

## VIM QUICK REFERENCE CARD

Frequently used VIM commands – Version v1.3 June 2015

Vim cheatsheet based on the version by Michael Goerz

### Helpsections

`:h <topic>` will open the vimdocs to each *topics* help-page.

`:h /zero-width`

matches with ‘zero-width’ `<@!` patterns

### Movements

`:viu` show a summary of all commands

### Basic Movements

refer to helpsection `:h motion`

`h l k j` .... character left, right; line up, down

`b w` .... word *or* token left, right

`ge e` .... end of word *or* token left, right

`0 _ $` .... beginning, first, last character of line

`nG ngg` .... line *n*, default the last, first

`n|` .... column *n* of current line

`%` .... match of next brace, bracket, comment, `#define`

`- +` .... line up, down on first non-blank character

`B W` .... space-separated word left, right

`gE E` .... end of space-separated word left, right

`gO gm` .... beginning, middle of *screen* line

`g^ g$` .... first, last character of *screen* line

`fc Fc` .... next, previous occurrence of character *c*

`tc Tc` .... before next, previous occurrence of *c*

### Jumps

print the jump list with `:jumps`

`{ }` .... beginning of previous, next paragraph

`( )` .... beginning of previous, next sentence

`[[ ]]` .... go to previous, next function *or* \section in  $\text{\TeX}$

`{ }` .... beginning, end of current block

`[z ]z` .... move to start, end of current open fold

`n^O n^I` .... go to *n<sup>th</sup>* older, newer position in jump list

`ng; ng,` .... go to *n* older, newer position in change list

`’.` .... jump back on last edited line

`’’` .... toggle back, forward to previous, next position

`’0..9` .... go to last exit position

`‘ ‘ ”` .... go to position before jump, at last edit

`‘ [ ’ ]` .... go to start, end of previously operated text

`] ^T` .... jump to the tag under cursor, return from tag (eg. inside of vimdocs)

### Advanced Scrolling

`n^Y n^E` .... scroll window *n* lines up, downwards

`^D ^U` .... scroll half a page up, down

`^F ^B` .... scroll page up, down

`zt zz zb` .... current line to top, center, bottom of win.

`zh zl` .... scroll one character to the right, left

`zh zL` .... scroll half a screen to the right, left

`H M L` .... jump to *high, middle, low* position in screen

### Insert, Command & Visual Mode

#### Insertion, Replace → insert mode

`cm` .... change text of movement command *m*

`cc or S` .... change current line

`C` .... change to the end of line

`i a` .... insert before, after cursor

`o O` .... open a new line below, above the current line

`I A` .... insert at beginning, end of line

`gi gI` .... insert text on last edited line, first column

`rc grc` .... replace character under cursor, without affecting layout

`R gR` .... replace characters starting at the cursor, without affecting layout

`sc` .... substitute character *c* under cursor → insert mode

### Command Mode CTRL-Keys

`^Vc ^Vn` .... insert char *c* literally, decimal value *n*

`^A ^@` .... insert previously inserted text, stop insert → command mode

`^N ^P` .... text completion before, after cursor

`^W ^U` .... delete word before cursor, to start of line

`^D ^T` .... shift left, right one shift width

`^Oc` .... execute *c* in temporary command mode

`<esc> or ^]` .... abandon edition → command mode

### CTRL-R

`^R^A` .... content under cursor to command mode

`^R = 5*5` .... insert 25 into text

`^Rx ^R^Rx` ... insert content of register *x*, literally

### CTRL-X (Command Mode Completions)

`^X^L` .... whole lines

`^X^N ^X^I` .... keywords in current file, plus included files

`^X^K ^X^N` .... keywords in dictionary, thesaurus

`^X^]` .... tags

`^X^F` .... file names

`^X^D` .... definitions or macros

`^X^V` .... vim command line

`^X^U` .... user defined completion

`^X^O` .... omni completion

### Visual Mode

refer to `:h object-select`

`v V ^V` .....start *or* stop highlighting characters, lines, block  
`o` ..... exchange cursor position with start of highlighting  
`gv` ..... start highlighting on previous visual area  
`aw as ap` .... select a word, a sentence, a paragraph  
`ab aB` ..... select a block ( ), a block { }  
`g^G` ..... Count words, character lines and bytes of selection

**Delete, Copy to Registers**

Deletion  
refer to :h und-tree

`x X` .....delete character under, before cursor  
`dm` ..... delete text of movement command *m*  
`dd D` .....delete current line, to the end of line  
`u U` ..... undo last command, restore last changed line  
⇒ To revert the current buffer to the state before the very first change remembered by Vim in the undo list, use the command: `:u1|u`  
`. ^R` ..... repeat last *n* changes, redo last undo

