Buffers

Operation	Keystroke	Function	Notes
Manage Buffers	The following commands support buffer management. There is also the `C-<F10>` key that pops up the Emacs Menu dialog (see the Menus table).		
<u>Toggle read-only status of buffer</u>	• `C-x C-q` • `<f11> b r`	**(read-only-mode** &optional ARG**)**	When the buffer is in read-only mode the <u>mode line</u> shows '%%' on the left side, in the 'ch' area of "*cs:ch-fr buf pos line (major minor)*". The <u>manual</u> states: "*For a read-only buffer, it shows '%*' if the buffer is modified, and '%%' otherwise.*" ☛ **See also:** the **View Mode** activating commands toward the end of this table. • A buffer in View Mode cannot be modified. • The View Mode may be used to ensure that no modifications are made to a buffer (visiting a file or not).
<u>Switch to next buffer</u>	• `C-x <right>` • `C-x C-<right>` • `<f11> b n`	**(next-buffer)**	Switch to the next buffer displayed in the current window.
<u>Switch to previous buffer</u>	• `C-x <left>` • `C-x C-<left>` • `<f11> b p`	**(previous-buffer)**	Switch to the previous buffer displayed in the current window.
Show name of previous buffer in window	`<f11> b P`	**(pel-show-window-previous-buffer)**	Show the name of previous buffer used in the current window.
Switch to previous buffer in window	`<f11> b l`	**(pel-switch-to-last-used—buffer)**	Switch buffer in current window to the buffer previously seen in this window. Used twice returns to the same buffer.
<u>Switch to buffer</u>	`C-x b`	**(switch-to-buffer** BUFFER-OR-NAME &optional NORECORD FORCE-SAME-WINDOW**)**	Switch window to display the previous, or another buffer (entered at prompt).
<u>List all buffers</u>	`C-x C-b`	• **(list-buffers** &optional ARG**)** • **(ibuffer** &optional OTHER-WINDOW-P NAME QUALIFIERS NOSELECT SHRINK FILTER-GROUPS FORMATS**)**	Display a list of existing buffers in a buffer named "*Buffer List*", the buffer displays information about all buffers and enters the ***Buffer Menu Mode***. See the keystrokes for the Buffer Menu Mode below. ☛ The PEL package the '<u>ibuffer</u>' function instead, which provides more functionality, working like dired.
Clone buffer	`<f11> b c`	**(clone-buffer** &optional NEWNAME DISPLAY-FLAG**)**	Create and return a twin copy of the current buffer. Unlike an indirect buffer, the new buffer can be edited independently of the old one (if it is not read-only). NEWNAME is the name of the new buffer. It may be modified by adding or incrementing <N> at the end as necessary to create a unique buffer name. For example if buffer *Help* is opened it opens another one named *Help*<2> (or *Help*<3> if *Help*<2> already exists, etc…)
<u>Insert file at point</u>	`<f11> b i`	**(insert-file** FILENAME**)**	Insert contents of file FILENAME into buffer after point. Set mark after the inserted text.
Toggle buffer between normal and hexadecimal display	`<f11> b x`	**(nhexl-mode** &optional ARG**)**	Toggle minor mode to edit files via hex-dump format
Activate Hex nibble editing mode	`<f11> b X`	**(nhexl-nibble-edit-mode** &optional ARG**)**	Minor mode to edit the hex nibbles in 'nhexl-mode'. Note: only works after nhexl-mode has been activated once.
List all buffers by modes in a pop-up menu	`C- mouse-left`		Does not work in Terminal
<u>Rename a buffer</u>		**(rename-buffer** NEWNAME &optional UNIQUE**)**	If UNIQUE argument is non-nil via C-u M-x rename-buffer, the name is auto generated to be unique.
<u>Rename buffer - use unique name</u>		**(rename-uniquely)**	Rename the current buffer by adding '<*number*>' to the end. Use this if you want multiple *Buffer* or *Info* buffers for example. Example: <u>StackExchange: How can I have multiple help buffer with different content</u>
<u>Kill current buffer</u>	• `<f11> b k` • `⌘-k` • `⌘-&`	**(kill-current-buffer)**	Kill (close) the current buffer. Does not prompt if there is no change in the buffer.
