

Ex Quick Reference

Entering/leaving ex

```
% ex name          edit name, start at end
% ex +n name       ... at line n
% ex -l tag        start at tag
% ex -t           list saved files
% ex -f name      recover file name
% ex name ...    edit first; rest via n
% ex -R name     read only mode
: x             exit; saving changes
: q!           exit; discarding changes
```

Ex states

Command

Normal and initial state. Input prompted for by `:`. Your kill character cancels partial command. Entered by `a` and `c`. Arbitrary text then terminates with line having only `.` character on it or abnormally with interrupt.

Entered by `o` or `vi` terminates with `Q` or `\`.

Ex commands

abbrev	ab	next	n	unabbrev	una
append	a	number	nu	undo	u
args	ar	open	o	unmap	unm
change	c	preserve	pre	version	ve
copy	co	print	p	visual	vi
delete	d	put	pu	write	w
edit	e	quit	q	xit	x
file	f	read	re	yank	ya
global	g	recover	rec	window	z
insert	i	rewind	rw	escape	i
join	j	set	se	lshift	<
list	l	shell	sh	print next	CR
map	m	source	so	resubr	&
mark	ma	stop	st	rshift	>
move	m	substitute	s	scroll	D

Ex command addresses

<i>n</i>	line <i>n</i>	<i>lpat</i>	next with <i>pat</i>
.	current	<i>?pat</i>	previous with <i>pat</i>
\$	last	<i>x-n</i>	<i>n</i> before <i>x</i>
+	next	<i>xv</i>	<i>x</i> through <i>v</i>
-	previous	<i>x</i>	marked with <i>x</i>
+n	<i>n</i> forward	<i>x</i>	previous context
%	1,\$	<i>..</i>	

Specifying terminal type

```
% setenv TERM type      csh and all version 6
$ TERM=type: export TERM sh in Version 7
```

See also `test(1)`

Some terminal types

2621	43	adm31	dw1	h19
2645	733	adm3a	dw2	l100
300s	745	c100	g40	mime
33	ac4	dm1520	g42	owl
37	ac5	dm2900	h1500	t1061
4014	adm3	dm3025	h1510	v552

Initializing options

```
EXINIT           place set's here in environment var.
set x           enable option
set nox        disable option
set :=val/     give value val/
set           show changed options
set all       show all options
set x?       show value of option x
```

Useful options

autoindent	ai	supply indent
autowrite	aw	write before changing files
ignorecase	ic	in scanning
lisp	()	{ } are s-exp's
list	list	print -T for tab, S at end
magic	.	[* special in patterns
number	nu	number lines
paragraphs	para	macro names which start ...
redraw	redraw	simulate smart terminal
scroll	scroll	command mode lines
sections	sect	macro names: ...
shiftright	sr	for <> and input D
showmatch	sm	to) and } as typed
slowopen	slow	choke updates during insert
window	win	visual mode lines
wrapscreen	ws	around end of buffer?
wrapsmargin	wm	automatic line splitting

Scanning pattern formation

```
↑           beginning of line
$           end of line
.           any character
|<         beginning of word
|>         end of word
[str]     any char in str
[!str]    ... not in str
[x-y]    ... between x and y
*         any number of preceding
```

Vi Quick Reference

Entering/leaving vi

% vi name	edit <i>name</i> at top
% vi +n name	... at line <i>n</i>
% vi + name	... at end
% vi -	list saved files
% vi -r name	recover the <i>name</i>
% vi name ..	edit first; rest via :n
% vi -l tag	start at <i>tag</i>
% vi +/-pat name	search for <i>pat</i>
% view name	read only mode
ZZ	exit from vi, saving changes
Z	stop vi for later resumption

The display

Last line
Error messages, echoing input to :/? and !,
feedback about /o and large changes.
@ lines
On screen only, not in file.
~ Lines
Lines past end of file.
~x
Control characters, '~' is delete,
tabs
Expand to spaces, cursor at last.

Vi states

Command
Normal and initial state. Others return
here. ESC (escape) cancels partial com-
mand.

