

## Introduction

vi (visual) is a display-oriented text editor based on an underlying line editor ex. When using vi, changes you make to the file are reflected in what you see on your screen. The position of the cursor on the screen indicates the position within the file. Many commands may be preceded by an integer, *n*, indicating that the command is to be repeated *n* times at the current cursor position. Typing the ESC (escape) character takes you out of input mode and into command mode. A partial command may be cancelled by typing ESC. Commands prefaced by a ^ (caret) mean to hold down the CONTROL key and then press the indicated character. To enter the vi editor type:

**vi -options filename**

Options:

**-r filename** recover filename after an editor or system crash. If file is not specified a list of all saved files will be printed.

**-R** read only mode

**+/string** search for string

**vi filenamelist** enter vi, read in first file in filenamelist

**:n** edit next file in filenamelist

**:n filenamelist** specify new filenamelist

**:e#** return to original file

**:e! filename** edit filename, discard previous buffer

**:r filename** place copy of filename below the current line

**^g** display the current file name and current line number

## Modes of Operation

**Command** normal and initial mode; other modes return to command mode upon completion. **ESC** (escape) is used to cancel partial command.

**Input** To enter the input mode, type one of the following: **a, i, A, I, o O, c, C, s, S, or R**. Text may then be entered. Input mode is terminated with **ESC** character.

## Undoing/Canceling Commands

**ESC** cancel unexecuted vi command

**^C** stop in-progress command

**u** counteract last command that changed the buffer

**U** counteract changes to current line

## Repeating a Command

**.** repeat the last command that changed the buffer

## Saving Work / Editing

**:w** write file under original name

**ZZ** or **:wq** write file under original name, exit vi

**:q!** exit vi, no changes are saved

**:w filename** write the file under *filename*

**:w! filename** write the file under *filename*, overwrite existing file

**:x,y w filename** write lines *x* through *y* under *filename*

**:x,y w!** filename write lines *x* through *y* under *filename*, overwrite existing filename

## Displaying Line Numbers

**^g** display line number of current line

**:set number** display all line numbers, to the left of each line

**:set nonumber** remove all displayed line numbers

## Editing Text

### Inserting Text

**i** insert before the current character

**a** insert after the current character

**A** insert at end of current line

**I** insert at beginning of current line

**o** insert below current line (opens new line)

**O** insert above current line (opens new line)

**ESC** end text insertion

### Replacing Text

**r** replace the current character, no ESC necessary

**s** replace the current character

**cw** replace the current word

**S** replace the current line

**C** replace the current cursor position to end of line

**R** replace from current cursor position to end of line, does not change characters typed over

**ESC** end text insertion

### Erasing During Insertion

**^h** or **DELETE** erase character, move left

**^w** erase word, move left

**^u** erase the current line

### Setting Margins

**set wrapmargin=x** set right margin to *x*, automatic word wrap

## Setting Automatic Indentation

**:set autoindent** set automatic indentation

**:set noai** turn off automatic indentation

**^d** move left one tabstop

**^t** move right one tabstop

## Joining Lines

**J** join the current line and the line below it

**#J** join # lines, starting with the current line

## Deleting Text

**x** delete the current character

**#x** delete # characters, starting with current character

**dw** delete current word

**#dw** delete # words, starting with the current word

**dd** delete the current line

**#dd** delete # lines, starting with the current line

**D** delete from current cursor position to end of line

**:x,y d** delete lines *x* through *y*

**d'/** delete from current line to line with marker /

## Copying and Pasting Text

### Making a Copy

**y** yank current character

**#y** yank # characters, starting with current character

**yw** yank current word

**#yw** yank # words, starting with current word

**yy** yank current line

**#yy** yank # lines, starting with current line

**:x,y y** yank lines *x* through *y*

**y'/** yank from current line to line with marker /

### Pasting or Retrieving Text

**p** place most recently deleted or yanked character(s) or word(s) after the current character, place line(s) below current line

**P** place most recently deleted or yanked character(s) or word(s) before the current character, place line(s) above the current line

## Shell Commands

**!:command** execute one shell command

**:sh** run subshell. Type exit and press RETURN to return to vi.

**:r!command** insert output of shell command below current line

## Moving Around in a File

### Moving by Characters

<b>h</b> or <b>backspace</b>	move left one character
<b>j</b>	move down one line
<b>k</b>	move up one line
<b>l</b> or <b>space bar</b>	move right one character

### Moving by Words

<b>w</b>	move right one word or group of punctuation marks
<b>b</b>	move left one word or group of punctuation marks
<b>W</b>	move right one word
<b>B</b>	move left one word
<b>E</b>	move to the end of a word

