## **CRiSP/CRiSPer to Emacs/PEL conversion**

Concept	CRiSP key	Emacs Key	command	Description				
CRiSP and	This reference table I	ists correspondence between	some of the comman	ids available in:				
CRiSPer	the <u>CRiSP editor use</u> Emacs with PEL.	sing the CRiSPer extensions	l (Pierre Rouleau) deve	eloped for myself in the past and,				
See also:	maintained today and of Emacs in the 80's	CRISP is a nice commercial editor written by Paul Fox that was derived from once very popular Underware's Brief editor. CRISP is still available and maintained today and it is a fine commercial editor with lots of features despite its age (but Emacs is older and I suspect that the Brief designers were aware of Emacs in the 80's because Brief underlying macro language was a simple Lisp). Emacs audience is wider and it is nicely maintained.						
<u>CRiSP/Brief</u> <u>Emacs emulator</u>	I no longer maintain my CRiSPer extensions and I never released them as open source or otherwise. I am instead concentrating on Emacs today. similar features and I have implemented some of the CRiSPer features (but not all) inside PEL but mostly differently with extensions of the features advantage of what Emacs offers.  This table contains a partial a list of the CRiSP/CRiSPer commands and their Emacs equivalent.							
Resize window See: Windows	• resize window in direction of arrow key	decrease the size of the curr  The <f7> keys are part of keys without typing <f7>.  The Hydra keys requexternal package and  With the windresize</f7></f7>	ent window vertically of the PEL Window Hydrou type the <f7> ke uires the hydra externalso creates a Hydra external package you des access to windress</f7>	crisP. You can resize the windows with the mouse and use commands to increase or and horizontally. Therefore in Emacs several commands are required, listed below. dra: you type <f7> and one of the keys (like v), then you can type the other Hydra by to stop using the Hydra and return to normal typing mode. The provided Hydra and package. With PEL user option pel-use-hydra set to t, PEL activates the hydra set of keys to help speed up navigation and management of windows. We have access to a single command that activate cursor keys to resize windows size and maps it to <f11> w r when the pel-use-windresize user-option is set to t.</f11></f7>				
	Grow window taller	• C-x ^ • <f11> w s V • ESC M-<up> • <f1> M-<up> • <f7> V</f7></up></f1></up></f11>	(enlarge-window DELTA &optional HORIZONTAL)	Grow window taller by DELTA lines (defaults to 1), specify more with <b>C-u</b> n (or <b>M-</b> n) argument prefix.  • See note above for availability of various bindings.				
	Shrink window smaller	<pre>   <f11> w s v     ESC M-<down>     <f1> M-<down>     <f1> y</f1></down></f1></down></f11></pre>	(shrink-window DELTA &optional HORIZONTAL)	Shrink height of window by DELTA lines (defaults to 1), specify more with <b>C-u</b> n (or <b>M-</b> n) argument prefix.  • See note above for availability of various bindings.				
	Grow windows	• C-x }	(enlarge-window-	Enlarge the current window horizontally.				
	<u>wider</u>	<pre>• <f11> w s H • ESC M-<right> • <f1> M-<right> • <f7> H</f7></right></f1></right></f11></pre>	horizontally DELTA)	See note above for availability of various bindings.				
	Shrink window narrower	• C-x { • <f11> w s h • ESC M-&lt;1eft&gt; • <f1> M-&lt;1eft&gt; • <f7> h</f7></f1></f11>	(shrink-window- horizontally DELTA)	Reduce the width of the current window.  • See note above for availability of various bindings.				
	Make all windows the same size	• C-x + • <f11> w s = • ESC <kp-5> • <f1> <kp-5> • <f7> =</f7></kp-5></f1></kp-5></f11>	(balance-windows &optional WINDOW-OR- FRAME)	Balance the sizes of windows of WINDOW-OR-FRAME.  WINDOW-OR-FRAME is optional and defaults to the selected frame.  If WINDOW-OR-FRAME denotes a frame, balance the sizes of all windows of that frame. If WINDOW-OR-FRAME denotes a window, recursively balance the sizes of all child windows of that window.  See note above for availability of various bindings.				
