markdown-mode, an Emacs package for working with markdown-format files.

# markdown-mode Manual

edition 2.2.a

for markdown-mode version 2.2

markdown-mode by Jason R. Blevins, et al. manual by Daniel Birket

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This is the markdown-mode Manual, edition 2.2.a, by Daniel Birket, updated 13 July 2017, which describes how to install and use the Emacs package markdown-mode, version 2.2, released May 26, 2017, which was written by and Copyright © 2007-2017 Jason R. Blevins, et al. (See http://jblevins.org/projects/markdown-mode/)

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This manual is based upon the comments and doc strings in the markdown-mode.el source code, which begins with:

```
;;; markdown-mode.el --- Major mode for Markdown-formatted text -*- lexical-binding: t
;; Copyright (C) 2007-2017 Jason R. Blevins <jrblevin@sdf.org>
. . .
;; Author: Jason R. Blevins <jrblevin@sdf.org>
;; Maintainer: Jason R. Blevins <jrblevin@sdf.org>
;; Created: May 24, 2007
;; Version: 2.2
;; Package-Requires: ((emacs "24") (cl-lib "0.5"))
;; Keywords: Markdown, GitHub Flavored Markdown, itex
;; URL: http://jblevins.org/projects/markdown-mode/
;; This file is not part of GNU Emacs.
;; This program is free software; you can redistribute it and/or modify
;; it under the terms of the GNU General Public License as published by
;; the Free Software Foundation; either version 2, or (at your option)
;; any later version.
;; This program is distributed in the hope that it will be useful,
;; but WITHOUT ANY WARRANTY; without even the implied warranty of
;; MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
```

;; GNU General Public License for more details.

# 1 Introduction

This manual describes how to install and use markdown-mode, an Emacs package for working with markdown-formatted text. The features of this package assist the user to insert and manipulate markup syntax compatible with the external markdown command and to use it to convert the markdown-formatted text into HTML-formatted text.

The package implements two Emacs major modes:

- markdown-mode, for editing standard markdown text. See Chapter 3 [Using markdown-mode], page 7.
- gfm-mode, for editing GitHub-flavored markdown text. See Chapter 4 [Using gfm-mode], page 18.

The popular Unix filter command markdown, created by John Gruber in 2004 in collaboration with Aaron Swartz, provides an easy way to produce styled text by first editing simply-formatted text files and then converting that text to HTML. This approach uses a programmer's familiar edit-compile workflow, is compatible with source-code management tools and separates composition from formatting, allowing the writer to focus on writing without the distractions of WYSIWYG editors. It is described at http://daringfireball.net/projects/markdown/.

markdown has been re-implemented by various authors and with various additional features and syntax, including multimarkdown, pandoc, python markdown and many others.

GitHub Flavored Markdown is the dialect of markdown used by GitHub. It is described at http://github.github.com/github-flavored-markdown/.

The powerful text editor, Emacs, was created in 1976 by Richard Stallman. It is highly customizable and has 40 years of other extensions. *GNU Emacs* is documented at https://www.gnu.org/software/emacs/. XEmacs is documented at http://www.xemacs.org.

# 2 Installing

This chapter describes how to install markdown-mode for everyday use. To install the development version for testing, see Section A.3 [Development Version], page 27.

#### 2.1 Recommended Installation

The recommended way to install the package markdown-mode is to use package.el, which has been integrated with Emacs since version 24. (It is included in version 23, but must be initialized.)

To install markdown-mode, first add the MELPA Stable archive to the list of archives used by package.el by adding the following lines to your .emacs, init.el, or other Emacs startup file and restarting Emacs (or just evaluate the statements):

Then, after restarting Emacs (or otherwise evaluating the above statements), type the following command:

M-x package-install RET markdown-mode RET.

When installed using the package manager this way, the major modes markdown-mode and gfm-mode will be auto-loaded, and markdown-mode will be used automatically for file names ending in either .md or .markdown.

You may browse the 1500+ other Emacs packages in the MELPA-Stable archive at http://stable.melpa.org/ or by typing M-x list-packages RET (after adding it to your package-archives list, above).

#### 2.2 Manual Installation

You can manually download and install markdown-mode.

First, download markdown-mode from one of:

- http://jblevins.org/projects/markdown-mode/markdown-mode.el
- http://stable.melpa.org/

and save the file where Emacs can find it in a directory listed in your load-path like /usr/local/share/emacs/site-lisp.

Then configure markdown-mode and gfm-mode to load automatically by adding the following to your init file:

```
"markdown-mode"

"Major mode for editing GitHub Flavored Markdown files" t)
(add-to-list 'auto-mode-alist '("README\\.md\\'" . gfm-mode))
```

This package, markdown-mode.el, depends on the package cl-lib, which has been bundled with GNU Emacs since version 24.3. If you use GNU Emacs version 24.1 or 24.2 and lack cl-lib, you should install cl-lib using package.el. To install cl-lib type:

M-x package-install RET cl-lib RET

# 2.3 Managed Loading

If you manage loading packages with use-package then you can automatically install and configure markdown-mode by adding a declaration such as this one to your init file (This is an example. Please adjust these settings as desired):

use-package is documented at https://github.com/jwiegley/use-package

# 2.4 OS Package Managers

You may download markdown-mode in packages for use with several OS package managers. Most OS packages do not contain the latest stable version. (Please notify the package maintainer if you download one that does not.) Note that OS package managers generally do NOT byte-compile or configure markdown-mode to load automatically. Please see the instructions under Section 2.2 [Manual Installation], page 3, if markdown-mode does not load automatically.

#### Debian Linux

```
https://packages.debian.org/sid/lisp/elpa-markdown-mode
```

Note: As of Sep-2016, this package contains markdown-mode version 2.1. It is unknown if the package manager compiles or configures markdown-mode.

```
http://packages.debian.org/emacs-goodies-el
```

Note: emacs-goodies-el is a collection of Emacs programs. The version of markdown-mode included in it is unknown.

