

The Ultimate Spacemacs Cheatsheet: for programmers

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1 Basics

Commands

- space** || **alt+m** - Initiate command and navigate.
 - Brings up navigation hints to suggest next character in command.
 - **alt+m**, only way to initiate commands in insert mode.
- ctrl+g** - Exit or abort command sequence.
 - Used to abort a command sequence midway through.
 - Virtually guaranteed not to be bound to any commands.
- esc** || **ctrl+g** - Sometimes closes transient popup.
- space f e shift+U** - Update all layers/packages.
- space q q** - Quit Spacemacs.
- space q Q** - Quit Spacemacs without prompt.
- space q r** - Restart Spacemacs.

UI

- space p t** - Bring up Treemacs project tree.
- space T m** - Display GUI menu bar.
- space w c c** - Full screen mode.
- space T s** - Select a theme.
- t w** - View/render whitespace.

Shell

- space !** - Run single command.
- space '** - Open shell in new window.

2 Editing

Undo & Redo

- u** - undo recently changed.
- ctrl+r** - redo last undo.

Pasting

- p** - Paste text
 - Always pastes most recently yanked text, even to a register.
- shift+P** || **IP** - Insert in newline above.
 - Always pastes most recently yanked text, even to a register.
- JP** - Insert in newline below.
 - Always pastes most recently yanked text, even to a register.

Copying

- y** - Yank (copy) text
- space c y** - Duplicate lines and comment out.
- y y** - Yank (copy) current line
 - Only works with nothing highlighted.
- y w** - Yank (copy) current word
 - Only works with nothing highlighted.
- y \$** - Yank (copy) to end of line
 - Only works with nothing highlighted.
- y i α** - Yank (copy) inside delimiter.
 - α Delimiter to yank inside.
 - Yanks everything in between the delimiter character. items Works with brackets and parenthesis.
- y f α** - Yank (copy) up to character, inclusive.
 - α character to yank up to.
- y F α** - Yank (copy) from character, inclusive.
 - α character to yank from.
- y t α** - Yank (copy) up to character, exclusive.
 - α character to yank up to.
- y T α** - Yank (copy) from character, exclusive.
 - α character to yank from.

Cutting

Also used to delete text.

- d** - Cut text.
 - Cuts single character when nothing highlighted.
- x** - Cut single character
 - When text is highlighted works same as **d**.
- d d** - Cut entire line.
 - Can't be used when text is highlighted.
- d w** - Cut word.
 - Can't be used when text is highlighted.
- d \$** - Cut to end of line
 - Can't be used when text is highlighted.
- d f α** - Cut to specified character.
 - α character to cut to.
 - Can't be used when text is highlighted.
- d i α** - Cut inside delimiter.
 - α Delimiter to cut inside of.
 - Cuts everything in between the delimiter character. items works with brackets and parenthesis.
- d f α** - Cut up to character, inclusive.
 - α character to cut up to.
- d F α** - Cut from character, inclusive.
 - α character to cut from.
- d t α** - Cut up to character, exclusive.
 - α character to cut up to.
- d T α** - Cut from character, exclusive.
 - α character to cut from.

Spelling

- space S .** - Transient state for spellchecking.
- space S b** - Check spelling in current buffer.
- space S d** - Switch dictionary/language.
- space S c** - Correct closest spelling error.
- space S n** - Go to next spelling error.
- space S a g** - Add word to dictionary.

Cutting with Insert

Commands that cut and then activate insert mode.

- c** - Cut then insert mode.
 - Cuts single character when nothing highlighted.
- cc** - Cut entire line then insert mode.
 - Can't be used when text is highlighted.
- cw** - Cut word then insert mode.
 - Can't be used when text is highlighted.
- c\$** - Cut to end of line then insert mode.
 - Can't be used when text is highlighted.
- cf α** - Cut to specified character then insert mode.
 - α character to cut to.
 - Can't be used when text is highlighted.
- ci α** - Cut inside delimiter then insert mode.
 - α Delimiter to cut inside of.
 - Cuts everything in between the delimiter character. items works with brackets and parenthesis.
- cf α** - Cut up to character then insert mode, inclusive.
 - α character to cut up to.
- cF α** - Cut from character then insert mode, inclusive.
 - α character to cut from.
- ct α** - Cut up to character then insert mode, exclusive.
 - α character to cut up to.
- cT α** - Cut from character then insert mode, exclusive.
 - α character to cut from.

