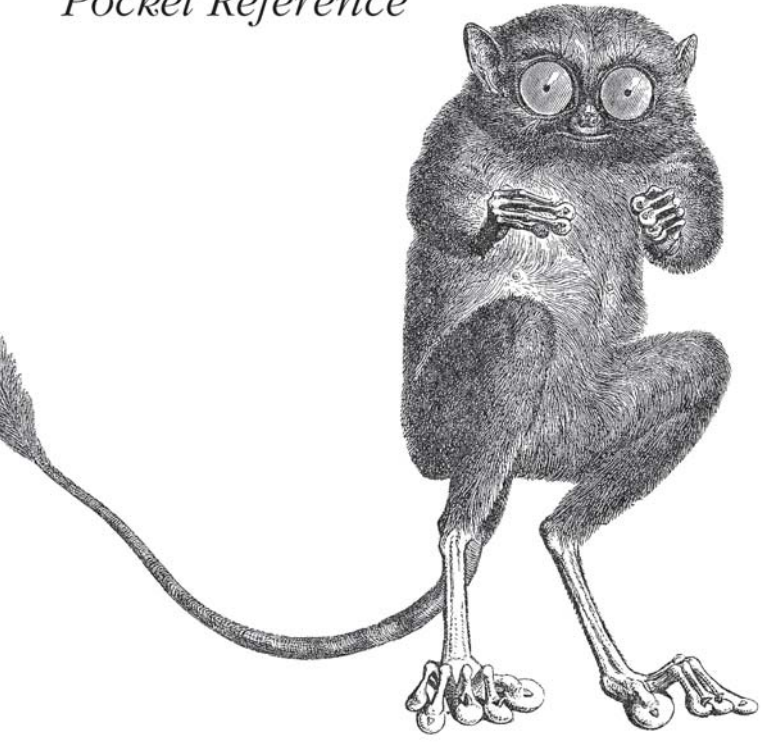
Unix Text Processing

vi Editor

Pocket Reference



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UNIX Text Editing

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vi Editor Pocket Reference

For many users, working in the Unix environment means using *vi*, a full-screen text editor available on most Unix systems. Even those who know *vi* often make use of only a small number of its features.

The *vi Editor Pocket Reference* is a companion volume to O'Reilly's newly updated *Learning the vi Editor*, now in its 6th edition, a complete guide to text editing with *vi*. New topics in *Learning the vi Editor* include coverage of four *vi* clones, *vim*, *elvis*, *nvi*, and *vile*, and their extensions, such as multiwindow editing, extended regular expressions, and GUI interfaces.

This small book is a handy reference guide to the information in the larger volume, presenting movement and editing commands, command-line options, and other elements of the *vi* editor in an easy-to-use tabular format.

Arnold Robbins, an Atlanta native now happily living in Israel, is a professional programmer and technical author, and author of the second edition of O'Reilly's *sed & awk* as well as the new *Learning the vi Editor*. He has been working with Unix systems since 1980. He currently maintains *gawk* (GNU *awk*) and its documentation.

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Arnold Robbins

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by Arnold Robbins

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vi Editor Pocket Reference

Introduction

This pocket reference is a companion to *Learning the vi Editor*, by Linda Lamb and Arnold Robbins. It describes the **vi** command-line options, command mode commands, **ex** commands and options, regular expressions and the use of the substitute (`s`) command, and other pertinent information for using **vi**. Also covered are the additional features in the four **vi** clones, **nvi**, **elvis**, **vim**, and **vile**.

The Solaris 2.6 version of **vi** served as the "reference" version of **vi** for this pocket reference.

Conventions

The following font conventions are used in this book:

`Courier`
: Used for command names, options, and everything to be typed literally

`Courier Italic`
: Used for replaceable text within commands

Italic
: Used for replaceable text within regular text, program names, filenames, paths, for emphasis, and new terms when first defined

[...]
: Identifies optional text; the brackets are not typed

CTRL-G
: Indicates a keystroke

Command-Line Options

Command	Action
`vi` *file*	Invoke **vi** on *file*
`vi` *file1 file2*	Invoke **vi** on files sequentially
`view` *file*	Invoke **vi** on *file* in read-only mode
`vi -R` *file*	Invoke **vi** on *file* in read-only mode
`vi -r` *file*	Recover *file* and recent edits after a crash
`vi -t` *tag*	Look up *tag* and start editing at its definition
`vi -w` *n*	Set the window size to *n* ; useful over a slow connection
`vi +` *file*	Open *file* at last line
`vi +` *n file*	Open *file* directly at line number *n*
`vi -c` *command file*	Open *file*, execute *command*, which is usually a search command or line number (POSIX)
`vi +/` *pattern file*	Open *file* directly at *pattern*
`ex` *file*	Invoke **ex** on *file*
`ex -` *file*`<`*script*	Invoke **ex** on *file*, taking commands from *script* ; suppress informative messages and prompts
`ex -s` *file*`<`*script*	Invoke **ex** on *file*, taking commands from *script* ; suppress informative messages and prompts (POSIX)

vi Commands

Most **vi** commands follow a general pattern:

```
[command][number]text
object
```

or the equivalent form:

```
[number][command]text
object
```

Movement Commands

Command	Meaning
Character	
h, j, k, l	Left, down, up, right (, , ,)
Text	
w, W, b, B	Forward, backward by word
e, E	End of word
), (	Beginning of next, previous sentence
}, {	Beginning of next, previous paragraph
]], [[	Beginning of next, previous section
Lines	
RETURN	First nonblank character of next line
0, $	First, last position of current line
^	First nonblank character of current line
+, -	First nonblank character of next, previous line
n |	Column *n* of current line
H	Top line of screen
M	Middle line of screen
L	Last line of screen
*n*H	*n* (number) of lines after top line
*n*L	*n* (number) of lines before last line

Command	Meaning
Scrolling	
CTRL-F, CTRL-B	Scroll forward, backward one screen
CTRL-D, CTRL-U	Scroll down, up one-half screen
CTRL-E, CTRL-Y	Show one more line at bottom, top of window
z RETURN	Reposition line with cursor: to top of screen
z .	Reposition line with cursor: to middle of screen
z –	Reposition line with cursor: to bottom of screen
CTRL-L	Redraw screen (without scrolling)
Searches	
/*pattern*	Search forward for *pattern*
?*pattern*	Search backward for *pattern*
n, N	Repeat last search in same, opposite direction
/, ?	Repeat previous search forward, backward
f*x*	Search forward for character *x* in current line
F*x*	Search backward for character *x* in current line
t*x*	Search forward to character before *x* in current line
T*x*	Search backward to character after *x* in current line
;	Repeat previous current-line search
,	Repeat previous current-line search in opposite direction
Line number	
CTRL-G	Display current line number
*n*G	Move to line number *n*
G	Move to last line in file
:*n*	Move to line *n* in file
Marking position	
m*x*	Mark current position as *x*
‘*x*	Move cursor to mark *x*
‘‘	Return to previous mark or context

Command	Meaning
`'`*x*	Move to beginning of line containing mark *x*
`''`	Return to beginning of line containing previous mark

Editing Commands

Command	Action
Insert	
`i`, `a`	Insert text before, after cursor
`I`, `A`	Insert text before beginning, after end of line
`o`, `O`	Open new line for text below, above cursor
Change	
`r`	Replace character
`cw`	Change word
`cc`	Change current line
`c`*motion*	Change text between the cursor and the target of *motion*
`C`	Change to end of line
`R`	Type over (overwrite) characters
`s`	Substitute: delete character and insert new text
`S`	Substitute: delete current line and insert new text
Delete, move	
`x`	Delete character under cursor
`X`	Delete character before cursor
`dw`	Delete word
`dd`	Delete current line
`d`*motion*	Delete text between the cursor and the target of *motion*
`D`	Delete to end of line
`p`, `P`	Put deleted text after, before cursor
`"`*n*`p`	Put text from delete buffer number *n* after cursor (for last nine deletions)

