

What is MultiMarkdown?

And why should you care?

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MultiMarkdown is a derivative of Markdown

Markdown¹ is a program and a syntax by John Gruber that allows you to easily convert plain text into HTML suitable for using on a web page.

¹<http://daringfireball.net/projects/markdown/>

The old way was complicated

`<p>In order to create valid
HTML, you
need properly coded syntax that can be cumbersome for
“non-programmers” to write. Sometimes, you
just want to easily make certain words bold
, and certain words italicized without
having to remember the syntax. Additionally, for example,
creating lists:</p>`

```
<ul>  
<li>should be easy</li>  
<li>should not involve programming</li>  
</ul>
```

The new way is easier

In order to create valid [HTML], you need properly coded syntax that can be cumbersome for "non-programmers" to write. Sometimes, you just want to easily make certain words **bold**, and certain words *italicized* without having to remember the syntax. Additionally, for example, creating lists:

- * should be easy
- * should not involve programming

[HTML]: <http://en.wikipedia.org/wiki/HTML>

Markdown is designed for people

The overriding design goal for Markdown's formatting syntax is to make it as readable as possible. The idea is that a Markdown-formatted document should be publishable as-is, as plain text, without looking like it's been marked up with tags or formatting instructions. While Markdown's syntax has been influenced by several existing text-to-HTML filters, the single biggest source of inspiration for Markdown's syntax is the format of plain text email. (1)

But Markdown wasn't complete

I, and others, loved the spirit and elegance of Markdown, but felt it was still missing a few features that each of us considered were essential. Several variations on Markdown arose to meet the needs of these other programmers.

MultiMarkdown adds several new features

- footnotes
- tables
- citations and bibliography
- image attributes
- metadata
- internal cross-references
- math support
- glossary entries
- definition lists
- and more. . .

MMD also adds something else...

- Outside of the actual syntax, MMD supports multiple output formats, including HTML, LaTeX², OpenDocument³, and OPML⁴
- This allows you to use the same markup language (MultiMarkdown) to create a high quality pdf (article, book, or presentation like this one) without any additional programming.
- Most importantly, you don't have to know how this works, or even what the LaTeX commands mean — just have the software installed.

²<http://en.wikipedia.org/wiki/LaTeX>

³<http://en.wikipedia.org/wiki/OpenDocument>

⁴<http://en.wikipedia.org/wiki/OPML>

So, one text file becomes multiple final documents

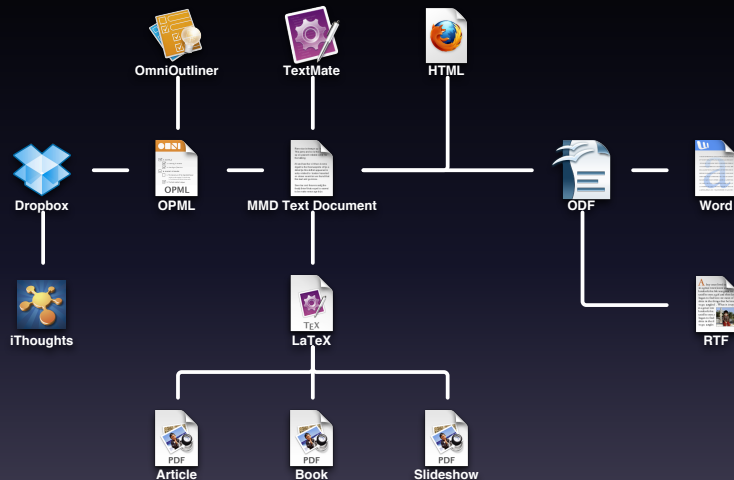


Figure: Example MultiMarkdown output formats

The goal is to separate content from formatting

By focusing on the text content of your document, you can focus on the creative, the scientific, the *human*. Let your computer do what it is good at — the fairly boring job of making sure that margins are correct, that paragraphs are properly separated, your footnotes are in order, and that your tables line up — regardless of the final format you want your document to take.