Copying

`"x` ..... use register *x* for next delete, yank, put  
`ym` ..... yank the text of movement command *m*  
`yy or Y` ..... yank current line into register  
`p P` ..... put register after, before cursor position  
`]p [p` ..... like `p, P` with indent adjusted  
`gp gP` ..... like `p, P` leaving cursor after new text

Registers & Macros

show content of all registers: `:reg`  
`:@x` ..... execute register *x* as an *Ex* command

`:register x` show content of single register *x*  
`qx qX q` ..... record, append, stop recording typed characters as macro into register *x*  
`@x` ..... execute macro of register *x*  
⇒ execute *x* on each file of buffer list:  
`:bufdo exe "%normal @x"`  
`@@` ..... repeat previous recorded macro  
`qxq` ..... empty register *x*  
⇒ delete lines with pattern *p* into Register *x* and copy to clipboard afterwards:  
`:g/p/d x | let @+ = @x`  
`q: @:` ..... list all, repeat macro

**Search & Substitute**

substitutions work like `:s/p/q/flag`, you may limit your search to an area between ranges (Ex ranges).

Search, Substitute Flags

<code>c</code>	confirm each substitution
<code>e</code>	do not issue error messages and continue as if no error occurred
<code>g</code>	replace all occurrences in the line
<code>i I</code>	ignore, mind case for the pattern (overwrites 'ignorecase' and 'smartcase' options)
<code>p # l</code>	print the line containing the last substitute, like <code>:list</code> , prepend line number afterwards
<code>&amp;</code>	must be the first one: keep flags from the previous substitute
<code>n</code>	report the number of matches, do not actually substitute. (the [c] flag is ignored.)

Forward & Backward Searches

refer to :h search-commands  
`/s↔ ?s↔` .... search forward, backward for *s*  
`/s/o↔ ?s?o↔` ..... search fwd, bwd for *s* with offset *o*

Offsets

The offset gives the cursor position relative to the found match:

<code>n, -n</code>	lines down-, upwards, in col 1
<code>e+n, e-n</code>	characters to the right, left of the end of the match
<code>s+n, e-n</code>	characters to the right, left of the start of the match
<code>b+n, e-n</code>	identical to <code>s+, -n</code> above (mnemonic: begin)
<code>;p</code>	perform another search

Quick Search Commands

`n or /↔` ..... repeat forward last search  
`N or ?↔` ..... repeat backward last search  
`# *` ..... search backward, forward for word under cursor  
`g# g*` ..... same, but also find partial matches  
`gd gD` ..... local, global definition of symbol under cursor

Substitutions

refer to :h :sub  
`:rs/p/q/g` ... substitute all *p* by *q* in range *r*  
`:rs q` ..... repeat substitution with new *r* & *q*  
`:rg/x/e :rv/x/e` ..... execute *e* on range *r* where *x* matches, not matches  
⇒ join any line containing the string *x* with previous line, if it lies between the *a* and *b* marks: `:'a,'bg/x/-1j`  
`:rg/x/s/p/q/g` ..... for every line in *r* containing *x*, substitute *p* with *q*  
`:r&& :r&` ..... repeat last search or substitution on range *r* with, without flags

Ex Ranges

refer to :h cmdline-ranges  
`,` ..... cursor position interpreted from current line  
`;` ..... the cursor position will be set to line of last search *or* substitution

<i>n</i>	an absolute line number <i>n</i>
<code>. \$</code>	the current, last line in file
<code>% *</code>	entire file, visual area
<code>'t</code>	position of mark <i>t</i>
<code>/p/ ?p?</code>	the next, previous line where <i>p</i> matches
<code>-n +n</code>	preceding, appending line <i>n</i>

#### Patterns (differences to Perl)

refer to `:h pattern` and `:h /zero-width`

<code>&lt; &gt;</code>	start, end of word
<code>\i \k \I \K</code>	an identifier, keyword; excludigits
<code>\f \p \F \P</code>	a file name, printable char.; excludigits
<code>\e \t \r \b</code>	<code>&lt;esc&gt;</code> , <code>&lt;tab&gt;</code> , <code>&lt;↵&gt;</code> , <code>&lt;↵&gt;</code>
<code>= * +</code>	match 0..1, 0..∞, 1..∞ of preceding atoms
<code>{n,m}</code>	match <i>n</i> to <i>m</i> occurrences
<code>{-}</code>	non-greedy match
<code> </code>	separate two branches ( $\equiv$ <i>or</i> )
<code>( \)</code>	group patterns into an atom
<code>&amp; \1</code>	the whole matched pattern, 1 <sup>st</sup> () group
<code>&amp;</code>	a <i>branch</i> : matches last concat, but only if all preceding concats also match at the same position
$\Rightarrow$	the following pattern finds all lines that contain both "red" and "blue", in any order: <code>/*red&amp;.*blue</code>
<code>\u \l</code>	upper, lowercase character
<code>\U \L</code>	id., whole pattern
<code>\c \C</code>	ignore, match case on pattern
<code>\@= \@!</code>	<code>char(=?pattern)</code> <code>char(?!pattern)</code>
$\Rightarrow$	matches pattern, only when line is not ending in 'foo': <code>pattern\ (foo\)\@!\$</code>
<code>\@&lt;= \@&lt;!</code>	<code>(=?pattern)char (?!pattern)char</code>
$\Rightarrow$	everything before the comment '#' is excluded from pattern: <code>/\ (\.*)\ \@&lt;=pattern</code>

