

# Kakoune

A cheat sheet with the most important commands. For more, see [kakoune.org](http://kakoune.org)

## NORMAL MODE

### Going to insert mode

- i enter insert mode before selection
- a ...after selection
- I ...at beginning of line
- A ...at end of line
- o O ...on a new line below / above cursor
- \i prefix with \ to disable hooks, including auto-indent  
useful to copy-paste text into kakoune

### Movement

- h j k l left / down / up / right
- <c-f> <c-b> scroll one page down / up
- <c-d> <c-u> scroll 1/2 page down / up

### Select text and move around

A selection is a range of characters in the text. You can have multiple selections and change all of them simultaneously.

- w select next word (with following space)
- e to end of word (with preceding space)
- b back to previous word
- with **alt**: "word" is any non-space text, e.g. **x+y-z** is one word

- f< <a-f> move right / left to the next
- t< <a-t> move right / left to just before the next

- m select next sequence enclosed by brackets
- x select whole line
- % select whole buffer

- ; reduce selection to cursor
- <space> clear selections to keep only the main one
- C <a-C> copy selection to next / previous line
- <a-s> split selection on line boundaries
- ) rotate selections (main selection moves to next one)
- ( rotate selections backward

- Z z save / restore selection

- H J K L W E B M X like lower-case, but extend selection

### Goto

- gh gi gl line begin / first character / line end
- gk gj ge first line / last line / last character of last line
- gt gc gb first / middle / last displayed line
- g. last modification position
- ga previous (alternate) buffer
- gf open file whose name is selected

use G instead of g to extend selection to target

### View

- vt vv vb scroll to put selection at top / center / bottom

### Searching

- /<pat> search for pattern
- n <a-n> select next / previous match
- N <a-N> add selection with next / previous match
- \* search for selection
- s search within selection

Search and replace in the whole buffer (<ret> is the **enter** key):

%s<pattern><ret>c<replacement><esc>

- |       |                   |  |
|-------|-------------------|--|
| o     | a key             | On the Mac, use the <b>option</b> key for <b>alt</b> . |
| <a-o> | <b>alt</b> and o  | If that doesn't work, set "Use Option as               |
| <c-o> | <b>ctrl</b> and o | Meta key" in Terminal preferences.                     |

### Changes

- y yank (copy) selection
- d <a-d> yank & delete selection / just delete selection
- c <a-c> change text (yank, delete, insert) / just delete, insert
- p P paste after the end / before the start of selection  
with **alt**: select pasted text afterwards
- . repeat last insert mode change
- u U undo / redo
- R replace selection with yanked text
- r< replace each character with
- <a-j> join selected lines
- > < indent / unindent selected lines
- <a-o> <a-O> add empty line below / above cursor
- ` ~ to lower / upper case
- <a-`> swap case
- <a-`> rotate selections (with multiple selections)
- <a-(> rotate selections backwards
- & align selections by inserting spaces
- <a-&> copy indentation of main selection to all others

### Object selection

Select an "object" such as a word or paragraph with two keystrokes: the first determines *how*, the second *what* to select.

- <a-.> repeat previous object selection

How:

- <a-a> whole object, e.g. a quoted string including quotes
- <a-i> inner object, e.g. a quoted string without the quotes
- [ ] from cursor to whole object start / end
- { } ...same but extend selection  
with **alt**: same but inner object start/end

What:

- |   |                   |       |                           |
|---|-------------------|-------|---------------------------|
| ( | (parenthesis)     | "     | "double-quoted strings"   |
| { | {curly braces}    | '     | 'single-quoted strings'   |
| [ | [square brackets] | `     | `backtick-quoted strings` |
| < | <angle brackets>  | w     | word                      |
| s | sentence          | <a-w> | any non-space text        |
| p | paragraph         | i     | indentation block         |

### Macros

- Q start or end macro recording
- q play macro

### Registers

- "oy yank to register o (same for d c)
- "op paste from register o (same for P)
- also works for storing selection (Z z) and macros (Q q)

### Jump list

Goto, search, buffer switch commands go on the jump list.

- <c-o> <c-i> jump back / forward in jump list
- <c-s> save current selection as jump step

### External commands

- | send selection to external cmd, replace with output
- <a-|> send to external cmd, ignore output
- ! <a-!> insert cmd output before / after selection

## INSERT MODE

Insert mode is mostly about typing text directly.