MultiMarkdown and Mathematics

Built into MultiMarkdown is support for mathematical equations. You write using LaTeX syntax. When you output to HTML, you can use MathJax⁵ to properly display the math. If you output to LaTeX, it is display automatically. There is not currently an approach to display math using OpenDocument

`\\[{e}^{i\\pi }+1=0 \\]`

becomes

$$e^{i\pi} + 1 = 0$$

⁵<http://www.mathjax.org/>

Images are just as easy

`! [Nautilus Star] (Nautilus_Star.png)`

becomes...

Images are just as easy

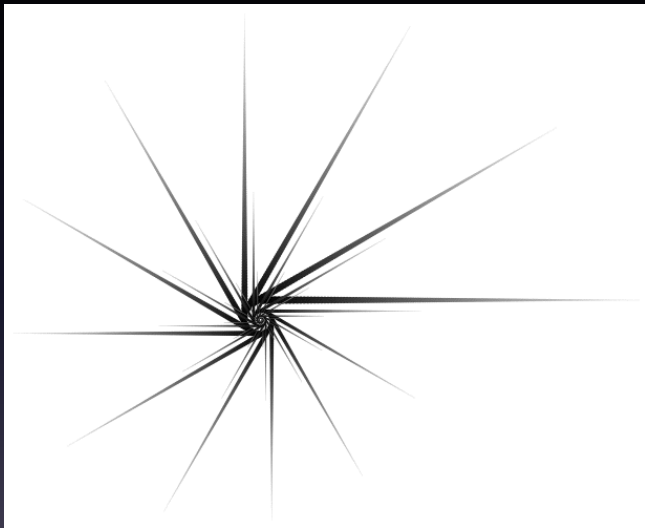


Figure: Nautilus Star

Support for a bibliography is also included

- MultiMarkdown has support for BibTeX⁶, or for just including your own citations, so that you can back up your arguments. (2, p. 42)
- The citation above links to the corresponding entry in the bibliography.

⁶<http://www.bibtex.org/>

Installation is easy

- Download the MultiMarkdown software — there are installers for Mac OS X and Windows, and instructions for compiling in Linux.
- If you want to use LaTeX, install a version appropriate for your operating system.
- OpenDocument output doesn't require any special software, but will require an application capable of opening the document — LibreOffice, OpenOffice.org (with the proper plug-in installed), etc.

How do I create a MultiMarkdown document?

- A MultiMarkdown is simply a text document that is written in the MultiMarkdown syntax. You can use any text editor or application you like. If your editor supports fonts, italics, etc. then be sure to save as a plain text file (not a .doc, RTF, or other “rich” format).
- Some applications include built-in support for MultiMarkdown in various ways. There’s a bundle⁷ for TextMate⁸, and Scrivener⁹ includes MultiMarkdown support.

⁷<http://fletcher.github.com/markdown.tmbundle/>

⁸<http://macromates.com/>

⁹<http://www.literatureandlatte.com/scrivener.html>

Why should I mess with this LaTeX stuff?

MultiMarkdown's support for LaTeX is designed to automatically do the “right” thing in most situations for most people. But if you want to dig in and learn more, you can customize MMD to create highly tailored documents that suit your specific needs. If you want high quality typography, LaTeX is the way to go.

If you already know what LaTeX is, then MultiMarkdown allows you to create documents without learning all of the complicated LaTeX commands and markup.

How do I create a fancy PDF?

If you're using LaTeX, and have the proper software installed it's easy:

- 1 Type `mmd2tex filename.txt`
- 2 Use `pdflatex`, `xelatex`, or your preferred tool to compile the LaTeX file into a pdf.
- 3 There is no step 3

Where to learn more

- <http://fletcherpenney.net/multimarkdown/>
- <http://groups.google.com/group/multimarkdown/>
- <http://fletcher.github.com/MultiMarkdown-Gallery/>

By the way...

This presentation was, of course, written in MultiMarkdown and processed by typing `mmd2tex what_is_mmd.txt`.

It uses the `beamer` XSLT file, and the `keynote-gradient` `beamer` theme.

Bibliography I

- [1] John Gruber. Daring Fireball: Markdown. [Cited January 2006]. Available from <http://daringfireball.net/projects/markdown/>.
- [2] John Doe. *A Totally Fake Book*. Vanity Press, 2006.