Command	Action
Yank	
yw	Yank (copy) word
yy	Yank current line
"*a*yy	Yank current line into named buffer *a* (a–z). Uppercase names append text
y*motion*	Yank text between the cursor and the target of *motion*
p, P	Put yanked text after, before cursor
"*a*P	Put text from buffer *a* before cursor (a–z)
Other commands	
.	Repeat last edit command
u, U	Undo last edit; restore current line
J	Join two lines
ex edit commands	
:d	Delete lines
:m	Move lines
:co or :t	Copy lines
:.,$d	Delete from current line to end of file
:30,60m0	Move lines 30 through 60 to top of file
:.,/*pattern*/co$	Copy from current line through line containing *pattern* to end of file

Exit Commands

Command	Meaning
ZZ	Write (save) and quit file
:x	Write (save) and quit file
:wq	Write (save) and quit file
:w	Write (save) file
:w!	Write (save) file, overriding protection

Command	Meaning
:30,60w *newfile*	Write from line 30 through line 60 as *newfile*
:30,60w>>*file*	Write from line 30 through line 60 and append to *file*
:w %.*new*	Write current buffer named *file* as *file.new*
:q	Quit file
:q!	Quit file, overriding protection
Q	Quit **vi** and invoke **ex**
:e*file2*	Edit *file2* without leaving **vi**
:n	Edit next file
:e!	Return to version of current file at time of last write (save)
:e #	Edit alternate file
:vi	Invoke **vi** editor from **ex**
:	Invoke one **ex** command from **vi** editor
%	Current filename (substitutes into **ex** command line)
#	Alternate filename (substitutes into **ex** command line)

Solaris vi Command-Mode Tag Commands

Command	Action
^]	Look up the location of the identifier under the cursor in the *tags* file and move to that location; if tag stacking is enabled, the current location is automatically pushed onto the tag stack
^T	Return to the previous location in the tag stack, i.e., pop off one element

Buffer Names

Buffer Names	Buffer Use
1–9	The last nine deletions, from most to least recent
a–z	Named buffers to use as needed; uppercase letters append to the buffer

Buffer and Marking Commands

Command	Meaning
"*b command*	Do *command* with buffer *b*
m*x*	Mark current position with *x*
'*x*	Move cursor to first character of line marked by *x*
`*x*	Move cursor to character marked by *x*
``	Return to exact position of previous mark or context
''	Return to beginning of the line of previous mark or context

Input Mode Shortcuts

Word Abbreviation

:ababbr phrase
: Define *abbr* as an abbreviation for *phrase*.

:unababbr
: Remove definition of *abbr*.

Be careful with abbreviation texts that either end with the abbreviation name or contain the abbreviation name in the middle.

Command and Input Mode Maps

:map x sequence
: Define character(s) *x* as a *sequence* of editing commands.

:unmap x
: Disable the *sequence* defined for *x*.

:map
: List the characters that are currently mapped.

:map! x sequence
: Define character(s) *x* as a *sequence* of editing commands or text that will be recognized in input mode.

:unmap! x
: Disable the *sequence* defined for the input mode map *x*.

:map!
: List the characters that are currently mapped for interpretation in insert mode.

For both command and input mode maps, the map name *x* can take several forms:

One character
: When you type the character, **vi** executes the associated sequence of commands.

Multiple characters
: All the characters must be typed within one second. The value of `notimeout` changes the behavior.

#n
: Function key notation: a `#` followed by a digit *n* represents the sequence of characters sent by the terminal's function key number *n*.

To enter characters such as Escape (`^[`) or carriage return (`^M`), first type a CTRL-V (`^V`).

Executable Buffers

Named buffers provide yet another way to create "macros"—complex command sequences you can repeat with a few keystrokes. Here's how it's done:

1. Type a **vi** command sequence or an **ex** command *preceded by a colon*; return to command mode.
2. Delete the text into a named buffer.
3. Execute the buffer with the `@` command followed by the buffer letter.

The **ex** command `:@`*buf-name* works similarly.

Some versions treat `*` identically to `@` when used from the **ex** command line. In addition, if the buffer character supplied after the `@` or `*` commands is `*`, the command is taken from the default (unnamed) buffer.

Automatic Indentation

You enable automatic indentation with the command:

```
:set autoindent
```

Four special input sequences affect automatic indentation:

^T
: Add one level of indentation; typed in insert mode

^D
: Remove one level of indentation; typed in insert mode

^ ^D
: Shift the cursor back to the beginning of the line, but only for the current line*

0 ^D
: Shift the cursor back to the beginning of the line and reset the current auto-indent level to zero†

Two commands can be used for shifting source code:

`<<`
: Shift a line left eight spaces

`>>`
: Shift a line right eight spaces

The default shift is the value of `shiftwidth`, usually eight spaces.

Substitution and Regular Expressions

The Substitute Command

The general form of the substitute command is:

```
:[addr1[,addr2]]s/old/new/[flags]
```

Omitting the search pattern (`:s//`*replacement*`/`) uses the last search or substitution regular expression.

* `^ ^D` and `0 ^D` are not in **elvis** 2.0.
† The **nvi** 1.79 documentation has these two commands switched, but the program actually behaves as described here.

An empty replacement part (`:s/pattern//`) "replaces" the matched text with nothing, effectively deleting it from the line.

Substitution flags

Flag	Meaning
c	Confirm each substitution
g	Change all occurrences of *old* to *new* on each line (globally)
p	Print the line after the change is made

It's often useful to combine the substitute command with the **ex** global command, `:g`:

```
:g/Object Oriented/s//Buzzword compliant/g
```

vi Regular Expressions

`.`

Matches any *single* character except a newline. Remember that spaces are treated as characters.

`*`

Matches zero or more (as many as there are) of the single character that immediately precedes it.

The `*` can follow a metacharacter, such as `.` or a range in brackets.

`^`

When used at the start of a regular expression, `^` requires that the following regular expression be found at the beginning of the line. When not at the beginning of a regular expression, `^` stands for itself.

`$`

When used at the end of a regular expression, `$` requires that the preceding regular expression be found at the end of the line. When not at the end of a regular expression, `$` stands for itself.

`\`

Treats the following special character as an ordinary character. (Use `\\` to get a literal backslash.)

`[ ]`

Matches any *one* of the characters enclosed between the brackets. A range of consecutive characters can be specified by separating the first and last characters in the range with a hyphen.

You can include more than one range inside brackets and specify a mix of ranges and separate characters.

Most metacharacters lose their special meaning inside brackets, so you don't need to escape them if you want to use them as ordinary characters. Within brackets, the three metacharacters you still need to escape are `\ - ]`. (The hyphen (`-`) acquires meaning as a range specifier; to use an actual hyphen, you can also place it as the first character inside the brackets.)

A caret (`^`) has special meaning only when it's the first character inside the brackets, but in this case, the meaning differs from that of the normal `^` metacharacter. As the first character within brackets, a `^` reverses their sense: the brackets match any one character *not* in the list. For example, `[^a-z]` matches any character that's not a lowercase letter.

`\(  \)`

Saves the pattern enclosed between `\(` and `\)` into a special holding space or "hold buffer." Up to nine patterns can be saved in this way on a single line.

You can also use the *`\n`* notation within a search or substitute string:

```
:s/\(abcd\)\1/alphabet-soup/
```

changes `abcdabcd` into `alphabet-soup`.[‡]

[‡] This works with **vi**, **nvi**, and **vim**, but not with **elvis** 2.0, **vile** 7.4, or **vile** 8.0.

