

Vi IMproved

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1. Basic control and conventions

- Key combination** – several keys pressed together, e.g. `CTRL+AE` means `CTRL+SHIFT+aE`.
- Key sequence** – several keys or combinations pressed gradually, e.g. `CTRL+wwE` means a press of combination `CTRL+w` and then a key `w`.
- Working mode** – it is displayed bottom right:
 - C – basic command mode, `EscE`.
 - E – insert mode `INSC`, `iC`.
 - V – visual, used for highlighting of text blocks `vC`/`VC`.
 - ex – command line ex-mode `:C`.
- Repeat command with typing number $n \times$ of repetitions before command, e.g. `5xC` deletes 5 chars from cursor position. Option `:set showcmd` shows command sequence in bottom right.
- Help: `:help topic`, use `TabC` for command completion.
- Similar commands uses same keys, e.g. `fC`/`FC`, `tC`/`TC` (see below). The difference is direction or range of operation.
- Repeat last:..... command `.,` macro `@C`.
- Undo**:..... `uC` \approx `:undo`, redo `CTRL+rC`/`:redo`
- Set or unset options with `:set option a` `:set nooption`. Alone `:set` displays current options.
- Shortening of options:..... `:set ignorecase` \approx `:set ic`
- Line addressing** of ex-commands:
 - `:xcommand`..... execute on line x
 - `:x,ycommand`..... from x to line y
 - `:$command`..... from actual position to the end
 - `:%command` \approx `:1,$command`..... for whole file
 - `:. ,+xcomm` \approx `x:comm`..... from cursor to next x lines
 - `:. ,-$-x`..... from current position to x . line from the end
 - `:/pattern1/, /pattern2/`..... from the first occurrence of line with $pattern_1$ to the first $pattern_2$
- More ex-commands together:..... `:command1 | command2`
- Comparison of two files:..... `vimdiff file1 file2`

2. Edit and save

- Edit:..... `:edit file`
- Open new empty file:..... `:enew`
- Insert file to current position:..... `:read file`
- Insert output of system *command*:..... `:read !command`
- Save/append file:..... `:write file / :w >> file`
- Save/append lines n to m :..... `:n,mw file / :n,mw>> file`
- Save and quit:..... `:wq`, enforced `:wq!`
- Quit without save:..... `:q!` \approx `ZQC`
- Quit and save when file was changed:..... `:x` \approx `ZZC`
- Go to file under the cursors:..... `gf`
- Change name of current file:..... `:f jméno`
- Insert before/after:..... char `iC`/`aC` line..... `IC`/`AC`
- Insert new line above/below cursor:..... `OC`/`oC`
- Rewrite:char `rC`, word `cwC`, line `ccC`, text `RC` \approx `INSINSC`
- Delete char/line and continue edit:..... `sC`/`SC`

2.1. Moving through file

- Open *file* on 23rd line:..... vim *file* +23
- Cursor:..... `→` \approx `lC`, `←` \approx `hC`, `↑` \approx `kC`, `↓` \approx `jC`
- Paging:..... `CTRL+fC` \approx `PAGEUPE`, `CTRL+bC` \approx `PAGEDOWNE`
- Half-paging up/down:..... `CTRL+uC`/`CTRL+dC`
- Jump to n^{th} line:..... `:n` \approx `nGC`, the last `:$` \approx `GC`
- Jump to percentual line position:..... `n%`
- Display current line number:..... `CTRL+gC`, `:set number`
- Display number of lines:..... `:='`
- Jump to byte position:..... `:goto n`
- Jump in line before char *a* forward/backward:..... `taC`/`TaC`
- Jump in line to char *a* forward/backward:..... `faC`/`FaC`
- Repeat last line search forward/backward:..... `;C`/`,'C`
- Go to beginning of next/previous word:..... `wC`/`bC`
- Go to end of a word:..... `eC`..... with interpunction `EC`
- Go to declaration:..... `gdC`

