' in Vim's command mode). With a region selected "characterwise visual" ('v') the script generates the error message: "No text highlighted linewise". To use this command, select a region of lines with 'V' and enter the name of the environment and the prompt, e.g. center. LaTeX—Empty environment generates an empty environment. As an example, center inserts

#### \begin{center}

<sup>1</sup>http://wwww.miktex.org

<sup>&</sup>lt;sup>2</sup>http://hutchinson.belmont.ma.us/tth/

<sup>&</sup>lt;sup>3</sup>A BibT<sub>E</sub>X database usually has the filename extension .bib

```
\end{center}
itemize inserts
\begin{itemize}
  \item
\end{itemize}
```

### 3.3 Commands on region, Empty Commands

LaTeX→Commands on region only works if a region is selected "characterwise visual", with a region selected "linewise visual", the script generates the message "No text highlighted characterwise". LaTeX→Empty commands generates an empty command.

#### 3.4 Umlaute

In LATeX-documents "Umlaut"-characters (äöüÄÖÜ) and 'ß' are inserted literally by default. If you select LaTeX→Umlaute→Normal TeX, typing ä inserts \"a. Default behaviour is restored with LaTeX→Umlaute→Normal TeX. LaTeX→Umlaute→German TeX mapping prints "a for a typed ä, LaTeX→Umlaute→BibTeX mapping prints {\"a}, LaTeX→Umlaute→German Umlaut mapping converts ä to ae.

## 3.5 Process LaTeX-projects

In the following description, a LATEX-project is understood either as a single LATEX-file (together with a .bib-file, if it exists) or as the main file and the files included with \input{} or \include{} commands as in

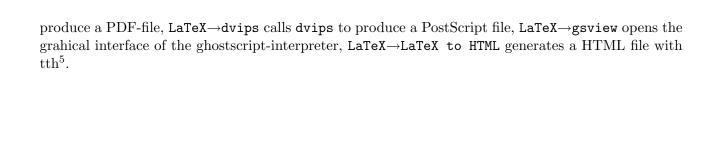
```
\documentclass{article}
\begin{document}

\input{fileOne}
\input{fileTwo}
\input{fileThree}

\end{document}
```

After opening one of the files of a project and before LaTeX—Projectname. If you are currently editing to tell the script the project name, therefore select LaTeX—Projectname. If you are currently editing the main file, you may confirm the prompt (Enter project name [default current file]:) with [Enter], if another file of the project is edited you will have to enter the name of the main file without the extension<sup>4</sup>. Then, with LaTeX—LaTeXProject you will compile the project (produce a .dvi-file), LaTeX—BibTeXProject runs BibTeX, LaTeX—IndexProject runs makeindex, LaTeX—ViewFile calls the dvi-viewer yap and makes it jump to the correct position, LaTeX—PDFLaTeX calls PDFLATeX to

<sup>&</sup>lt;sup>4</sup>if the main file is myfile.tex, please enter myfile; generally the main file is the TEX file with the \documentclass statement



<sup>&</sup>lt;sup>5</sup>available through http://hutchinson.belmont.ma.us/tth/