#### Ubuntu Linux

At the terminal prompt, type:

\$ sudo apt update

\$ apt show elpa-markdown-mode

Package: elpa-markdown-mode
...

Source: markdown-mode
Version: 2.1-1
...

Description-en: mode for editing Markdown-formatted text
files in GNU Emacs. The mode provides syntax highlighted,
and keyboard shortcuts for editing, compiling and previewing
Markdown.
...
Homepage: http://jblevins.org/projects/markdown-mode/
...

\$ sudo apt install elpa-markdown-mode

#### RedHat and Fedora Linux

https://apps.fedoraproject.org/packages/emacs-goodies

Note: emacs-goodies is a collection of Emacs programs. The version of markdown-mode that it includes is unknown.

This package is maintained by sagarun@fedoraproject.org

NetBSD http://pkgsrc.se/textproc/markdown-mode

Note: As of Sep-2016, this package installs and byte-compiles an **obsolete** version 2.0 (Sep-2014) of markdown-mode. You must manually edit your startup file as described above under Section 2.2 [Manual Installation], page 3.

The package is maintained by minskim@NetBSD.org.

FreeBSD http://svnweb.freebsd.org/ports/head/textproc/markdown-mode.el

Note: As of Sep-2016, this package downloads (but does not byte-compile or configure) markdown-mode version 2.1 to /usr/local/share/emacs/site-lisp. You must manually edit your startup file as described above under Section 2.2 [Manual Installation], page 3.

The package is maintained by olgeni@FreeBSD.org

#### Macintosh MacPorts

https://trac.macports.org/browser/trunk/dports/editors/
markdown-mode.el/Portfile

Note: As of Sep-2016, this package downloads (but does not byte-compile or configure) an **obsolete** version 2.0 (Sep-2014) of markdown-mode from git://jblevins.org/git/markdown-mode.git to /usr/local/share/emacs/site-lisp. You must manually edit your startup file as described above under Section 2.2 [Manual Installation], page 3.

#### Macintosh HomeBrew

At the terminal prompt type

```
$ brew update
...
$ brew info homebrew/emacs/markdown-mode
...
$ brew install homebrew/emacs/markdown-mode
...
```

# 3 Using markdown-mode

This chapter describes how to use markdown-mode.

*C-c* is the mode-specific-command-prefix and most of markdown-mode's keybindings begin with it. Under it, many keybindings are grouped based on their function:

- C-c C-a Prefix keys for insert link commands. (HTML <a> tag).
   Use C-c C-a C-h to list all commands in this group.
   See Section 3.4 [Links], page 12,
- C-c C-c Prefix keys for 'compiling' markdown. ([c]ompile)
  Use C-c C-c C-h to list all commands in this group.
  See Section 3.8 [Compile Commands], page 16,
- C-c C-i Prefix keys for insert image commands. ([i]mage)
  Use C-c C-i C-h to list all commands in this group.
  See Section 3.5 [Images], page 14,
- C-c C-s Prefix keys for insert style commands. ([s]tyle)
  Use C-c C-s C-h to list all commands in this group.
  See Section 3.3 [Styles], page 11,
- C-c C-t Prefix keys for insert title/header commands. ([t]itle)
  Use C-c C-t C-h to list all commands in this group.
  See Section 3.1 [Headers], page 7,
- C-c C-x Prefix keys for manipulating lists. Use C-c C-x C-h to list all commands in this group. See Section 3.2 [Lists], page 10,

Movement and shifting commands are generally associated with paired delimiters such as  $M-\{$  and  $M-\}$ , or C-c < and C-c >.

Outline navigation keybindings the same as in org-mode. See (undefined) [(org) Motion], page (undefined),

You can obtain a list of most markdown-mode keybindings by pressing C-c C-h or C-h m.

#### 3.1 Headers

This section describes how to work with headers and horizontal rules.

Note: John Gruber designed markdown to handle two pre-existing types of titles and headers: the underlined titles supported by setext by Ian Feldman and the headers marked with hash marks supported by atx by Aaron Swartz. markdown-mode refers to these header styles as setext and atx headers.

# 3.1.1 Inserting Headers

This subsection describes how to insert headers.

All header insertion commands use the text in the active region, if any, as the header text. Otherwise, if the current line is not blank, they use the text on the current line. The setext-style (underlined) header insert commands will prompt for header text if there is no active region and the current line is blank.

The prefix for this group of header insert commands is C-c C-t.

#### C-c C-t h (markdown-insert-header-dwim)

This will insert or replace 'appropriate' header markup.

The level and type of the header will match the type and level of the previous header, unless a prefix argument is used.

With a numeric prefix C-1 to C-6, this inserts a header of the given level, with the type being determined automatically (Note that only level 1 or 2 setext headers are possible).

With a C-u prefix, this promotes the header by one level. With a C-u C-u prefix, this demotes the header by one level.

When there is an active region, this will use it for the header text. When the point is at an existing header, it will change the type and level according to the rules above. Otherwise, if the line is not empty, it will create a header using the text on the current line as the header text. Finally, if the point is on a blank line, it will insert empty header markup (atx) or prompt for text (setext).

#### C-c C-t H (markdown-insert-header-setext-dwim)

This will insert setext-style (underlined) headers when possible. (Note that only level 1 or 2 setext headers are possible).

C-1 C-c C-t H inserts level-one setext-style headers.

C-2 C-c C-t H inserts level-two setext-style headers.

C-u C-c C-t H and C-u C-c C-t H insert higher or lower level setext-style headers, if possible.

To insert a specific style and level of header use one of the commands below. If the point is at a header, these commands will replace the existing markup in order to update the level and/or type of the header.

#### atx-style (#) Headers

#### C-c C-t 1 (markdown-insert-header-atx-1)

This inserts a first-level atx-style (#) header, using the text in the active region or the text on the current line, if any.

#### C-c C-t 2 (markdown-insert-header-atx-2)

This inserts a second-level atx-style (##) header, using the text in the active region or the text on the current line, if any.

#### C-c C-t 3 (markdown-insert-header-atx-3)

This inserts a third-level atx-style (###) header, using the text in the active region or the text on the current line, if any.

