LzTeX Manual

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1 Welcome

LzTeX (pronounce: /ˈlɛɪzitək/, lazy-tex) is a markdown-style for LaTeX. Since I'm so lazy (according to this project's name), I'll not write this manual a lot.

This manual is also written in LzTeX, you can peek into the source and learn from there.

You might want to take a look at `http://daringfireball.net/projects/markdown/syntax` and `https://code.google.com/p/ezmath/wiki/Quick_Syntax_Guide` for more information on syntax guildline. Just beware of some little detail in difference.

1.1 The Document

LaTeX document **must** start with article name, follow by the underline, and end with the author name, like:

```
LzTeX Manual
============
Nattawut Phetmak
```

- To underline a line of text. Make 1 newline, write down `====` or `----` as much as you want, and finally end it with another 1 newline.

- 1 newline won't do a newline in a rendered document. Use 2 newline for a new paragraph (there is no option for just newline yet).

- Use `* ... *` (with number of star from 1 to 3) to wrap some text, it will appear as emphasis text.

- Use `` ` ... ` `` for code. If you want ` inside it, just increase the number of opening and closing `, like `` `` ` `` ``.

- For autolink, wrap url/e-mail with `<...>`.

- To spell some word, wrap the phonetic alphabets inside `/.../`, like /ˈlɛɪzitək/ (this feature is not yet fully support).

- Not Yet Avaliable: multiline code, blockquote, (properly) list, horizontal rule, page break.

1.2 Mathematics

To use $\mathcal{EZM}^{\mathcal{AT}\mathcal{H}}$, wrap mathematics sentence inside `$ ... $`, you may put newline before and after it to make it render as a displayed math.

$$L = -\frac{1}{16\pi}\left(\partial^\mu A^\nu - \partial^\nu A^\mu\right)\left(\partial_\mu A_v - \partial_\nu A_\mu\right) + \frac{m^2c^2}{8\pi\hbar^2}A^\nu A_\nu$$

- Any symbol to our sense will be parse to it, `*` is $\times$. If you need `*` in math, escape them like `\*` to produce $*$.

- Indexing some element like `phi[1]` to produce ϕ_1. And Power it like `e^pi` to produce e^π.

- Fraction with `up/down`. If there is a complex part, parenthesize them, such as `(alpha+beta+gamma)/(A+B+C)` is $\frac{\alpha+\beta+\gamma}{A+B+C}$.

- There is some function-bracket call, like `floor(2....428571...)` will be shown as $\left\lfloor 2.\overline{428571}\right\rfloor$, check out for all function names in the source!

- Matrix must be wrap by `[ ... ]` such as `[1,2;3,4]` is $\begin{bmatrix}1 & 2\\ 3 & 4\end{bmatrix}$. Make sure there is some space before it, otherwise it will parse as indexing.

- Intregral with keyword `integral`, then end with the integral boundary, such as `integral x^2 from 0 to 10`, this will be render as $\int_0^{10} x^2$.

- Not Yet Avaliable: function name (sin cos tan), procedure (if else while).

1.3 Using `lztex.py`

To fully use the program, you need

- Python 2.7 or Python 3.2 (or higher)
- Program that can make PDF from tex file (texlive, miktex)

Then, inside the program's directory, invoke program with

```
python lztex.py
```

or just

```
./lztex.py
```

You will be bring into the program's shell. Type in the document here. Whene you finish it, hit `^C` (`ctrl + C`) to see result. Hit it again to quit.

You can also write a file containing LaTeX's style document (should be end with extension `.lazy`), and let `lztex.py` parse it to LaTeX by

```
./lztex.py filename.lazy
```

New file `filename.tex` will be created (make sure you don't have this file name before, cause it will be overwritten). Then you can make PDF from it.