

\LaTeX -Mik: \LaTeX -Support for GVim on Win32-systems

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Volker Kiefel

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 Mik \TeX , a popular win32 \TeX / \LaTeX -implementation. Only minor changes of the script are required to make it suitable for other \TeX implementations, e. g. **fp \TeX** .

1 System requirements

At least, installation of MikTeX¹ on a win32-system including **pdfL^AT_EX** and **dvips** is required. For converting L^AT_EX-documents to HTML the script calls **tth**². 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 L^AT_EX-menu appears.

3 L^AT_EX-menu options

3.1 BibT_EXEntry

The Options of this menu insert empty templates for BibT_EX document types into a `.bib` file³. Thus `LaTeX→BibTeX→Article` inserts

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

into the text: the template for `@article`-entries. Fields beginning with `OPT...` are optional in the context of this document type. The last field of a well-formed `.bib`-file 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`incollection`, `inproceedings`, `manual`, `mastersthesis`, `misc`, `phdthesis`, `proceedings`, `techreport`, `unpublished` are implemented.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. L^AT_EX-Mik attempts to create “appropriate” environment templates. As an example, “`center`” inserts

¹<http://www.miktex.org>

²<http://hutchinson.belmont.ma.us/tth/>

³A BibT_EX database usually has the filename extension `.bib`

```
\begin{center}
```

```
\end{center}
```

“itemize” inserts

```
\begin{itemize}
```

```
\item
```

```
\end{itemize}
```

and “table” inserts

```
\begin{table}[]
```

```
\caption[]{} 
```

```
\label{} 
```

```
\end{table}
```

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 “Umlaut” and accented characters

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. Mapping for accented and other characters might easily be added.

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 ing and/or viewing the project you will have to tell the script the project name, therefore select $\text{\LaTeX} \rightarrow \text{Projectname}$. 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 extension⁴. Then, with $\text{\LaTeX} \rightarrow \text{\LaTeXProject}$ you will compile the project (produce a .dvi-file), $\text{\LaTeX} \rightarrow \text{BibTeXProject}$ runs Bib \TeX , $\text{\LaTeX} \rightarrow \text{IndexProject}$ runs makeindex, $\text{\LaTeX} \rightarrow \text{ViewFile}$ calls the dvi-viewer yap and makes it jump to the correct position, $\text{\LaTeX} \rightarrow \text{PDF\LaTeX}$ calls PDF \LaTeX to produce a PDF-file, $\text{\LaTeX} \rightarrow \text{dvips}$ calls dvips to produce a PostScript file, $\text{\LaTeX} \rightarrow \text{gsview}$ opens the graphical interface of the ghostscript-interpreter, $\text{\LaTeX} \rightarrow \text{\LaTeX to HTML}$ generates a HTML file with tth⁵.

3.6 Mappings

Important funktions have been mapped to key sequences beginning with “,”.

Command	mapping
\LaTeXProject	,la
ViewFile	,vi
Projectname	,pr
Empty Commands	,cm
Commands on region	,rcm
Empty environment	,en
Environment on region	,ren

Table 1: Mappings of \LaTeX -Mik-functions

For example, if you wish to \LaTeX the current project you may enter ,la instead of selecting the menu option \LaTeXProject . All current mappings are listed in table 1.

⁴if the main file is myfile.tex, please enter myfile; generally the main file is the \TeX file with the `\documentclass` statement

⁵available through <http://hutchinson.belmont.ma.us/tth/>