

# GNU Emacs Reference Card

(for version 19)

## Starting Emacs

To enter GNU Emacs 19, just type its name: **emacs**

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

## Leaving Emacs

suspend Emacs (or iconify it under X) **C-z**  
exit Emacs permanently **C-x C-c**

## Files

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

## 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 **C-x 1**  
scroll Help window **C-M-v**  
apropos: show commands matching a string **C-h a**  
show the function a key runs **C-h c**  
describe a function **C-h f**  
get mode-specific information **C-h m**

## Error Recovery

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

## Incremental Search

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

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**  
character **C-b** **backward** **forward** **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**  
character (delete, not kill) **DEL** **backward** **forward** **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 char** **M-z char**  
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 *arg* 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 *arg* 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 *arg*, next) **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 next later minibuffer input **M-n**  
regexp search backward through history **M-r**  
regexp 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 <b>characters</b>	C-t
transpose <b>words</b>	M-t
transpose <b>lines</b>	C-x C-t
transpose <b>sexps</b>	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
regexp 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	?	
any character in the set	[ ... ]	
any character not in the set	[^ ... ]	
beginning of line	^	
end of line	\$	
quote a special character <i>c</i>	\c	
alternative (“or”)		
grouping	\( ... \)	
<i>n</i> th group	\n	
beginning of buffer	\‘	
end of buffer	\’	
word break	\b	
not beginning or end of word	\B	
beginning of word	\<	
end of word	\>	
any word-syntax character	\w	
any non-word-syntax character	\W	
character with syntax <i>c</i>	\sc	
character with syntax not <i>c</i>	\Sc	

## 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

## Info

enter the Info documentation reader	C-h 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 l)	f	
return to last node you saw	l	
return to directory node	d	
go to any node by name	g	

Other:

run Info <b>tutorial</b>	h
list Info commands	?
<b>quit</b> Info	q
search nodes for regexp	M-s

## Keyboard Macros

<b>start</b> defining a keyboard macro	C-x (
<b>end</b> keyboard macro definition	C-x )
<b>execute</b> 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 <b>sexp</b> before point	C-x C-e
eval current <b>defun</b>	C-M-x
eval <b>region</b>	M-x eval-region
eval entire <b>buffer</b>	M-x eval-current-buffer
read and eval minibuffer	M-:
re-execute last minibuffer command	C-x ESC ESC
read and eval Emacs Lisp file	M-x load-file
load from standard system directory	M-x load-library

## Simple Customization

Here are some examples of binding global keys in Emacs Lisp.

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

An example of setting a variable in Emacs Lisp:

```
(setq backup-by-copying-when-linked t)
```

## 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.
Negative counts from bottom."
  (interactive "P")
  (recenter (if (null line)
                0
                (prefix-numeric-value line))))
```

The argument to **interactive** is a string specifying how to get the arguments when the function is called interactively. Type **C-h f interactive** for more information.

Copyright © 1996 Free Software Foundation, Inc.  
 designed by Stephen Gildea, March 1996 v2.1  
 for GNU Emacs version 19 on Unix systems

Permission is granted to make and distribute copies of this card provided the copyright notice and this permission notice are preserved on all copies.

For copies of the GNU Emacs manual, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA