



## Text Editor - Emacs

The following reference guide is by no means all-inclusive, but is meant to aid the beginning user in navigating the keystroke-intensive Emacs program. The abbreviation **C-** refers to holding down the **<Control>** key while pressing what follows, while the abbreviation **ESC-** refers to pressing the **<ESC>** key and what follows.

### Point Movement

<b>C-f</b>	Move point forward one character.
<b>C-b</b>	Move point backward one character.
<b>C-p</b>	Move point to previous line.
<b>C-n</b>	Move point to next line.
<b>C-a</b>	Move point to beginning of current line.
<b>C-e</b>	Move point to end of current line.
<b>ESC-f</b>	Move point forward one word.
<b>ESC-b</b>	Move point backwards one word.
<b>C-v</b>	Move down one screen.
<b>ESC-v</b>	Move up one screen.
<b>ESC-&lt;</b>	Move point to start of current buffer.
<b>ESC-&gt;</b>	Move point to end of current buffer.

*Note: In addition to these keys, standard keys, such as <left>, <right>, <up>, <down>, <Page-Up>, and <Page-Down> can also be used to move the point cursor on most terminals*

### Marking The point

<b>C-@</b>	Mark the current point location (also performed by <b>C-<span>&lt;SpaceBar&gt;</span></b> ).
<b>C-x h</b>	Mark entire buffer as the region, with mark at end and place point at start.

### Editing Commands

<b>C-k</b>	Delete the current line to the right.
<b>C-w</b>	Delete the current region.
<b>ESC-w</b>	Copy a region.

<b>C-y</b>	Yank (paste) the last region or set of lines deleted at the current point.
<b>C-d</b>	Delete next character.
<b>ESC-d</b>	Kill next word (can be yanked back).
<b>ESC-DEL</b>	Kill previous word.

### File Commands

<b>C-x C-s</b>	Save file but do not quit Emacs.
<b>C-x C-c</b>	Quit Emacs, giving option to save if there are unsaved changes.
<b>C-x C-w</b>	Write file, option to change the filename.
<b>C-x i</b>	Insert a file at the current point.
<b>C-x C-f</b>	Edit another file.

### Buffer and Screen Commands

<b>C-l</b>	Refresh the screen.
<b>C-v</b>	Move down a screen.
<b>ESC-v</b>	Move up a screen.
<b>C-x 2</b>	Split the screen vertically into two windows.
<b>C-x 3</b>	Split the screen horizontally into two windows.
<b>C-x o</b>	Move to the other window.
<b>C-x 1</b>	Fill screen with current window.
<b>C-x 0</b>	Delete currently selected window.
<b>C-x C-b</b>	List all of the current buffers.
<b>C-x b</b>	Switch to buffer (Emacs prompts for the buffer's name).

### ESC-x shell

Start a UNIX shell in the current buffer.

### Search and Replace

<b>C-s</b>	Search forward; pushing <b>C-s</b> again Searches for the next occurrence.
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<b>C-r</b>	Search backward; pushing <b>C-r</b> again searches for the next occurrence.
<b>C-g</b>	Cancel the current search or go back to previously found search item if search was done again.
<b>ESC-x</b>	replace string Replaces all occurrences of first string with second string.
<b>ESC-%</b>	Replace the first string with the second string, but query for each occurrence ( <b>n</b> goes to next, <b>y</b> replaces).

## Miscellaneous Commands

### **ESC-x** spell buffer

Check spelling of the current buffer.

### **ESC-x** spell word

Check spelling of the word at the point.

**C-q** Allow the insertion of a control sequence.

**ESC-c** Capitalizes character at the point and makes rest of word lowercase.

**ESC-l** Move forward one word.

**ESC-u** Changes word to uppercase from the point to the end of the word.

## Help and Useful Commands

**C-h** Start help. **C-h** three times for help menu.

**C-g** Stops current command.

**C-x u** Undo the last keystroke.

**ESC-#** Completes a command **#** times (where **#** is a number).

## Using Emacs to Edit Files

Emacs is a powerful text editor in UNIX. From within Emacs it is possible to compile programs, read news, read mail, and execute UNIX commands, making it practically an operating system of its own. As with any program that seems to be able to do everything, Emacs contains some rather obscure control commands to get things done more quickly. In order to quickly find any utility in Emacs, it is necessary to do some memorization. Users who wish to avoid this should use another text editor, like Pico, that is easier to use but does less than Emacs.

## Starting Emacs

Emacs is invoked at the UNIX prompt by typing **emacs** filename. If the file exists, its contents are placed in the resulting Emacs screen. If the file does not exist, a blank screen appears and a file is created as soon as information is typed on the screen.

*Note:* If you are using an X-Windows environment (a sun desktop, X-win32 on the PC, or X11 on a Mac), you can return to the command prompt after starting emacs by typing **emacs** filename &

## Understanding Buffers, Marks and Points

Emacs uses what are called **buffers** to store the data. Several buffers can be in operation at once, and any number can be displayed on the screen at one time, but the beginning Emacs user will probably limit himself to using one buffer at a time. The **point** is defined as where cursor is presently located in the current buffer. A **mark** can be set so that the point can be placed elsewhere in the buffer. The area between the mark and the point is known as the **region**. Operations can be applied to regions (e.g. spell check, copy, deletion, etc.) or to an entire buffer.

## Moving Around in an Emacs Buffer

In most situations, moving the point (cursor) around in the buffer is as simple as using the arrow keys. However, there are alternate keys available for those who cannot or would rather not use the arrow keys. Most of the control key combinations are designed to be memorable, but the beginning user often finds them non-intuitive. Examples are **<Control>-b** for backward movement, **<Control>-f** for forward movement, **<Control>-p** to move to the previous line, and **<Control>-n** to move to the next line. A more comprehensive list of keystrokes is given in the Quick Reference section given earlier.

## Saving Your Work

By default, Emacs automatically saves your work at regular intervals. Auto-saved files are named **#filename#**, to distinguish them from regularly-saved files. When you save a file, emacs also saves an unmodified version as **filename~**. At any time during an Emacs session, you can force Emacs to perform a save with the key combination **<Control>-x <Control>-s** (for save). You can easily tell if the current buffer contains unsaved

changes if \*\* appears before Emacs on the bottom of the screen. As with any text editor, frequent saves are recommended.

### **Cancelling the Current Operation**

You will occasionally start a command (such as Help) which you do not want to continue. The keystroke `<Control>-g` will cancel the current command. `<ESC>-<ESC>-<ESC>` will similarly exit certain functions.

### **Quitting Emacs**

When you wish to leave Emacs, you can do this with

the key combination `<Control>-x <Control>-c`. If your buffer contains unsaved changes, you will be asked if you wish to save them. Type `y` or `n`. If you choose `n`, changes since the last save are not kept, and a `#filename#` file is created.

### **On-line Help**

Emacs has extensive on-line help. It can be accessed by typing `<Control>-h`. It is helpful to go through the interactive tutorial in `<Control>-h t`.