`\<  \>`
: Matches characters at the beginning (`\<`) or end (`\>`) of a word. The end or beginning of a word is determined either by a punctuation mark or by a space. Unlike `\(...\)`, these don't have to be used in matched pairs.

`~`
: Matches whatever regular expression was used in the *last* search.

POSIX Bracket Expressions

POSIX bracket expressions may contain the following:

Character classes
: A POSIX character class consists of keywords bracketed by `[:` and `:]`. The keywords describe different classes of characters such as alphabetic characters, control characters, and so on (see the following table).

Collating symbols
: A collating symbol is a multicharacter sequence that should be treated as a unit. It consists of the characters bracketed by `[.` and `.]`.

Equivalence classes
: An equivalence class lists a set of characters that should be considered equivalent, such as `e` and `è`. It consists of a named element from the locale, bracketed by `[=` and `=]`.

All three constructs must appear inside the square brackets of a bracket expression.

POSIX character classes

Class	Matching Characters
`[:alnum:]`	Alphanumeric characters
`[:alpha:]`	Alphabetic characters
`[:blank:]`	Space and tab characters
`[:cntrl:]`	Control characters

Class	Matching Characters
[:digit:]	Numeric characters
[:graph:]	Printable and visible (nonspace) characters
[:lower:]	Lowercase characters
[:print:]	Printable characters (includes whitespace)
[:punct:]	Punctuation characters
[:space:]	Whitespace characters
[:upper:]	Uppercase characters
[:xdigit:]	Hexadecimal digits

Metacharacters Used in Replacement Strings

\n
: Is replaced with the text matched by the *n*th pattern previously saved by \(and \), where *n* is a number from 1 to 9, and previously saved patterns (kept in hold buffers) are counted from the left on the line.

**
: Treats the following special character as an ordinary character. To specify a real backslash, type two in a row (\\).

&
: Is replaced with the entire text matched by the search pattern when used in a replacement string. This is useful when you want to avoid retyping text.

~
: The string found is replaced with the replacement text specified in the last substitute command. This is useful for repeating an edit.

\u or \l
: Changes the next character in the replacement string to upper- or lowercase, respectively.

\U or \L and \e or \E
: \U and \L are similar to \u or \l, but all following characters are converted to upper- or lowercase until the end of the

replacement string or until \e or \E is reached. If there is no \e or \E, all characters of the replacement text are affected by the \U or \L.

More Substitution Tricks

- You can instruct **vi** to ignore case by typing `:set ic`.
- A simple `:s` is the same as `:s//~/`.
- `:&` is the same as `:s`. You can follow the `&` with a `g` to make the substitution globally on the line, and even use it with a line range.
- The & key can be used as a **vi** command to perform the `:&` command, i.e., to repeat the last substitution.
- The `:~` command is similar to the `:&` command, but with a subtle difference. The search pattern used is the last regular expression used in *any* command, not necessarily the one used in the last substitute command.
- Besides the `/` character, you may use any nonalphanumeric, nonwhitespace character as your delimiter, except backslash, double-quote, and the vertical bar (\, ", and |).
- When the `edcompatible` option is enabled, **vi** remembers the flags (`g` for global and `c` for confirmation) used on the last substitute and applies them to the next one.

ex Commands

Command Syntax

`:[`*`address`*`]`*`command`*`[`*`options`*`]`

Address Symbols

Address	Includes
`1,$`	All lines in the file

Address	Includes
x,*y*	Lines *x* through *y*
x;y	Lines *x* through *y*, with current line reset to *x*
0	Top of file
.	Current line
n	Absolute line number *n*
$	Last line
%	All lines; same as 1,$
x-*n*	*n* lines before *x*
x+*n*	*n* lines after *x*
-[*n*]	One or *n* lines previous
+[*n*]	One or *n* lines ahead
'x	Line marked with *x*
''	Previous mark
/*pat*/ or ?*pat*?	Ahead or back to line where *pat* matches

Command Option Symbols

Symbol	Meaning
!	A variant form of the command
count	Repeat the command *count* times
file	Filename: % is current file, # is previous file

Alphabetical List of Commands

Full Name	Command
Abbrev	ab [*string text*]
Append	[*address*]a[!] *text*
	.
Args	ar

Full Name	Command
Change	[*address*] c[!] *text* .
Copy	[*address*] co *destination*
Delete	[*address*] d [*buffer*]
Edit	e [!][+*n*] [*filename*]
File	f [*filename*]
Global	[*address*]g[!]/*pattern*/[*commands*]
Insert	[*address*]i[!] *text* .
Join	[*address*]j[!][*count*]
K (mark)	[*address*] k *char*
List	[*address*] l [*count*]
Map	map*char commands*
Mark	[*address*] ma *char*
Move	[*address*] m *destination*
Next	n[!] [[+*command*] *filelist*]
Number	[*address*] nu [*count*]
Open	[*address*] o [/*pattern*/]
Preserve	pre
Print	[*address*] p [*count*] [*address*] P [*count*]
Put	[*address*] pu [*char*]
Quit	q[!]
Read	[*address*] r *filename*
Read	[*address*] r ! *command*
Recover	rec [*filename*]
Rewind	rew[!]

Full Name	Command
Set	`set`
	`set`*option*
	`set no`*option*
	`set` *option*=*value*
	`set`*option*`?`
Shell	`sh`
Source	`so`*filename*
Substitute	[*addr*] `s` [*/pat/repl/*] [*opts*]
T (to)	[*address*]`t` *destination*
Tag	[*address*] `ta` *tag*
Unabbreviate	`una`*word*
Undo	`u`
Unmap	`unm`*char*
V (global exclude)	[*address*] `v`*/pattern/* [*commands*]
Version	`ve`
Visual	[*address*] `vi` [*type*] [*count*]
Visual	`vi` [+*n*] [*filename*]
Write	[*address*] `w`[`!`] [[>>]*filename*]
Write	[*address*] `w !`*command*
Wq (write + quit)	`wq`[`!`]
Xit	`x`
Yank	[*address*] `y` [*char*] [*count*]
Z (position line)	[*address*] `z`[*type*] [*count*]
	type can be one of:
	+ Place line at the top of the window (default)
	- Place line at bottom of the window

Full Name	Command
	. Place line in the center of the window
	^ Print the previous window
	= Place line in the center of the window and leave the current line at thisline
!	[*address*] !*command*
= (line number)	[*address*] =
< > (shift)	[*address*] < [*count*]
	[*address*] > [*count*]
Address	*address*
Return (next line)	RETURN
&	[*address*] & [*options*] [*count*] repeat substitute
~	[*address*]~[*count*] Like &, but with last used regular expression; for details, see Chapter 6 of *Learning the vi Editor*

Initialization and Recovery

Initialization

vi performs the following initialization steps:

1. If the `EXINIT` environment variable exists, execute the commands it contains. Separate multiple commands by a pipe symbol (|).
2. If `EXINIT` doesn't exist, look for the file *$HOME/.exrc*. If it exists, read and execute it.
3. If either `EXINIT` or *$HOME/.exrc* turns on the `exrc` option, read and execute the file *./.exrc*, if it exists.
4. Execute search or goto commands given with *+/pattern* or *+n* command-line options (POSIX: `-c` option).

The *.exrc* files are simple scripts of **ex** commands; they don't need a leading colon. You can put comments in your scripts by starting a line with a double quote ("). This is recommended.

Recovery

The commands `ex -r` or `vi -r` list any files you can recover. You then use the command:

```
$ vi -r file
```

to recover a particular *file*.