Split window See: Windows	<f3> • split window pointed to by arrow key</f3>	<ul> <li>split window pointed to by</li> <li>I added several keys:</li> <li>in the PEL Window Hydra (the keys that are listed as beginning with <f7>)</f7></li> </ul>						
	Create new window below	• C-x 2 • <f7> 2 • <f7> -</f7></f7>	(split-window- below &optional SIZE)	Split the selected window into two windows, one above the other.  • The selected window is above. The newly split-off window is below and displays the same buffer.  ➤ Note that Emacs default behaviour attempts to maximize the view into the current buffer when splitting the buffer into 2 windows. This means that the cursor will not be located in the same position in the new window. To change this behaviour and keep the same point in both windows, execute (setq split-window-keep-point nil). The PEL packages does that.				
	Create new window at right	• C-x 3 • <f7> 3 • <f7>  </f7></f7>	(split-window- right &optional SIZE)	Split the selected window into two side-by-side windows.  The selected window is on the left. The newly split-off window is on the right and displays the same buffer.				
	Create window at cursor direction	• ESC C- <right> • ESC C-<left> • ESC C-<down> • ESC C-<up> • <f1> C-<right> • <f1> C-<left> • <f1> C-<left> • <f1> C-<down> • <f1> C-<down> • <f1> C-<up> • <f11> C-<up> • <f11> C-<left> • <f11> C-<left> • <f11> C-<left> • <f11> C-<left></left></f11></left></f11></left></f11></left></f11></up></f11></up></f1></down></f1></down></f1></left></f1></left></f1></right></f1></up></down></left></right>	(pel-create-window-right)     (pel-create-window-left)     (pel-create-window-down)     (pel-create-window-down)	Create a window at the location pointed by the cursor's direction, and move point inside the new window.  • The 4 different commands and shown in the same cell for convenience, one for each of the available cursors: ⟨right⟩, ⟨left⟩, ⟨down⟩ and ⟨up⟩.  • There are 4 possible sets of bindings:  • 3 sets of stand-alone commands:  • Commands with ⟨f11⟩ prefix, always available.  • Commands with ⟨f1⟩ prefix available when pel-windmove-on-esc-cursor user option is on (set to t).				
		<pre>  <fil></fil></pre>		<ul> <li>Commands with <f1> prefix, available when pel-windmove-on-f1-cursor user option is on (set to t).</f1></li> <li>The Hydra-based commands, with the Hydra activated with any of the key sequences that use the <f7> prefix. Available when pel-use-hydra user option is set to t.</f7></li> </ul>				
Close Window	<f4> • kill window pointed to be arrow key</f4>	contained a file, nothing h though.	appens to the file) . S	. When a Emacs window is closed, the buffer is normally not killed (and therefore if it ome commands allow killing the buffer at the same time as closing the window rt with <f7>) are part of the PEL Window Hydra.</f7>				
See: <u>▼ Windows</u>	Close this windows	• C-x 0 • <f7> 0 • <f7> d</f7></f7>	(delete-window &optional WINDOW)	This just closes the window and moves the cursor to the next window.				
	Kill current buffer and close window See also: ∑ Buffers	• C-x 4 0 • <f7> k</f7>	(kill-buffer-and- window)	Kill the current buffer and delete the selected window.				

Concept	CRiSP key	Emacs Key	command	Description	
	Close a window identified by number	<f11> w k</f11>	(ace-delete- window)	Delete a window selected by a number, a number shown in the top-left corner of the window.  Requires the <u>ace-window</u> external package. PEL downloads, installs and activates it when the <u>pel-use-ace-window</u> user options is set to t.	
	Close all other windows	• C-x 1 • <f7> 1 • <f7> .</f7></f7>	(delete-other- windows &optional WINDOW)	Make current window fill its frame.	