See **c** prefix as used in Find & Replace Text section.

Manipulating

- gcc** || **gc** - Toggle comment out current or highlighted.
- >** - Increase indentation.
 - Must tap twice when no text is highlighted
- <** - Decrease indentation.
 - Must tap twice when no text is highlighted
- J** - Join next line to this line with space.
- space x shift+J** - Move line down.
- space x shift+K** - Move line up.
- untabify** - Converts tabs to spaces.
- ctrl+x ctrl+o** - Delete group of blank lines.

Highlighting

- v** - Enter visual character mode (highlight).
- shift+V** - Enter visual line mode (highlight).
- ctrl+v** - Visual block mode.
- ctrl+x h** - Highlight everything.
- vf α** - Highlight up to character, inclusive.
 - α character to highlight up to.
- vF α** - Highlight from character, inclusive.
 - α character to highlight from.
- vt α** - Highlight up to character, exclusive.
 - α character to highlight up to.
- vT α** - Highlight from character, exclusive.
 - α character to highlight from.
- va α** - Smart highlight section.
 - α any selection from the menu.
 - Can highlight text between quotes or parenthesis as well as paragraphs and other groupings.

Registers

- " α y** - Yank (copy) to a register
 - α register to use.
- " α d** - Cut to a register
 - α register to use.
- " α p** - Paste from a register
 - α register to use.
- space r e** - List all registers and their content.

```
All special registers ..... %,:#"0123456789
All custom registers ..... a to z
Default ..... "
Last yanked ..... O
Last deleted (cut) ..... 123456789
Last inserted ..... .
Current file path ..... %
Last executed command ..... :
Current alternate file ..... #
```

3 Navigating

Frame

- space w shift+F** || **space shift+F n** - Create a new frame.
- space shift+F d** - Close frame.
- space shift+F shift+D** - Close all other frames.

Windows

- space w d** - Destroy (close) window.
- space w x** - Destroy (close) window and kill buffer.
- alt+ α** - Switch to window.
 - α is the number of the window.
 - The number 0 selects treemacs window.
- space w t** - Toggles dedicating window to current buffer.
 - Prevents newly opened buffers from going to this window.
- space w .** - Manipulate windows.
 - Enters a transient state.
 - Use **shift+?** for key binding descriptions.
- space w =** - Balance area of windows automatically.
- space w α** - Use specified layout
 - α is a number, 1 to 4.
 - Values 1 to 3 creates a layout of the specified number of columns.
 - Value of 4 creates a 4 window 2x2 grid.
- space w shift+M** - Swap position of two windows.
- space w m** - Make only window and maximize.
- space w /** - Split window to right.
- space w -** - Split window to below.
- space w |** - Make only vertical window and maximize.
 - key is vertical bar character
- space w _** - Make only horizontal window and maximize.
- space w u** - Undo last change to windows.
- space w shift+U** - Redo last undo to windows.
- space w α** - Switch to window.
 - α is any of the four arrow keys.

Files

space f b - Open and search file bookmarks.

ctrl+x r m - Set file as bookmarked.

ctrl+x r l - Manage bookmarks.

- **d** marks bookmark for deletion.
- **x** deletes bookmarks marked for deletion.
- **r** renames bookmark.

Projects

space p p - Browse and open existing projects.

space p f - Find file in current project.

space / - Find text in file in current project.

space p h - Search file names, projects, and buffers.

- Only searches filenames in current project
- Searches other project names
- searches buffer file names too.

space p % - Regex replace on project files.

space p shift+R - Plain replace on project files.

space p o - Open org-mode todos for project.

Workspace

space l w - Go to workspace transient state.

space b shoft+W - Go to buffer's workspace.

space l w α - Go to or create workspace.

- α is the workspace number from 0 to 9.
- 1 is the default workspace.

space l w c - Clone current workspace.

space l w d - Delete current workspace.

space l w R - Rename current workspace.

Buffers

space b b - List and select buffers.

space b shift+B - List and select buffers globally.

space l b - List and select buffers in layout.

space p b - List buffers for project.

space p k - Kill all buffers for project.

space b d - Destroy (close) buffer.

space b ctrl+d - Destroy (close) all other buffer.

space b p - Goto previous buffer.

space b n - Goto next buffer.

space b shift+N - Open a blank, new, buffer.

ctrl+o - Goto last open buffer.

Layout

space l - Go into layout transient mode.

space l α - Go to or create layout.

- α is the layout number from 0 to 9.
- 1 is the default layout.

space l tab - Cycle through layouts.

- Hit tab again to continue cycling
- **ctrl+g** || **esc** to stop.

space l d - Close current layout.

space l D - Close all other layouts.

space l x - Close current layout with buffers.

space l X - Close other layout with buffers.

space l R - Rename layout.

space l s - Save all open layouts.

- Overwrites layout file you save to completely.

space l S - Save specific open layouts.

- Also allows you to append layouts to save file.

space l L - Load layouts.

Treemacs

space p t - Open Treemacs.

o a a - Open file, select window.

R - Rename file.

c f - Create file.

c d - Create directory.

d - Delete file or directory.

t w - Toggle locked width.

t f - Toggle follow mode.

r - Refresh.

ctrl+c ctrl+p a - Add new project.

ctrl+c ctrl+p p - Add existing project.

ctrl+c ctrl+p d - Remove project.

ctrl+c ctrl+p r - Rename project.

b - Bookmark selected.

space f shift+B - Select bookmark and goto.

4 Search & Replacing

Searching Text

/ - Find text in current buffer.

space / - Find text in files in current project.

***** - Next instance of word at cursor.

- Previous instance of word at cursor.

space * - Find word at cursor, or highlighted, in this file.

Finding Files & Projects

space p p - Find file in current project.

space p h - Search file names, projects, and buffers.

- Only searches filenames in current project
- Searches other project names
- searches buffer file names too.

Replacing Text

- space p %** - Regex replace on project files.
- space p shift+R** - Plain replace on project files.
- :s/α/β** - regex substitution on current or highlighted.
 - **α** regex to match.
 - **β** replace with this.
 - **:s/^/#** to comment lines.
- c s αβ** - Replace delimiter
 - **α** delimiter to replace.
 - **α** delimiter to substitute.
 - Left bracket selects right side too.
 - Can't be used when text is highlighted.

5 Programming

Python

- , g g** || **space m g g** - Go to object definition.
- space j i** - List all methods and classes.
- ctrl+c ! l i** - List all errors and warnings for file.
- , = =** || **space m = =** - Prettify entire buffer.
- , c c** || **space m c c** - Run current file and display.

Git

- space g s** || **ctrl+x g** - Git status window (main window).
- space g m l** - Menu of git actions.
- space g m l** - Show general git log.
- space g i** - Initialize a git repo.
- space g c** - Clone a git repo.
- space g v r** - Resolve git conflicts.
- smerge-vc-next-conflict** - Go to next conflicting file.
- space g t** - Cycle through commits for file.
- space g v e** - Current file next to committed.
- space g shift+H h** - Highlight lines by age committed.
- space g shift+H c** - Clear highlighted lines.
- space g v g** - Display git info per line.
- space g b** - Git blame mode.
 - **b** to take blame older.
 - **q** to take blame newer or quit if newest.
- space g f f** - Search files in repo and open.
- space g f shift+F** - Find file in specific branch.
- space g f d d** - Git diff current file.
- space g v l** - Log for file.
- space g f l** - Git commit tree and log for file.
 - Hitting enter on a commit diffs against it.
- space g v shift+l** - Add current file to .gitignore.
- space g f i** - Create .gitignore for specific language.
- space g shift+l** - Open gitignore.io file into buffer.

