

# Essential Emacs Tips v0.1

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## Conventions

[C-a]	Press [Control]+[a]
[C-x] [C-f] or [C-x C-f]	Press [Control]+[x], then [Control]+[f]
[A-x]	Press [Alt]+[x], or press [Esc] then [x]
[A-x] [name]	Press [Alt]+[x], then write 'name' (press [n][a][m][e]), then press [Enter]
[C-x] smth. to type	Press [Control]+[x], then type something depending on the specific command
[Tab]	Press the [Tab] key
[Tab] [Tab]	Press the [Tab] key twice
[Spc]	Press the Space bar
[Ent] or [Ret]	Press the [Enter] or [Return] key

## 1 Editing files with Emacs

### 1.1 Don't panic

[C-g]	Cancel current action. Sometimes you must retype sequence multiple times
[C- _]	Undo last editing action. Repeat sequence to keep undoing as many times as you need
[C-x] [C-c]	Exit Emacs

- After some *undo* actions, you can make redo actions by moving the cursor, then using [C- \_] again (you undo the undo actions).

## 1.2 Loading and saving files

<b>[C-x] [C-f]</b>	Open file: use <i>minibuffer window</i> to specify file name. Create a new file if it does not exist.
<b>[C-x] [C-s]</b>	Save file
<b>[C-x] [C-w]</b>	Save As: use <i>minibuffer window</i> to specify file name
<b>[Tab]</b>	While in <i>minibuffer window</i> , completes automatically incomplete file names
<b>[Tab] [Tab]</b>	While in <i>minibuffer window</i> , shows all possible file name completions if multiple ones available

- File names are specified in the *minibuffer window*, at the bottom of the Emacs window.
- After a **[Tab] [Tab]** sequence, the choice can be made with the mouse, too, by pressing middle button on the wanted name.
- It is possible to load multiple files and to switch among them.
- Emacs handles each file in a separate *buffer*. Each buffer can be displayed on a separate *sub-window*.
- It is possible to cut and paste among different buffers and among different Emacs instances.
- A buffer can also be used to store programs output, like gcc or latex output during compilation

## 1.3 Walking through buffers

<b>[C-x] [b] [Ret]</b>	Cycle through the two last used buffers
<b>[C-x] [b] buf-name</b>	Switch to buffer: use minibuffer to specify new buffer to be displayed on the current window
<b>[Tab]</b>	While in minibuffer, autocompletes incomplete buffer names
<b>[Tab] [Tab]</b>	While in minibuffer, shows all possible buffer name completions if multiple ones available
<b>[C-x] [k] [Ret]</b>	Kill current buffer
<b>[C-x] [k] buf-name</b>	Kill buffer: use minibuffer to specify name of buffer to be killed

- If multiple sub-window are being used, the current window is the one where the cursor resides.
- Note: when switching to another buffer, the old one is still kept in memory
- If you prefer, you can switch among loaded buffers by clicking **[Control]+[Left Mouse Button]**. A pop-up buffer selection menu will appear.

## 1.4 Using the clipboard (cut and paste)

<b>[C-Spc]</b>	Mark begin of region; move cursor to end of region and use one of <b>[C-w]</b> or <b>[A-w]</b>
<b>[C-w]</b>	Cut region
<b>[A-w]</b>	Copy region
<b>[C-y]</b>	Paste last copied region from the current cursor position
<b>[C-y] [A-y]</b>	Cycle through copied regions, pasting from the current cursor position
<b>[C-k]</b>	Cut current line from cursor to the end. Repeat to cut multiple lines. You can paste them altogether with a single paste <b>[C-y]</b>

- If you prefer, you can mark region by using the mouse, then copy/cut using either **[C-w]/[A-w]** or the Edit menu
- Each time you copy or cut a region, Emacs also stores previously copied regions. While pasting with **[C-y]**, press **[A-y]** multiple times to cycle through other regions in the clipboard.