	Close a window at cursor direction	• ESC C-S- <right> • ESC C-S-<left> • ESC C-S-<down> • ESC C-S-<down> • ESC C-S-<up> • <f1> C-S-<left> • <f1> C-S-<left> • <f1> C-S-<left> • <f1> C-S-<down> • <f1> C-S-<down> • <f1> C-S-<down> • <f1> C-S-<up> • <f11> C-S-<up> • <f11> C-S-<left> • <f11> C-S-<left> • <f11> C-S-<down> • <f11> C-S-<down> • <f11> C-S-<up> • <f7> C-S-<up> • <f7> C-S-<up> • <f7> C-S-<up> • <f7> C-S-<left> • <f7> C-S-<left> • <f7> C-S-<left> • <f7> C-S-<left> • <f7> C-S-<up> • <f7> C-S-<up></up></f7></up></f7></left></f7></left></f7></left></f7></left></f7></up></f7></up></f7></up></f7></up></f11></down></f11></down></f11></left></f11></left></f11></up></f11></up></f1></down></f1></down></f1></down></f1></left></f1></left></f1></left></f1></up></down></down></left></right>	pel-close-window-right) (pel-close-window-left) (pel-close-window-down) (pel-close-window-up)	<ul> <li>Kill window pointed by the cursor's direction.</li> <li>The 4 different commands and shown in the same cell for convenience, one for each of the available cursors: ⟨right&gt;, ⟨left&gt;, ⟨down&gt; and ⟨up&gt;.</li> <li>There are 4 possible sets of bindings: <ul> <li>3 sets of stand-alone commands:</li> <li>Commands with ⟨f11⟩ prefix, always available.</li> <li>Commands with ESC prefix, available when pel-windmove-on-esc-cursor user option is on (set to t).</li> <li>Commands with ⟨f1⟩ prefix, available when pel-windmove-on-f1-cursor user option is on (set to t).</li> <li>The Hydra-based commands, with the Hydra activated with any of the key sequences that use the ⟨f7⟩ prefix. Available when pel-use-hydra user option is set to t.</li> </ul> </li> </ul>	
Zoom/Un- Zoom Window See: <u>Nuindows</u>	C-z  • zoom/un-zoom	<ul> <li><fr> <ff>C-S-<up></up></ff></fr></li> <li>With several windows showing in a CRiSP frame, typing C-z hides all windows except the current one. Typing C-z again windows to how they were.</li> <li>Emacs does not have the same functionality. It is possible to get something similar using one standard command and or winner external package.:</li> <li>C-x 1 hides all windows except the current one (effectively doing what CRiSP calls a zoom). But typing it again doe it.</li> <li>To restore the windows the way they were before you need to use winner-undo from the winner built-in package. This <fi><f11> w p</f11></fi></li> </ul>			
	Close all other windows	• C-x 1 • <f7> 1 • <f7> .</f7></f7>	(delete-other- windows &optional WINDOW)	ction with winner using the winner-redo.  Make current window fill its frame.	
	Restore an earlier window configuration	• C-c <left> • <f11> w p • <f7> p</f7></f11></left>	(winner-undo)	Switch back to an earlier window configuration saved by Winner mode. In other words, "undo" changes in window configuration.	
	Restore a more recent window configuration	• C-c <right> • <f11> w n • <f7> n</f7></f11></right>	(winner-redo)	Restore a more recent window configuration saved by Winner mode.	
Searching for text in a buffer  See: Search/ Replace	<f5> • search for a string</f5>	<ul> <li>Emacs has a lot of string search facilities. CRiSP uses the CRiSP regular expression. I have not found anything that support CF regular expressions. Emacs has its own regular expression syntax and also support PCRE.</li> <li>The main search mechanism is C-s witch is a literal but incremental search.</li> <li>M-C-s provides a regular expression incremental search.</li> <li>The direction of the search can be changed during the search. Otherwise the C-r and C-M-r start the searches backward.</li> <li>The way the search results are displayed can also be changed. You can get them displayed on the window, or a list with further ability to refine the search with all sorts of criteria if you use ivy or helm mode.</li> <li>Note that it is possible to perform operations during an incremental reach, such as changing the case sensitivity, the way words treated, etc</li> <li>Also note that newlines are NOT described as \n in Emacs: to specify a newline in a search or replace you must insert a new in your seared text and you use C-q C-j for that.</li> </ul>			
	ISearch - forward     Incremental     Iiteral search     regexp	• C-s • ₩-f	(isearch-forward &optional REGEXP- P NO-RECURSIVE- EDIT)	Do incremental search forward: start or continue a search.  On PEL: this key mapping is used when either pel-initial-search-tool nil or 'anzu' when pel-use-anzu is t.  If pel-use-swiper is t, you can use <f11> s s to change the tool used for search operations.</f11>	
	search Captures string searched, search again with C-s or C-r	• C-u 1 C-s • M C-s • With PEL, C C-s we • C-u C-s does not wo ► Instead you can also u	orks.  rk to perform a regexpuse <b>C-M-s</b> to perform during search: type <b>C C-r</b> noremental search for bisearch-forward.	ollar expression search instead, something like:  o ISearch. the regexp incremental search forwards again (with prefix argument if that was used for regexp Isearch).  ward: C-s C-s	
	ISearch - backward     Incremental   literal search   regexp search     Captures string searched,     search again with C-s or C-r	• C-u 1 C-r • M C-s • With PEL, C C-r wo • C-u C-r does not wo r Instead you can also u	orks. rk to perform a regexpuse C-M-r to perform during search: type CC-s completed incremental	the regexp incremental search forwardr again (with prefix argument if that was used for regexp Isearch. search backward: C-r C-r	
	ISearch - Regexp - forward • Incremental • regexp search	C-M-s	(isearch-forward- regexp &optional NOT-REGEXP NO- RECURSIVE-EDIT)	Incremental forward regular expression search.  ➤ Everything that can be done with <b>C-s</b> can also be done here. For example repeating the search can be done with <b>C-s</b> .	