<esc>	back to normal mode
<a-;>	back to normal mode for a single command
<c-r>○	insert register ○ (<c-r>" for default register)
<c-n> <c-p>	next / previous autocomplete candidate

## COMMANDS

Pressing **:** in normal mode opens the command prompt.

:doc <topic>	open documentation for a topic
:w	write buffer
:w <file>	write to file
:e <file>	open file in new buffer
:q :wq :q!	quit / write and quit / quit without writing
:bn :bp	switch to next / previous buffer
:b <name>	switch to buffer <name>
:db <name>	delete buffer <name>
: <cmd>	<cmd> but don't add it to the prompt history

## STARTING KAKOUNE

kak <file>	open file
cmd  kak	edit command output
kak -s <name>	start named session
kak -d -s <name>	headless session (just server)
kak -c <name>	connect to session

With sessions, multiple editor instances can share open buffers and registers so you can e.g. copy in one and paste in another.

## REGULAR EXPRESSIONS

For searches with **/** or **s**, these are special: `\^$.+*?[]{}|()\`

\○	literal ○ (for special characters)
\n	newline character
\t	tab character
.	any character
[abc]	a, b, or c
[a-z]	any character from a to z
[^a-z]	any character except a-z
	include a literal ^ or ] with \^ or \]
\d	digits 0-9
\w	word characters A-Za-z0-9
\s	whitespace
\h	whitespace except line breaks
	uppercase negates, e.g. \D is everything except digits
○?	zero or one ○
○*	zero or more ○
○+	one or more ○
○{4}	four ○
○{4,}	four or more ○
○{2,4}	two to four ○
○{,4}	up to four ○
^ \$	start / end of a line
\b	start or end of a word
(?i)	start case-insensitive matching
(?I)	back to case-sensitive matching
x y	match x or y (typically used with grouping)
(regex)	group part of a regex

The text matching the first, second, etc group is captured into register 1, 2, etc (entire match: register 0). You can combine **s** with **"op** or **<c-r>○** to rearrange text on multiple lines at once.

## CONFIGURATION

Permanent config goes in **kakrc**, usually `~/.config/kak/kakrc`

### Options

`echo %opt{<name>}` show current value

`:set-option <scope> <name> <values>` set option  
<scope> can be **global**, **buffer**, **window**, or **current**  
**current** means the scope where the option is currently set

`tabstop <n>`  
width of a tab character, default 8

`indentwidth <n>`  
width for indentation, default 4, use 0 for tab

`scrolloff <l>,<c>`  
lines, columns to keep visible around cursor, default 0,0

`autocomplete insert|prompt`  
**insert**: show completions automatically (default)  
**prompt**: show completions only on <c-n> <c-p>

`extra_word_chars <list>`  
characters considered part of a word for **w b e**, default \_

`autoreload yes|no|ask`  
reload externally-modified file automatically

`ui_options terminal_enable_mouse=true|false`  
enable/disable mouse

### Highlighters

Highlighters change how text is displayed.

show-matching	highlight matching bracket
show-whitespaces	show symbols for whitespace
number-lines	show line numbers
wrap	wrap text at window width
-word	wrap at word boundaries
-indent	preserve line indent

Set global highlighter (note space after **/** for **add** but not **remove**):

`add-highlighter global/ <name> [<options>]`  
`remove-highlighter global/<name> [<options>]`

### Mapping

Create keyboard mappings with  
`map global <mode> <key> <keys>`

Example:  
`map global insert <a-space> <esc>`

The mode determines where the key is available:

<b>insert</b>	insert mode
<b>normal</b>	normal mode
<b>prompt</b>	prompts, e.g. after <b>:</b> or <b>/</b>
<b>goto</b>	when goto key ( <b>g</b> ) is hit
<b>view</b>	when view key ( <b>v</b> ) is hit
<b>user</b>	when user prefix key (default <b>,</b> ) is hit

Keys mostly stand for themselves (**a** means **a**). Special cases:

<a-○> <c-○> <s-○>	alt / ctrl / shift and ○
<ret>	return or enter
<ins>	the insert key
These all do what you'd expect:	
<space> <esc> <tab> <backspace> <del> <F1> ... <F12>	
<up> <down> <left> <right> <pageup> <pagedown>	
<plus> <minus> <home> <end> <semicolon> <percent>	

Map a key to trigger a command like this:

`map global user w ': add-highlighter global/ wrap<ret>'`