<code>\@&gt;</code>	<code>(?&gt;pattern)</code>
<code>\~ \_ \$</code>	start-of-line, end-of-line, anywhere in pattern
<code>\_.</code>	any single char, including end-of-line
$\Rightarrow$	find any pattern <i>foo bar</i> , even when divided by linebreak: <code>foo\_ \s*bar</code>
<code>\zs \ze</code>	set start, end of pattern
<code>\%^ \%\$</code>	match start, end of file
<code>\%n1 \%nc \%nv</code>	matches specific line, column, virtual column <i>n</i>
<code>\%x</code>	match hex character
<code>\%V</code>	match inside visual area
<code>\'m</code>	match with position of mark <i>m</i>
<code>\%( \)</code>	unnamed grouping
<code>\[ ]</code>	collection with end-of-line included
<code>\%[ ]</code>	sequence of optionally matched atoms
<code>\v</code>	very magic: patterns almost like perl

### Advanced Operations

#### Special Text Operations

<code>cgn dgn</code>	..... change, delete the next search pattern match (repeat change, deletion with <code>&lt;.&gt;</code> )
<code>J gJ</code>	..... join current line with next, without space
<code>~ g~m</code>	..... switch case and advance cursor, on movement <i>m</i>
<code>gum gUm</code>	... switch case, lc, uc on movement <i>m</i>
<code>guu gUU</code>	..... lower-/uppercase line

#### Marks and Tags

<code>:tags</code>	print tag list, <code>:marks</code> print the active marks list
<code>mc</code>	..... mark current position with mark <i>c</i> $\in [a..Z]$
<code>'c 'C</code>	..... go to mark <i>c</i> in current, <i>C</i> in any file

### Ex Commands ( $\leftrightarrow$ )

refer to `:help holy-grail` for list of all commands

#### Tags

<code>:tselect t</code>	..list matching tags and select one for jump
<code>:tjump t</code>	.... jump to tag or select one if multiple matches
<code>:tag ^[</code>	..... jump to tag (under cursor)

#### Reading from & writing to files

<code>:edit f</code>	..... edit file <i>f</i> , reload current file if no <i>f</i>
<code>:args f1..fn</code>	load <i>n</i> files to buffer in background
<code>:rwrite f</code>	... write range <i>r</i> to file <i>f</i> (this file if no <i>f</i> )
<code>:rwrite &gt;&gt; f</code>	append range <i>r</i> to file <i>f</i>
<code>:quit :quit!</code>	quit and confirm, discard changes
<code>:wq</code> <i>or</i> <code>:x</code> <i>or</i> <code>:ZZ</code>	write to current file and exit
<code>:rdelete :rdelete x</code>	delete range <i>r</i> lines, into register <i>x</i>

#### Filter Lines

<code>!mc↔</code>	..... filter lines of movement <i>m</i> through command <i>c</i>
<code>n!!c↔</code>	..... filter <i>n</i> lines through command <i>c</i>
<code>:r!c</code>	..... filter range <i>r</i> lines through command <i>c</i>

#### Insert, Send Content

<code>:r f</code>	..... insert content of file <i>f</i> below cursor
<code>:r! c</code>	..... insert output of command <i>c</i> below cursor
<code>:rcopy</code> <i>or</i> <code>:rt a</code>	copy range <i>r</i> below line <i>a</i>
$\Rightarrow$	copy all lines containing <i>foobar</i> to EOF: <code>:g/foobar/t\$</code>
<code>:rmov a</code>	..... id. but move
<code>:rhardcopy &gt; file.ps</code>	print range to ps file
<code>:rha rw!lp</code>	..sending <i>r</i> to printer (printout)

