

LPIC-1 101-400 – Lesson 8

103.8 Perform basic file editing operations using vi



The `vi` text editor

- The **vi** text editor is the most popular open source editor and in the Linux ecosystem.
- It was first created for UNIX as an evolution of the text editor **ex**.
- It is installed by default on most Linux and UNIX systems.
- The most popular implementation is **vim** (VI Improved).
- Other implementations: **nvi**, **elvis**, **vile**.



`vi` modes

- **Command mode:** this is the default mode when the program is started and keybindings match to commands.
- **Ex mode:** this mode is activated by pressing ":" and here we can execute **ex** commands.
- **Insert mode:** this mode is enabled by pressing "i", "a" or "o" and in here we can edit text.



First steps in `vi`

- `$ vi file1` # open file for editing. If the file does not exist it will be created after the save command `(:wb)`.
- `$ vi file1 file2` # open two files for editing. Switch to next with `":n"` and to previous with `":N"`.
- `$ view file1` # open a file read-only.
- `$ vi +"set number"` # the `"+"` allows us to execute `vi`, `ex` commands, on program launch. The `set number` numbers text lines.
- To exit `vi` type the `":q"` command. You may need to escape Edit mode by pressing "Esc" before using `":q"`

Searching text in `vi`

- `/regex` # search regular expression downwards
- `?regex` # search regular expression upwards
- `n` # next match of search
- `N` # previous match of search
- `:%s/oldstring/newstring/` # replace **oldstring** with **newstring** on first match of every line
- `:%s/oldstring/newstring/g` # replace **oldstring** with **newstring** on every match on every line
- `:%s/oldstring/newstring/c` # ask for confirmation for every match to be replaced



Moving the cursor in `vi`

- **h** # move left
- **j** # move up
- **k** # move down
- **l** # move right
- **w** # move to next word
- **b** # move to previous word
- **e** # move to the end of word
- **0**,**^** # move to beginning of line
- **\$** # move to the end of line
- **:n**, **nG** # move to line number **n**
- **gg** # move to the beginning of the first line
- **G** # move to the beginning of the last line
- **5l** # move 5 characters left
- **7w** # move 7 word right
- **9j** # move 9 lines downwards



Moving around in `vi`

- **H** # move to the top of the screen
- **M** # move to the middle of the screen
- **L** # move to the end of the screen
- **4H** # move to the 4th line below the top of the screen
- **6L** # move to the 6th line above the bottom of the screen
- **Ctrl-f** # move page down
- **Ctrl-b** # move page up




`vi` Insert Mode

- **i** # enter insert mode under the cursor
- **a** # enter insert mode after the cursor
- **o** # enter text in new line below the cursor
- **r** # replace a single character
- **I** # insert text at the beginning of a line
- **A** # insert text at the end of a line
- **O** # enter text in new line above the cursor
- **R** # replace multiple characters

Note: to exit insert mode, press "Esc" or "Ctrl-c"



Cut text and enter insert mode with 'c'

- **c4l** # cut 4 character left of cursor and enter insert mode
 - **cc** # cut the current line and enter insert mode
 - **c5k** # cut the current line and 5 more downwards and enter insert mode
 - **cw** # cut text from cursor until the beginning of the next word and enter insert mode
 - **c3w** # cut text from cursor until the beginning of the 3rd next word and enter insert mode
 - **c3e** # cut text from cursor until the end of the 3rd next word and enter insert mode
 - **c0** # cut text from cursor until the beginning of the line and enter insert mode
 - **c\$, C** # cut text from cursor until the end of the line and enter insert mode
- 

Cut text with 'd'

- **d4l** # cut 4 characters left of cursor
- **d1l, x** # cut the character under the cursor
- **dd** # cut the current line
- **3dd, d3d** # cut the current line and 3 more downwards
- **d5j** # cut the current line and 5 more downwards
- **dw** # cut text from cursor until the beginning of the next word
- **d3w** # cut text from cursor until the beginning of the 3rd next word
- **d3e** # cut text from cursor until the end of the 3rd next word
- **d0** # cut text from cursor until the beginning of the line
- **d\$, D** # cut text from cursor until the end of the line

Copy text with 'y'

- **y4l** # copy 4 characters left of cursor
- **y1l** # copy the character under the cursor
- **yy, Y** # copy the current line
- **3yy, y3y** # copy the current line and 3 more downwards
- **y5j** # copy the current line and 5 more downwards
- **yw** # copy text from cursor until the beginning of the next word
- **y3w** # copy text from cursor until the beginning of the 3rd next word
- **y3e** # copy text from cursor until the end of the 3rd next word
- **y0** # copy text from cursor until the beginning of the line
- **y\$** # copy text from cursor until the end of the line


Yank (paste) text with 'y'

Undo changes with 'u'

- **p** # paste the text cut or copied with **c**, **d**, or **y** after the cursor
- **P** # paste the text cut or copied with **c**, **d**, or **y** before the cursor
- **3p** # triple paste the text cut or copied with **c**, **d**, or **y** after the cursor
- **u** # undo changes. Classic **vi** support only a single undo but with **vim** supports multiple
- **U** # undo changes at current line
- **Ctrl-r** # redo an undo



Save and exit `vi`

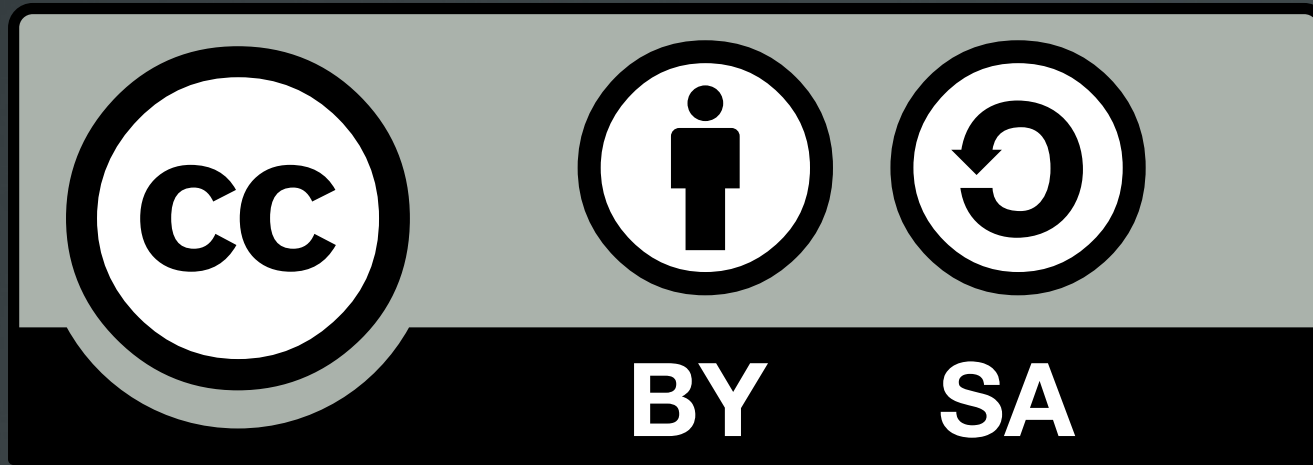
- **:w** # save current buffer to file
 - **:w file1** # save current buffer to **file1**
 - **:w!** # force save for read-only files (works for **view** as well)
 - **:q** # exit **vi** provided there are no changes to be saved
 - **:q!** # exit **vi** and discard changes!
 - **:wq**, **:x**, **ZZ** # simultaneously save changes and exit **vi**
 - **:wq!**, **:x!** # force save and exit (useful for read-only files)
 - **:e file1** # load **file1** in the place of the current buffer
 - **:e! file1** # force load **file1** in the place of the current buffer
 - **:e!** # undo changes up to last save!
- 

Other useful commands

- **:set number #** number lines
- **:set syntax #** enable syntax highlighting
- **:set warn #** enable warnings



License



The work titled "LPIC-1 101-500 – Lesson 8" by Theodotos Andreou is distributed with the Creative Commons Attribution ShareAlike 4.0 International License.