#### C-c C-t 4 (markdown-insert-header-atx-4)

This inserts a fourth-level atx-style (####) header, using the text in the active region or the text on the current line, if any.

#### C-c C-t 5 (markdown-insert-header-atx-5)

This inserts a fifth-level atx-style (#####) header, using the text in the active region or the text on the current line, if any.

#### C-c C-t 6 (markdown-insert-header-atx-6)

This inserts a sixth-level atx-style (######) header, using the text in the active region or the text on the current line, if any.

#### setext-style (underlined) Headers

#### C-c C-t ! or C-c C-t t (markdown-insert-header-setext-1)

This inserts a first-level set ext-style (underlined) header, using the text in the active region or the text on the current line, if any. The C-c C-t t keybinding is depreciated.

#### C-c C-t @ or C-c C-t s (markdown-insert-header-setext-2)

This inserts a second-level set ext-style (underlined) header, using the text in the active region or the text on the current line, if any. The C-c C-t s keybinding is depreciated.

The prefix for this group of header insert commands is C-c C-c.

#### C-c C-] (markdown-complete)

This completes the markup at the point, if it is determined to be incomplete.

For example, it ensures that the underline portion of a setext header is the same length as the heading text, or that the number of leading and trailing hash marks of an atx header are equal and that there is no extra white space in the header text.

#### C-c C-c ] (markdown-complete-buffer)

This completes all headers and normalizes all horizontal rules in the buffer.

#### 3.1.2 Moving Headers

To promote or demote both list items and headers: See Section 3.6.1 [Promote/Demote Items], page 14.

#### 3.1.3 Moving Subtrees

Entire subtrees of atx headings can be promoted and demoted with M-S-LEFT and M-S-RIGHT, which mirror the bindings for promotion and demotion of list items. Similarly, subtrees can be moved up and down with M-S-UP and M-S-DOWN.

Please note the following "boundary" behavior for promotion and demotion. Any level-six headings will not be demoted further (i.e., they remain at level six, since Markdown and HTML define only six levels) and any level-one headings will promoted away entirely (i.e., heading markup will be removed, since a level-zero heading is not defined).

#### M-S-UP (markdown-move-subtree-up)

This will move the heading at point and the associated sub-tree of sub-headings and text up above the previous heading of the same level.

#### M-S-DOWN (markdown-move-subtree-down)

This will move the heading at point and the associated sub-tree of sub-headings and text down below the next heading of the same level.

#### M-S-LEFT (markdown-promote-subtree)

This command will promote the heading at point and the associated sub-tree of sub-headings and text to the lower (more inclusive) level to the left.

#### M-S-RIGHT (markdown-demote-subtree)

This command will promote the heading at point and the associated sub-tree of sub-headings and text to the higher (less inclusive) level to the right.

#### 3.1.4 Navigating Headers

This subsection describes how to navigate among headers and collapse and expand header sections. These commands are similar to the navigation commands in outline-mode.

#### C-c C-n (markdown-next-visible-heading)

This will move point to the next visible heading line (of any level).

#### C-c C-p (markdown-previous-visible-heading)

This will move point to the previous visible heading line (of any level).

#### C-c C-f (markdown-forward-same-level)

This will move point to the next visible heading line at the same level as the heading currently at point.

#### C-c C-b (markdown-backward-same-level)

This will move point to the previous visible heading line at the same level as the heading currently at point.

#### C-c C-u (markdown-up-heading)

This will move point up to a lower-level (more inclusive) visible heading than the heading currently at point.

#### 3.1.5 Inserting Horizontal Rules

This subsection describes how to insert horizontal rules.

#### C-c - (markdown-insert-hr)

This will insert (or replace) a horizontal rule.

Without a prefix argument, it will use the first horizontal rule in the markdown-hr-strings list.

C-u C-c - will use the last (sixth) horizontal rule in the list.

 $C{-}1$   $C{-}c$  – through  $C{-}6$   $C{-}c$  – will use the horizontal rule string selected by the number.

### 3.2 Lists

This section describes how to insert and renumber list items and move them up and down.

# 3.2.1 Inserting List Items

#### M-RET or C-c C-x m or C-c C-j (markdown-insert-list-item)

This inserts an appropriate new list item. It determines the appropriate marker (one of the possible unordered list markers or the next number in sequence for an ordered list) and indentation level by examining nearby list items. If there

is no list before or after the point, it starts a new list. Prefix this command with C-u to decrease the indentation by one level. Prefix this command with C-u to increase the indentation by one level.

markdown-mode version 2.2 repurposes the *C-c C-j* keybinding previously used for markdown-jump to match the AUCTex keybinding for inserting list items.

#### C-c C-c n (markdown-cleanup-list-numbers)

This renumbers any ordered lists in the buffer that are out of sequence.

### 3.2.2 Promote/Demote List Items

To promote or demote both list items and headers: See Section 3.6.1 [Promote/Demote Items], page 14.

#### 3.2.3 Move List Items

#### M-UP or C-c C-x u (markdown-move-up)

This command will move a list item up. It does not move headers.

#### M-DOWN or C-c C-x d (markdown-move-down)

This command will move a list item down. It does not move headers.

# 3.3 Styles

This section describes how to insert style markup.

The prefix for this group of commands is C-c C-s.

#### C-c C-s e (markdown-insert-italic)

This inserts markup to *emphasize* a region or word with *italic* face, or removes the existing italic emphasis.

If there is an active region, it makes the region italic. If the point is at a non-italic word, it makes the word italic. If the point is at an italic word or phrase, it removes the italic markup. Otherwise, it simply inserts italic delimiters and place the cursor between them.

#### C-c C-s s (markdown-insert-bold)

This inserts markup for **strong** emphasis of a region or word with **bold** face, or removes the existing bold strong emphasis.

If there is an active region, it makes the region bold. If the point is at a nonitalic word, it makes the word bold. If the point is at an bold word or phrase, it removes the bold markup. Otherwise, it simply inserts bold delimiters and place the cursor between them.