- Go to begin/end of paragraph:..... `{C`/`}C`, block: `[{C /]C}`
- Go to begin/end of line:..... `HOMEC` \approx `^C`/`ENDC` \approx `$C`
- Go to next/previous sentence:..... `>C`/`<C`
- Go to next/previous line:..... `ENDC` \approx `+C`/`-C`
- Go to column:..... first `OC` \approx `lC`, n^{th} `n|C`
- Jump to pair bracket:..... `%C`
- Print position, number of lines and chars, etc.:..... `gCTRL+gC`

2.1.1. Marking of position

- Insert invisible mark a:..... `maC`
- Jump to mark a:..... `'aC`
- Print marks:..... `:marks`
- Erase mark a:..... `:delmarks a`
- Process text from mark *a* to *b*:..... `:'a,'b přikaz`, e.g. `:'a,'b !sort` will use external command for sort

2.2. Deleting, moving and copying of text

- Deletion automatically stores text in register (for moving)
- Delete:char `xC` \approx `DELC`, previous char `XC` \approx `d←C` \approx `dhC`, `CTRL+hE` \approx `BACKSPACEE`, word `dwC` \approx `CTRL+WE`, line `ddC`
- Delete up to pair bracket:..... `d%C`
- Delete to end/beginning of sentence:..... `d)'C`/`d(C`
- Delete the rest of line/file:..... `DC` \approx `d$C`/`dGC`
- Delete from cursor position to beginning:..... `d0C` \approx `d^C`
- Delete all empty lines (or regex):..... `:global/^$/delete`
- Join lines:..... `JC` add space,..... `gJC` without space
- Copy to register:..... line `YC` \approx `yyC`, word `ywC`
- Copy to the beginning/end of line:..... `y0C`/`y$C`
- Copy N characters forward/backwards:..... `yNlC`/`yNhcC`
- More registers: press `"k...C` before command will save text to register *k*. E.g. `"kyyC` copies line into *k*
- Paste content of last used register or last deleted text: after `pC` before `PC` cursor, `"kppC` pastes register *k*
- Special register: `%` – current file name, `/` – last search, `+` – system clipboard ...
- Copy all file to a system clipboard: `ggC"yCGC`
- Show content of registers:..... `:register a`
- Swaps the next two chars/lines:..... `xpC`/`ddpC`
- ex-mode:..... delete `:d`, move `:m`, copy `:co` \approx `:t`
 - `:10,20m0` – move lines 10–20 to the beginning (0)
 - `:. ,+5d a` – delete next 5 lines and store them to reg. *a*

2.3. Formatting

- Set text width:..... `:set textwidth=n`
- Switch on line wrap:..... `:set wrap`
- Justify:..... `:center`, `:right`, `:left`
- Format line:..... `gqC`
- Format paragraph:..... `ggqapC` jump to end, `gwapC`
- Reverse case of char:..... `~C` line `g~C`
- Line to upper/lower:..... `gUC`/`VuC` \approx `guuC`/`VUC`
- Whole file to upper/lower case:..... `gggUGC`/`ggguGC`
- While line/file *ROT13* encoding:..... `g??C`/`ggg?GC`

2.3.1. Indentation

- Shift line:..... `>>C`, `CTRL+tE` of `:set shiftwidth=n`
- Shift line leftwards:..... `<<C`, `CTRL+dE`
- Tabbing:..... `TABE` \approx `CTRL+iE`
- Shift line same as before:..... `==C`
- Indent block relatively:..... `=aC`
- Refresh indentation of whole file:..... `gg=GC`

2.4. Complementation

- Complement word before/after cursor:..... `CTRL+pE`/`CTRL+nE`
- Name of file in working directory:..... `CTRL+x CTRL+fE`
- Name of directory:..... `CTRL+x CTRL+dE`
- Whole line:..... `CTRL+x CTRL+lE`
- Word from dictionary:..... `CTRL+x CTRL+kE`
- System command (reads \$PATH):..... `CTRL+x CTRL+vE`
- Increase/decrease number under cursor:..... `CTRL+aC`/`CTRL+xC`
- Name of current file:..... `CTRL+iE`

