## **Cursor / Multiple-Cursors**

<u>Operation</u>	<u>Keystroke</u>	Function	Note		
Controlling Emacs'			is running in graphical mode (X mode) only.		
Cursor	Emacs provide the cursor-type customize option to select the default cursor shape. This is part of the display customization group.  PEL provides the following user options cursor control for Emacs running in graphics mode:				
See also: <u><b>∑</b> Customize</u>	· ·	ite-mode-color: Selects the cursor	color when overwrite-mode is active.		
	<ul> <li>pel-cursor-type-when-mark:</li> <li>Default is black on white background and white on black background.</li> <li>Selects the cursor type (shape) when mark is active.</li> <li>Default to no cursor type change. Set it to a different type than 'cursor'.</li> <li>A popular setting is to use 'bar' type when mark is on to help see what is in the region.</li> </ul>				
	Also, the <u>cursor-chg.el</u> file also exists but I have found it to slow Emacs. Therefore PEL implements its own control.				
Open this PDF file. See also: <u>▼ Help/Info</u>	<f11> m <f1></f1></f11>	(pel-help-pdf &optional OPEN-WEB-PAGE)	Open Open the local copy of the <u>S Cursor</u> PDF file unless a command prefix (like <b>C-u</b> ) was used. In that case it opens the Github-hosted file instead.local PDF file.		
Customize PEL Cursor control	<f11> m <f2></f2></f11>	(pel-customize-pel &optional OTHER-WINDOW)	Customize PEL support for cursor and multiple-cursors.  • If OTHER-WINDOW is non-nil (use <b>C-u</b> ), display in other window.		
Customize Emacs cursor control.	<f11> m <f3></f3></f11>	(pel-customize-library &optional OTHER-WINDOW)	Customize Emacs support for cursor and multiple-cursors: provide access to the following customization groups:  • cursor: where most cursor settings are, including the PEL user-options.  • display: where cursor-type is defined. To change default cursor only.  • multiple-cursor: for controlling the multiple cursor settings.		
Temporary change the cursor's color	<f11> C-c</f11>	(pel-set-cursor-color COLORNAME)	Set cursor to specified COLORNAME string. Prompts for the color name, support color name completion with tab.   A Only available in graphics mode.		
		<ul> <li>Ignore the request when color is not a string. Return the COLOR string on success, nil otherwise.</li> <li>When used as an interactive command the new cursor color sticks only until the overwrite-mode is toggled.</li> <li>To make the color change persist, modify the `cursor' or the `pel-cursor-overwrite-mode-color' user options.</li> </ul>			
Permanently change the cursor's color See also: <u>S</u> Customize	<f11> <f2> E C-c</f2></f11>	( pel-customize-cursor &optional OTHER-WINDOW)	Quicks access to the customize buffer to set the cursor default color.  • It sets the color permanently if the customization is saved.  • Only available in graphics mode.		
Multiple Cursors	With this set of comman	ds you can set multiple cursors in the	window to operate on each location simultaneously.		
Mode	This requires the mul	<u>tiple-cursors</u> external package. 🔼 \	Nith PEL, set the <b>pel-use-multiple-cursors</b> user-option set to t to install and activate it.		
See demo on Emacs-		with this package, both start by ident action of several lines (on any column)	ifying the locations of the cursors: and use the mc/edit-lines (mapped to <f11> m m) to activate one cursor per line.</f11>		
See <u>demo on Emacs-</u> <u>Rocks</u>	Highlight some text and then use the other 3 commands to activate a cursor before the marked area and on the next, previous or all instances of the same text in the buffer:     mc/mark-next-like-this     mc/mark-previous-like-this     mc/mark-all-like-this There are other methods to set the cursors:				
	Another one is to us	se Visual Regexp (see below).			
	See also <u>\$MM- Lispy</u> which supports multiple cursor on potentially different text in multiple locations of Lisp source code.				