#### C-c C-s c (markdown-insert-code)

Insert markup to make a region or word an inline code fragment.

If there is an active region, make the region an inline code fragment. If the point is at a word, make the word an inline code fragment. Otherwise, simply insert code delimiters and place the cursor between them.

#### C-c C-s k (markdown-insert-kbd)

Insert markup to wrap a region or word in <kbd> tags.

If there is an active region, use the region. If the point is at a word, use the word. Otherwise, simply insert <kbd> tags and place the cursor between them. (markdown-mode version 2.2).

#### C-c C-s b (markdown-insert-blockquote)

This inserts block quote markup around the active region, if any, or inserts empty block quote markup.

#### C-c C-s C-b (markdown-blockquote-region)

This variation of the insert-blockquote function (above) always operates on the region, regardless of whether it is active or not.

The appropriate amount of indentation, if any, is calculated automatically given the surrounding context, but may be adjusted later using the region indentation commands.

#### C-c C-s p (markdown-insert-pre)

This inserts preformatted code block markup around the active region, if any, or inserts empty preformatted code block markup.

#### C-c C-s C-p (markdown-pre-region)

This variation of the insert-pre function (above) always operates on the region, regardless of whether it is active or not.

#### 3.4 Links

This section describes how to insert and work with links.

#### 3.4.1 Inserting Links

The prefix for this group of commands is C-c C-a.

#### C-c C-a 1 (markdown-insert-link)

This inserts an inline link of the form '[text](url)'. The link text is determined as follows: If there is an active region (i.e., when transient mark mode is on and the mark is active), use it as the link text. Otherwise, if the point is at a word, use that word as the link text. In these two cases, the original text will be replaced with the link and point will be left at the position for inserting a URL. Otherwise, insert empty link markup and place the point for inserting the link text.

#### C-c C-a L (markdown-insert-reference-link-dwim)

(C-c C-a r depreciated keybinding) This inserts a reference link of the form '[text][label]' and an optional corresponding reference label definition. The region (if active) or the word at point (if any) will be used for the link text. If neither is available, then the link text will be read from the mini-buffer.

The reference label will be read from the mini-buffer, with completion from the set of currently defined references. To create an implicit reference link, press RET to accept the default empty label. If the entered reference label is not defined, it will prompt for the URL and an optional title.

If a URL is provided, a reference definition will be inserted in accordance with markdown-reference-location. If a title is given, it will be added to the end

of the reference definition and will be used to populate the title attribute when converted to XHTML.

#### C-c C-a u (markdown-insert-uri)

This inserts a bare URI (URL), delimited by angle brackets. The region (if active) or the URI at point (if any) will be used for the link text. Otherwise, it will insert '<>' and position the point in between the brackets for inserting the URI.

#### C-c C-a f (markdown-insert-footnote)

This inserts a footnote marker at the point, inserts a footnote definition below, and positions the point for inserting the footnote text. Note that footnotes are an extension to Markdown and are not supported by all processors.

#### C-c C-a w (markdown-insert-wiki-link)

This is like the inline link insertion command but inserts a wiki link of the form '[[WikiLink]]'. The region (if active) or the word at point (if any) will be used for the link text. If neither is available, it will simply insert '[[]]' and position the point between the brackets for inserting the link. Note that wiki links are an extension to Markdown and are not supported by all processors.

#### 3.4.2 Checking References

This section describes how to check references.

#### C-c C-c c (markdown-check-refs)

This will check for undefined references. If there are any, a small buffer will open with a list of undefined references and the line numbers on which they appear. In Emacs 22 and greater, selecting a reference from this list and pressing RET will insert an empty reference definition at the end of the buffer. Similarly, selecting the line number will jump to the corresponding line.

#### 3.4.3 Navigating Links

This subsection describes commands that navigate links.

#### M-p (markdown-previous-link)

This will move to the previous inline, reference or wiki link, if any.

#### M-n (markdown-next-link)

This will move to the next inline, reference or wiki link, if any.

#### C-c C-o (markdown-follow-thing-at-point)

Press C-c C-o when the point is on an inline or reference link to open the URL in a browser. When the point is at a wiki link, open it in another buffer (in the current window, or in the other window with the C-u prefix).

#### C-c C-1 (markdown-jump)

Use C-c C-1> to jump from the object at point to its counterpart elsewhere in the text, when possible. Jumps between reference links and definitions; between footnote markers and footnote text. If more than one link uses the same reference name, a new buffer will be created containing clickable buttons for jumping to each link. You may press TAB or S-TAB to jump between buttons in this window.

Note: the keybinding of the markdown-jump function was changed from C-c C-j ('j'ump) in version 2.1 to C-c C-1 ('l'eap) in version 2.2 so that C-c C-j could be used to insert list items using the same key binding as the AUCTeX editor.

### 3.5 Images

This section describes how to insert and work with images. The prefix for this group of commands is C-c C-i.

#### C-c C-i i (markdown-insert-image)

This inserts markup for an inline image using the active region or the word at point (if any) as the alt text.

#### C-c C-i I (markdown-insert-reference-image)

This inserts markup for an reference-style image using the active region or the word at point (if any) as the alt text.

#### C-c C-i C-t (markdown-toggle-inline-images)

This will toggle display of local inline images. Use it again to remove local inline image display. (markdown-mode version 2.2).

#### 3.6 Misc. Commands

This section describes commands common to both headers and lists, plus miscellaneous commands.

# 3.6.1 Promote/Demote Items

Headings, horizontal rules, and list items can be promoted and demoted, as well as bold and italic text.

For headings, "promotion" means decreasing the level (i.e., moving from '<h2>' to '<h1>') while "demotion" means increasing the level.

For horizontal rules, promotion and demotion means moving backward or forward through the list of rule strings in markdown-hr-strings. For bold and italic text, promotion and demotion means changing the markup from underscores to asterisks.

To remember these commands, note that – is for decreasing the level (promoting), and = (on the same key as +) is for increasing the level (demoting). Similarly, the LEFT and RIGHT arrow keys indicate the direction that the atx heading markup is moving in when promoting or demoting.

