GNU Emacs Reference Card

(for version 21)

Starting Emacs

To enter GNU Emacs 21, 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.

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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	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 later minibuffer input or default	`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.

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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	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 *c*	`\`*c*
alternative ("or")	`|`
grouping	`\( ... \)`
same text as *n*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 *c*	`\s`*c*	`\S`*c*

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 *n*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 **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`

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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