# Working with TextMate's LaTeX Bundle

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September 24, 2013

**Abstract**

TextMate is a fantastic editor for LaTeX documents. This short paper summarizes many features, including keyboard shortcuts, typsetting, and GitHub integration, available in TextMate's LaTeX bundle.

## 1 Introduction

TextMate is a fantastic text editor for LaTeX documents. It is the best editor I have found for writing LaTeX documents on the Mac. However, remembering all the features can be difficult. This document summarizes many useful features and keyboard shortcuts.

TextMate can be found at `http://macromates.com`. Download TextMate 2.0 at `http://macromates.com/download`. The LaTeX bundle is included with TextMate.

You'll need to install the LaTeX distribution for the Mac. See `https://www.tug.org/mactex/`.

## 2 Keyboard Shortcuts

LaTeX-specific keyboard shortcuts in TextMate can be found in Table 1.

To edit keyboard shortcuts or add your own, select `Bundles|LaTeX|Edit Configuration File`. Doing so moves a copy of the file `com.macromates.textmate.latex_config.plist` to the folder `/Library/Preferences/`. Useful additions are shown in Table 2.

## 3 Document Viewing and Typesetting

I find Eiffel to be the best theme for viewing LaTeX documents (`View|Theme|Eiffel`).

⌘R typesets the LaTeX document with `pdflatex`.

Use the Skim `.pdf` viewer (`http://skim-app.sourceforge.net`). Skim has a nice feature: upon opening the typeset `.pdf` file, Skim places a small red dot at the position corresponding to the cursor's location in TextMate. Because the cursor location in TextMate is typically where you were working, you can readily find the location of interest in the `.pdf` document.

To set up the Skim/TextMate features, first choose `Bundles|LaTeX|Preferences...` in TextMate. Then, choose `Skim` from the `View In...` menu. To enable `pdfsync`, insert `\synctex=1` at the top of your root LaTeX file.

In Skim, choose `Skim|Preferences...|Sync`. Then, choose `Preset: TextMate` to enable round-tripping from Skim to TextMate. A ⌘⇧-click anywhere in the `.pdf` file within Skim should take you near the appropriate text in the TextMate editor window.

For multi-file documents, set a root directive. To do so, open each subfile of the document. Then, select `Bundles|LaTeX|File Preferences|Set Master File` in TextMate. In the dialog box, select the root file for the document. The result will be a special comment at the top of the subfile of the form `%!TEX root = <Path_to_root_file.tex>`. With this comment in place, ⌘R in any subfile will typeset the entire document.

Table 3 shows some of the keyboard shortcuts for typesetting.

Table 1: Keyboard shortcuts for editing.

| Select text and type ... | to obtain ... | Comments |
|---|---|---|
| ⌘ I | `\emph{selection}` | |
| ⌘ B | `\textbf{selection}` | |
| ⌘ U | `\underline{selection}` | |
| ⌘ K | `\texttt{selection}` | typewriter font |
| ⌘ ⌥ K | `\verb!selection!` | verbatim |
| ⌘ ⇧ K | `\textsc{selection}` | small caps |
| ^ ⇧ I | `selection\index{selection}` | adds selection to index |
| **Type ...** | **to obtain ...** | **Comments** |
| part→\| | `\part{part name}` | `\label{prt:part_name}` |
| chapter→\| | `\chapter{chapter name}` | `\label{cha:chapter_name}` |
| sec→\| | `\section{section name}` | `\label{sec:section_name}` |
| sub→\| | `\subsection{subsection name}` | `\label{sub:subsection_name}` |
| subs→\| | `\subsubsection{subsubsection name}` | `\label{subs:subsubsection_name}` |
| par→\| | `\paragraph{paragraph name}` | `\label{par:paragraph_name}` |
| subp→\| | `\subparagraph{subparagraph name}` | `\label{subp:subparagraph_name}` |
| eq→\| | `\begin{equation}` | Equation environment w/out `\label` |
| tab→\| | `\begin{tabular}{c}` | Tabular environment |
| enum→\| | `\begin{enumerate}` | Enumerate environment w/ `\item` |
| item→\| | `\begin{itemize}` | Itemize environment w/ `\item` |
| desc→\| | `\begin{description}` | Description environment w/ `\item` |
| equation→\| | `Equation~\eqref{eq:}` | →\| again for next field, ↻ to cycle labels |
| figure→\| | `Figure~\ref{fig:}` | →\| again for next field, ↻ to cycle labels |
| listing→\| | `Listing~\ref{lst:}` | →\| again for next field, ↻ to cycle labels |
| section→\| | `Section~\ref{sec:}` | →\| again for next field, ↻ to cycle labels |
| table→\| | `Table~\ref{tab:}` | →\| again for next field, ↻ to cycle labels |
| page→\| | `page~\pageref{}` | →\| again for next field, ↻ to cycle labels |
| a–z⌘\ | `\alpha` – `\zeta` | lowercase Greek letters |
| e⌘\ | `\epsilon` | ⌘\ again: `\varepsilon` |
| do⌘\ | `\dots` | ... (ellipsis) |
| ap⌘\ | `\approx` | ≈ |
| ar⌘\ | `\arcsin` | ⌘\ again: `\arccos`, `\arctan` |
| ah⌘\ | `\arcsinh` | ⌘\ again: `\arccosh`, `\arctanh` |
| fr^⇧. or frac^⇧. | `\frac{num}{}` | $\frac{num}{}$ |
| s^⇧. or sum^⇧. | `\sum_{bot}^{}` | $\sum_{bot}$ |
| p^⇧. or prod^⇧. | `\prod_{bot}^{}` | $\prod_{bot}$ |
| l^⇧. or lim^⇧. | `\lim_{}` | |
| fn^⇧. | `\footnote{}` | |
| proof^⇧. | `\proof{}` | |
| nc^⇧. | `\newcommand{}{}` | |
| usep^⇧. | `\usepackage{}` | |
| url^⇧. | `\url{}` | |

