



25D Linux Foundation Course

03 – Using the vi Text Editor



Overview

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- ☐ The role and function of the vi text editor
- ☐ Editing text files in vi



The Role and Function of the vi Text Editor

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- ☐ **Knowing how to use a text editor is absolutely critical to being able to use/manage a Linux system**
 - Modification of configuration files and scripts
- ☐ **Linux editors are difficult for most new users to learn how to use**
 - Primarily due to the different modes
 - With experience they are simple and powerful tools
- ☐ **Graphical text editors are available, however:**
 - Many distributions or applications you use may not have them or be compatible
 - A good Linux admin should be familiar with the configuration text files behind the graphical interface and the use of vi



The Role and Function of the vi Text Editor

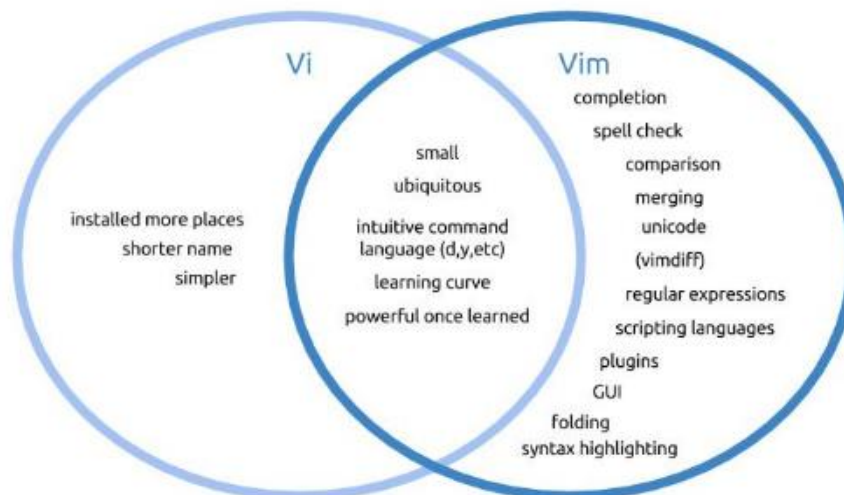
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❑ Two versions of vi:

– vi

– vim (Vi Improved)

- On older systems, you may be actually using vi
- On most modern Linux distributions, you are probably using the newer vim version of vi





The Role and Function of the vi Text Editor



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- Below is an example of a symbolic link (shortcut) that points to another file somewhere else in the file directory
- In this example look at the top line with vi pointing to vim
- Because of this, whether you enter vi or vim, the vim editor will load

```
openSUSE:/usr/bin # ls -al vi*
lrwxrwxrwx 1 root root      8 Nov  6  2013 vi -> /bin/vim
lrwxrwxrwx 1 root root      3 Nov  6  2013 view -> vim
-rwxr-xr-x 1 root root 116620 Sep 28  2013 vig_optimize
lrwxrwxrwx 1 root root      8 Nov  6  2013 vim -> /bin/vim
lrwxrwxrwx 1 root root      3 Nov  6  2013 vimdiff -> vim
-rwxr-xr-x 1 root root  2050 Oct 22  2013 vimtutor
-rwxr-xr-x 1 root root 10841672 Sep 27  2013 virtuosot
-rwxr-xr-x 1 root root   5564 Oct 22  2013 vitmp
openSUSE:/usr/bin # _
```



The Role and Function of the vi Text Editor



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❑ Output of the vi or vim command:

```
VIM - Vi IMproved

        version 7.4.52
        by Bram Moolenaar et al.

Vim is open source and freely distributable


        Sponsor Vim development!
type  :help sponsor<Enter>    for information

type  :q<Enter>                to exit
type  :help<Enter> or <F1>    for on-line help
type  :help version7<Enter>  for version info
```



Editing Text Files in vi



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- ☐ Opening files in vi
- ☐ The vi modes
- ☐ Working in insert mode
- ☐ Working in command-line mode
- ☐ Working in command mode