<u>Kill buffer</u>	`C-x k`	**(kill-buffer** &optional BUFFER-OR-NAME**)**	Kill (close) the current buffer. • Always prompt to identify a buffer, current is identified. Press enter to kill the buffer.
<u>Kill some buffer</u>		**(kill-some-buffers** &optional LIST**)**	Kill some buffers. Asks the user whether to kill each one of them.
Delete all windows of a specific buffer		**(delete-windows-on** &optional BUFFER-OR-NAME FRAME**)**	Deletes all windows showing BUFFER-OR-NAME, by calling 'delete-window' on those windows.
Indirect Buffers	As described in <u>Emacs Indirect Buffer section</u>, "an indirect buffer shares the text of some other buffer, called the base buffer of the indirect buffer. In some ways it is a buffer analogue of a symbolic link between files." The section also states: "One way to utilize indirect buffers is to display multiple views of an outline" (such as Org-Mode files). The following commands are available to manage indirect buffers.		
<u>Create indirect buffer explicitly</u>	`<f11> b I m`	**(make-indirect-buffer** BASE-BUFFER NAME &optional CLONE**)**	Create and return an indirect buffer for buffer BASE-BUFFER, named NAME. • BASE-BUFFER should be a live buffer, or the name of an existing buffer. • NAME should be a string which is not the name of an existing buffer. • Optional argument CLONE non-nil means preserve BASE-BUFFER's state, such as major and minor modes, in the indirect buffer. • CLONE nil means the indirect buffer's state is reset to default values.
<u>Create indirect buffer of current buffer</u>	`<f11> b I c`	**(clone-indirect-buffer** NEWNAME DISPLAY-FLAG &optional NORECORD**)**	Create an indirect buffer that is a twin copy of the current buffer. • Give the indirect buffer name NEWNAME. Interactively, read NEWNAME from the minibuffer when invoked with a prefix arg. If NEWNAME is nil or if not called with a prefix arg, NEWNAME defaults to the current buffer's name. The name is modified by adding a '<N>' suffix to it or by incrementing the N in an existing suffix. Trying to clone a buffer whose major mode symbol has a non-nil 'no-clone-indirect' property results in an error. • DISPLAY-FLAG non-nil means show the new buffer with 'pop-to-buffer'. This is always done when called interactively. • Optional third arg NORECORD non-nil means do not put this buffer at the front of the list of recently selected ones.
<u>Create indirect buffer of current buffer in another window</u>	• `C-x 4 c` • `<f11> b I w`	**(clone-indirect-buffer-other-window** NEWNAME DISPLAY-FLAG &optional NORECORD**)**	Like 'clone-indirect-buffer' but display in another window.

Operation	Keystroke	Function	Notes
Buffer Menu Mode	The list of buffers is shown inside its own buffer, *Buffer List* when (list-buffer) is executed. This buffer support the following commands.		
	☛ The full list of key bindings is available via the **<f1> m** key.		
	☛⚠️ Note that PEL uses (ibuffer) for the **C-x C-b** key binding, so the list of commands and key bindings that are available differ.		
Buffer Menu Mode keys 🚧 **Complete the list**	• **?** : Get help • **g** : Update buffer list • **C-n** : next buffer in list • **SPC** : next buffer in list • **n** : next buffer in list • **C-p** : previous buffer in list • **p** : previous buffer in list • **C-d** : mark buffer for deletion • **d** : mark buffer for deletion • **k** : mark buffer for deletion • **s** : save buffer • **<DEL>** : Move to previous line, remove all marks on buffer • **M-<DEL>** : Remove a specific mark from all buffers • **u** : unmark all marks on buffer • **x** : execute marked commands (delete buffers marked for deletion) • **~** : mark buffer as un-modifiable • **%** : toggle read-only • **1** : display emacs in full emacs screen • **2** : Display this buffer & next in horizontal window • **o** : replace other (next) window with this buffer • **m** : mark buffer to be displayed in windows • **v** : display buffers marked with in as many windows as required • **q** : quit buffer list		: Immediately : immediately : immediately : immediately : immediately : immediately : immediately : deleted when pressing **x** : deleted when pressing **x** : deleted when pressing **x** : saved when pressing **x** : immediately if just after marking : immediately if just after marking : immediately : immediately : immediately : immediately : immediately : immediately : immediately : when pressing v : immediately : immediately
IBuffer Mode command (1)	'S' - Save the marked buffers. 'A' - View the marked buffers in the selected frame. 'H' - View the marked buffers in another frame. 'V' - Revert the marked buffers. 'T' - Toggle read-only state of marked buffers. 'L' - Toggle lock state of marked buffers. 'D' - Kill the marked buffers. 'M-s a C-s' - Do incremental search in the marked buffers. 'M-s a C-M-s' - Isearch for regexp in the marked buffers. 'r' - Replace by regexp in each of the marked buffers. 'Q' - Query replace in each of the marked buffers. 'I' - As above, with a regular expression. 'P' - Print the marked buffers. 'O' - List lines in all marked buffers which match a given regexp (like the function 'occur'). 'X' - Pipe the contents of the marked buffers to a shell command. 'N' - Replace the contents of the marked buffers with the output of a shell command. '!' - Run a shell command with the buffer's file as an argument. 'E' - Evaluate a form in each of the marked buffers. This is a very flexible command. For example, if you want to make all of the marked buffers read-only, try using (read-only-mode 1) as the input form. 'W' - As above, but view each buffer while the form is evaluated. 'k' - Remove the marked lines from the *Ibuffer* buffer, but don't kill the associated buffer. 'x' - Kill all buffers marked for deletion.		
