

GNU Emacs Reference Card

(for version 20)

Starting Emacs

To enter GNU Emacs 20, just type its name: `emacs`

To read in a file to edit, see Files, below.

Leaving Emacs

suspend Emacs (or iconify it under X)	<code>C-z</code>
exit Emacs permanently	<code>C-x C-c</code>

Files

read a file into Emacs	<code>C-x C-f</code>
save a file back to disk	<code>C-x C-s</code>
save all files	<code>C-x s</code>
insert contents of another file into this buffer	<code>C-x i</code>
replace this file with the file you really want	<code>C-x C-v</code>
write buffer to a specified file	<code>C-x C-w</code>
version control checkin/checkout	<code>C-x C-q</code>

Getting Help

The help system is simple. Type `C-h` (or `F1`) and follow the directions. If you are a first-time user, type `C-h t` for a **tutorial**.

remove help window	<code>C-x 1</code>
scroll help window	<code>C-M-v</code>
apropos: show commands matching a string	<code>C-h a</code>
show the function a key runs	<code>C-h c</code>
describe a function	<code>C-h f</code>
get mode-specific information	<code>C-h m</code>

Error Recovery

abort partially typed or executing command	<code>C-g</code>
recover a file lost by a system crash	<code>M-x recover-file</code>
undo an unwanted change	<code>C-x u</code> or <code>C-_</code>
restore a buffer to its original contents	<code>M-x revert-buffer</code>
redraw garbaged screen	<code>C-l</code>

Incremental Search

search forward	<code>C-s</code>
search backward	<code>C-r</code>
regular expression search	<code>C-M-s</code>
reverse regular expression search	<code>C-M-r</code>
select previous search string	<code>M-p</code>
select next later search string	<code>M-n</code>
exit incremental search	<code>RET</code>
undo effect of last character	<code>DEL</code>
abort current search	<code>C-g</code>

Use `C-s` or `C-r` again to repeat the search in either direction. If Emacs is still searching, `C-g` cancels only the part not done.

Motion

entity to move over	backward	forward
character	C-b	C-f
word	M-b	M-f
line	C-p	C-n
go to line beginning (or end)	C-a	C-e
sentence	M-a	M-e
paragraph	M-{	M-}
page	C-x [C-x]
sexp	C-M-b	C-M-f
function	C-M-a	C-M-e
go to buffer beginning (or end)	M-<	M->
scroll to next screen		C-v
scroll to previous screen		M-v
scroll left		C-x <
scroll right		C-x >
scroll current line to center of screen		C-u C-l

Killing and Deleting

entity to kill	backward	forward
character (delete, not kill)	DEL	C-d
word	M-DEL	M-d
line (to end of)	M-O C-k	C-k
sentence	C-x DEL	M-k
sexp	M-- C-M-k	C-M-k
kill region		C-w
copy region to kill ring		M-w
kill through next occurrence of <i>char</i>		M-z <i>char</i>
yank back last thing killed		C-y
replace last yank with previous kill		M-y

Marking

set mark here	C-@ or C-SPC
exchange point and mark	C-x C-x
set mark <i>arg</i> words away	M-@
mark paragraph	M-h
mark page	C-x C-p
mark sexp	C-M-@
mark function	C-M-h
mark entire buffer	C-x h

Query Replace

interactively replace a text string	M-%
using regular expressions	M-x query-replace-regexp

Valid responses in query-replace mode are

replace this one, go on to next	SPC
replace this one, don't move	,
skip to next without replacing	DEL
replace all remaining matches	!
back up to the previous match	~
exit query-replace	RET
enter recursive edit (C-M-c to exit)	C-r

Multiple Windows

When two commands are shown, the second is for “other frame.”

delete all other windows	C-x 1	
split window, above and below	C-x 2	C-x 5 2
delete this window	C-x 0	C-x 5 0
split window, side by side	C-x 3	
scroll other window	C-M-v	
switch cursor to another window	C-x o	C-x 5 o
select buffer in other window	C-x 4 b	C-x 5 b
display buffer in other window	C-x 4 C-o	C-x 5 C-o
find file in other window	C-x 4 f	C-x 5 f
find file read-only in other window	C-x 4 r	C-x 5 r
run Dired in other window	C-x 4 d	C-x 5 d
find tag in other window	C-x 4 .	C-x 5 .
grow window taller	C-x ^	
shrink window narrower	C-x {	
grow window wider	C-x }	

Formatting

indent current line (mode-dependent)	TAB
indent region (mode-dependent)	C-M-\
indent sexp (mode-dependent)	C-M-q
indent region rigidly <i>arg</i> columns	C-x TAB
insert newline after point	C-o
move rest of line vertically down	C-M-o
delete blank lines around point	C-x C-o
join line with previous (with <i>arg</i> , <i>next</i>)	M-^
delete all white space around point	M-\
put exactly one space at point	M-SPC
fill paragraph	M-q
set fill column	C-x f
set prefix each line starts with	C-x .
set face	M-g