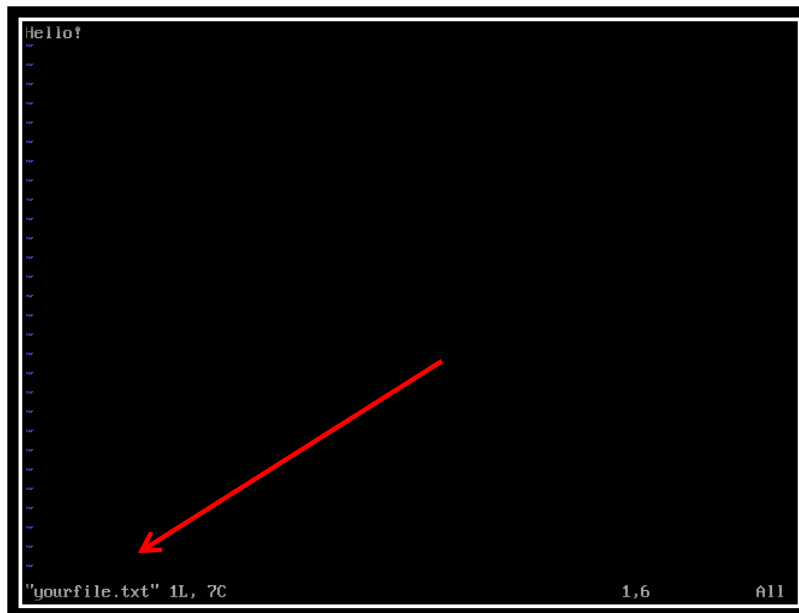
Opening Files in vi

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- ❑ In this example you can see there is a file named “yourfile.txt”:

```
student@openSUSE:~> ls
bin      Documents Music      Public      Templates  yourfile.txt
Desktop  Downloads Pictures   public_html Videos
student@openSUSE:~> vi yourfile.txt_
```

- ❑ Entering *vi yourfile.txt* will open that file in vi:





The vi Modes



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- ☐ Command mode
- ☐ Command-line mode
- ☐ Insert mode
- ☐ Replace mode



The vi Modes



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```
-- INSERT --                                     1,6      All
```

- While in Command Mode hit enter once
- Any text you type is inserted wherever the cursor is located in the file

```
-- REPLACE --                                     1,6      All
```

- While in Command Mode hit enter twice (Once if in Insert Mode)
- When you type in new characters, they overwrite any existing characters



Working in Insert Mode



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- ☐ **Once the text file is opened and you are in Insert Mode:**
 - It operates like most other text editors
 - You can navigate via the arrow keys, Page Up and Down, Home and end keys
 - Adding text is done via the keyboard
 - Removing text is done via the backspace
 - To exit Insert Mode hit the Escape key (now in Command Mode)



Working in Command-Line Mode



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❑ To work in Command-Line Mode in vi:

- First be in Command Mode**
- Enter a colon (:) and a display prompt will appear at the bottom**
- Commands can be entered to do file-related tasks**
 - w for instance will write the file to disk**
- The syntax-checker can be turned on and off**
 - This will assist in script and configuration file writing**
 - syntax on | off is the command**



Working in Command-Line Mode



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Below is an example of a configuration file (/etc/profile) with the syntax checker on:

```
# /etc/profile for SuSE Linux
#
# PLEASE DO NOT CHANGE /etc/profile. There are chances that your changes
# will be lost during system upgrades. Instead use /etc/profile.local for
# your local settings, favourite global aliases, VISUAL and EDITOR
# variables, etc ...
#
# Check which shell is reading this file
#
if test -f /proc/mounts ; then
  if ! is=$(readlink /proc/$$/exe 2>/dev/null) ; then
    case "$0" in
      *pcksh)    is=ksh ;;
      *)        is=sh  ;;
    esac
  fi
  case "$is" in
    */bash)    is=bash
      case "$0" in
        sh|-sh|*/sh)
          is=sh ;;
        *)
          is=sh ;;
      esac
    */ash)      is=ash ;;
    */dash)     is=ash ;;
    */ksh)      is=ksh ;;
    */ksh93)    is=ksh ;;
    */pdksh)    is=ksh ;;
    */*pcksh)   is=ksh ;;
  esac
fi
"/etc/profile" 383L, 9030C
```

1,1

Top



Working in Command-Line Mode



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☐ **w filename**

- Write the file to another filename

☐ **exit**

Writes the current file and then closes vi

☐ **wq**

- Same as exit command

☐ **q**

- Closes vi without saving changes

☐ **w!**

- Overwrites the current file

☐ **e!**

- Forgets changes since the last write



Working in Command-Line Mode

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- ☐ **Command are not entered via the command prompt**
 - Entered without the colon (:)
- ☐ **If in Insert Mode press Esc to get to Command Mode**
 - In command mode by default when starting vi
- ☐ **Then enter commands (see next slides for commands)**



Working in Command Mode



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Option	Description
d _w	Deletes the word that comes immediately after the cursor, including the space following the word. The text is saved in a memory buffer.
d _e	Deletes the word that comes immediately after the cursor, not including the space. The text is saved in a memory buffer.
d\$	Deletes from the insertion point to the end of the line. The text is saved in a memory buffer.
d _d	Deletes the entire current line. The text is saved in a memory buffer.
p	Inserts the text deleted in the last deletion operation after the current cursor location.
u	Undoes the last action.
D	Deletes the rest of the current line from the cursor position.
y _y	Copies the line in which the cursor is located to the buffer.
a	Append after cursor.
A	Append after line.
C	Change to the end of the line.



Working in Command Mode



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Option	Description
<code>CW</code>	Change the current word with new text, starting with the character under the cursor, until esc is hit.
<code>CC</code>	Change the whole line.
<code>ZZ</code>	Saves the current file and ends vi.
<code>h</code>	Moves the cursor left one character.
<code>j</code>	Moves the cursor down one line.
<code>k</code>	Moves the cursor up one line.
<code>l</code>	Moves the cursor right one character.
<code>0</code>	Moves the cursor to the start of the current line.
<code>Ctrl-G</code>	Displays a status line at the bottom of the interface.
<code>/search_term</code>	Searches for the next instance of the term specified.
<code>?/search_term</code>	Searches for the previous instance of the term specified.



Exercise 3-1: Using the vi Editor

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**Please open your Practical Exercise book to
Exercise 3-1.**

Time to Complete: 10 Minutes



Summary



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- ☐ The role and function of the vi text editor
- ☐ Editing text files in vi



Questions

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Questions?



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Question 1

Which command-line command can be used to enable syntax checking of a script while editing it in the vi editor?

- A. `:syntax_checking on`
- B. `:syntax=enabled`
- C. `:syntax=script`
- D. `:syntax on`



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Question 2

You have a terminal window open on your Linux system, and the current directory is /tmp. You need to use vi to edit a text file named vnc in the /etc/xinetd.d directory on your system. Which of the below commands will do this?

- A. `vi vnc`
- B. `vi /tmp/vnc`
- C. `vi /etc/xinetd.d/vnc`
- D. `vi /etc/xinetd.d`



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Question 3

You have a terminal window open on your Linux system, and the current directory is your user's home directory. You need to create a new file in your home directory named resources.txt using vi. Which of the following commands will do this?

- A. `vi resources.txt -new`**
- B. `vi resources`**
- C. `vi ~/resources`**
- D. `vi resources.txt`**



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Question 4

Which mode does vi open in by default?

- A. Command-line mode
- B. Insert mode
- C. Command mode
- D. Replace mode



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Question 5

Which keystroke will switch vi from command mode to insert mode? (Choose two.)

- A. Delete
- B. ESC
- C. Insert
- D. S
- E. F1



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Question 6

You're using vi to edit a text file in insert mode. Because of the nature of the changes you're making to the file, you need to switch to replace mode. Which keystroke will do this?

- A. ESC
- B. CTRL-X CTRL-R
- C. :
- D. Insert



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Question 7

You've created a new file using vi and now need to save the file without exiting the editor. Which command will do this?

- A. :s
- B. :w
- C. :save
- D. :exit



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Question 8

You've made several changes to a configuration file using vi. You realize that you've made a large amount of mistakes and want to quit without saving the changes so that you can start over. Which command will do this?

- A. :q!
- B. :exit
- C. :q
- D. :exit!



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Question 9

You're working with a file in vi in command mode. You locate a word in the file that needs to be deleted and place your cursor at the beginning of that word. Which command will delete this word without deleting the space that follows the word?

- A. dw
- B. de
- C. d\$
- D. dd



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Question 10

You're viewing a configuration file in vi in command mode. You need to locate a directive named server in the file. However, the file is very long and you do not want to read it line by line. What command can you use in command mode to search for this term?

- A. /server**
- B. search=server**
- C. /"server"**
- D. find "server"**