Even without a crash, you can force the system to preserve your buffer by using the command `:pre` (preserve).

vi Options

Option	Default
autoindent (ai)	noai
autoprint (ap)	ap
autowrite (aw)	noaw
beautify (bf)	nobf
directory (dir)	*/tmp*
edcompatible	noedcompatible
errorbells (eb)	errorbells
exrc (ex)	noexrc
hardtabs (ht)	8
ignorecase (ic)	noic
lisp	nolisp
list	nolist
magic	magic
mesg	mesg
novice	nonovice
number (nu)	nonu

Option	Default
open	open
optimize (opt)	noopt
paragraphs (para)	IPLPPPQP LIpplpipbp
prompt	prompt
readonly (ro)	noro
redraw (re)	
remap	remap
report	5
scroll	half window
sections (sect)	SHNHH HU
shell (sh)	**/bin/sh**
shiftwidth (sw)	8
showmatch (sm)	nosm
showmode	noshowmode
slowopen (slow)	
tabstop (ts)	8
taglength (tl)	0
tags	*tags/usr/lib/tags*
tagstack	tagstack
term	(from $TERM)
terse	noterse
timeout (to)	timeout
ttytype	(from $TERM)
warn	warn
window (w)	
wrapscan (ws)	ws
wrapmargin (wm)	0
writeany (wa)	nowa

Enhanced Tags and Tag Stacks

Exuberant ctags

The "Exuberant **ctags**" program was written by Darren Hiebert (home page: *http://home.hiwaay.net/~darren/ctags/*). As of this writing, the current version is 2.0.3.

This enhanced *tags* file format has three tab-separated fields: the tag name (typically an identifier), the source file containing the tag, and where to find the identifier. Extended attributes are placed after a separating `;"`. Each attribute is separated from the next by a tab character and consists of two colon-separated subfields. The first subfield is a keyword describing the attribute; the second is the actual value.

Extended ctags keywords

Keyword	Meaning
`kind`	The value is a single letter that indicates the lexical type of the tag
`file`	For static tags, i.e., local to the file
`function`	For local tags
`struct`	For fields in a `struct`
`enum`	For values in an `enum` data type
`class`	For C++ member functions and variables
`scope`	Intended mostly for C++ class member functions
`arity`	For functions

If the field doesn't contain a colon, it's assumed to be of type `kind`.

Within the value part of each attribute, the backslash, tab, carriage return, and newline characters should be encoded as `\\`, `\t`, `\r`, and `\n`, respectively.

Solaris 2.6 vi Tag Stacking

Tag commands

Command	Function
ta[g][!] *tagstring*	Edit the file containing *tagstring* as defined in the *tags* file
po[p][!]	Pop the tag stack by one element

Command-mode tag commands

Command	Function
^]	Look up the location of the identifier under the cursor in the *tags* file and move to that location; if tag stacking is enabled, the current location is automatically pushed onto the tag stack
^T	Return to the previous location in the tag stack, i.e., pop off one element

Options for tag management

Option	Function
taglength, tl	Controls the number of significant characters in a tag that is to be looked up; the default value of zero indicates that all characters are significant
tags, tagpath	The value is a list of filenames in which to look for tags; the default value is "tags /usr/lib/tags"
tagstack	When set to true, **vi** stacks each location on the tag stack

nvi—New vi

Important Command-Line Arguments

-ccommand
: Execute *command* at startup.

-F
: Don't copy the entire file when starting to edit.

`-R`
: Start in read-only mode, setting the `readonly` option.

`-S`
: Run with the `secure` option set, disallowing access to external programs.

`-s`
: Enter batch (script) mode. This is only for **ex** and is intended for running editing scripts. Prompts and nonerror messages are disabled.

nvi Window Management Commands

Command	Function
`bg`	Hide the current window
`di[splay] b[uffers]`	Display all buffers, including named, unnamed, and numeric buffers
`di[splay] s[creens]`	Display the filenames of all backgrounded windows
`Edit`*`filename`*	Edit *filename* in a new window
`Edit /tmp`	Create a new window editing an empty buffer; */tmp* is interpreted especially to create a new temporary file
`fg`*`filename`*	Uncover *filename* into the current window
`Fg`*`filename`*	Uncover *filename* in a new window; the current window is split
`Next`	Edit the next file in the argument list in a new window
`Previous`	Edit the previous file in the argument list in a new window
`resize` ±*`nrows`*	Increase or decrease the size of the current window by *nrows* rows
`Tag`*`tagstring`*	Edit the file containing *tagstring* in a new window

The `^W` command cycles between windows, top to bottom. The `:q` and `ZZ` commands exit the current window.

You may have multiple windows open in the same file. Changes made in one window are reflected in the other.

Extended Regular Expressions

You use `:set extended` to enable extended regular expression matching:

|
: Indicates alternation. The left and right sides don't need to be single characters.

(…)
: Used for grouping, to allow the application of additional regular expression operators.

+
: Matches one or more of the preceding regular expressions. This is either a single character or a group of characters enclosed in parentheses.

?
: Matches zero or one occurrence of the preceding regular expression.

{…}
: Defines an *interval expression*. Interval expressions describe counted numbers of repetitions. In the following description, *n* and *m* represent integer constants:

  {n}
  : Matches exactly *n* repetitions of the previous regular expression.

  {n,}
  : Matches *n* or more repetitions of the previous regular expression.

  {n,m}
  : Matches *n* to *m* repetitions.

When `extended` isn't set, use `\{` and `\}`.

When `extended` is set, you should precede the above metacharacters with a backslash in order to match them literally.

Command-Line History and Completion Options

Option	Description
`cedit`	The first character of this string, when used on the colon command line, provides access to the command history; hitting RETURN on any given line executes that line
`filec`	The first character of this string, when used on the colon command line, does shell-style filename expansion; when this character is the same as for the `cedit` option, command-line editing is performed only when the character is entered as the first character on the colon command line

Tag Stacks

Tag commands

Command	Function
`di[splay] t[ags]`	Display the tag stack
`ta[g][!] tagstring`	Edit the file containing *tagstring* as defined in the *tags* file
`Ta[g][!] tagstring`	Just like `:tag`, except that the file is edited in a new window
`tagp[op][!] tagloc`	Pop to the given tag, or to the most recently used tag if no *tagloc* is supplied
`tagt[op][!]`	Pop to the oldest tag in the stack, clearing the stack in the process

Command-mode tag commands

Command	Function
`^]`	Look up the location of the identifier under the cursor in the *tags* file and move to that location; the current location is automatically pushed to the tag stack
`^T`	Return to the previous location in the tag stack

nvi 1.79 Additional Set Options

Option	Default
backup	
cdpath	Environment variable $CDPATH, or current directory
cedit	
comment	nocomment
directory (dir)	$TMPDIR, or */tmp*
extended	noextended
filec	
iclower	noiclower
leftright	noleftright
lock	lock
octal	nooctal
path	
recdir	*/var/tmp/vi.recover*
ruler	noruler
searchincr	nosearchincr
secure	nosecure
shellmeta	~{[*?$`'"\
showmode (smd)	noshowmode
sidescroll	16
taglength (tl)	0
tags (tag)	*tags/var/db/libc.tags/sys/kern/tags*
tildeop	notildeop
wraplen (wl)	0

elvis

Important Command-Line Arguments

-a
: Load each file named on the command line to a separate window.

-R
: Start editing each file in read-only mode.

-i
: Start editing in input mode instead of in command mode.

-s
: Set the `safer` option for the whole session, not just execution of *.exrc* files. In **elvis** 2.1, this option is renamed to `-S`, and (following the POSIX standard) `-s` provides **ex** scripting.

-ffilename
: Use *filename* for the session file instead of the default name.

-Ggui
: Use the given interface.

-ccommand
: Execute *command* at startup (POSIX version of the historic *+command* syntax).

-V
: Output more verbose status information.