#### M-LEFT or C-c C-x 1 or C-c C-- (markdown-promote)

This will promote headers, rules and list items at point, moving them left. See markdown-promote below.

#### M-RIGHT or C-c C-x r or C-c C-= (markdown-demote)

This will demote headers, rules and list items at point, moving them right.

#### 3.6.2 Indenting the Region

Text in the region can be indented or exdented as a group using C-c > to indent to the next indentation point (calculated in the current context), and C-c < to exdent to the

previous indentation point. These keybindings are the same as those for similar commands in python-mode.

#### C-c < (markdown-exdent-region)

This exdents the region to the previous indentation point.

#### C-c > (markdown-indent-region)

This indents the region to the previous indentation point.

#### 3.6.3 Killing Entities

#### C-c C-k (markdown-kill-thing-at-point)

This kills the header, item or other markdown 'thing' at the point. The interesting text (but not the markup) is added to the kill-ring. You can use C-y as usual to yank the text back if desired, without the old markup.

#### 3.7 Notes

This section contains notes on various details of markdown-mode.

### 3.7.1 Navigation Differences

The definition of a "paragraph" is slightly different in markdown-mode than, say, text-mode, because markdown-mode supports filling for list items and respects hard line breaks, both of which break paragraphs. So, markdown-mode overrides the usual paragraph navigation commands  $M-\{$  and  $M-\}$  so that with a C-u prefix, these commands jump to the beginning or end of an entire block of text, respectively, where "blocks" are separated by one or more lines.

#### M-{ (markdown-backward-paragraph)

This command jumps to the beginning of the block of text at point, or to the previous paragraph. Paragraphs are delimited by one or more blank lines.

#### M-} (markdown-forward-paragraph)

This command jumps to the end of the block of text at point, or to the next paragraph. Paragraphs are delimited by one or more blank lines.

The usual Emacs commands can be used to move by defuns (top-level major definitions). In markdown-mode, a defun is a section. As usual, C-M-a will move the point to the beginning of the current or preceding defun, C-M-e will move to the end of the current or following defun, and C-M-h will put the region around the entire defun.

#### C-M-a (markdown-beginning-of-defun)

This command will move to the beginning of a section.

#### C-M-e (markdown-end-of-defun)

This command will move to the end of a section.

#### C-M-h (mark-defun)

This command will put the region around the current section.

### 3.7.2 Mark and Region

As noted, many of the commands above behave differently depending on whether Transient Mark mode is enabled or not. When it makes sense, if Transient Mark mode is on and the region is active, the command applies to the text in the region (e.g., C-c C-s s makes the region bold). For users who prefer to work outside of Transient Mark mode, since Emacs 22 it can be enabled temporarily by pressing C-SPC C-SPC. When this is not the case, many commands then proceed to work with the word or line at the point.

When applicable, commands that specifically act on the region even outside of Transient Mark mode have the same keybinding as their standard counterpart, but the letter is uppercase. For example, markdown-insert-blockquote is bound to C-c C-s b and only acts on the region in Transient Mark mode while markdown-blockquote-region is bound to C-c C-s B and always applies to the region (when nonempty).

Note that these region-specific functions are useful in many cases where it may not be obvious. For example, yanking text from the kill ring sets the mark at the beginning of the yanked text and moves the point to the end. Therefore, the (inactive) region contains the yanked text. So, C-y followed by C-c C-s C-B will yank text and turn it into a blockquote.

#### 3.7.3 Indenting

markdown-mode attempts to be flexible in how it handles indentation. When you press TAB repeatedly, the point will cycle through several possible indentation levels corresponding to things you might have in mind when you press RET at the end of a line or TAB. For example, you may want to start a new list item, continue a list item with hanging indentation, indent for a nested pre block, and so on. Exdention is handled similarly when backspace is pressed at the beginning of the non-whitespace portion of a line.

#### 3.7.4 Org and Outline features

markdown-mode supports outline-minor-mode as well as org-mode style visibility cycling for hash-style (atx) headings.

There are two types of visibility cycling:

- S-TAB This cycles globally between the table of contents view (headings only), outline view (top-level headings only), and the full document view.
- TAB Pressing TAB while the point is at a heading will cycle through levels of visibility for the subtree: completely folded, visible children, and fully visible.

Note that mixing hash (atx) and underline (setext) style headings will give undesired results.

# 3.8 Compile Commands

This section describes compile (output) commands.

The prefix for this group of commands is C-c C-c.

#### C-c C-c m (markdown-other-window)

This will run markdown-command on the current buffer and display the output (XHMTL) in the other window with the buffer name '\*markdown-output\*'.

#### C-c C-c p (markdown-preview)

This will run markdown-command on the current buffer and then preview it by writing it to a temporary file and opening that file in a browser.

#### C-c C-c e (markdown-export)

This will run markdown-command on the current buffer and then save the result to the file basename.html, where 'basename' is the name of the markdown file (visited by the source buffer) without its extension.

#### C-c C-c v (markdown-export-and-preview)

This will run markdown-command on the current buffer and then save the result to the file basename.html, as with markdown-exportabove, and then preview that file in a browser.

#### C-c C-c w (markdown-kill-ring-save)

This will run markdown-command on the current buffer and save the output to the kill ring. You can yank it back where desired with C-y as usual.

#### C-c C-c 1 (markdown-live-preview-mode)

This will toggle markdown live preview mode. When enabled, it will preview the output in the Emacs eww browser whenever you save the markdown file. Toggle it off again to stop live preview and close the eww browser. You may customize the value of the variable markdown-live-preview-window-function with your own function to use a browser other than eww. The default value of the variable is the function markdown-live-preview-window-eww.

#### C-c C-c o (markdown-open)

This will use markdown-open-command to open the source markdown file visited by the buffer directly. See Section 5.1 [Customizing External Commands], page 20.

