

Delete all but one surrounding blank line Cause next command, if a kill, to append to previous kill buffer, instead of new one.
Bullets (•) mark a suggested starting set of commands. Daggers ( $\dagger$ ) denote key bindings that are not standard in GNU Emacs. $A R G$ denotes the prefix numeric argument (entered with C-u or M-digit).

## Cursor motion.

| $\mathrm{C}-\mathrm{f}$ | Forward character. $\bullet$ |
| :--- | :--- |
| M-f | Forward word. $\bullet$ |
| $\mathrm{C}-\mathrm{e}$ | Forward to end of line. $\bullet$ |
| $\mathrm{C}-\mathrm{b}$ | Backward character $\bullet$ |
| M-b | Backward word. $\bullet$ |
| C-a | Backward to start of line. $\bullet$ |
| M-e | Forward sentence. |
| M- $[$ | Forward paragraph. |
| M-a | Backward sentence. |
| M-] | Backward paragraph. |

## C-n $\quad$ Next line. $\bullet$

c-p Previous line. $\bullet$
M-< Beginning of buffer.
M-> End of buffer. $\bullet$
C-v Scroll text up one screen (or $A R G$ lines). $\bullet$
M-v Scroll text down (or $A R G$ lines).•
$\mathrm{M}-\mathrm{g} \quad$ Go to line number $A R G . \dagger$
$\mathrm{M}-\mathrm{x}$ what-line Display line number.
$\mathrm{C}-\mathrm{M}-\mathrm{v} \quad$ Scroll other window up one screen (or $A R G$ lines).

## Marking regions of text

| $C-@$ | Set mark at point. $\bullet$ |
| :--- | :--- |
| $C-\mathrm{x} \mathrm{C-x}$ | Exchange mark and point. $\bullet$ |
| C-SPC | Same as C-@. |
| M-@ | Set mark after end of next word. <br> M-h |
| Set mark and point around current <br> paragraph. |  |
| C-x h | Set mark and point around current buffer. |

## Deletion and yanking

| DEL | Delete character before cursor. $\bullet$ <br> Delete word before cursor and add to kill <br> buffer. $\bullet$ |
| :--- | :--- |
| C-d | Delete character at cursor. $\bullet$ <br> Melete word at and after cursor and add to |
| M-d | kill buffer. $\bullet$ |
| C-k | Delete to end of line and add to kill buffer. $\bullet$ <br> Delete current region, and add to kill <br> buffer. $\bullet$ |


| C-y | Insert text from kill buffer at point. $\bullet$ |
| :--- | :--- |
| $C-u$ C-y | Insert text from kill buffer at point without |
| moving point. |  |

## Indentation

| TAB | Indent according to mode. $\bullet$ |
| :--- | :--- |
| LF | Same as RET TAB. |
| M-; | Indent and start comment. |
| M-LF | Continue comment on next line. |
| C-x TAB | Indent region rigidly by $A R G$. |
| C-M- $\backslash$ | Indent region according to mode. $\bullet$ |

## Search

| C-s | Search forward. $\bullet$ |
| :---: | :---: |
| $\mathrm{C}-\mathrm{s} \mathrm{C-s}$ | Same as C-s with last string. $\bullet$ |
| C-r | Search backward. $\bullet$ |
| $\mathrm{C}-\mathrm{rc}$-r | Same as C-r with last string. $\bullet$ |
| $\mathrm{C}-\mathrm{u} \mathrm{C-s}$ | Search forward for regular expression. |
| M-x occur | Display lines matching a regular expression. |
| M-x grep | Display results of UNIX grep utility. |
| -x coun | tches |

The following subcommands are valid during a search.

| RET | End search. $\bullet$ |
| :--- | :--- |
| DEL | Undo effect of last search character typed. $\bullet$ |
| $\mathrm{C}-\mathrm{g}$ | Abort search. $\bullet$ |
| $\mathrm{C}-\mathrm{s}$ | Search for next match forward. $\bullet$ |
| $\mathrm{C}-\mathrm{r}$ | Search for next match backward. $\bullet$ |
| $\mathrm{C}-\mathrm{q}$ | Quote next character. |
| $\mathrm{C}-\mathrm{w}$ | Extend search string with next word. |
| LFD | Extend search string with rest of line. |

## Replacement

| M-q | Query replace $\cdot \dagger$ |
| :--- | :---: |
| M-Q | Query replace regular expression. $\dagger$ |
| M-x delete-matching-lines |  |
| M-x delete-non-matching-lines |  |
|  |  |
| During a query-replacement, the following are valid re- |  |
| sponses to prompts. |  |
| SPC | Make replacement and go to next. $\bullet$ |
| DEL | Skip replacement and go to next. $\bullet$ |

## Regular expressions

| $\bullet$ | Match any character. $\bullet$ |
| :--- | :--- |
| $\$$ | Match at start of line $\bullet$ |
| $[\ldots]$ | Match at end of line. $\bullet$ |
| $[\wedge \ldots]$ | Match any character in the '...'•• |
| $*$ | Match any character except those in '...' $\bullet$ |
| + | Match 0 or more of pattern to left. $\bullet$ |
| $?$ | Match 0 or more of pattern to left. |
| $\backslash c$ | Quotes $c$, except for the following. |
| $\backslash \mathrm{b}$ | Match at beginning or end of word. |
| $\backslash \mathrm{B}$ | Match except at beginning or end of word. |
| $\backslash \mid$ | Match either pattern to left or right. |
| $\backslash(\ldots \backslash)$ | Grouping. |
| $\backslash n$ | Match copy of whatever matched $n^{\text {th }}$ group. |