## 1.5 Search and replace

<b>[C-s] smth to search</b>	Start a forward search, interactive: use minibuffer to specify search word
<b>[C-r] smth to search</b>	Start a backward search, interactive: use minibuffer to specify search word
<b>[A-x replace-string]</b>	Search and replace: use minibuffer to enter search string first, then replace string

- Interactive searches are case insensitive if you don't type any uppercase letters in the search string
- Interactive searches become case sensitive as soon as you type an uppercase letter

## 1.6 Managing multiple windows

[C-x 2]	Split horizontally current window in two sub-windows on the same buffer
[C-x 3]	Split vertically current window in two sub-windows on the same buffer
[C-x 1]	Expand the current sub-window to the entire Emacs window
[C-x o]	Switch to the <u>o</u> ther sub-window
[C-x 0]	Kill the current sub-window

## 2 Programming with Emacs

### 2.1 Special editing modes

- Emacs automatically switches to the mode specific to a programming language, based on file name extension: *.c/.h* for *C*, *.cpp/.hpp* for *C++*, *.java* for *Java*, *.sh* for *BaSh*, *.pl* for *Perl*, *.py* for *Python*, *.htm/.html* for *HTML*, ...
- The mode affects the mode Emacs helps you in indenting the code, and highlighting syntax

[A-x] [c-mode]	Explicitly switch to C mode
[A-x] [c++-mode]	Explicitly switch to C++ mode
[A-x] [java-mode]	Explicitly switch to Java mode
[A-x] [sh-mode]	Explicitly switch to Shell programming mode
[Tab]	Indents the current line, if Emacs is in a programming mode
[Esc] [i]	Inserts a Tab character
[A-x comment-region]	Comment out a region. An active region must be marked
[A-x uncomment-region]	Uncomment a region. An active region must be marked
[A-x c-backslash-region]	Add backslashes at the end of all lines of the marked region (useful when writing multiline macros)
[A-x global-font-lock-mode]	Enable syntax highlighting

- To enable automatic syntax highlighting, insert into the “.emacs” configuration file in your home directory a line with: (global-font-lock-mode t).

## 2.2 Invoking the compiler

[A-x] [compile]	Invoke <i>make</i> on the current directory: use minibuffer to supply arguments to make
[A-x] [compile] [Up] ...	Cycle through last make invocations
[C-x] [‘]	Go to the next compilation error. Cursor is positioned on the line of the source file that caused the error.

- When invoking make, the *compilation buffer* shows compilation results. You can also middle-click on the error line to go to the line of the source file causing the error.
- The minibuffer stores a history of last make invocations. You can cycle through them by pressing [Up] while in the minibuffer.

## 2.3 Invoking platform documentation pages

[A-x] [man] name	Invoke <i>man</i> : use minibuffer to enter arguments to the man command
[A-x] [man] [Ret]	Invoke <i>man</i> on the identifier under the cursor
[A-x] [info]	Invoke <i>info</i>

- The invoked documentation is loaded on a separate buffer, and shown on a separate sub-window. You can move, search and copy text in the new buffer as usual.
- In the info sub-window, you can use Info commands to navigate: **[u]** to go to the upper node, **[Tab]** to go to the next info link, **[Ret]** to follow a link, ...

## 2.4 Invoking the source navigator (Speedbar)

- Speedbar can be used to navigate through variable, class and name declarations and definitions through the sources in the current directory
- It can also be used to navigate through info pages

<b>[A-x] [speedbar]</b>	Display source navigation Speedbar
<b>[A-x Info-speedbar-browser]</b>	Display Info navigation Speedbar

## 2.5 FTP remote editing

- Emacs allow you to edit a remote file through FTP, in a transparent way. You browse the remote file hierarchy and download a file with the **[C-x f]** command. After editing, the **[C-x s]** command just uploads the file again on the server

<b>[C-x f] [/]user[@]host[:]path/to/file</b>	Connect to an FTP server for opening
<b>[C-x f] [/]user[@]host[C-q Spc]port[:]path/to/file</b>	Connect to an FTP server on a non-sta
<b>[C-x C-s]</b>	Upload modified file to the server

## 2.6 Invoking the shell

<b>[A-x] [shell]</b>	Invoke a shell within an Emacs sub-window
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# 3 Relaxing with Emacs

## 3.1 Invoking the psychotherapist

- If you're getting crazy with Emacs shortcuts, you can talk a little bit with the embedded psychotherapist

<b>[A-x] [doctor]</b>	Invoke Emacs doctor (psychotherapist)
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