VIM QUICK REFERENCE CARD

Frequently used VIM commands – Version v1.5 March 2016

Vim cheatsheet based on the version by Michael Goerz

Helpsections

`:h <topic>` will open the vimdocs to each *topic*s helppage.

`:h /zero-width` matches with 'zero-width' $\langle$@!$\rangle$ patterns

Movements

`:viu` show a summary of all commands

Basic Movements
↪`: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

`g0 gm` .... beginning, middle of *screen* line

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

`fc Fc` .... next, previous occurence of character c

`tc Tc` .... before next, previous occurence of c

Jumps — print jump list `:jumps`
↪`:h various-motions`

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

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

`[[ ]]` .... go to previous, next function *or* \section in TEX

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

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

`n^O n^I` ..... go to n^{th} 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

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

y*m* .... 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

:reg↩, :reg *x*   show content of all registers, single register *x*

:@*x* .... execute register *x* as an *Ex* command

q*x* q*X* 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

q*x*q.......... 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 *r*anges (**Ex ranges**).

Search, Substitute Flags

c	confirm each substitution
e	do not issue error messages and continue as if no error occurred
g	replace all occurrences in the line
i I	ignore, mind case for the pattern (overwrites 'ignorecase' and 'smartcase' options)

p # l	print the line containing the last substitute, like :list , prepend line number afterwards
&	must be the first one: keep flags from the previous substitute
n	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:

n, -*n*	lines down-, upwards, in col 1
e+*n*, e-*n*	characters to the right, left of the end of the match
s+*n*, e-*n*	characters to the right, left of the start of the match
b+*n*, e-*n*	identical to s+,-*n* above (mnemonic: begin)
;*p*	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

:*r*s/*p*/*q*/g ... substitute all *p* by *q* in range *r*

:*r*s *q* .... repeat substitution with new *r* & *q*

:*r*g/*x*/*e* :*r*v/*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

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

Patterns (differences to Perl)
refer to :h pattern and :h /zero-width

\< \>	start, end of word
\i \k \I \K	an identifier, keyword; excldigits
\f \p \F \P	a file name, printable char.; excldigits
\e \t \r \b	⟨esc⟩, ⟨tab⟩, ⟨←⟩, ⟨←⟩
\= * \+	match 0..1, 0..∞, 1..∞ of preceding atoms
\{*n*,*m*\}	match *n* to *m* occurrences
\{-\}	non-greedy match
|	separate two branches (≡ *or*)
\(\)	group patterns into an atom
& \1	the whole matched pattern, 1st () group

\&	a *branch*: matches last concat, but only if all preceding concats also match at the same position

⇒ the following pattern finds all lines that contain both "red" and "blue", in any order: `/.*red\&.*blue`

\u \l	upper, lowercase character
\U \L	id., whole pattern
\c \C	ignore, match case on pattern
\@= \@!	*char*(?=pattern) *char*(?!pattern)

⇒ matches pattern, only when line is not ending in 'foo': *pattern*\(foo\)\@!$

\@<= \@<!	(?=pattern)*char* (?!pattern)*char*

⇒ everything before the comment '#' is excluded from pattern: `/\(#.*\)\@<=`*pattern*

\@>	(?>pattern)
_^ _$	start-of-line, end-of-line, anywhere in pattern
_.	any single char, including end-of-line

⇒ find any pattern *foo bar*, even when divided by linebreak: `foo\_\s*bar`

\zs \ze	set start, end of pattern
\%^ \%$	match start, end of file
\%*n*l \%*n*c \%*n*v	matches specific line, column, virtual column *n*
\%x	match hex character
\%V	match inside visual area
\'m	match with position of mark m
\%(\)	unnamed grouping
_[ ]	collection with end-of-line included
\%[ ]	sequence of optionally matched atoms
\v	very magic: patterns almost like perl

Advanced Operations

Special Text Operations

cgn dgn	change, delete the next search pattern match (repeat change, deletion with ⟨.⟩)
J gJ	join current line with next, without space
~ g~*m*	switch case and advance cursor, on movement *m*
gu*m* gU*m*	switch case, lc, uc on movement *m*
guu gUU	lower-/uppercase line

Marks and Tags

:tags print tag list, :marks print the active marks list

m*c*	mark current position with mark $c \in [a..Z]$
`*c* `*C*	go to mark *c* in current, *C* in any file

Ex Commands (↩)

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

Tags

:tsselect *t*	list matching tags and select one for jump
:tjump *t*	jump to tag or select one if multiple matches
:tag ^[	jump to tag (under cursor)