#### Summary of compile commands:

- C-c C-c m markdown-command > '\*markdown-output\*' buffer.
- C-c C-c p markdown-command > 'tempfile' > browser.
- C-c C-c e markdown-command > basename.html.
- C-c C-c v markdown-command > basename.html > browser.
- C-c C-c w markdown-command > kill ring.
- C-c C-c 1 markdown-command > '\*eww\*' buffer (live).
- C-c C-c o buffer > file > markdown-open-command.

# 4 Using gfm-mode

This chapter describes the differences between markdown-mode and the available *GitHub Flavored Markdown Mode*, gfm-mode. GitHub Flavored Markdown is described at http://github.github.com/github-flavored-markdown/

The GitHub implementation differs slightly from standard Markdown in that it supports things like different behavior for underscores inside of words, automatic linking of URLs, strikethrough text, and fenced code blocks with an optional language keyword.

The GFM-specific features above apply to README.md files, wiki pages, and other Markdown-formatted files in repositories on GitHub. GitHub also enables additional features https://help.github.com/articles/writing-on-github/ for writing on the site (for issues, pull requests, messages, etc.) that are further extensions of GFM. These features include task lists (checkboxes), newlines corresponding to hard line breaks, auto-linked references to issues and commits, wiki links, and so on. To make matters more confusing, although task lists are not part of GFM proper, since 2014 they are rendered (in a read-only fashion) in all Markdown documents in repositories on the site. https://github.com/blog/1825-task-lists-in-all-markdown-documents These additional extensions are supported to varying degrees by markdown-mode and gfm-mode as described below.

#### **URL** autolinking

Both markdown-mode and gfm-mode support highlighting of URLs without angle brackets.

#### Multiple underscores in words

You must enable gfm-mode to toggle support for underscores inside of words. In this mode variable names such as  $a\_test\_variable$  will not trigger emphasis (italics).

#### Fenced code blocks

Code blocks quoted with backticks, with optional programming language keywords, are highlighted in both markdown-mode and gfm-mode. They can be inserted with C-c C-s P. If there is an active region, the text in the region will be placed inside the code block. You will be prompted for the name of the language, but may press enter to continue without naming a language.

#### Strikethrough

Strikethrough text is only supported in gfm-mode and can be inserted (and tog-gled) using C-c C-s d. Following the mnemonics for the other style keybindings, the letter d coincides with the HTML tag d.

Task lists GFM task lists will be rendered as checkboxes (Emacs buttons) in both markdown-mode and gfm-mode when markdown-make-gfm-checkboxes-buttons is set to a non-nil value (and it is set to t by default). These checkboxes can be toggled by clicking mouse-1 or pressing RET over the button.

Wiki links Generic wiki links are supported in markdown-mode, but in gfm-mode specifically they will be treated as they are on GitHub: spaces will be replaced by hyphens in filenames and the first letter of the filename will be capitalized. For example,

[[wiki link]] will map to a file named Wiki-link with the same extension as the current file.

Newlines

Neither markdown-mode nor gfm-mode do anything specifically with respect to newline behavior. If you use gfm-mode mostly to write text for comments or issues on the GitHub site (where newlines are significant and correspond to hard line breaks) then you may want to enable visual-line-mode for line wrapping in buffers. You can do this with a gfm-mode-hook as follows:

Preview

GFM-specific preview can be powered by setting markdown-command to use a GFM preview application like Docter (https://github.com/alampros/Docter). This may also be configured to work with *Marked 2* for markdown-open-command.

# 5 Customizing

This chapter describes how to customize markdown-mode.

You may customize the variables in this section by adding lines to your Emacs startup file or by running *M-x customize-group markdown* and then restarting Emacs.

# 5.1 Customizing External Commands

The variables in this section control how markdown-mode calls external commands to convert markdown text to HTML or another format or to preview the markdown text.

#### markdown-command

string, default: "markdown".

This variable specifies the command and options that markdown-mode will use to run markdown or another output processor in the following functions:

- C-c C-c m (markdown-other-buffer)
- C-c C-c p (markdown-preview)
- C-c C-c e (markdown-export)
- *C-c C-c v* (markdown-export-and-preview)
- C-c C-c w (markdown-kill-ring-save)

Examples of markdown-command configurations in Emacs startup file:

Default. Assumes markdown command in \$PATH.

(setq markdown-command "markdown")

markdown with specified path

You may need to specify the path to markdown if it is not in the \$PATH, as when Emacs is launched as an app under MacOS.

(setq markdown-command "/usr/local/bin/markdown")

#### markdown with smartypants

You may pipe the output of markdown to smartypants to add smart quotation marks.

See https://daringfireball.net/projects/smartypants/.

(setq markdown-command "markdown | smartypants")

#### multimarkdown

multimarkdown usually outputs to HTML like markdown, but can also output to several other formats with the --to=FORMAT option. It includes the functionality of smartypants.

See http://fletcherpenney.net/multimarkdown/.

pandoc

pandoc will output to HTML, but it can also output to 40 other formats and converts from 5 different markdown dialects, including GitHub-flavored markdown.

#### markdown-command-needs-filename

```
nil or t, default: nil.
```

Set markdown-command-needs-filename to t if the program specified by markdown-command needs a filename, that is, if the program does not accept standard input (stdin).

When markdown-command-needs-filename is set to nil, the default, markdown-mode will pass the markdown content to the program specified by markdown-command using standard input (stdin).

When markdown-command-needs-filename is set to t (or any non-nil), markdown-mode will pass the name of the file visited by the current buffer as the final command-line argument to the program specified by markdown-command. Note that in this case, you will only be able to run markdown-command from buffers that are visiting a file.

#### markdown-open-command

string, default: nil.

This variable specifies the command and options that the function markdown-open, bound to C-c c, will use to open the markdown file in an external markdown previewer application. The command will be called with a single argument: the name of the file visited by the buffer. (This only works if the buffer is visiting a file.)

One possible previewer application is *Marked 2* by Brett Terpstra, a live-updating Markdown previewer available from the Apple app store.

You can open an OSX app like *Marked 2* by running a script like the one below with the markdown-open-command.