Concept	CRiSP key	Emacs Key	command	<u>Description</u>
	ISearch - Regexp - backward • Incremental • regexp search	С-М-г	(isearch- backward-regexp &optional NOT- REGEXP NO- RECURSIVE-EDIT)	Incremental backward regular expression search.  Everything that can be done with C-r can also be done here. For example repeating the search can be done with C-r.
Search Again	S- <f5> search again</f5>	To repeat a search in Emacs	type <b>C-s</b>	
See: Search/Replace	• search again with C-s or C-r	• C-s • ₩-f		Do incremental search forward: start or <b>continue</b> a search forward.  Any search, including one done with the command described below ( <f11> s .)</f11>
	ISearch - backward • search again with C-s or C-r	C-r		Do incremental search backward: start or <b>continue</b> a search backward.  Any search, including one done with the command described below ( <f11> s .)</f11>
Search word from top of window or window below	• search word from top of window or window below	<ul> <li>In CRiSP with CRiSPer, C-y takes the word the begins after the cursor and search for this word from the top of the buffer in the current window or, if there is a window below, from the top of the buffer in the window below.</li> <li>In Emacs with PEL, for something similar (but more flexible, see below) you can type one of the 2 key sets:</li> <li>the <f11> s . key sequence</f11></li> <li>the .; key-chord, when the key-chord is activated: you must type the 2 keys . and; together, at the same time.</li> <li>Emacs is much more flexible because Emacs supports the ability to provide key numeric arguments to a command. Read the Emacs manual section on numeric arguments to understand the concept.</li> </ul>		
Search/ Replace     Emacs Numeric Arguments	Search for:  • text in marked region or,  • word taken at point from the top of current or specified window  See also: ▼ Key-Chords  Note:  • Captures string searched,  • Search again with c-s or c-r  • Supports toggling the word mode when grabbing word at point.	if pel-search-from-top specifying another wind if the pel-search-from-specified, in which case for the pel-search from-specified, in which case for the pel-search from from from from from from from from	windows, the behavior-in-other user option low (see below).  top-in-other user option low (see below).  top-in-other user option low (see below).  top-in-other user option low (see below).  it searches from the dedicated windows see a search-backward of the window identified on the window ident	bur depends on the value of the <b>pel-search-from-top-in-other</b> user option: is nil (the default): search from the top of current buffer unless a numeric argument is stion is t, search from the top of the <b>other</b> window unless a numeric argument 3 or 5 is top of the current buffer. Search into the buffer of the window identified by the numeric argument N (see below). From the bottom of the buffer in the window selected by the absolute value of N.  It is search in current window.  If by the direction corresponding to the cursor in a numeric keypad:  If a suffected by the subword-mode and superword-mode. When searching in the ry toggle the mode when grabbing the word:  Soword-mode to grab the word in current buffer, use the N-10 value to identify the serword-mode allows you to grab complete identifiers (function names, variables that
Replace Text  See: Search/ Replace	<f6> • translate  Query Replace</f6>	<ul> <li>Position before searched word is pushed on the mark ring.</li> <li>Emacs calls this "replacing" text as oppose to translate. The Emacs term is more appropriate.</li> <li>CRISP text replacement always uses regular expression. Emacs provides literal replacements as well as regular expressions ones.</li> <li>Emacs regular expression syntax differs from CRISP. Emacs provides tools to test regular expressions that can be very useful. See the details in the Search/Replace table.</li> <li>Emacs support query replace (similar to what CRISP supports) and unconditional replace (where the replacement is done without prompting).</li> <li>The response to each query can be one of the following keys:         <ul> <li>y or SPC</li> <li>replace.</li> <li>i don't replace, move to next</li> <li>replace &amp; let me see result before moving on — Press SPC to move on.</li> <li>replace all the rest and don't ask</li> <li>replace all the rest and don't ask</li> <li>sback up to the previous instance</li> <li>u undo last replacement</li> <li>u undo ALL replacement</li> <li>u undo ALL replacements</li> <li>q or <ret></ret></li> <li>abort/exit query-replace</li> <li>Emacs support query replace</li> <li>c-r</li> <li>enter recursive edit - Exit the recursive edit with one of: C-M-c or C-]</li> <li>C-M-c</li> <li>exit recursive edit and resume query-replace</li> <li>C-J</li> <li>exit recursive edit and exit query-replace</li> <li>?</li> <li>get help</li> <li>y replace all strings in all buffer, no questions. — Multi-buffer QR Response</li> <li>skip to next buffer without replacing remaining matches in current buffer — Multi buffer QR Response.</li> </ul> </li> <li>M-%</li> </ul>		
			FROM-STRING TO- STRING &optional DELIMITED START END BACKWARD REGION- NONCONTIGUOUS -P)	A negative argument replaces backwards.  When prompted for replacement use <b>M-p</b> to retrieve the original text that you can then modify.

Concept	CRiSP key	Emacs Key	command	Description
	Query Replace Regexp	• C-M-% • <f11> s x q • C-c q</f11>	(query-replace-regexp REGEXP TO-STRING & potional DELIMITED START END BACKWARD REGION-NONCONTIGUOUS -P) — (pel-query-replace-regexp)	Replace some occurrences of a regex match with a specified string.  • A negative argument replaces backwards.  • C-M-% does not work in Terminal mode.  ② PEL only activates the C-c q binding if pel-bind-keys-for-regexp user option is set to t.  ③ ② With PEL, when pel-use-visual-regexp or pel-use-visual-regexp-steroids is set to t, the pel-query-replace-regexp command is used instead of the Emacs query-replace-regexp.  • This command uses the regex engine provided by Emacs or one of the these external package as selected by pel-select-search-engine-regexp (bound to <f11> s S).</f11>
	Unconditional replace	<f11> s r</f11>	(replace-string FROM-STRING TO- STRING &optional DELIMITED START END BACKWARD)	Replace all instances of from-string by to-string from point to end of buffer. Emacs displays the number of string replaced after the operation.
	Unconditional regex replace	• <f11> s x r • C-c r</f11>	(replace-regexp REGEXP TO- STRING &optional DELIMITED START END BACKWARD)	Replace every match for regex with new string.  PEL only activates the C-c r binding if the pel-bind-keys-for-regexp user option is set to t.  With PEL, when any of pel-use-visual-regexp or pel-use-visual-regexp-steroids is set to t, you can select a regexp engine provided by these external package (using <f11> s S to select another) and it affects what command is used here (pel-replace-string uses the command corresponding to your selection).  It's possible to use lisp expressions in the replacement string, making this super powerful. See examples in the Emacs Wiki.</f11>
	Start query replace during an incremental seach	C-s M-%	(isearch-query- replace &optional ARG REGEXP- FLAG)	Transforms the Search into a query replace, using the current string as the string to be replaced.  To replace char at point, do: C-s, C-M-y then M-% To replace word at point, do: C-s, C-w then M-% To replace line at point, do: C-s, C-y then M-% You can repeat the middle command to include several chars, words or lines.  When prompted for replacement use M-p to retrieve the original text that you can
Recording/ Playing Keyboard macros	<f7> • start/stop macro  <f8> • play macro</f8></f7>	<ul><li>To execute the recorded k</li><li>Emacs provides the ability</li></ul>	eyboard macro you us to use other keys, to byou can type <f3> to nenting count.</f3>	then modify.  Ing and stop the recording with <f4>.  Ise <f4> again (and as many times as required.  Is save, name and record keyboard macros as well.  It insert a count in the generated text, so when you play the macro back each instance  Macros table</f4></f4>
See: <u>Neyboard</u> Macros	Start Recording	• <f3> • C-x (</f3>	(kmacro-start-macro-or-insert-counter ARG)     (pel-kmacro-start-macro-or-insert-counter ARG)	Record subsequent keyboard input, defining a keyboard macro. The commands are recorded even as they are executed. While already defining a macro (with a previous F3), typing F3 inserts the current value of the keyboard macro counter into the buffer, and increments the counter by 1). See <a href="The Keyboard Macro Counter">The Keyboard Macro Counter</a> .  • C-u <f3> executes the last macro then appends the keystrokes to its definition. • C-u C-u <f3> appends keys to the last defined macro without executing it.  • By default, the PEL version of the command prompts if a macro already exists, before allowing overwriting it. • Use a negative argument (M or C) argument or numeric 0 to prevent this prompt and allow overwriting already defined macro. • This behaviour is customizable. Customize the pel-kbmacro-prompts variable in the Pel/Pel Kbmacro subgroup to change it and prevent the prompting.</f3></f3>