## Compile

**:clist** **:cfile**  
list all errors, read errors from file

**:cnext** **:cprevious**  
display the next, previous error

**:compiler** *c* .set, show compiler plugins

**:copen** ..... navigate errors from make

**:make** ..... run **makeprg**, jump to first error

## Standard Mode Formatting, Filtering

leave out *m* for visual mode commands

## Indentation

set indent-foldmethod by **:set fdm=indent**

**< m > m** ...shift left, right text of movement *m*

**n> n< =** ...indent, unindent *n* levels, reindent

**n << n >>** .. shift *n* lines left, right

## Alignment

**gqm gqqq** ... format movement *m*, current line

**:rce w** ..... center lines in range *r* to width *w*

**:rri w** ..... rightalign lines in range *r* to width *w*

**:rle i** ..... left align lines in range with indent *i*

## Folds

**zfm** ..... create fold of movement *m*

**:rfold** ..... create fold for range *r*

**zd zE** ..... delete fold at cursor, all in window

**zo zc zO zC** open, close one fold; recursively

**zj zk** ..... move down, up to start, end of next fold

**zm zM** ..... fold more, close all folds

**zr zR** ..... fold less, open all folds

**zn zN zi** .... fold non, fold normal, invert folding

**:set fdc=n** . show foldcolumn to level *n*

## Multiple Files, Buffers, Tabs (↔)

### Generic Buffer Commands

**:tab ball** ...show buffers as tablist

**:buffers** .... show list of buffers

**:on** ..... make current window one on screen

**:new :vnew** ..create new empty window (vert.)

**:bn** .....switch to buffer *n*

**:bn :bp :bf :bl**  
buffer movement next, prev, first, last

**:bdn** ..... delete buffer *n* (also with filename)

⇒ Delete all Buffers with Extension 'ext':  
**:bd \*.ext ^A**

**:badd f.txt** load file into new buffer

**:bufdo cmd**.. execute *cmd* in each buffer in the buffer list.

**:sbn** ..... Split window and edit buffer *n* from the bufflist

### Buffer Shortcuts

refer to **:h ctrl-w**

**^^** ..... toggle between the current and the last window

**^Wf gf** .....open file under cursor in new, current window

**^Ww ^W^W** .....move to window below, above (wrap)

**^Wj ^Wk** .....move to window below, above

**^Wt ^Wb** .....move to top, bottom window

**^Wc ^Wo** .....close current, all other window(s)

**^Ws ^Wv** .....split window in two (vert.)

**^Wx or ^W^R**... swap open buffer windows

**^Wn+ ^Wn-** ... increase, decrease window size by *n* lines

**^Wn > ^Wn <** .increase, decrease window width

**^W =** ..... Make all windows equally high and wide

**^W n\_** .....set window height to *n* (default: very high)

**^W n|** ..... set current window width to *n*

### Tab Management

**:tabs** ..... list all tabs including their displayed windows

**:tabfirst** ...go to first tab

**:tablast** ....go to last tab

**:tabnew** ..... open a new empty tab page

**:tabclose** ...close current tab page

**:qall :wqall** quit, and save all tabs

**:tabonly** .... close all other tabs

**gt gT** ..... go to next, previous Tab

**ngt** ..... goto tab in position *n*

## Miscellaneous

### Spell Check

activate spellcheck: **:set spell spelllang=en\_us**

**]s [s** ..... next, previous misspelled word

**zg zG** ..... add good word (to internal word list)

**zug zuG** ..... undo the addition of a word to the dictionary

**zw zW** ..... mark bad word (to internal word list)

**z=** ..... suggest corrections

### Invocation

**vimdiff f<sub>1</sub> f<sub>2</sub>**  
diff *file<sub>1</sub>* + *file<sub>2</sub>* using synchronized split windows

**vim -o/-O f<sub>1</sub> f<sub>2</sub>..f<sub>n</sub>**  
open *files* in horiz, vert split mode

**vim +n file** . open *file* at *n*th line (eof if *n* omitted)

**vim +/s file** open *file* and search for *string*

**vim -S name** reload vim-session *name*

### Special operations

Usefull (and not so usefull) operations which don't fit to any other section :-)

**K** ..... run **keywordprg** (manpage) on word under cursor

$\text{\textasciix{A}}$   $\text{\textasciix{X}}$  . . . . . increment, decrement number under cursor  
 $\text{\textasciix{L}}$  . . . . . redraw screen  
 $\text{\textasciix{ga}}$  . . . . . show ASCII value of character under cursor  
 $\text{\textasciix{gf}}$  . . . . . open filename under cursor  
 $\text{\textasciix{gG}}$  . . . . . count words, characters, bytes (in selection or buffer)  
 $\text{\textasciix{Kc_1c_2}}$  *or*  $c_1 \leftarrow c_2$   
                 enter digraph  $\{c_1, c_2\}$   
 $\Rightarrow$    for a complete list of all digraphs enter:  
            $\text{\textasciix{:digraphs}}$  *or*  $\text{\textasciix{:h digraph-table}}$