Script /usr/local/bin/markview

```
#!/bin/bash
# Check that file exists and launch app with or without it.
if [[ -f $1 ]]
then open -a "Marked 2" $1
else open -a "Marked 2"
fi
```

# 5.2 Customizing Markdown Format

The variables in this section control how markdown-mode formats Markdown text. These variables may be set in the Emacs startup file or by using M-x customize-mode.

#### markdown-bold-underscore

nil or t, default: nil.

Set to a non-nil value to use two underscores when inserting bold text instead of two asterisks.

#### markdown-italic-underscore

nil or t, default: nil.

Set to a non-nil value to use single underscores when inserting italic text instead of single asterisks.

#### markdown-reference-location

header, end, or immediately, default header

This value determines where to insert reference definitions. The possible locations are:

- header before the next header.
- end the end of the document.
- immediately after the current block.

#### Example:

(setq markdown-reference-location 'end)

#### markdown-footnote-location

header, end, or immediately, default end

This value determines where to insert footnote text. The possible locations are the same as for markdown-reference-location, above, but the default is end.

#### comment-auto-fill-only-comments

nil or t, default: nil.

This variable is made buffer-local and set to nil by default. In programming language modes, when this variable is non-nil, only comments will be filled by auto-fill-mode. However, comments in Markdown documents are rare and the most users probably intend for the actual content of the document to be filled. Making this variable buffer-local allows markdown-mode to override the default behavior induced when the global variable is non-nil.

# 5.3 Customizing Markdown Headers

The variables in this section allow you to customize how markdown-mode uses headers.

#### markdown-asymmetric-header

nil or t, default: nil.

Determines if header style will be asymmetric.

Set to non-nil to only have header characters to the left of the title. The default will ensure header characters are placed to the left and right of the title.

#### markdown-header-scaling

nil or t, default: nil.

Determines whether to use variable-height faces for headers.

Set to a non-nil value to use a variable-pitch font for headers where the size corresponds to the level of the header.

In detail: When non-nil, markdown-header-face will inherit from variable-pitch and the six scaling values in markdown-header-scaling-values will be applied to headers of levels one through six respectively.

#### markdown-header-scaling-values

A list of 6 float, default: (list 1.8 1.4 1.2 1.0 1.0 1.0)

A list of 6 scaling values, relative to baseline, for headers of levels one through six. They are used when 'markdown-header-scaling' is non-nil.

#### markdown-nested-imenu-header-index

nil or t. default: nil.

Set to a non-nil value to use nested imenu header instead of a flat index. A nested index may provide more natural browsing from the menu, but a flat list may allow for faster keyboard navigation via tab completion.

#### markdown-hr-strings

A list of 6 strings. The default is:

A list of strings to use when inserting horizontal rules. Different strings will not be distinguished when converted to HTML – they will all be converted to <hr/> <hr/> – but they may add visual distinction and style to plain text documents. To maintain some notion of promotion and demotion, keep these sorted from largest to smallest.

# 5.4 Customizing Indenting

The variables in this section allow you to customize how markdown-mode handles indentation.

#### markdown-list-indent-width

integer, default: 4

Determines the depth of indentation for lists when inserting, promoting, and demoting list items.

#### markdown-indent-function

function, default: markdown-indent-line

Determines the function to use for automatic indentation.

#### markdown-indent-on-enter

nil or t, default: t.

Set to a non-nil value to automatically indent new lines when the enter key is pressed.

# 5.5 Wiki-Links Syntax Highlighting

Besides supporting the basic Markdown syntax, markdown-mode also includes syntax highlighting for [[Wiki-Links]]. This support is enabled by setting markdown-enable-wiki-links to a non-nil value.

Wiki-links may be followed by pressing C-c C-o when the point is at a wiki-link. Use M-p and M-n to quickly jump to the previous and next links (including links of other types).

Aliased (or "piped") wiki-links of the form '[[linktext|PageName]]' are also supported. Since some wikis reverse these components, set markdown-wiki-link-alias-first to nil to treat them as '[[PageName|linktext]]'.

If markdown-wiki-link-fontify-missing is also non-nil, markdown-mode will highlight wiki-links with a missing target file in a different color. By default, Markdown Mode only searches for target files in the current directory. Sequential parent directory search (like Ikiwiki) can be enabled by setting markdown-wiki-link-search-parent-directories to a non-nil value.

The variables below customize how Wiki-Links are handled.

#### markdown-enable-wiki-links

nil or t, default: nil.

This enables syntax highlighting for [[Wiki-Links]].

Set this to a non-nil value to turn on [[Wiki-Links]] support by default. [[Wiki-Links]] support can be toggled later using the function markdown-toggle-wiki-links.

#### markdown-link-space-sub-char

character, default: "\_"

Determines the character to replace spaces when mapping wiki links to file names.

For example, use an underscore for compatibility with the Python Markdown Wiki-Links extension. In gfm-mode, this is set to "-" to conform with GitHub wiki links.

#### markdown-wiki-link-alias-first

nil or t, default: t.

Set this to a non-nil value to treat aliased wiki links as '[[linktext|PageName]]'. When set to nil, they will be treated as '[[PageName|linktext]]'.

#### markdown-wiki-link-fontify-missing

nil or t, default: nil.

When non-nil, change the wiki-link face according to the existence of the target files

This is expensive because it requires checking for the file each time the buffer changes or the user switches windows. It is disabled by default because it may cause lag when typing on slower machines.

#### markdown-wiki-link-search-parent-directories

nil or t, default: nil.

When non-nil, search for wiki-link targets in parent directories. (This is the default search behavior of Ikiwiki.)

This only applies when markdown-wiki-link-fontify-missing, above, is non-nil.

See https://ikiwiki.info

# 5.6 Customizing GitHub Flavored Markdown

This section describes variables that customize gfm-mode.

#### markdown-gfm-additional-languages

list of strings, default nil

Determines any more languages to make available, in addition to the 300+ languages predefined in markdown-gfm-recognized-languages, when inserting GFM code blocks. Language strings must be trimmed of white space and not contain any curly braces. They may be of arbitrary capitalization.