	Myhile this is fine and very useful for editing commands be away that every command issued from the buffer with multiple cursor actives will also be potentially applied at the location of each cursor. Therefore if you issue another type of command, like execution via M-x or help request with C-h or <f1>, Emacs will prompt asking whether that command applies to all cursors.</f1>				
	To cancel a multi-cursor operation you often have to issue <b>C-g</b> twice: once to cancel the text marking and then again to cancel the multi-cursor mode.  The number of matches is shown on the window mode-line with something like "mc:56" identifying 56 matches.  You can use these commands to quickly get a count of matches in the buffer: look at the count displayed in the mode-line. Just remember to cancel.				
See also: <u> </u>	To see all cursors in a larger area of the current buffer that your screen height can show, split your window with several side-by side ones (with C-x 3) and use the follow-mode (with <f11> w f) to line up the windows. Exit follow-mode and then use the multi-cursor command to perform the change.  Solve you have identified some matches, use the C-′ or <f11> m / key to hide non-matching lines to see more of those matches then proceed with your editing commands.</f11></f11>				
See also: <u><b>∑ Keyboard Macros</b></u>	<ul> <li>Alternatives to multiple-cursor technique:</li> <li>The iedit-mode, describe later in this page, can be used to replace all or some instances of selected text like variables, function names, etc</li> <li>See Xah Lee comment on this promoting the use of keyboard macros and other techniques instead of using multi-cursors.</li> <li>Personally I like multi-cursor when modifying text inside a single buffer and use keyboard macros when modifying text in a buffer taking data from another or several other windows. I often use multi-cursor and keyboard macros together for even better leverage.</li> </ul>				
Hide un-matched	some lines before and af	Once you have selected matched patterns with the commands below, you can hide the other, non-matched lines, showing only lines with matched area, wit some lines before and after. Possibly several such sections separated by special lines.  Hiding these non matching lines help see the modifications over a large number of separated matching lines.			
Hide/show unmatched	C- '	(mc-hide-unmatched-lines-	Hide/show all lines that do not have one of the multiple-cursors. Show some lines before and		
lines	<f11> m /</f11>	mode ARG)	<ul> <li>after.</li> <li>If there are several group of matches in several areas, show separating lines between them</li> <li>Issue the command again to restore a normal, complete view to the buffer.</li> </ul>		
Set Multiple	Cursors on all ins	tances of guessed area bas	sed on position of point		
Mark all from point, repeat to increase number of selections	<f11> m m</f11>	(mc/mark-all-like-this-dwim)	Tries to guess what you want to mark all of.  • Can be pressed multiple times to increase selection to a larger area.  • You can also use <f5> to 'repeat' instead of retyping <f1> m m.  • With prefix, it behaves the same as `mc/mark-all-like-this'</f1></f5>		
Mark all from point	<f11> m M-m</f11>	(mc/mark-all-dwim)	Tries even harder to guess what you want to mark all of.  If the region is active and spans multiple lines, it will behave as if `mc/mark-all-in-region'.  With the prefix ARG, it will call `mc/edit-lines' instead.  If the region is inactive or on a single line, it will behave like `mc/mark-all-like-this-dwim'.		
Mark more like this at point using cursor	<f11> m .</f11>	(mc/mark-more-like-this- extended)	Like mark-more-like-this, but then lets you adjust with arrows key.  • The adjustments work like this:		
navigation			<ul> <li><up> Mark previous like this and set direction to 'up. While going up:</up></li> <li><left> Skip past the cursor furthest up</left></li> <li><right> Remove the cursor furthest up</right></li> <li><down> Mark next like this and set direction to 'down. While going down:</down></li> <li><left> Remove the cursor furthest down</left></li> <li><right> Skip past the cursor furthest down</right></li> </ul>		
Set Multiple	Cursors on the so	me columns of multiple line	es. Note: no need to mark lines first		
Mark multiple lines on a column	<f11> m c</f11>	(set-rectangular-region-anchor)	Anchors the rectangular region at point.  Think of this one as `set-mark' except you're marking a rectangular region.  It is an exceedingly quick way of adding multiple cursors to multiple lines.		