IBuffer Mode command (2)	**Marking commands**: 'm' - Mark the buffer at point. 't' - Unmark all currently marked buffers, and mark all unmarked buffers. '* c' - Change the mark used on marked buffers. 'u' - Unmark the buffer at point. 'DEL' - Unmark the previous buffer. 'M-DEL' - Unmark buffers marked with MARK. 'U' - Unmark all marked buffers. '* M' - Mark buffers by major mode. '* u' - Mark all "unsaved" buffers. This means that the buffer is modified, and has an associated file. '* m' - Mark all modified buffers, regardless of whether they have an associated file. '* s' - Mark all buffers whose name begins and ends with '*'. '* e' - Mark all buffers which have an associated file, but that file doesn't currently exist. '* r' - Mark all read-only buffers. '* /' - Mark buffers in 'dired-mode'. '* h' - Mark buffers in 'help-mode', 'apropos-mode', etc. '.' - Mark buffers older than 'ibuffer-old-time'. 'd' - Mark the buffer at point for deletion. '% n' - Mark buffers by their name, using a regexp. '% m' - Mark buffers by their major mode, using a regexp. '% f' - Mark buffers by their filename, using a regexp. '% g' - Mark buffers by their content, using a regexp. '% L' - Mark all locked buffers.		
IBuffer Mode command (3)	**Filtering commands**: 'M-x ibuffer-filter-chosen-by-completion' - Select and apply filter chosen by completion. '/ RET' - Add a filter by any major mode. '/ m' - Add a filter by a major mode now in use. '/ M' - Add a filter by derived mode. '/ n' - Add a filter by buffer name. '/ c' - Add a filter by buffer content. '/ b' - Add a filter by basename. 'M-x ibuffer-filter-by-directory' - Add a filter by directory name. '/ f' - Add a filter by filename. '/ .' - Add a filter by file extension. '/ i' - Add a filter by modified buffers. '/ e' - Add a filter by an arbitrary Lisp predicate. '/ >' - Add a filter by buffer size. '/ <' - Add a filter by buffer size. '/ *' - Add a filter by special buffers. '/ v' - Add a filter by buffers visiting files. '/ s' - Save the current filters with a name. '/ r' - Switch to previously saved filters. '/ a' - Add saved filters to current filters. '/ &' - Replace the top two filters with their logical AND. '/ |' - Replace the top two filters with their logical OR. '/ p' - Remove the top filter. '/ !' - Invert the logical sense of the top filter. '/ d' - Break down the topmost filter. '/ /' - Remove all filtering currently in effect.		

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IBuffer Mode command (4)	**Filter group commands**: '/ g' - Create filter group from filters. '/ P' - Remove top filter group. 'TAB' - Move to the next filter group. 'M-p' - Move to the previous filter group. '/ \' - Remove all active filter groups. '/ S' - Save the current groups with a name. '/ R' - Restore previously saved groups. '/ X' - Delete previously saved groups.		