Case Change

uppercase word	M-u
lowercase word	M-l
capitalize word	M-c
uppercase region	C-x C-u
lowercase region	C-x C-l

The Minibuffer

The following keys are defined in the minibuffer.

complete as much as possible	TAB
complete up to one word	SPC
complete and execute	RET
show possible completions	?
fetch previous minibuffer input	M-p
fetch later minibuffer input or default	M-n
regex search backward through history	M-r
regex search forward through history	M-s
abort command	C-g

Type C-x ESC ESC to edit and repeat the last command that used the minibuffer. Type F10 to activate the menu bar using the minibuffer.

GNU Emacs Reference Card

Buffers

select another buffer	C-x b
list all buffers	C-x C-b
kill a buffer	C-x k

Transposing

transpose characters	C-t
transpose words	M-t
transpose lines	C-x C-t
transpose sexps	C-M-t

Spelling Check

check spelling of current word	M-\$
check spelling of all words in region	M-x ispell-region
check spelling of entire buffer	M-x ispell-buffer

Tags

find a tag (a definition)	M-.
find next occurrence of tag	C-u M-.
specify a new tags file	M-x visit-tags-table
regex search on all files in tags table	M-x tags-search
run query-replace on all the files	M-x tags-query-replace
continue last tags search or query-replace	M-,

Shells

execute a shell command	M-!
run a shell command on the region	M-
filter region through a shell command	C-u M-
start a shell in window *shell*	M-x shell

Rectangles

copy rectangle to register	C-x r r
kill rectangle	C-x r k
yank rectangle	C-x r y
open rectangle, shifting text right	C-x r o
blank out rectangle	C-x r c
prefix each line with a string	C-x r t

Abbrevs

add global abbrev	C-x a g
add mode-local abbrev	C-x a l
add global expansion for this abbrev	C-x a i g
add mode-local expansion for this abbrev	C-x a i l
explicitly expand abbrev	C-x a e
expand previous word dynamically	M-/

Regular Expressions

any single character except a newline	.	(dot)
zero or more repeats	*	
one or more repeats	+	
zero or one repeat	?	
quote regular expression special character <i>c</i>	\c	
alternative (“or”)		
grouping	(...)	
same text as <i>n</i> th group	\n	
at word break	\b	
not at word break	\B	
entity	match start	match end
line	^	\$
word	\<	\>
buffer	\‘	\’
class of characters	match these	match others
explicit set	[...]	[^ ...]
word-syntax character	\w	\W
character with syntax <i>c</i>	\sc	\Sc

International Character Sets

specify principal language	M-x	set-language-environment
show all input methods	M-x	list-input-methods
enable or disable input method	C-\	
set coding system for next command	C-x	RET c
show all coding systems	M-x	list-coding-systems
choose preferred coding system	M-x	prefer-coding-system

Info

enter the Info documentation reader	C-h	i
find specified function or variable in Info	C-h	C-i

Moving within a node:

scroll forward	SPC
scroll reverse	DEL
beginning of node	. (dot)

Moving between nodes:

next node	n
previous node	p
move up	u
select menu item by name	m
select <i>n</i> th menu item by number (1–9)	n
follow cross reference (return with 1)	f
return to last node you saw	l
return to directory node	d
go to any node by name	g

Other:

run Info tutorial	h
quit Info	q
search nodes for regexp	M-s

Registers

save region in register	C-x r s
insert register contents into buffer	C-x r i
save value of point in register	C-x r SPC
jump to point saved in register	C-x r j

Keyboard Macros

start defining a keyboard macro	C-x (
end keyboard macro definition	C-x)
execute last-defined keyboard macro	C-x e
append to last keyboard macro	C-u C-x (
name last keyboard macro	M-x name-last-kbd-macro
insert Lisp definition in buffer	M-x insert-kbd-macro

Commands Dealing with Emacs Lisp

eval sexp before point	C-x C-e
eval current defun	C-M-x
eval region	M-x eval-region
read and eval minibuffer	M-:
load from standard system directory	M-x load-library

Simple Customization

customize variables and faces	M-x customize
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Making global key bindings in Emacs Lisp (examples):

```
(global-set-key "\C-cg" 'goto-line)
(global-set-key "\M-#" 'query-replace-regexp)
```

Writing Commands

```
(defun command-name (args)
  "documentation" (interactive "template")
  body)
```

An example:

```
(defun this-line-to-top-of-window (line)
  "Reposition line point is on to top of window.
With ARG, put point on line ARG."
  (interactive "P")
  (recenter (if (null line)
                0
                (prefix-numeric-value line))))
```

The `interactive` spec says how to read arguments interactively. Type `C-h f interactive` for more details.

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