

GNU Emacs Reference Card

(for version 24)

Starting Emacs

To enter GNU Emacs 24, just type its name: `emacs`

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> |
| toggle read-only status of buffer | <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> |
| describe the function a key runs | <code>C-h k</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 files lost by a system crash | <code>M-x recover-session</code> |
| undo an unwanted change | <code>C-x u</code> , <code>C-_</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 matched.

Motion

| entity to move over | backward | forward |
|--|---------------------|-----------------------|
| character | <code>C-b</code> | <code>C-f</code> |
| word | <code>M-b</code> | <code>M-f</code> |
| line | <code>C-p</code> | <code>C-n</code> |
| go to line beginning (or end) | <code>C-a</code> | <code>C-e</code> |
| sentence | <code>M-a</code> | <code>M-e</code> |
| paragraph | <code>M-{</code> | <code>M-}</code> |
| page | <code>C-x [</code> | <code>C-x]</code> |
| sexp | <code>C-M-b</code> | <code>C-M-f</code> |
| function | <code>C-M-a</code> | <code>C-M-e</code> |
| go to buffer beginning (or end) | <code>M-<</code> | <code>M-></code> |
| scroll to next screen | | <code>C-v</code> |
| scroll to previous screen | | <code>M-v</code> |
| scroll left | | <code>C-x <</code> |
| scroll right | | <code>C-x ></code> |
| scroll current line to center, top, bottom | | <code>C-l</code> |
| goto line | | <code>M-g g</code> |
| back to indentation | | <code>M-m</code> |

Killing and Deleting

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

Marking

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

Query Replace

| | |
|-------------------------------------|---------------------------------------|
| interactively replace a text string | <code>M-%</code> |
| using regular expressions | <code>M-x query-replace-regexp</code> |

Valid responses in query-replace mode are

| | |
|--|------------------------------------|
| replace this one, go on to next | <code>SPC</code> or <code>y</code> |
| replace this one, don't move | <code>,</code> |
| skip to next without replacing | <code>DEL</code> or <code>n</code> |
| replace all remaining matches | <code>!</code> |
| back up to the previous match | <code>^</code> |
| exit query-replace | <code>RET</code> |
| enter recursive edit (<code>C-M-c</code> to exit) | <code>C-r</code> |

Multiple Windows

When two commands are shown, the second is a similar command for a frame instead of a window.

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

Formatting

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

Case Change

| | |
|------------------|----------------------|
| uppercase word | <code>M-u</code> |
| lowercase word | <code>M-l</code> |
| capitalize word | <code>M-c</code> |
| uppercase region | <code>C-x C-u</code> |
| lowercase region | <code>C-x C-l</code> |

The Minibuffer

The following keys are defined in the minibuffer.

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

Type `C-x ESC ESC` to edit and repeat the last command that used the minibuffer. Type `F10` to activate menu bar items on text terminals.

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-/ |

Miscellaneous

| | |
|-------------------|-----------------|
| numeric argument | C-u <i>num</i> |
| negative argument | M-- |
| quoted insert | C-q <i>char</i> |

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> | \ <i>c</i> | |
| alternative (“or”) | | |
| grouping | \(... \) | |
| same text as <i>n</i> th group | \ <i>n</i> | |
| 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> | \s <i>c</i> | \S <i>c</i> |

International Character Sets

| | |
|------------------------------------|--------------------------|
| specify principal language | C-x RET l |
| 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 S |

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) | <i>n</i> |
| follow cross reference (return with l) | f |
| return to last node you saw | l |
| return to directory node | d |
| go to top node of Info file | t |
| go to any node by name | g |

Other:

| | |
|----------------------------------|---|
| run Info tutorial | h |
| look up a subject in the indices | i |
| search nodes for regexp | s |
| quit Info | q |

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 (example):

```
(global-set-key (kbd "C-c g") 'search-forward)
(global-set-key (kbd "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 current line 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.

Copyright © 2013 Free Software Foundation, Inc.
For GNU Emacs version 24
Designed by Stephen Gildea

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

For copies of the GNU Emacs manual, see:

<http://www.gnu.org/software/emacs/#Manuals>