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`

Getting Help

The Help system is simple. Type `C-\` and follow the directions.
If you are a first-time user, type `C-\ t` for a **tutorial**.

remove Help window	`C-x 1`
scroll Help window	`ESC C-v`
apropos: show commands matching a string	`C-\ a`
show the function a key runs	`C-\ c`
describe a function	`C-\ f`
get mode-specific information	`C-\ 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.

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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-0 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	`ESC`
enter recursive edit (`C-M-c` to exit)	`C-r`

Multiple Windows

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

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 .

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
capitalize region	M-x capitalize-region

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. The following keys are then defined.

previous minibuffer command	M-p
next minibuffer command	M-n

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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
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	M-x clear-rectangle
prefix each line with a string	M-x string-rectangle

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 *c*	`\`*c*
alternative ("or")	`|`
grouping	`\( ... \)`
*n*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 *c*	`\s`*c*
character with syntax not *c*	`\S`*c*

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 *n*th menu item by number (1–5)	*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 **tutorial**	`h`
list Info commands	`?`
quit Info	`q`
search nodes for regexp	`s`

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`
eval entire **buffer**	`M-x eval-current-buffer`
read and eval minibuffer	`M-ESC`
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. Note that you cannot say `"\M-#"`; you must say `"\e#"`.

```
(global-set-key "\C-cg" 'goto-line)
(global-set-key "\C-x\C-k" 'kill-region)
(global-set-key "\e#" '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.

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