2.4.1. Completion at ex-command line

- Insert content of register *a*:..... `CTRL+ra`
- Insert word under the cursor:..... `CTRL+i CTRL+a...`
- Cancel command:..... `CTRL+uC`

2.5. Insert special symbols

- Display unprintable characters:..... `:set list`
- Insert ASCII char:..... `CTRL+v codeENDE`
- Show ASCII/UTF-8 of char under cursor:..... `gaC`/`g8C`
- Suppress control character, e.g. `TAB` (`^I`):..... `CTRL+v TABE`
- Table of Unicode digraphs:..... `:digraphs`
- Insert digraphs:..... `CTRL+k K1K2E`
- Digraphs: `±+- °DG ×*X ÷-: --N --M „:9 “:6`
- Define digraphs `.3` for „...“ (U+2026):..... `:dig .3 8230`

3. Search and replace

- Ignore case:..... `:set ignorecase`, opposite `:set noic`
- Search forward/backward:..... `/pattern/`/`?pattern`
- Repeat last search:..... `/`/`?`
- Ignore case:..... `^cpattern`
- Jump to next searched place:..... `nC` forward, `NC` backward
- Search for word under the cursor:..... `#C` forward, `*C` backward
- Search by ASCII code of „M“:..... `\%d77, \%x4d, \%o0115`
- Search Unicode character „a“ (U+03B1):..... `\%u03b1`
- Substitution:..... `:substitute/from/to/flag`, abbr. `:s`
- Repeat last substitution:..... `:s` \approx `:s//-/`
- The delimiter `/` can be any char instead `\`, `"` and `|`
- Flags:..... `c` – confirmation, `g` – for whole line, `p` – print, without flag changes only first occurrence
- Cancel highlight:..... `:nohlsearch`
- Search in more files:..... `:vimgrep /pattern/g f1 f2 ...fn`
- Execute command on line with:..... `:global/pattern/command`
- Execute where pattern not match:..... `:g!/pattern/command`

3.1. Regular expressions

- Begin/end of:..... line `^ / $`, word `\< / \>`, file `\%~ / \%`
- Last searched pattern/substitution:..... `& / ~`
- Matches any character:..... `(.)` (`dot`)
- Or/and:..... `|`/`&`
- Suppress next special symbol:..... `\,`, `\&`, `$`, `^`, `\\`, `*`
- Atom:..... `\(pattern\)`
- N^{th} reference:..... `\N`,..... first `\(pattern\)` = `\1`
- Ranges:..... `[abcd]` \approx `[a-d]`, `[a-zA-Z]` \approx `\a`, `[0-9]` \approx `\d`
- Ignored chars and ranges:..... `[^abcd]` \approx `[~a-d]`
- Zero or multiple *z*:..... `z*` \approx `z{0,}`, `\}`
- One or multiple *z*:..... `z\+` \approx `z{1,}`, `\}`
- One or zero times:..... `z?` \approx `z{0,1}`, `\}`
- Repetition *z*:..... `z\{n\}` accurate $n \times$, `z\{n,}` minimal $n \times$, `z\{n,m\}` min. n and max. m times

4. Folding of text blocks (:help folding)

- Fold text:..... `zfC`, selected `zFC`
- Jump to beginning/end of fold:..... `lzC`/`lZC`
- Open fold under the cursor:..... `zoC`, recursively `zOC`
- Open/close all:..... `zRC`/`zMC`
- Switch fold-unfold:..... `zaC`, recursively `ZaC`
- Highlight folded parts:..... `:set foldcolumn=5`

5. Edit more files, windows and tabs

5.1. More files (edit buffers)

- Start vim:..... vim *file₁ file₂*...
- Display buffers:..... `:ls` \approx `:files` (numbered)
- Switch to next/previous file:..... `:next`/`:prev`
- Switch to first/last file:..... `:rewind` \approx `:first`/`:last`
- Perform mass *command* for all files:..... `:bufdo command`

5.2. Windows

- New window:..... `:new` \approx `CTRL+wnC`
- Split window:..... `:split` \approx `CTRL+wsC`
- Vertically split window:..... `:vsplit` \approx `CTRL+vwC`
- Close window:..... `:close` \approx `CTRL+wcC`
- Close all except current:..... `:only` \approx `CTRL+woC`
- Jump to next window:..... `CTRL+wwC`
- Shrink/large window by n lines:..... `CTRL+wnC`/`CTRL+wn+C`
- Shrink/large window by n columns:..... `CTRL+wn<C`/`CTRL+wn>C`
- Same size for all windows:..... `CTRL+w=C`

- Mass:..... write `:wall`, quit `:qall`, `:wqall`
- Perform mass *command* for all windows:..... `:windo command`
- Open name under cursor in new window:..... `CTRL+wfC`

5.2.1. Moving in window

- Jump to window line:..... top `HC`, middle `MC`, last `LC`
- Jump to n^{th} line from top/bottom:..... `nHC`/`nLC`
- Set actual line to:..... top `zENDC`, center `z.C`, bottom `z-C`
- Scroll window up/down by:line `CTRL+eC`/`CTRL+yC`, page `CTRL+bC`/`CTRL+uC`/`CTRL+dC`
- Redraw window without scrolling:..... `CTRL+lC`

5.3. Tabs

- Command:..... vim `-p f1, f2 ...` open files in tabs
- Create/close tab:..... `:tabnew`/`:tabc`
- Close all, except current tab:..... `:tabo`
- Go to next/previous:..... `:tabn` \approx `CTRL+PAGEDOWNE`/`:tabp` \approx `CTRL+PAGEUPE`
- Move after the fold n :..... `:tabm n`
- Perform mass *command*:..... `:tabdo command`
- Change tab design:..... `:set tabline`
- Open name of file under cursor in new tab:..... `CTRL+wgC`

6. Visual mode

- Select:..... chars `vC`, lines `VC`, cursor sets range
- Block text selection:..... `CTRL+VC`
- Change to upper/lower case:..... `UC`/`uC`
- Select: word `awC`, `()/{}block` `abC`/`aBC`, no brackets `ibC`/`iBC`, XML block with marks `atC`, inside marks `itC`
- Perform *command* in selected range:..... `:<, > command`

7. Abbreviations, key maps and macros

- Define abbreviation:..... `:abbreviate abbr full expansion`
- Abbreviations for insert/ex-mode:..... `:iabbrev`/`:cabbrev`
- List/delete abbreviations:..... `:ab`/`:unab abbreviation`
- Map key *x*:..... `:map x commands`
- Map by mode:..... `:map` `:imap` `:cmap` `:nmap` `:vmap`
- Map key for insert mode:..... `:map! x commands`
- List key mapping:..... `:map`/`:map!`
- Delete mapping:..... `:unmap x`/`:unmap! x`
- Write macro to register *a*:..... `qaC`
- End macro definition:..... `qC`
- Perform macro in register *a*:..... `@aC`
- Repeat last called macro:..... `@@C`
- Execute macro *a* as ex-command:..... `:@a`

8. Spell checking

- Switch on spelling:..... `:set spell spelllang=cs,en`
- Search next/previous mistype:..... `lsC`/`lSC`
- Add to dictionary a word under cursor:..... `zgC`
- Add temporary to dictionary:..... `zGC`
- Set word as bad:..... `zwC`, temporary `ZwC`
- Suggest correctly spelled words:..... `z=C`
- Always take the first suggestion:..... `lz=C`

9. Programmer support

- Run make:..... `:make`
- Jump to next/previous error:..... `:cprevious`/`:cnext`
- List all errors:..... `:clist`
- Add window with list of errors:..... `:copen`
- Show line numbering:..... `:set number`
- Turn on/off color syntax:..... `:set syntax`/`:syntax off`
- Refresh syntax coloring:..... `:syntax sync fromstart`

10. Other

- Start shell:..... `:shell`
- Open manpage of command under cursor:..... `KC`
- Open file under the cursor:..... `gfC`
- Save as color HTML:..... `:runtime! syntax/2html.vim`
- Wildcard of current file `%`, e.g. `!:context %` process current file with ConTeXt