-?
: Print a summary of the possible options.

elvis Window Management Commands

Command	Function
`sp`[`lit`] [*file*]	Create a new window; load it with *file* if supplied; otherwise, the new window shows the current file

Command	Function
`new` `sne[w]`	Create a new empty buffer and then create a new window to show that buffer
`sn[ext] [`*`file`*`...]`	Create a new window, showing the next *file* in the argument list
`sN[ext]`	Create a new window, showing the previous file in the argument list
`sre[wind][!]`	Create a new window, showing the first file in the argument list; reset the "current" file as the first with respect to the `:next` command
`sl[ast]`	Create a new window, showing the last file in the argument list
`sta[g][!]` *tag*	Create a new window showing the file where the requested *tag* is found
`sa[ll]`	Create a new window for any files named in the argument list that don't already have a window
`wi[ndow] [`*`target`*`]`	With no *target*, list all windows; the possible values for *target* are described in the following table
`close`	Close the current window; the buffer that the window was displaying remains intact
`wquit`	Write the buffer back to the file and close the window; the file is saved whether or not it has been modified
`qall`	Issue a `:q` command for each window; buffers without windows are not affected

Arguments to the :window command

Argument	Meaning
`+`	Switch to the next window, like `^W k`
`++`	Switch to the next window, wrapping like `^W ^W`
`-`	Switch to the previous window, like `^W j`
`--`	Switch to the previous window, wrapping
num	Switch to the window whose windowid =*num*

Argument	Meaning
buffer-name	Switch to the window editing the named buffer

Window commands from vi command mode

Command	Function
^W c	Hide the buffer and close the window
^W d	Toggle the display mode between "normal" and the buffer's usual display mode; this is a per-window option
^W j	Move down to the next window
^W k	Move up to the previous window
^W n	Create a new window and a new buffer to be displayed in the window
^W q	Save the buffer and close the window
^W s	Split the current window
^W S	Toggle the `wrap` option; this option controls whether long lines wrap or whether the whole screen scrolls to the right, and is a per-window option
^W]	Create a new window, then look up the tag underneath the cursor
[*count*] ^W ^W	Move to next window, or to the *count* th window
^W +	Increase the size of the current window (*termcap* interface only)
^W -	Reduce the size of the current window (*termcap* interface only)
^W \	Make the current window as large as possible (*termcap* interface only)

Extended Regular Expressions

`\+`
: Matches one or more of the preceding regular expressions

`\?`
: Matches zero or one of the preceding regular expressions

`\@`
: Matches the word under the cursor

`\=`
: Indicates where to put the cursor when the text is matched

`\{…\}`
: Describes an interval expression

POSIX bracket expressions (character classes, etc.) don't work in **elvis** 2.0 (fixed in 2.1), nor is alternation with the | character or grouping with parentheses available.

Command-Line History and Completion Movement Keys

Key	Effect
,	Page up and down through the `Elvis ex history` buffer
, →	Move around on the command line

Insert characters by typing and erase them by backspacing over them.

The TAB key can be used for filename expansion.

To get a real tab character, precede it with a `^V`. Disable filename completion entirely by setting the `Elvis ex history` buffer's `inputtab` option to `tab`, via the following command:

```
:(Elvis ex history)set inputtab=tab
```

Tag Stacks

Tag commands

Command	Function
ta[g][!] [*tagstring*]	Edit the file containing *tagstring* as defined in the *tags* file
stac[k]	Display the current tag stack
po[p][!]	Pop a cursor position off the stack, restoring the cursor to its previous position

Command-mode tag commands

Command	Function
^]	Look up the location of the identifier under the cursor in the *tags* file and move to that location; the current location is automatically pushed onto the tag stack
^T	Return to the previous location in the tag stack

Edit-Compile Speedup

Program development commands

Command	Option	Function
cc[!] [*args*]	ccprg	Run the C compiler; useful for recompiling an individual file
mak[e][!] [*args*]	makeprg	Recompile everything that needs recompiling (usually via **make** (1))
er[rlist][!] [*file*]		Move to the next error's location

Display modes

Mode	Display Appearance
normal	No formatting; display text as it exists in the file
syntax	Like normal, but with syntax coloring turned on
hex	An interactive hex dump, reminiscent of mainframe hex dumps; good for editing binary files
html	A simple web page formatter; the tag commands can follow links and return
man	Simple manpage formatter; like the output of nroff -man

Display-mode commands

Command	Function
di[splay] [*mode* [*lang*]]	Change the display mode to *mode* ; use *lang* for syntax mode

Command	Function
no[rmal]	Same as :display normal, but much easier to type

Options for print management

Option	Function
lptype, lp	The printer type
lpconvert, lpcvt	If set, convert Latin-8 extended ASCII to PC-8 extended ASCII
lpcrlf, lpc	The printer needs CR-LF to end each line
lpout, lpo	The file or command to print to
lpcolumns, lpcols	The printer's width
lpwrap, lpw	Simulate line wrapping
lplines, lprows	The length of the printer's page
lpformfeed, lpff	Send a formfeed after the last page
lppaper, lpp	Size of the paper (letter, A4, etc.); only for PostScript printers

Values for the lptype option

Name	Printer Type
ps	PostScript; one logical page per sheet of paper
ps2	PostScript; two logical pages per sheet of paper
epson	Most dot-matrix printers; no graphic characters supported
pana	Panasonic dot-matrix printers
ibm	Dot-matrix printers with IBM graphic characters
hp	Hewlett-Packard printers and most non-PostScript laser printers
cr	Line printers; overtyping is done with carriage return
bs	Overtyping is done via backspace characters; this setting is the closest to traditional Unix **nroff**
dumb	Plain ASCII; no font control

elvis 2.0 Set Options

Option	Default
autoiconify (aic)	noautoiconify
backup (bk)	nobackup
binary (bin)	(Set automatically)
boldfont (xfb)	
bufdisplay (bd)	normal
ccprg (cp)	cc ($1?$1:$2)
commentfont (cfont)	
directory (dir)	
display (mode)	normal
elvispath (epath)	(System dependent)
focusnew (fn)	focusnew
functionfont (ffont)	
gdefault (gd)	nogdefault
home (home)	$HOME
italicfont (xfi)	
keywordfont (kfont)	
lpcolumns (lpcols)	80
lpcrlf (lpc)	nolpcrlf
lpformfeed (lpff)	nolpformfeed
lplines (lprows)	60
lppaper (lpp)	letter
lpout (lpo)	
lptype (lpt)	dumb
lpwrap (lpw)	lpwrap
makeprg (mp)	make $1
normalfont (xfn)	

Option	Default
otherfont (ofont)	
prepfont (pfont)	
ruler (ru)	noruler
safer (trapunsafe)	nosafer
showmarkups (smu)	noshowmarkups
sidescroll (ss)	0
stringfont (sfont)	
taglength (tl)	0
tags (tagpath)	*tags*
tagstack (tsk)	tagstack
undolevels (ul)	0
variablefont (vfont)	
warpback (wb)	nowarpback
warpto (wt)	don't

vim—vi Improved

Important Command-Line Arguments

-ccommand
: Execute *command* at startup. (POSIX version of the historic *+command*)

-R
: Start in read-only mode, setting the `readonly` option.

-s
: Enter batch (script) mode. This is only for **ex** and intended for running editing scripts (POSIX version of the historic "–" argument).

-b
: Start in binary mode.

-f
: For the GUI version, stay in the foreground.

-g
: Start the GUI version of **vim**, if it has been compiled in.

-o [N]
: Open *N* windows, if given; otherwise open one window per file.

-iviminfo
: Read the given *viminfo* file for initialization, instead of the default *viminfo* file.

-n
: Don't create a swap file: recovery won't be possible.

-qfilename
: Treat *filename* as the "quick fix" file.

-uvimrc
: Read the given *.vimrc* file for initialization and skip all other normal initialization steps.

-Ugvimrc
: Read the given *.gvimrc* file for GUI initialization and skip all other normal GUI initialization steps.