Insert
Entered by **a I A l o O c C s S R**. Arbitrary
text then terminates with ESC character, or
abnormally with interrupt.
Last line
Reading input for :/? or !; terminate with
ESC or CR to execute, interrupt to cancel.

Counts before vi commands

line/column number	z G
scroll amount	D -U
replicate insert	a l A I
repeat effect	most rest

Simple commands

dw	delete a word
de	... leaving punctuation
dd	delete a line
3dd	... 3 lines
ie/^ESC	insert text <i>ide</i>
cw/^ESC	change word to <i>new</i>
ek/^ESC	pluralize word
xp	transpose characters

Interrupting, cancelling

ESC	end insert or incomplete cmd
~?	(delete or rmbout) interrupts
L	reprint screen if '~?' scrambles it

File manipulation

:w	write back changes
:wq	write and quit
:q	quit
:q!	quit, discard changes
:e name	edit the <i>name</i>
:e!	reedit, discard changes
:e + name	edit, starting at end
:e +n	edit starting at line <i>n</i>
:e #	edit alternate file
-j	synonym for :e #
:w name	write file <i>name</i>
:w! name	overwrite file <i>name</i>
:sh	run shell, then return
!!cmd	run <i>cmd</i> , then return
:n	edit next file in arglist
:n args	specify new arglist
:f	show current file and line
%G	synonym for :f
:!a tag	to tag the entry <i>tag</i>
! tag	!a, following word is <i>tag</i>

Positioning within file

F	forward screenfull
B	backward screenfull
D	scroll down half screen
U	scroll up half screen
G	goto line (end default)
/pat	next line matching <i>pat</i>
?pat	prev line matching <i>pat</i>
n	repeat last / or ?
N	reverse last / or ?
/pat+n	n'th line after <i>pat</i>
?pat?-n	n'th line before <i>pat</i>
 	next section/function
 	previous section/function
%	find matching () { or }

Adjusting the screen

L	clear and redraw
R	retype, eliminate @ lines
zCR	redraw, current at window top
z-	... at bottom
z.	... at center
zpal/z-	<i>pat</i> line at bottom
zn.	use <i>n</i> line window
TE	scroll window down 1 line
TY	scroll window up 1 line

Marking and returning

previous context
... at first non-white in line
mark position with letter x
to mark x
... at first non-white in line

Line positioning

home window line
last window line
middle window line
next line, at first non-white
previous line, at first non-white
return, same as +
CR
↓ or j
↑ or k
next line, same column
previous line, same column

Character positioning

first non white
beginning of line
end of line
forward
backwards
same as ←
space
same as →
find x Forward
F backward
up to x forward
back up to x
repeat last F f or T
inverse of ;
to specified column
find matching (() or %

Words, sentences, paragraphs

w word forward
b back word
e end of word
) to next sentence
) to next paragraph
(back sentence
{ back paragraph
W blank delimited word
B back W
E to end of W

Commands for LISP

) Forward s-expression
) ... but don't stop at atoms
(Back s-expression
{ ... but don't stop at atoms

Corrections during insert

H erase last character
W erases last word
your erase, same as H
kill your kill, erase input this line
escapes H, your erase and kill
ends insertion, back to command
interrupt, terminates insert
backtab over *autoindent*
kill *autoindent*, save for next
... but at margin next also
quote non-printing character

Insert and replace

a append after cursor
i insert before
A append at end of line
I insert before first non-blank
o open line below
O open above
eV replace single char with x
R replace characters

Operators (double to affect lines)

d delete
c change
< left shift
> right shift
f filter through command
i indent for LISP
y yank lines to buffer

Miscellaneous operations

C change rest of line
D delete rest of line
s substitute chars
S substitute lines
J join lines
x delete characters
X ... before cursor
Y yank lines

Yank and put

p put back lines
P put before
"xp put from buffer x
"xy yank to buffer x
"xd delete into buffer x

Undo, redo, retrieve

u undo last change
U restore current line
· repeat last change
"/p retrieve /th last delete