Reading from & writing to files

:edit *f*	edit file *f*, reload current file if no *f*
:args $f_1 \ldots f_n$	load *n* files to buffer in background
:*r*write *f*	write range *r* to file *f* (this file if no *f*)
:*r*write >> *f*	append range *r* to file *f*
:quit :quit!	quit and confirm, discard changes
:wq *or* :x *or* ZZ	write to current file and exit
:*r*delete :*r*delete *x*	delete range *r* lines, into register *x*

Filter Lines

!*mc*↩	filter lines of movement *m* through command *c*
n!!*c*↩	filter *n* lines through command *c*
:*r*!*c*	filter range *r* lines through command *c*

Insert, Send Content

:r *f*	insert content of file *f* below cursor
:r! *c*	insert output of command *c* below cursor
:*r*copy *or* :*r*t *a*	copy range *r* below line *a*

⇒ copy all lines containing *foobar* to EOF: `:g/foobar/t$`

:*r*move *a*	id. but move
:*r*hardcopy > file.ps	print range to ps file
:*r*ha *rw*!lp	sending *r* 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

gq*m* gqgq	format movement *m*, current line
:*r*ce *w*	center lines in range *r* to width *w*
:*r*ri *w*	rightalign lines in range *r* to width *w*

:*r*le i ...... left align lines in range with indent i

Folds

zf*m* .... create fold of movement m

:*r*fold ...... 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 ($\hookleftarrow$)

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

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.)

:b*n* .... switch to buffer n

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

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

$\Rightarrow$ Delete all Buffers with Extension 'ext':
     :bd *.ext ˆA

:badd f.txt   load file into new buffer

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

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

$n$gt .... 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_1 f_2
        diff $file_1 + file_2$ using synchronized split windows

vim -o/-O f_1 $f_2 \ldots f_n$
        open $files$ in horiz, vert split mode

vim +n $file$. open $file$ at nth 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

ˆA ˆX .... increment, decrement number under cursor

ˆL .... redraw screen

ga .... show ASCII value of character under cursor

gf .... open filename under cursor

gˆG .... count words, characters, bytes (in selection or buffer)

ˆK$c_1 c_2$ *or* $c_1 \leftarrow c_2$
        enter digraph $\{c_1, c_2\}$

$\Rightarrow$ for a complete list of all digraphs enter: :digraphs *or* :h digraph-table

Common Digraphs

ˆKnS ˆKns .... Superscript, subscript Number n

ˆKc* ˆKC* .... Capital, small greek letter c

ˆKnn .... Vulgar fraction one n^{th} eg. one half, one quarter etc.

CTRL-Keys

CTRL in Normal Mode

CTRL-W
Buffer Shortcuts

ˆˆ	toggle between the current and the last window
ˆWf gf	open file under cursor in new, current window
ˆWw ˆWˆW	move to window below, above (wrap)
ˆWj ˆWk	move to window below, above
ˆWt ˆWb	move to top, bottom window
ˆWc ˆWo	close current, all other window(s)
ˆWs ˆWv	split window in two (vert.)
ˆWx *or* ˆWˆR ...	swap open buffer windows
ˆW*n*+ ˆW*n*- ...	increase, decrease window size by n lines
ˆW*n* > ˆW*n* < .	increase, decrease window width
ˆW=	Make all windows equally high and wide
ˆW_ ˆW|	maximize current window height, width
ˆW*n*_ ˆW*n*|	set current window heigh, width to n

CTRL in Command, Insert Mode

CTRL-R

ˆRˆA	content under cursor to command mode
ˆR = 5*5	insert 25 into text
ˆR*x* ˆRˆR*x* ...	insert content of register x, literally

CTRL-X
Keyword completion

ˆXˆL	whole lines
ˆXˆN ˆXˆI	keywords in current file, plus included files
ˆXˆK ˆXˆN	keywords in dictionary, thesaurus
ˆXˆ]	tags
ˆXˆF	file names
ˆXˆD	definitions or macros
ˆXˆV	vim command line
ˆXˆU	user defined completion
ˆXˆO	omni completion

CTRL-<...>

ˆV*c* ˆV*n*	insert char c literally, decimal value n
ˆA ˆ@	insert previously inserted text, stop insert → command mode
ˆN ˆP	text completion before, after cursor
ˆW ˆU	delete word before cursor, to start of line
ˆD ˆT	shift left, right one shift width
ˆO*c*	execute c in temporary command mode
⟨esc⟩ *or* ˆ]	abandon edition → command mode