-Z
: Enter restricted mode (same as having a leading *r* in the name).

vim Window Management Commands

Command	Function
[*N*]`sp`[`lit`] [*position*] [*file*]	Split the current window in half
[*N*]`new` [*position*] [*file*]	Create a new window, editing an empty buffer
[*N*]`sv`[`iew`] [*position*] [*file*]	Same as `:split`, but set the `readonly` option for the buffer
`q`[`uit`][`!`]	Quit the current window (exit if given in the last window)
`clo`[`se`][`!`]	Close the current window; behavior affected by the `hidden` option

Command	Function
hid[e]	Close the current window, if it's not the last one on the screen
on[ly]	Make this window the only one on the screen
res[ize] [±*n*]	Increase or decrease the current window height by *n*
res[ize] [*n*]	Set the current window height to *n* if supplied, otherwise, set it to the largest size possible without hiding the other windows
qa[ll][!]	Exit **vim**
wqa[ll][!]	Write all changed buffers and exit
xa[ll][!]	
wa[ll][!]	Write all modified buffers that have filenames
[*N*]sn[ext]	Split the window and move to the next file in the argument list, or to the *N* th file if a count is supplied
sta[g] [*tagname*]	Split the window and run the :tag command as appropriate in the new window

Window commands from vi mode

Command	Function
^W s ^W S	Same as :split without a *file* argument; ^W ^S may not work on all terminals
^W ^S	
^W n	Same as :new without a *file* argument
^W ^N	
^W ^	Perform :split #, split the window, and edit the alternate file
^W ^^	
^W q	Same as the :quit command; ^W ^Q may not work on all terminals
^W ^Q	
^W c	Same as the :close command

Command	Function
^W o	Like the :only command
^W ^O	
^W <DOWN>	Move cursor to *n* th window below the current one
^W j	
^W ^J	
^W <UP>	Move cursor to *n* th window above the current one
^W k	
^W ^K	
^W w ^W ^W	With *count*, go to *n* th window; otherwise, move to the window below the current one; if in the bottom window, move to the top one
^W W	With *count*, go to *n* th window; otherwise, move to window above the current one; if in the top window, move to the bottom one
^W t	Move the cursor to the top window
^W ^T	
^W b	Move the cursor to the bottom window
^W ^B	
^W p	Go to the most recently accessed (previous) window
^W ^P	
^W r ^W ^R	Rotate all the windows downwards; the cursor stays in the same window
^W R	Rotate all the windows upwards; the cursor stays in the same window
^W x ^W ^X	Without *count*, exchange the current window with the next one; if there is no next window, exchange with the previous window. With *count*, exchange the current window with the *n* th window (first window is 1; the cursor is put in the other window)
^W =	Make all windows the same height.
^W -	Decrease current window height
^W +	Increase current window height

Command	Function
^W _	Set the current window size to the value given in a preceding count
^W ^_	
z*N* RETURN	Set the current window height to *N*
^W]	Split the current window; in the new upper window, use the identifier under the cursor as a tag and go to it
^W ^]	
^W f	Split the current window and edit the filename under the cursor in the new window
^W ^F	
^W i	Open a new window; move the cursor to the first line that matches the keyword under the cursor
^W ^I	
^W d	Open a new window, with the cursor on the first macro definition line that contains the keyword under the cursor
^W ^D	

Extended Regular Expressions

`\|`
: Indicates alternation.

`\+`
: Matches one or more of the preceding regular expressions.

`\=`
: Matches zero or one of the preceding regular expression.

`\{n,m}`
: Matches *n* to *m* of the preceding regular expression, as much as possible. *n* and *m* are numbers between 0 and 32,000; **vim** only requires the left brace to be preceded by a backslash, but not the right brace.

`\{n}`
: Matches *n* of the preceding regular expression.

`\{n,}`
: Matches at least *n* of the preceding regular expression, as much as possible.

`\{,m}`
: Matches 0 to *m* of the preceding regular expression, as much as possible.

`\{}`
: Matches 0 or more of the preceding regular expressions, as much as possible (same as `*`).

`\{-n,m}`
: Matches *n* to *m* of the preceding regular expression, as few as possible.

`\{-n}`
: Matches *n* of the preceding regular expression.

`\{-n,}`
: Matches at least *n* of the preceding regular expression, as few as possible.

`\{-,m}`
: Matches 0 to *m* of the preceding regular expression, as few as possible.

`\i`
: Matches any identifier character, as defined by the `isident` option.

`\I`
: Like `\i`, excluding digits.

`\k`
: Matches any keyword character, as defined by the `iskeyword` option.

`\K`
: Like `\k`, excluding digits.

`\f`
: Matches any filename character, as defined by the `isfname` option.

`\F`
: Like `\f`, excluding digits.

`\p`
: Matches any printable character, as defined by the `isprint` option.

`\P`
: Like `\p`, excluding digits.

`\s`
: Matches a whitespace character (exactly space or tab).

`\S`
: Matches anything that isn't a space or a tab.

`\b`
: Backspace.

`\e`
: Escape.

`\r`
: Carriage return.

`\t`
: Tab.

`\n`
: Reserved for future use.

`~`
: Matches the last given substitute (i.e., replacement) string.

`\(…\)`
: Provides grouping for `*`, `\+`, and `\=`, as well as making matched subtexts available in the replacement part of a substitute command (`\1`, `\2`, etc.).

`\1`
: Matches the same string that was matched by the first subexpression in `\(` and `\)`. `\2`, `\3` and so on may be used to represent the second, third, and so forth subexpressions.

The `isident`, `iskeyword`, `isfname`, and `isprint` options define the characters that appear in identifiers, keywords, and filenames, and that are printable, respectively.

Command-Line History and Completion

History commands

Key	Meaning
,	Move up (previous), down (more recent) in the history
, →	Move left, right on the recalled line
INS	Toggle insert/overstrike mode; default is insert mode
BACKSPACE	Delete characters
SHIFT or CONTROL combined with or	Move left or right one word at a time
^B or HOME	Move to the beginning of the command line
^E or END	Move to the end of the command line

If **vim** is in **vi** compatibility mode, ESC acts likes RETURN and executes the command. When **vi** compatibility is turned off, ESC exits the command line without executing anything.

The `wildchar` option contains the character you type when you want **vim** to do a completion. The default value is the tab character. You can use completion for the following:

Command names
: Available at the start of the command line

Tag values
: After you've typed `:tag`

Filenames
: When typing a command that takes a filename argument (see `:help suffixes` for details)

Option values
: When entering a `:set` command, for both option names and their values

Completion commands

Command	Function
^D	List the names that match the pattern; for filenames, directories are highlighted
Value of `wildchar`	(Default: tab) Performs a match, inserting the generated text; hitting TAB successively cycles among all the matches
^N	Go to next of multiple `wildchar` matches, if any; otherwise recall more recent history line
^P	Go to previous of multiple `wildchar` matches, if any; otherwise recall older history line
^A	Insert all names that match the pattern
^L	If there is exactly one match, insert it; otherwise, expand to the longest common prefix of the multiple matches

Tag Stacks

Tag commands

Command	Function
`ta`[`g`][`!`] [*`tagstring`*]	Edit the file containing *tagstring* as defined in the *tags* file
[*`count`*]`ta`[`g`][`!`]	Jump to the *count* th newer entry in the tag stack
[*`count`*]`po`[`p`][`!`]	Pop a cursor position off the stack, restoring the cursor to its previous position
`tags`	Display the contents of the tag stack
`ts`[`elect`][`!`] [*`tagstring`*]	List the tags that match *tagstring*, using the information in the tags file(s)
`sts`[`elect`][`!`] [*`tagstring`*]	Like `:tselect`, but splits the window for the selected tag
[*`count`*]`tn`[`ext`][`!`]	Jump to the *count* th next matching tag (default 1)
[*`count`*]`tp`[`revious`][`!`]	Jump to the *count* th previous matching tag (default 1)