#### markdown-gfm-use-electric-backquote

nil or t, default t

Set to non-nil to use the function markdown-electric-backquote for interactive insertion of GFM code blocks when backquote is pressed three times.

#### markdown-make-gfm-checkboxes-buttons

nil or t, default t

Determines whether GitHub Flavored Markdown style task lists (checkboxes) should be turned into buttons that can be toggled with mouse-1 or RET. If non-nil, then buttons are enabled. This works in markdown-mode as well as gfm-mode.

# 5.7 Customizing HTML Format

This section describes variables that customize HTML formatting.

#### markdown-uri-types

```
list of strings, default: ("acap" "cid" "data" "dav" "fax" "file" "ftp"
"gopher" "http" "https" "imap" "ldap" "mailto" "mid" "modem" "news"
"nfs" "nntp" "pop" "prospero" "rtsp" "service" "sip" "tel" "telnet"
"tip" "urn" "vemmi" "wais")
```

Determines the list of protocol schemes (e.g., "http") for URIs that markdown-mode should highlight.

#### markdown-css-paths

list of strings, default nil

Determines a list of URLs of CSS files to link to in the output XHMTL.

#### markdown-content-type

string, default: ""

when set to a nonempty string, an 'http-equiv' attribute will be included in the XHMTL '<head>' block. The suggested values are "application/xhtml+xml" or "text/html".

This variable must be set to a non-empty string to use markdown-coding-system, below.

#### markdown-coding-system

string or nil, default: nil

This variable is used for specifying the character set identifier in the 'http-equiv' attribute when included. The variable markdown-content-type must be set before this variable has any effect. When markdown-coding-system is set to nil, buffer-file-coding-system will be used to automatically determine the coding system string (falling back to 'iso-8859-1' when unavailable). Common settings are 'utf-8' and 'iso-latin-1'.

#### markdown-xhtml-header-content

string, default ""

Determines any additional content to include in the XHMTL '<head>' block.

#### markdown-xhtml-standalone-regexp

string, default ^\\(<\\?xml\\|<!DOCTYPE\\|<html\\)

a regular expression which markdown-mode uses to determine whether the output of markdown-command is a standalone XHMTL document or an XHMTL fragment. If this regular expression is not matched in the first five lines of output, markdown-mode assumes the output is a fragment and adds a header and footer.

# 5.8 Later Math Syntax Highlighting

This section describes the variable that enables LATEX Math Syntax highlighting.

#### markdown-enable-math

nil or t, default: nil.

Syntax highlighting for mathematical expressions written in LATEX can be enabled by default by setting markdown-enable-math to a non-nil value. You can set it either via customize or by placing (setq markdown-enable-math t) in .emacs, and then restarting Emacs or calling markdown-reload-extensions.

Only expressions denoted by \$..\$', \$\$..\$', or  $\[..\]$ ' are highlighted.

Math support can be toggled later using M-x markdown-enable-math.

# Appendix A Development

This appendix is for contributors to markdown-mode, past or future... Thank you.

# A.1 Acknowledgments

markdown-mode has benefited greatly from the efforts of many people. Please see the ";;; Acknowledgments:" section of markdown-mode.el and the GitHub contributors graph at https://github.com/jrblevin/markdown-mode/graphs/contributors.

# A.2 History of Releases

markdown-mode was primarily written and is maintained by Jason Blevins. The first release, 1.1, was on May 24, 2007.

Most of the prior versions may be downloaded:

- 2007-05-24 v1.1
- 2007-05-25 v1.2
- 2007-06-05 v1.3 http://jblevins.org/projects/markdown-mode/rev-1-3
- 2007-06-29 v1.4
- 2007-10-11 v1.5 http://jblevins.org/projects/markdown-mode/rev-1-5
- 2008-06-04 v1.6 http://jblevins.org/projects/markdown-mode/rev-1-6
- 2009-10-01 v1.7 http://jblevins.org/projects/markdown-mode/rev-1-7
- 2011-08-12 v1.8 http://jblevins.org/projects/markdown-mode/rev-1-8
- 2011-08-15 v1.8.1 http://jblevins.org/projects/markdown-mode/rev-1-8-1
- 2013-01-25 v1.9 http://jblevins.org/projects/markdown-mode/rev-1-9
- 2013-03-24 v2.0 http://jblevins.org/projects/markdown-mode/rev-2-0
- 2016-01-09 v2.1 http://jblevins.org/projects/markdown-mode/rev-2-1
- 2017-05-26 v2.2 http://jblevins.org/projects/markdown-mode/rev-2-2

# A.3 Development Version

You may browse the project files of markdown-mode, contribute to its development or help to test the current development version.

- To browse the markdown-mode project files, visit the project's page on GitHub at https://github.com/jrblevin/markdown-mode.
- To contribute to the development of markdown-mode, you should fork the project to your own GitHub account.
- To test the current development version of markdown-mode, download markdown-mode.el from https://github.com/jrblevin/markdown-mode or from MELPA at https://melpa.org/#/markdown-mode to the directory ~/my/directory. Then ensure that Emacs can find it by adding the following line to your Emacs startup file:

```
(add-to-list 'load-path "~/my/directory")
```

Please realize that the development version may be unstable at times. See the next section for how to submit a bug report.

# A.4 Bugs and Errors

#### **Software Bugs**

markdown-mode now requires GNU Emacs 24.3 and later. If have an older version of Emacs, please consider updating your version of Emacs to resolve any problems.

If you have identified a bug with markdown-mode.el, please construct a test case or a patch and create an issue on the issue tracker at https://github.com/jrblevin/markdown-mode/issues.

#### **Manual Errors**

This manual is maintained on GitHub at

https://github.com/daniel-birket/markdown-mode-texinfo by Daniel Birket. Please submit document errata to the issue tracker there. Please do not complain to Dr. Blevin about errors in *this* manual. You will find *his* original manual at https://github.com/jrblevin/markdown-mode.

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Version 2, June 1991

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