Table 2: Useful additions to the `latex_config.plist` file.

| In `commands`, enter ... | to allow ... | to give | Comments |
|---|---|---|---|
| `dot = "\\dot{$1} $0";` | `dot⌘⇧.` | `\dot{}` | Overdot |
| `sub = "_{$1}$0";` | `sub⌘⇧.` | `_{}` | Subscript |
| `sup = "^{$1}$0";` | `sup⌘⇧.` | `^{}` | Superscript |
| `mr = "\\mathrm{$1}$0";` | `mr⌘⇧.` | `\mathrm{}` | |

Table 3: Keyboard shortcuts for typesetting.

| In TextMate, type ... | to ... | Comments |
|---|---|---|
| ⌘R | typeset the document | |
| F1 | fold section containing cursor | Consider installing Palua from the Mac App Store |
| ^⌥⌘D | show/hide file browser | Configure in `TextMate\|Preferences...\|Projects` |
| ⌘⇧[, ⌘⇧] | Select previous/next file tab | |
| ⌘T | open a quick file browser | |
| ⌘/ | comments selected line with % | |

Table 4: GitHub keyboard shortcuts.

| In TextMate, type ... | to ... | Comments |
|---|---|---|
| ⌘Y | open the GitHub menu | |
| ⌘Y 5 | pull changes | |
| ⌘Y 2 | commit modified files | Detects changes in selected (in browser) only |
| ⌘Y 4 | push commits | |

# 4 GitHub Integration

TextMate integrates well with GitHub (`http://www.github.com`). Table 4 shows useful GitHub keyboard shortcuts.

TextMate works best when you clone GitHub projects to your local disk using SSH. To set up your computer for GitHub with SSH, follow the instructions at `https://help.github.com/articles/generating-ssh-keys`. TextMate automatically detects the project's GitHub repository when you open a file from the repository.

To clone a repository to your local disk using SSH, first find the repository with a web browser on GitHub. In the case of the repository that contains this document, the URL is `https://github.com/MatthewHeun/TextMate_for_LaTeX`. Next, look on the right side of the page and click on the `SSH` hyperlink in the "You can clone with HTTPS, SSH, or Subversion" text. Then, click the "copy to clipboard" button. Next, open a terminal window and navigate to the directory in which you want to put the repository. For the repository that contains this document, you would then type `git clone` and paste the SSH clone link from the clipboard. If you want to clone this repository, you would see:

```
git clone git@github.com:MatthewHeun/TextMate_for_LaTeX.git
```

at the command line prompt in the terminal window.

# 5 Miscellaneous

I like to put the file browser on the left and command output on the right. Select `TextMate|Preferences...|Projects`. Then, select `Show File Browser on: Left Side` and `Show command output: Right of text view`.

# Acknowledgements

Many thanks to Macromates, Allan Odgaard, and all those working on the open source TextMate project for providing this awesome editor. Thanks also to all those who contributed to the LaTeX bundle for TextMate, (`https://github.com/textmate/latex.tmbundle`).