Command	Function
[*count*]tN[ext][!]	
[*count*]tr[ewind][!]	Jump to the first matching tag; with *count*, jump to the *count* th matching tag
tl[ast][!]	Jump to the last matching tag

Command-mode tag commands

Command	Function
^] g <LeftMouse> CTRL-<LeftMouse>	Look up the location of the identifier under the cursor in the *tags* file and move to that location; the current location is automatically pushed to the tag stack
^T	Return to the previous location in the tag stack, i.e., pop off one element

Edit-Compile Speedup

Program development commands

Command	Function
mak[e] [*arguments*]	Run **make**, based on the settings of several options as described in the next table, then go to the location of the first error
cf[ile][!] [*errorfile*]	Read the error file and jump to the first error
cl[ist][!]	List the errors that include a filename
[*count*]cn[ext][!]	Display the *count* th next error that includes a filename
[*count*]cN[ext][!] [*count*]cp[revious][!]	Display the *count* th previous error that includes a filename
clast[!] [*n*]	Display error *n* if supplied; otherwise, display the last error
crewind[!] [*n*]	Display error *n* if supplied

Command	Function
cc[!] [*n*]	Displays error *n* if supplied, otherwise redisplays the current error
cq[uit]	Quit with an error code, so that the compiler won't compile the same file again; intended primarily for the Amiga compiler

Program development options

Option	Value	Function
shell	/bin/sh	The shell to execute the command for rebuilding your program
makeprg	make	The program that actually handles the recompilation
shellpipe	2>&1| tee	Whatever is needed to cause the shell to save both standard output and standard error from the compilation in the error file
makeef	/tmp/vim##.err	The name of a file that will contain the compiler output; the ## causes **vim** to create unique filenames
errorformat	%f:%l:\ %m	A description of what error messages from the compiler look like; this example value is for GCC, the GNU C compiler

Programming Assistance

Indentation and formatting options

Option	Function
autoindent	Simple-minded indentation; uses that of the previous line
smartindent	Similar to autoindent, but knows a little about C syntax; deprecated in favor of cindent
cindent	Enables automatic indenting for C programs and is quite smart; C formatting is affected by the rest of the options in this table

Option	Function
`cinkeys`	Input keys that trigger indentation options
`cinoptions`	Tailor your preferred indentation style
`cinwords`	Keywords that start an extra indentation on the following line
`formatoptions`	A number of single-letter flags that control several behaviors, notably how comments are formatted as you type them
`comments`	Describes different formatting options for different kinds of comments, both those with starting and ending delimiters, as in C, and those that start with a single symbol and go to the end of the line, such as in a *Makefile* or shell program

Identifier search commands

Command	Function
`[i`	Display the first line that contains the keyword under the cursor
`]i`	Display the first line that contains the keyword under the cursor, but starts the search at the current position in the file; this command is most effective when given a count
`[I`	Display all lines that contain the keyword under the cursor; filenames and line numbers are displayed
`]I`	Display all lines that contain the keyword under the cursor, but start from the current position in the file
`[ ^I`	Jump to the first occurrence of the keyword under the cursor
`] ^I`	Jump to the first occurrence of the keyword under the cursor, but start the search from the current position
`^W i` `^W ^I`	Open a new window showing the location of the first (or *count* th) occurrence of the identifier under the cursor
`[d`	Display the first macro definition for the identifier under the cursor
`]d`	Display the first macro definition for the identifier under the cursor, but start the search from the current position
`[D`	Display all macro definitions for the identifier under the cursor; filenames and line numbers are displayed

Command	Function
]D	Display all macro definitions for the identifier under the cursor, but start the search from the current positon
[^D	Jump to the first macro definition for the identifier under the cursor
] ^D	Jump to the first macro definition for the identifier under the cursor, but start the search from the current position
^W d ^W ^D	Open a new window showing the location of the first (or *count* th) macro definition of the identifier under the cursor

Identifier search commands from ex mode

Command	Function
[*range*]is[earch][!] [*count*] [/]*pattern*[/]	Like [i and]i but searches in *range* lines (the default is the whole file). Without the slashes, a word search is done; with slashes, a regular expression search is done
[*range*]il[ist][!] [/]*pattern*[/]	Like [I and]I but searches in *range* lines; the default is the whole file
[*range*]ij[ump][!] [*count*] [/]*pattern*[/]	Like [^I and] ^I but searches in *range* lines; the default is the whole file
[*range*]isp[lit][!] [*count*] [/]*pattern*[/]	Like ^W i and ^W ^I but searches in *range* lines; the default is the whole file
[*range*]ds[earch][!] [*count*] [/]*pattern*[/]	Like [d and]d but searches in *range* lines; the default is the whole file
[*range*]dl[ist][!] [/]*pattern*[/]	Like [D and]D but searches in *range* lines; the default is the whole file
[*range*]dj[ump][!] [*count*] [/]*pattern*[/]	Like [^D and] ^D but searches in *range* lines. The default is the whole file.
[*range*]dsp[lit][!] [*count*] [/]*pattern*[/]	Like ^W d and ^W ^D but searches in *range* lines; the default is the whole file
che[ckpath][!]	List all the included files that couldn't be found; with the !, list all the included files

Extended matching commands

Command	Function
%	Extended to match the /* and */ of C comments, and also the C preprocessor conditionals, (#if, #endif, etc.)
[(	Move to the *count* th previous unmatched (
[)	Move to the *count* th next unmatched)
[{	Move to the *count* th previous unmatched {
[}	Move to the *count* th next unmatched }
[#	Move to the *count* th previous unmatched #if or #else
]#	Move to the *count* th next unmatched #else or #endif
[*, [/	Move to the *count* th previous unmatched start of a C comment, /*
]*,]/	Move to the *count* th next unmatched end of a C comment, */

vim 5.1 Set Options

Option	Default
background (bg)	dark or light
backspace (bs)	0
backup (bk)	nobackup
backupdir (bdir)	.,~/*tmp/*,~/
backupext (bex)	~
binary (bin)	nobinary
cindent (cin)	nocindent
cinkeys (cink)	0{,0},:,0#,!^F,o,O,e
cinoptions (cino)	
cinwords (cinw)	if,else,while,do,for,switch
comments (com)	
compatible (cp)	cp, nocp when a *.vimrc* file is found
cpoptions (cpo)	aABceFs

Option	Default
define (def)	^#\s*define
directory (dir)	.,~/tmp,/tmp
equalprg (ep)	
errorfile (ef)	errors.err
errorformat (efm)	(Too long to print)
expandtab (et)	noexpandtab
fileformat (ff)	unix
fileformats (ffs)	dos,unix
formatoptions (fo)	**vim** default: tcq; **vi** default: vt
gdefault (gd)	nogdefault
guifont (gfn)	
hidden (hid)	nohidden
hlsearch (hls)	nohlsearch
history (hi)	**vim** default: 20; **vi** default: 0
icon	noicon
iconstring	
include (inc)	^#\s*include
incsearch (is)	noincsearch
isfname (isf)	@,48-57,/,.,-,_,+,,,$,:,~
isident (isi)	@,48-57,_,192-255
iskeyword (isk)	@,48-57,_,192-255
isprint (isp)	@,161-255
makeef (mef)	/tmp/vim##.err
makeprg (mp)	make
mouse	
mousehide (mh)	nomousehide
paste	nopaste
ruler (ru)	noruler

Option	Default
secure	nosecure
shellpipe (sp)	
shellredir (srr)	
showmode (smd)	**vim** default: smd; **vi** default: nosmd
sidescroll (ss)	0
smartcase (scs)	nosmartcase
suffixes	*.bak,~,.o,.h,.info,.swp
taglength (tl)	0
tagrelative (tr)	**vim** default: tr; **vi** default: notr
tags (tag)	*./tags,tags*
tildeop (top)	notildeop
undolevels (ul)	1000
viminfo (vi)	
writebackup (wb)	writebackup

vile—vi Like Emacs

Important Command-Line Arguments

-?
: **vile** prints a short usage summary and exits.