* * *			<ul> <li>It is an exceedingly quick way of adding multiple cursors to multiple lines.</li> <li>Issue the command then move cursor to identify area.</li> <li>Unaffected by 'void' space on sorter lines! Making this very useful to: <ul> <li>insert or remove indentation after some leading text (like inside a table).</li> <li>delete or fill a rectangle of text with any columns of text.</li> </ul> </li> </ul>		

<u>Operation</u>	<u>Keystroke</u>	Function	<u>Note</u>	
Set Multiple	Cursors on marked lines   Note: the lines must be marked first!			
on same column	<f11> m 1</f11>	(mc/edit-lines &optional ARG)	Add one cursor to each line of the active region.  Starts from mark and moves in straight down or up towards the line point is on.  What is done with lines which are not long enough is governed by 'mc/edit-lines-empty-lines'. The prefix argument ARG can be used to override this.  If ARG negative, short lines will be ignored.  Any other non-nil value will cause short lines to be padded.	
at beginning of line	<f11> m C-a</f11>	(mc/edit-beginnings-of-lines) (mc/edit-ends-of-lines)	Add one cursor to the beginning of each line in the active region.  Add one cursor to the end of each line in the active region.	
Set Multiple	Cursors on marke	· · · · · · · · · · · · · · · · · · ·	(on the same side as point on currently marked area)	
in buffer	<f11> m a</f11>	(mc/mark-all-like-this)	Find and mark all the parts of the buffer matching the currently active region.	
in defun	<f11> m C-M-a</f11>	(mc/mark-all-like-this-in-defun)	Mark all like this in defun.  A The concept of "defun" depends on the major mode. The area actually selected is controlled by the function narrow-to-defun and its support by the current major mode.	
in region	<f11> m ?</f11>	(mc/mark-all-in-region)	Find and mark all the parts in the region matching the given search.  • Prompt for string to search inside the marked region.	
Add more	cursors like the cu	urrent one(s)		
set cursor to next instance of current match	<f11> m n</f11>	(mc/mark-next-like-this ARG)	Find and mark the next part of the buffer matching the currently active region  If no region is active add a cursor on the next line.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
set cursor to previous instance of current match	<f11> m p</f11>	(mc/mark-previous-like-this ARG)	Find and mark the previous part of the buffer matching the currently active region  If no region is active add a cursor on the previous line  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
Remove	cursors like the cu	urrent one(s)		
from the end of selected ones	<f11> m N</f11>	(mc/unmark-next-like-this)	Deselect next part of the buffer matching the currently active region.	
from the beginning of selected ones	<f11> m P</f11>	(mc/unmark-previous-like-this)	Deselect previous part of the buffer matching the currently active region.	
• Skip to				
the next match	<f11> m M-n</f11>	(mc/skip-to-next-like-this)	Skip the current one and select the next part of the buffer matching the currently active region.	
the previous match	<f11> m M-p</f11>	(mc/skip-to-previous-like-this)	Skip the current one and select the prev part of the buffer matching the currently active region.	
• By Word:	Set cursor(s) to the			
Match next instance currently highlighted word, or     cursor on next line	<f11> m w</f11>	(mc/mark-next-word-like-this ARG)	Find and mark the next word of the buffer matching the currently active region.  The matching region must be a whole word to be a match.  If no region is active add a cursor on the next line.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
Match next instance of marked region, or     Match current word its next instance	<f11> m M-w</f11>	(mc/mark-next-like-this-word ARG)	Find and mark the next part of the buffer matching the currently active region.  If no region is active, mark the word at the point and find the next match.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
<ul> <li>Match previous instance currently highlighted word, or</li> <li>cursor on previous line</li> </ul>	<f11> m W</f11>	(mc/mark-previous-word-like- this ARG)	Find and mark the previous part of the buffer matching the currently active region.  The matching region must be a whole word to be a match.  If no region is active add a cursor on the previous line.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
Match previous instance of marked region, or     Match current word its previous instance	<f11> m M-W</f11>	(mc/mark-previous-like-this- word ARG)	Find and mark the previous part of the buffer matching the currently active region.  If no region is active, mark the word at the point and find the previous match.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark previous.	