### Moving by Lines

<b>0</b>	move to the beginning of current line
<b>\$</b>	move to the end of current line
<b>RETURN</b>	move to first non-white space character at beginning of next line
<b>-(minus)</b>	move to first non-whitespace character at beginning of previous line
<b>H</b>	move to top line on screen
<b>L</b>	move to bottom line on screen
<b>M</b>	move to middle line on screen
<b>G</b>	move to end of file
<b>x G</b>	moves to line number x
<b>/</b>	move to first character in line marked with /
	move to previous location (counteracts G or simple search)

### Scrolling

<b>^e</b>	scrollup one line
<b>^y</b>	scroll down one line
<b>^f</b>	scroll forward one screen
<b>^b</b>	scroll backward one screen
<b>^d</b>	scroll forward half screen
<b>^u</b>	scroll backward half screen
<b>z &lt;RETURN&gt;</b>	redraw screen, current line at top of screen
<b>z-</b>	redraw screen, current line at bottom of screen
<b>z.</b>	redraw screen, current line at center of screen.

## Text Buffers

### Automatic Numbered Buffers (1-9)

<b>“# p</b>	place text from buffer # below current line
<b>“# P</b>	place text from buffer # above current line

### Named Buffers (a-z)

<b>“b command</b>	place text deleted or yanks with command into buffer b
<b>“b p</b>	place text from buffer b below current line
<b>“b P</b>	place text from buffer b above current line

### Moving by Line Number

<b>:x mz</b>	move line x below line z
<b>:x, y mz</b>	move lines x through y below z

### Copying by Line Number

<b>:xt z</b>	copy line x below line z
<b>:x, y mz</b>	move lines x through y below line z

### Recovering a File

<b>vi -r filename</b>	recover file lost during crash or disconnection
<b>vi -r</b>	list all recoverable files

## SEARCHES

### Searching in a Line

<b>f c</b>	move forward to find character c on current line, cursor rests on c
<b>t c</b>	move forward to find character c on current line, cursor rests on character before c
<b>F c</b>	move backwards to find character on current line, cursor rests on c
<b>T c</b>	move backwards to find character c on current line, cursor rests on character after c
<b>;</b>	repeat last <b>f, F, t, T</b>
<b>,</b>	inverse of last <b>f, F, t, T</b>

### Simple Search

<b>/string</b>	search forward in the file for string
<b>?string</b>	search backward in the file for string
<b>n</b>	subsequent search in the same direction
<b>N</b>	subsequent search in the opposite direction
<b>:set wrapscan</b>	set wrapping during a search
<b>:set nowrapscan</b>	set no wrapping during a search

## Global Search

<b>:g/string/command</b>	command affects lines containing string
<b>:v/string/command</b>	command affects lines not containing string

### Substitution (Search and Replace)

**:x,ys/oldstring/newstring/flags**

<b>x, y</b>	line numbers in which the substitution is to occur. Give one line number, or two separated by a comma, which indicate a range of lines. Absence of line numbers indicates current line substitution command. Only the first occurrence of the string on the selected line(s) is replaced unless the <b>g</b> flag, described below, is used.
<b>s</b>	substitution command. Only the first occurrence of the string on the selected line(s) is replaced unless the <b>g</b> flag, described below, is used.
<b>/oldstring</b>	string to replace. If you do not specify an oldstring, <b>vi</b> searches for the oldstring specified in the last <b>s</b> command or search (if there was one).
<b>/newstring</b>	replacement string
<b>/flags</b>	optional, to specify the type of search:
<b>c</b>	wait for confirmation before substituting. Type <b>y</b> or <b>n</b> and press <b>RETURN</b> .
<b>g</b>	replace all occurrences of the string in specified lines

### Special Characters in Searches

#### Character Classes

<b>[cccc]</b>	match any specified letter or number
<b>[^cccc]</b>	match all letters or numbers except those specified
<b>[c1-c2]</b>	match all letters or numbers in specified range

#### Character at Specified Locations

<b>\&lt;cc</b>	match words that begin with cc
<b>\&gt;cc</b>	match words that end in cc
<b>^</b>	match beginning of lines
<b>^cccc</b>	match lines that begin with cc
<b>\$</b>	match end of lines
<b>cccc\$</b>	match lines that end with cccc

#### Wildcard and Multiplier Characters

<b>.</b>	match any one character
<b>*</b>	match zero or more occurrences of the preceding character
<b>.*</b>	match any number of characters