-gN
: **vile** begins editing on the first file at the specified line number; this can also be given as *+N*.

-spattern
: In the first file, **vile** executes an initial search for the given pattern; this can also be given as *+/pattern*.

-h
: Invokes **vile** on the help file.

-R
: Invokes **vile** in "readonly" mode; no writes are permitted while in this mode.

-v
: Invokes **vile** in "view" mode; no changes are permitted to any buffer while in this mode.

@cmdfile
: **vile** runs the specified file as its startup file and bypasses any normal startup file.

vile Window Management Commands

Command	Key Sequence(s)	Function
`delete-other-windows`	`^O`, `^X 1`	Eliminate all windows except the current one
`delete-window`	`^K`, `^X 0`	Destroy the current window, unless it's the last one
`edit-file`, `E`, `e` `find-file`	`^X e`	Bring given (or under-cursor, for `^X e`) file or existing buffer into window
`grow-window`	`V`	Increase the size of the current window by *count*
`move-next-window-down`	`^A ^E`	Move next window down (or buffer up) by *count* lines
`move-next-window-up`	`^A ^Y`	Move next window up (or buffer down) by *count* lines
`move-window-left`	`^X ^L`	Scroll window to left by *count* columns, half screen if *count* unspecified
`move-window-right`	`^X ^R`	Scroll window to right by *count* columns, half screen if *count* unspecified
`next-window`	`^X o`	Move to the next window
`position- window`	`z`*`where`*	Reframe with cursor specified by *where*, as follows: center

Command	Key Sequence(s)	Function
		(., M, m), top (RETURN, H, t), or bottom (-, L, b)
previous- window	^X O	Move to the previous window
resize-window		Change the current window to *count* lines
restore- window		Return to window saved with save-window
save-window		Mark a window for later return with restore-window
scroll-next-window-down	^A ^D	Move next window down by *count* half screens
scroll-next-window-up	^A ^U	Move next window up by *count* half screens
shrink-window	v	Decrease the size of the current window by *count* lines
split- current- win dow	^X 2	Split the window in half; a *count* of 1 or 2 chooses which becomes current
view-file		Bring given file or existing buffer into window; mark it "view-only"
historical-buffer	_	Display a list of the first nine buffers; a digit moves to the given buffer, __ moves to the most recently edited file
toggle-buffer-list	*	Pop up/down a window showing all the **vile** buffers

Extended Regular Expressions

\|
: Indicates alternation.

\+
: Matches one or more of the preceding regular expressions.

`\?`
: Matches zero or one of the preceding regular expression.

`\(…\)`
: Provides grouping for `*`, `\+`, and `\?`, as well as making matched subtexts available in the replacement part of a substitute command.

`\s \S`
: Matches whitespace and nonwhitespace characters, respectively.

`\w \W`
: Matches "word-constituent" characters (alphanumerics and the underscore, '_') and nonword-constituent characters, respectively.

`\d \D`
: Matches digits and nondigits, respectively.

`\p \P`
: Matches printable and nonprintable characters, respectively. Whitespace is considered to be printable.

vile allows the escape sequences `\b`, `\f`, `\r`, `\t`, and `\n`, to appear in the replacement part of a substitute command. They stand for backspace, formfeed, carriage return, tab, and newline, respectively. Also, from the **vile** documentation:

> Note that **vile** mimics **perl**'s handling of `\u\L\1\E` instead of **vi**'s. Given `:s/\(abc\)/\u\L\1\E/`, **vi** will replace with `abc` whereas **vile** and **perl** will replace with `Abc`. This is somewhat more useful for capitalizing words.

Command-Line History and Completion

vile stores all your **ex** commands in a buffer named `[History]`. Options control your access to it and the use of the minibuffer (the colon command line).

History options

Option	Meaning
`history`	Log commands from the colon command line in the `[History]` buffer
`mini-edit`	The character that toggles the editing mode in the minibuffer to use **vi** motion commands; in Version 8.0, you can also use the `i`, `I`, `a`, and `A` **vi** commands
`mini-hilite`	Define the highlight attribute to use when the user toggles the editing mode in the minibuffer. The value should be one of `none`, `underline`, `bold`, `italic`, or `reverse`; the default is `reverse`

History commands

Key	Meaning
,	Move up (previous), down (more recent) in the history
, →	Move left, right on the recalled line
BACKSPACE	Delete characters

The **ex** command line provides completion of various sorts. Completion applies to built-in and user-defined **vile** commands, tags, filenames, modes, variables, and to the terminal characters (the character setting such as backspace, suspend, and so on, derived from your **stty** settings).

Tag Stacks

Tag commands

Command	Function
ta[g][!] [*tagstring*]	Edit the file containing *tagstring* as defined in the *tags* file
pop[!]	Pop a cursor position off the stack, restoring the cursor to its previous position

Command	Function
`next-tag`	Continue searching through the *tags* file for more matches
`show-tagstack`	Create a new window that displays the tag stack; the display changes as tags are pushed to or popped off the stack

Command mode tag commands

Command	Function
`^]`	Look up the location of the identifier under the cursor in the *tags* file and move to that location; the current location is automatically pushed to the tag stack
`^T`	Return to the previous location in the tag stack, i.e., pop off one element
`^X ^]`	
`^A ^]`	Same as the `:next-tag` command

Edit-Compile Speedup

Program development vi mode commands

Command	Function
`^X !`*command* RETURN	Run *command*, saving the output in a buffer named `[Output]`
`^X ^X`	Find the next error; **vile** parses the output and moves to the location of each successive error

The error messages are parsed using regular expressions in the buffer `[Error Expressions]`. **vile** creates this buffer automatically and uses it when you use `^X ^X`. You can add expressions to it as needed.

You can point the error finder at an arbitrary buffer (not just the output of shell commands) using the `:error-buffer` command. This lets you use the error finder on the output of previous compiler or **egrep** runs.

vile 8.0 Set Options

Option	Default
alt-tabpos	noatp
animated	animated
autobuffer (ab)	autobuffer
autosave (as)	noautosave
autosavecnt (ascnt)	256
backspacelimit (bl)	backspacelimit
backup-style	off
bcolor	
check-modtime	nocheck-modtime
cmode	off
comment-prefix	^\s*\(\s*[#*>]\)\+
comments	^\s*/\?\(\s*[#*>]\)\+/\?\s*$
dirc	nodirc
dos	nodos
fcolor	
fence-begin	/*
fence-end	*/
fence-if	^\s*#\s*if
fence-elif	^\s*#\s*elif\>
fence-else	^\s*#\s*else\>
fence-fi	^\s*#\s*endif\>
fence-pairs	{}()[]
glob	!echo %s
history (hi)	history
horizscroll (hs)	horizscroll
linewrap (lw)	nolinewrap

Option	Default
maplonger	nomaplonger
meta-insert-bindings (mib)	nomib
mini-edit	^G
mini-hilite (mh)	reverse
popup-choices (pc)	delayed
preamble (pre)	
resolve-links	noresolve-links
ruler	noruler
showmode (smd)	noshowmode
sideways	0
suffixes (suf)	
tabinsert (ti)	tabinsert
tagignorecase (tc)	notagignorecase
taglength (tl)	0
tagrelative (tr)	tagrelative
tags	*tags*
tagword (tw)	notagword
undolimit (ul)	10
unprintable-as-octal (uo)	nounprintable-as-octal
visual-matches	none
xterm-mouse	noxterm-mouse

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