Match all words matching: • word at point, or • currently marked area	<f11> m C-w</f11>	(mc/mark-all-words-like-this)	Find and mark all words in the buffer matching the word at point or currently marked.	
Match all words like current word, in the current defun	<f11> m C-M-w</f11>	(mc/mark-all-words-like-this-in-defun)	Mark all words like this in defun.	
By Symbol:	Set cursor(s) to th	le		
Match next instance currently highlighted symbol, or     cursor on next line	<f11> m s</f11>	(mc/mark-next-symbol-like-this ARG)	Find and mark the next symbol of the buffer matching the currently active region.  The matching region must be a whole symbol to be a match.  If no region is active add a cursor on the next line.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
Match next instance of marked region, or     Match current symbol its next instance	<f11> m M-s</f11>	(mc/mark-next-like-this-symbol ARG)	Find and mark the next part of the buffer matching the currently active region.  If no region is active, mark the symbol at the point and find the next match.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
Match previous instance currently highlighted symbol, or cursor on previous line	<f11> m S</f11>	(mc/mark-previous-symbol-like- this ARG)	Find and mark the previous part of the buffer matching the currently active region.  The matching region must be a whole symbol to be a match.  If no region is active add a cursor on the previous line.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark next.	
<ul> <li>Match previous instance of marked region, or</li> <li>Match current symbol its previous instance</li> </ul>	<f11> m M-S</f11>	(mc/mark-previous-like-this- symbol ARG)	Find and mark the previous part of the buffer matching the currently active region.  If no region is active, mark the symbol at the point and find the previous match.  With negative ARG, delete the last one instead.  With zero ARG, skip the last one and mark previous.	
Match all symbols matching:  • symbol at point, or  • currently marked area	<f11> m C-s</f11>	(mc/mark-all-symbols-like-this)	Find and mark all symbols in the buffer matching the symbol at point or currently marked.	

<u>Operation</u>	<u>Keystroke</u>	Function	<u>Note</u>		
Match all symbols like current symbol, in the current defun	<f11> m C-M-s</f11>	(mc/mark-all-symbols-like-this-in-defun)	Mark all symbols like this in defun.		
• Special					
Mark current SGML tag and its pair	<f11> m t</f11>	(mc/mark-sgml-tag-pair)	Mark the SGLM tag we're in and its pair for renaming.  Useful for editing SGML, HTML, etc		
Insert increasing numbers at each cursor	<f11> m 0</f11>	(mc/insert-numbers ARG)	Insert increasing numbers for each cursor, starting at `mc/insert-numbers-default' or ARG.  • mc/insert-numbers-default is u user-option in the multiple-cursors customization group that defaults to 0.		
Insert increasing letter at each cursor	<f11> m A</f11>	(mc/insert-letters ARG)	Insert increasing letters for each cursor, starting at 0 or ARG.  • Where letter[0]=a letter[2]=c letter[26]=aa		
Sort marked ares of lines	<f11> m o</f11>	(mc/sort-regions)	Sort the marked portion of the lines that have one of the cursors.  The non-marked areas of the lines affected are <b>NOT</b> moved.		
Reverse order of marked area	<f11> m O</f11>	(mc/reverse-regions)	Reverse the order of the marked regions.  The non-marked areas of the lines affected are <b>NOT</b> moved.		
Vertical align with spaces	<f11> m  </f11>	(mc/vertical-align-with-space)	Aligns all cursors with whitespace to the one with the highest column number (the rightest).  • Keep multiple cursors active, use this to align text while working with the multiple cursors.  • Might not behave as intended if more than one cursors are on the same line.		
Visual Regexp to multiple cursors  See also:  Search/Replace	Another way to create multiple cursor is to use the following commands that perform a regular expression search to identify the location of each cursor.  Both require the multiple-cursors external package. With PEL, set the pel-use-multiple-cursors user-option set to t to install and activate it.  Vr/mc-mark requires the visual-regexp external package. With PEL, set the pel-use-visual-regexp user-option set to t to install and activate it.  Vr/select-mc-mark requires the visual-regexp external package. With PEL, set the pel-use-visual-regexp-steroids user-option set to t to install and activate it.				