IBuffer Mode command (5)	**Sorting commands**: ',' - Rotate between the various sorting modes. 's i' - Reverse the current sorting order. 's a' - Sort the buffers lexicographically. 's f' - Sort the buffers by the file name. 's v' - Sort the buffers by last viewing time. 's s' - Sort the buffers by size. 's m' - Sort the buffers by major mode.		
IBuffer Mode command (6)	**Other commands:** 'g' - Regenerate the list of all buffers. Prefix arg means to toggle whether buffers that match 'ibuffer-maybe-show-predicates' should be displayed. '`' - Change the current display format. 'SPC' - Move point to the next line. 'C-p' - Move point to the previous line. 'h' - This help. '=' - View the differences between this buffer and its associated file. 'RET' - View the buffer on this line. 'o' - As above, but in another window. 'C-o' - As both above, but don't select the new window. 'b' - Bury (not kill!) the buffer on this line.		
Buffer View Mode	Several commands (view-buffer, etc.., see at top of this table) activate the View Mode for a buffer where the buffer is essentially read-only and special commands are available.		
View buffer - no modification allowed	`<f11> b v`	(**view-buffer** BUFFER &optional EXIT-ACTION)	View BUFFER in View mode, returning to previous buffer when done. • Emacs commands editing the buffer contents are not available; instead, a special set of commands (mostly letters and punctuation) are defined for moving around in the buffer. • Space scrolls forward, Delete scrolls backward. • For a list of all View commands, type H or h while viewing. See the View Mode command list below.

View Mode commands	H, h, ? This message.
	Digits provide prefix arguments.
	- negative prefix argument.
	< move to the beginning of buffer.
	> move to the end of buffer.
	o scroll so that buffer end is at last line of window.
	SPC scroll forward "page size" lines.
	              With prefix scroll forward prefix lines.
	DEL, S-SPC scroll backward "page size" lines.
	                With prefix scroll backward prefix lines.
	z like SPC but with prefix sets "page size" to prefix.
	w like DEL but with prefix sets "page size" to prefix.
	d scroll forward "half page size" lines. With prefix, sets
	              "half page size" to prefix lines and scrolls forward that much.
	u scroll backward "half page size" lines. With prefix, sets
	              "half page size" to prefix lines and scrolls backward that much.
	RET, LFD scroll forward one line. With prefix scroll forward prefix line(s).
	y scroll backward one line. With prefix scroll backward prefix line(s).
	F revert-buffer if necessary and scroll forward.
	              Use this to view a changing file.
	= prints the current line number.
	% goes prefix argument (default 100) percent into buffer.
	g goes to line given by prefix argument (default first line).
	. set the mark.
	x exchanges point and mark.
	@ return to mark and pops mark ring.
	               Mark ring is pushed at start of every successful search and when
	               jump to line occurs. The mark is set on jump to buffer start or end.
	m save current position in character register.
	' go to position saved in character register.
	s do forward incremental search.
	r do reverse incremental search.
	/ searches forward for regular expression, starting after current page.
	               ! and @ have a special meaning at the beginning of the regexp.
	               ! means search for a line with no match for regexp. @ means start
	               search at beginning (end for backward search) of buffer.
	\ searches backward for regular expression, starting before current page.
	n searches forward for last regular expression.
	p searches backward for last regular expression.
	q quit View mode, restoring this window and buffer to previous state.
	               q is the normal way to leave view mode.
	e exit View mode but stay in current buffer. Use this if you started
	               viewing a buffer (file) and find out you want to edit it.
	               This command restores the previous read-only status of the buffer.
	E exit View mode, and make the current buffer editable
	               even if it was not editable before entry to View mode.
	Q quit View mode, restoring all windows to previous state.
	c quit View mode and maybe switch buffers, but don't kill this buffer.
	C quit View mode, kill current buffer and go back to other buffer.
	
	The effect of c, q and C depends on how view-mode was entered. If it was
	entered by **view-file**, **view-file-other-window**, **view-file-other-frame,** or
	M-x **dired-view-file** (M-x view-file, M-x view-file-other-window,
	M-x view-file-other-frame, or the Dired mode v command),
	then q will try to kill the current buffer.
	If view-mode was entered from another buffer, by <f11> b v,
	M-x view-buffer-other-window, M-x view-buffer-other frame, M-x view-file,
	M-x view-file-other-window, or M-x view-file-other-frame,
	then c, q and C will return to that buffer.		