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`Vi` **Quick Reference**

Entering and Exiting `vi`

vi *file*	Edits *file*.
vi +*n file*	Edits *file*, cursor at line *n*.
vi + *file*	Edits *file*, cursor at end.
vi -r	List system saved files.
vi -r *file*	Edits system saved *file*.
vi *file ...*	Edits first *file*; rest via `:n`.
vi -t *tag*	Edits file through *tag* in tags file.
vi +/*pattern file*	Edits file, cursor at *pattern*.
view *file*	**vi** *file*, no modification.
`ZZ`	Exits from **vi**, saving changes.
`^Z`	Stops **vi** for later resumption.

The Display

Last line	Error messages, echoing input to commands: `/`, `?`, `:`, `!`, feedback about I/O and large changes.
`@` lines	On screen only, not in file.
~ lines	Lines past end of file.
$\hat{}x$	Control characters.
TABs	Expands to spaces, cursor on last space.

Counts before `vi` Commands

Line/column no.	`z, G, |`
Scroll amount	`^D, ^U`
Replicate insert	`a, i, A, I`
Repeat effect	Most rest

Vi States

Command mode	Executes commands; the normal and initial state. Other modes return to command mode. `ESC` cancels a partial command.
Insert mode	Entered by `a, i, A, I, o, O, c, C, s, S, R`, followed by arbitrary text terminated by ESC. An interrupt aborts an insertion.
Last line	Reads user input for commands `/`, `?, :, !`, which terminates in ESC or RETURN. An interrupt aborts.

Basic Commands

`dw`	Deletes a word.
`de`	Deletes a word leaving punctuation.
`dd`	Deletes a line.
`3dd`	Deletes three lines.
`d%`	Deletes to matching parenthesis/bracket
`i`*text*`ESC`	Inserts *text*
`cw`*text*`ESC`	Changes word to *text*
`ea`*s*`ESC`	Pluralizes word.
`xp`	Transposes characters.

Interrupting, Cancelling, Shell Interaction

`ESC`	Ends insert, input, or incomplete command.
`^?`	(DELETE) interrupts **vi**.
`^Z`	Suspends **vi** (*csh* and *ksh*).
`:sh`	Runs default Shell, then returns.
`:!`*cmd*	Runs Shell-level *cmd*, then returns.

File Manipulation

`:w`	Writes back changes.
`:wq`	Writes and quits from **vi**.
`:q`	Quits from **vi**.
`:q!`	Quits, discards changes.
`:e` *file*	Edits *file*.
`:e!`	Reedits, discards changes.

`:e +` *file*	Edits *file*, starting at the end.
`:e +`*n* *file*	Edits *file* starting at line *n*.
`:w` *file*	Writes to *file*.
`:w!` *file*	Overwrites *file*.
`:n`	Edits next file in argument list.
`:n` *args*	Specifies new argument list.
`:f`	Displays current file and line.
`^G`	Synonym for `:f`.
`:ta` *tag*	Goes to tags file entry *tag*.
`^]`	Same as `:ta`, but current word is *tag*.

Positioning within File

`^F`	Moves forward a screen.
`^B`	Moves backward a screen.
`^D`	Scrolls down half a screen.
`^U`	Scrolls up half a screen.
k`G`	Goto line *k* or last line (default).
`/`*pattern*`ESC`	Searches forward for *pattern*.
`?`*pattern*`ESC`	Searches backward for *pattern*.
`n`	Repeats last `/` or `?`.
`N`	Repeats last `/` or `?` in other direction.
`/`*pattern*`/+`*n*	Goto *n*th line after *pattern*.
`?`*pattern*`?-`*n*	Goto *n*th line before *pattern*.
`]]`	Next section or function.
`[[`	Previous section or function.
`%`	Finds matching (,), {, or }.

Adjusting the Screen

`^L`	Clears and redisplays.
`^R`	Redisplays, eliminates @ lines.
`z`RETURN	Current line at window top.
`z-`	Current line at window bottom.
`z.`	Current line at window center.
`/`*pattern*`/z-`	Line with *pattern* at bottom.
`z`*n*	Uses *n* line window.
`^E`	Scrolls window down one line.
`^Y`	Scrolls window up one line.

Marking and Returning

` `	Returns to previous context.
' '	Returns to previous context at first nonblank character of the line.
mx	Marks position with letter x.
` x	Returns to marked position x.
' x	Returns to x at first nonblank character in line.

Line Positioning

:.=	Displays current line number
H	Moves to the first window line.
L	Moves to the last window line.
M	Moves to the middle window line.
+	Next line.
–	Previous line.
RETURN	Same as '+'.
↓ or j	Next line, same column.
↑ or k	Previous line, same column.

Character Positioning

^	First nonblank character.
0	(zero) Beginning of line (column one).
$	End of line (last character).
h or ←	Previous character.
l or →	Next character.
^H	Same as *leftarrow*.
SPACE	Same as →.
fx	Finds x forward in current line.
Fx	Finds x backward in current line.
tx	Moves forward upto x in current line.
Tx	Moves backward upto x in current line.
;	Repeats last f F t or T
,	; in the reverse direction.
|	Moves to specified column.
%	Moves to matching (, {,), or }.

Words, Sentences, Paragraphs

`w`	Next word.
`b`	Moves backward to the beginning of a word.
`e`	End of word.
`)`	Next sentence.
`}`	Next paragraph.
`(`	Moves backward to the beginning of a sentence.
`{`	Moves backward to the beginning of a paragraph.
`W`	Next blank delimited word.
`B`	Moves backward to the beginning of a blank delimited word.
`E`	End of blank delimited word.

Corrections During Insert

`^H`	Deletes last input character.
`^W`	Deletes last input word.
erase	Character erase, same as `^H`.
kill	Line kill, deletes entire input line.
`\`	Escapes character erase and line kill.
`ESC`	Ends insertion, back to command mode.
interrupt	Aborts insert (usually `^c`).
`^D`	Backtabs over blanks supplied by autoindent.
`^^D`	(hat then `^D`) Kills autoindent; autoindent remains effective for next line.
`0^D`	Kills autoindent; until next indent.
`^V`	Quotes any special character.

Insert and Replace

`a`	Inserts after cursor.
`i`	Inserts before cursor.
`A`	Inserts at end of current line.
`I`	Inserts before first nonblank character of current line.
`o`	Opens a line for insertion below current line.
`O`	Opens a line for insertion above current line.
`r`x	Replaces current character with x.
`R`	Overwrites characters.
`~`	Changes case of current character.

Operators (Double to affect lines)

d	Deletes text object.
c	Changes text object.
<	Left shifts text object.
>	Right shifts text object.
y	Yanks text object to buffer.

Miscellaneous Operations

C	Changes rest of line.
D	Deletes rest of line.
s	Substitutes characters.
S	Substitutes lines.
J	Joins lines.
x	Deletes characters.
X	Deletes characters before cursor.

Cut and Paste

p or "xp	Pastes deleted or buffer x text after current position/line.
P or "x	Pastes deleted or buffer x text before current position/line.
"xy	Copies (Yanks) text object to buffer x.
"xd	Deletes text object into buffer x.
yy	Yanks current line.
$n$yy	Yanks several lines.

Undo, Redo, and Retrieve

u	Undoes last change.
U	Restores current line.
.	Repeats last change.
"np	Retrieves nth last delete.