Visual Regexp Search to multiple-cursors	• <f11> s x M • C-c m</f11>	(vr/mc-mark REGEXP START END)	Convert regexp selection to multiple cursors.  • First performs a Visual regexp search. When the result of the search is accepted (by hitting RET) all matches are converted to multiple cursors, which allows performing the same		
Visual Regexp Search to multiple-cursors with engine selection	<f11> s x M-m</f11>	(vr/select-mc-mark)	operations on all matches until the user quits the multiple cursor operation with <b>C-g</b> .  PEL only activates the <b>C-c</b> m binding if the <b>pel-bind-keys-for-regexp</b> user option is set to t.		
Highlight Current Line	Highlighting the current line may help to find the cursor when editing with big windows. These commands control line highlighting.				
Toggle line highlight mode  See also:   ☐ Highlight	• <f11> h - • <f11> 0</f11></f11>	(hl-line-mode &optional ARG)	<ul> <li>Toggle highlighting of the current line (HI-Line mode) in the current buffer.</li> <li>With a prefix argument ARG, enable HI-Line mode if ARG is positive, and disable it otherwise.</li> <li>When same buffer is shown in several windows, the highlighting might show in each of them. Change that with pel-toggle-hI-line-sticky with: <f11> h s</f11></li> <li>A quick way to find where your cursor is located is to hit <f11> 0 quickly to toggle line highlighting on and off (that key binding is easier to type than the alternative, which exists for consistency, remember that you can use <f1> k to get help for a specific key binding and see all the key bindings for a command, allowing you to discover its other bindings.)</f1></f11></li> </ul>		
Change color of highlight line for session	<f11> h h</f11>	(pel-set-highlight-color COLORNAME)	Set the colour of the highlight line used in the line highlight mode (affects all buffers).  • Prompt for color name, use tab completion to show available colours with their names.  • The change does not persist when Emacs is closed. To select a persistent color, then customize the <b>highlight</b> user option (see next row).		
See also: Neighlight Set highlight color and attributes permanently See also: Highlight	<f11> h H</f11>	(pel-customize-highlight)	Open the customize buffer to change the <b>highlight</b> user option color and other attributes.  • As with all customizations, you can activate the change for this Emacs session or save it to make it persist across Emacs sessions.  • With this you can set other attributes such as underlining (which will underline only text present in the buffer, useful to detect end-of-line whitespace), and other attributes.		
Toggle line highlighting affecting all windows See also: <u>∑ Highlight</u>	<f11> h s</f11>	(pel-toggle-hl-line-sticky)	Toggle current line highlight to all windows showing the current buffer or just the current one.  • Toggles the value of 'hl-line-sticky-flag' between t and nil.		
Highlight current column	The following command provide a vertical line across the entire window at the cursor location.  Useful when creating tables or checking indentation manually.  vline also provides the vline-global-mode to activate the vertical line in all buffers; PEL has no binding for it because it slows Emacs too much.				
Toggle Vline Mode See also: <u>∑ Highlight,</u> <u>∑ Hide/Show</u>	<f11> h  </f11>	(vline-mode &optional ARG)	Toggle the display of a vertical line spanning the entire window at the cursor column.  Requires: vline.el  PEL activates this when pel-use-vline user option is t.		
iEdit mode	iEdit Mode - Edit multiple regions in the same way simultaneously  This requires the iedit external package. PEL downloads, installs it when any of the pel-use-iedit or pel-use-lispy user options is set to t.				
Toggle iedit mode  See also:  • ∑ Search/Replace  • ∑ Highlight	• C-; • <f11> e • <f11> h i • <f11> m i</f11></f11></f11>	(iedit-mode &optional ARG)	Toggle iEdit mode: edit all symbols in scope or region simultaneously.  ⚠ Both iEdit and Flyspell use the C-; key as their default binding.  • PEL detects and reports that situation: modify the binding of one of them if you see it.  ➤ See ∑ Search/Replace where all the iedit-mode commands are described.		