## Miscellaneous editing

| $\mathrm{C}-\mathrm{o}$ | Insert newline after cursor. |
| :--- | :--- |
| $\mathrm{C}-\mathrm{t}$ | Transpose characters. |
| $\mathrm{M}-\mathrm{t}$ | Transpose words. |
| $\mathrm{C}-\mathrm{x} \mathrm{C}-\mathrm{t}$ | Transpose lines. |
| M-u | Convert whole word to upper case. |
| M-1 | Convert whole word to lower case. |
| M-c | Capitalize word. |

## Files

| C-x C-f | Find file; load if needed. $\bullet$ |
| :---: | :---: |
| C-x 4 C-f | Find file in other window. $\bullet$ |
| $\mathrm{C}-\mathrm{x}$ C-s | Save file. $\bullet$ |
| C-x C-w | Write to explicitly-named file. |
| $\mathrm{C}-\mathrm{x}$ i | Insert file at cursor. |
| M-x reco | -file Recover file after disaster from autosave file. |
| rever | buffer Throw away changes to buffer and restore from file. |

## Buffers and windows

| C-x 0 | Put cursor in other window. $\bullet$ |
| :---: | :---: |
| C-x 1 | Grow current window to full screen. $\bullet$ |
| C-x 2 | Split current window vertically. $\bullet$ |
| $\mathrm{C}-\mathrm{x} \mathrm{b}$ | Put named buffer in window. $\bullet$ |
| C-x 0 | Remove current window. |
| C-x 3 | Split current window horizontally. |
| C-x C-b | List all buffers. |
| $\mathrm{C}-\mathrm{x} \mathrm{k}$ | Delete buffer. |

Commands active in shell buffers:

| RET | Send current line to shell. $\bullet$ |
| :--- | :--- |
| TAB | Complete preceding file name. $\bullet$ |
| C-c C-c | Send interrupt to shell. $\bullet$ |
| C-c C-u | Erase current input line. $\bullet$ |
| C-c C-z | Send stop signal to shell. $\bullet$ |
| C-c C-d | Send EOF to shell. |

## Compilation, debugging, and tags

$\mathrm{M}-\mathrm{x}$ compile Execute command (by default, make)
$C-x$ • Position to next error or next line found by M-x grep command. $\bullet$
M-x kill-compiler Stop active compile.
M-x visit-tags-table Specify file containing tags produced by etags. $\bullet$
M-. Display source for given tag. $\bullet$
C-u M-. Find next alternate definition for last tag. $\bullet$
$C-x 4$. Display source for tag in other window.
M-x tags-search
M-x tags-query-replace Look for pattern in all files named in tags table.
M-x tags-apropos Display matching tags.
$M-x$ gdb $\quad$ Run GNU debugger on file.
$M-x$ gjdb Run Java debugger on class.
Commands valid in gdb and gjdb modes.

| $\mathrm{C}-\mathrm{c} \quad \mathrm{C}-\mathrm{s}$ | Step. $\bullet$ |
| :--- | :--- |
| $\mathrm{C}-\mathrm{c} \mathrm{C}-\mathrm{n}$ | Next. $\bullet$ |
| $\mathrm{C}-\mathrm{c}<$ | Up stack. $\bullet$ |
| $\mathrm{C}-\mathrm{c}>$ | Down stack. $\bullet$ |
| $\mathrm{C}-\mathrm{c} \quad \mathrm{C}-\mathrm{r}$ | Finish. $\bullet$ |
| $\mathrm{C}-\mathrm{x}$ | SPC |
| $\mathrm{C}-\mathrm{c}$ | In any source file, sets a break point. |

## Help and documentation

M-x manual-entry UNIX man page for given topic.
C -h a Look up names of matching commands. $\bullet$
$\mathrm{C}-\mathrm{h}$ b Display key bindings. $\bullet$
C - $\mathrm{f} \quad$ Help for $\mathrm{M}-\mathrm{x}$ function.
C-h C-h Help for C-h. $\bullet$
C-h i Run info browser. $\bullet$
C-h k Help for key. $\bullet$
$\mathrm{C}-\mathrm{h} \mathrm{m} \quad$ Help for current mode.

Inside an *info* buffer (result of C-h i), the following are defined.

Select menu item.•
Go to last-visited node. $\bullet$
Get help for browser. $\bullet$
Go to node's parent.•
Go to next node in sequence. $\bullet$
Leave browser. $\bullet$
Go to top of node.
Go to top-level node.

## Mouse commands

Left, middle, and right buttons are LB, MB, and RB.
LB Put cursor at mouse. Dragging marks region.
MB Paste text from window-system cut buffer at mouse.
RB Extend region to pointer and copy into cut and kill buffers. Clicking twice deletes region.
C-LB Select a buffer.

