

Princeton University

COS 217: Introduction to Programming Systems

The Emacs Editor

This reference sheet assumes that Emacs is configured using the .emacs file provided to COS 217 students.

To type "Ctrl-*somechar*" (for any character *somechar*), type the *somechar* key while holding down the Ctrl key. To type "Esc *somechar*" (for any character *somechar*), type the Esc key followed by the *somechar* key. Typing "Alt- *somechar* " has the same effect as typing "Esc *somechar*".

In Emacs all work is accomplished by calling functions. To call a function, type "Esc x *function*".

Many functions are bound to keystrokes.

Commonly used functions are in **boldface**.

Moving the Point

Binding	Function	Description
→	forward-char	Move the point forward one character
←	backward-char	Move the point backward one character
↓	next-line	Move the point to the next line
↑	previous-line	Move the point to the previous line
Ctrl-f	forward-char	Move the point forward one character
Ctrl-b	backward-char	Move the point backward one character
Ctrl-n	next-line	Move the point to next line
Ctrl-p	previous-line	Move the point to previous line
Esc f	forward-word	Move the point to next word
Esc b	backward-word	Move the point to previous word
Home	beginning-of-line	Move the point to beginning of line (but not with some terminal apps)
End	end-of-line	Move the point to end of line (but not with some terminal apps)
Ctrl-a	beginning-of-line	Move the point to beginning of line
Ctrl-e	end-of-line	Move the point to end of line
Esc a	c-beginning-of-statement	Move the point to the beginning of C statement
Esc e	c-end-of-statement	Move the point to the end of C statement
PageDn	scroll-up	Move the point to next page (but not with some terminal apps)
PageUp	scroll-down	Move the point to previous page (but not with some terminal apps)
Ctrl-v	scroll-up	Move the point to next page
Esc v	scroll-down	Move the point to previous page
Esc <	beginning-of-buffer	Move the point to beginning of the buffer
Esc >	end-of-buffer	Move the point to end of the buffer
Esc Ctrl-a	beginning-of-defun	Move the point to beginning of the C function
Esc Ctrl-e	end-of-defun	Move the point to end of the C function
Ctrl-x l <i>line</i>	goto-line	Move the point to line whose number is <i>line</i>

Inserting and Deleting

Binding	Function	Description
Bsp	c-electric-backspace	Delete the character before the point
Esc Bsp	backward-kill-word	Delete the characters from the point to the beginning of the word
Ctrl-d	c-electric-delete-forward	Delete the character at the point
Ctrl-k	kill-line	Cut the current line
Ctrl-Sp	set-mark-command	Set the mark at the point
Ctrl-x Ctrl-x	exchange-point-and-mark	Exchange the mark and the point
Ctrl-x h	mark-whole-buffer	Set the point at the beginning and the mark at the end of the buffer
Ctrl-w	kill-region	Cut the region denoted by the mark and the point
Esc w	kill-ring-save	Copy the region denoted by the mark and the point
Ctrl-y	yank	Paste the previously cut/copied region at the point

Saving and Exiting

Binding	Function	Description
Ctrl-x Ctrl-s	save-buffer	Save the current buffer to its file
Ctrl-x Ctrl-w <i>file</i>	write-file	Write the current buffer to <i>file</i>
Ctrl-x Ctrl-q	vc-toggle-read-only	Toggle the current buffer between read-only and read/write
Ctrl-x Ctrl-c	save-buffers-kill-emacs	Save all buffers and exit Emacs

Indenting

Binding	Function	Description
Ctrl-c .	c-set-style	Set the C indentation style to the specified one
TAB	c-indent-command	Indent the current line of the C program
Esc Ctrl-\	indent-region	Indent the region of the C program denoted by the mark and the point
Ctrl-x p	indent-all	Indent all lines of the C program (i.e. indent the program perfectly)

Searching and Replacing

Binding	Function	Description
Ctrl-s <i>string</i>	isearch-forward	Search forward for <i>string</i>
Ctrl-r <i>string</i>	isearch-backward	Search backward for <i>string</i>
Esc % <i>old new</i>	query-replace	Replace the <i>old</i> string with the <i>new</i> one y => replace n => skip ! => replace all q => quit

Managing Windows and Buffers

Binding	Function	Description
Ctrl-x Ctrl-f <i>file</i>	find-file	Load <i>file</i> into a buffer
Ctrl-x Ctrl-r <i>file</i>	find-file-read-only	Load <i>file</i> into a buffer for read only
Ctrl-x 2	split-window-vertically	Split the current window into two windows arranged vertically
Ctrl-x o	other-window	Move the point to the other window
Ctrl-x 3	split-window-horizontally	Split the current window into two windows arranged horizontally
Ctrl-x 0	delete-window	"Undisplay" the current window
Ctrl-x 1	delete-other-windows	"Undisplay" all windows except the current one
Ctrl-x Ctrl-b	list-buffers	Display a new window listing all buffers
Ctrl-x b <i>file</i>	switch-to-buffer	Load <i>file</i> into a buffer if necessary, and then display that buffer in the current window

Building and Debugging

Binding	Function	Description
	compile <i>command</i>	Build the program using <i>command</i>
	gdb <i>executablefile</i>	Launch the GDB debugger to debug <i>executablefile</i>

Miscellaneous

Binding	Function	Description
Ctrl-x u	undo	Undo the previous change
Ctrl-_	undo	Undo the previous change
Ctrl-g	keyboard-quit	Abort the multi-keystroke command
Ctrl-h	help-command	Access the Emacs help system
Esc `	tmm-menubar	Access the Emacs menu
Ctrl-x n	linum	Display/undisplay a line number before each line