6 Org Mode

General Org. Mode

- ctrl+c ctrl+x ctrl+c** - Display file with columns.

Linking

- space a o l** - Create link from current cursor.
- space m i l** - Paste captured link in org mode file.

Capturing

- space a o c** - Captures a link and creates todo.
 - **ctrl+c ctrl+w** To save to org file.

Agenda

- space m a a** || **, a a** - Display agenda.
 - **ctrl+v** while in agenda mode to change viewing
- space m a n** || **, a n** - Display agenda and todos.
 - **ctrl+v** while in agenda mode to change viewing
- ctrl+c l** - Add current file to front of agenda list.

Scheduling

- space m shift+C i** || **, shift+C i** - Clock in.
- space m d t** || **, d t** - Insert timestamp.
- space m d d** || **, d d** - Insert deadline.
- space m d s** || **, d s** - Insert schedule.

Properties & Metadata

- space m i d** || **, i d** - Insert a drawer for metadata.
- space m i p** || **, i p** - Select and set property.
- space m i e** || **, i e** - Set effort property.
- space m p** || **, p** - Set priority property.

TODOs

- space m a t** || **, a t** - Display todos.
 - **ctrl+v** while in agenda mode to change viewing
- alt+shift+return** || **ctrl+c ctrl+t** - Insert todo.
- space m T T** || **, T T** - Toggles todo status under cursor.

Checkboxes

Create checkboxes using text editor as follows...

- Create checkbox on numbered line only: **1. [] foo**
- create total count on parent node with: *** [/] foobar**
- use brackets with a space in the middle.
- totalling works on any node type
- checkbox requires numbered node only

ctrl-c ctrl-c - Toggle checkbox.

- Also activates totalling box.

Trees & Outlining

ctrl+c ctrl+x ctrl+s - Move current subtree to archive.

space m i s || **, i s** - Insert new subtree.

space m s n || **, s n** - Narrow (collapse) subtree.

space m s shift+N || **, s shift+N** - Widen (uncollapse) subtree.

space m i f || **, i f** - Insert a footnote.

space m i l || **, i l** - Insert a link.

space m c || **, c** - Create link to cursor location.

space m s S || **, s S** - Sort the current section.

Latex

ctrl+c ctrl+x ctrl+l - Render latex inline.

, T x || **space m T x** - Toggle rendering of latex at cursor.

org-journal

space a o j j || **space m j** || **, j** - New journal entry.

space a o j h || **ctrl+s ctrl+s** - Search journal entries.

, n - Next journal entry.

, p - Previous journal entry.

org-brain

space a o B v || **space m B v** || || **, B v** - Bring up brain browser.

- **q** to leave visualization.
- **enter** on item to traverse it.
- **o** to open file.
- **h** to add new header.
- **r** to rename node.
- **a** for additional commands.

, B x || **space m B x** - Delete entry.

, B a p || **space m B a p** - Select a parent node for section.

, B a c || **space m B a c** - Create child node.

, B R || **space m B R** - Move section to selected node.

7 Help

General Help

space h - Initiate help command

ctrl+h - Initiate quick help command

- Quicker way to access help commands other than **space h**

ctrl+z - Shows available actions for most windows.

- Usually used on transient popup windows.

ctrl+? - Usually brings up help for current window.

space w p m - Display all Spacemacs messages

Search for Help

space space || **alt+x** - Search all commands.

space h space - Search all help, toggle flags.

- Can toggle all related flags for displayed commands (narrowed by search).

space h d f - Describe a command/function.

ctrl+h k || **space h d k** - Lookup by hotkey.

space h d f - Search kotkeys by name or binding.

space ? - Search by hotkey.

space h r - Bring up official documentation.

8 Misc.

Miscellaneous

space i l p - Insert paragraph of lorem text.

space i l l - Insert line of lorem text.