	End Recording or call last macro	• <f4> • C-x e</f4>	(kmacro-end-or- call-macro ARG &optional NO- REPEAT)	Ends macro recording done with <f3>. Typing <f4> again runs the last recorded macro. This is the most convenient way to replay a recently recorded macro. Typing C-u <f4> runs the second macro in the ring.  • A prefix argument number N specified the number of times to execute the macro.  • If N is 0 the macro will run forever until it exits with an error (such as encountering the end of the buffer) or it is manually stopped with C-g (or C-SBREK) on DOS/Windows)! During that time the display may not even be updated!!</f4></f4></f3>
Execute OS Command	<f10> • execute command</f10>	Emacs provide several comm taking information from mark See <u>S Shells</u> for more info.		You can run commands synchronously or asynchronously or even run a command r laucha nan application.
See: <u><b>∑ Shells</b></u>	Run a shell command	• M-! • %-L	(shell-command COMMAND &optional OUTPUT- BUFFER ERROR- BUFFER)	Prompts for the command in the minibuffer, show the command output in the next window in the *Shell Command Output* buffer in Fundamental mode.
	Run a command on a marked region	M-	(shell-command- on-region START END COMMAND &optional OUTPUT- BUFFER REPLACE ERROR-BUFFER DISPLAY-ERROR- BUFFER)	Execute string COMMAND in inferior shell with region as input.  Normally display output (if any) in temp buffer '*Shell Command Output*';  Prefix arg means replace the region with it. Return the exit code of COMMAND.  Mark the region first. Then type M-I. Emacs prompts for the command to run. Use an argument to replace the region with the command output (ie. type C-u M-I)
	Run a shell command asynchronously	M-&	(async-shell- command COMMAND &optional OUTPUT- BUFFER ERROR- BUFFER)	Execute string COMMAND asynchronously in background.  Like 'shell-command', but adds '&' at the end of COMMAND to execute it asynchronously.  The output appears in the buffer '*Async Shell Command*'.  That buffer is in shell mode.
	Launch OS application	<f11> A</f11>	(counsel-linux-app &optional ARG)	Launch a Linux desktop application, similar to Alt- <f2>.  When ARG is non-nil, ignore NoDisplay property in *.desktop files.  On Linux, requires the counsel external package. PEL activates it when the pel-use-counsel user option is set to t.</f2>

Concept	CRiSP key	Emacs Key	command	<u>Description</u>			
Top of Window	C-t	With CRISP C-t moves cu	urrent line to the top o	f window and <b>C-b</b> to the bottom.			
Con V Novinction	place cursor's line to top of	• Emacs provides <b>c-1</b> (Control-ell) that does it all. Type it once: it centers the line, type if again it moves the line to the bottom, type again it moves the line to the top of the window.					
See: Navigation	window,	again it moves the line to	the top of the window.				
	C-b to bottom						
	Position current	C-1	(recenter-top-	Without argument: moves the current line to window: center -> top -> bottom.			
	line to window's	C-1	bottom &optional	With arg: centre first:			
	Center / Bottom / Top .		ARG)	• C-u C-1 C-1 C-1 C-1 • → center → bottom → center → top			
	Refresh screen.			With negative arg: bottom first:			
				• C C-1 C-1 C-1 • → bottom → center → top			
				With arg 0: top first:     M-0 C-1 C-1 C-1			
				· → top → bottom → center			
				With numeric positive: move current line to window top position N			
				With negative numeric: move current line to bottom window position: -1 := last line			
	Reposition	• C-M-1	(reposition-	Attempts to make the current comment or current definition fully visible by scrolling			
	comment/	• C-[ C-1	window &optional	the lines without changing the point.			
	definition in full view	• Esc C-1	ARG)	<ul> <li>Further invocations move it to the top of the window or toggle the visibility of comments that precede it (by scrolling the lines).</li> </ul>			
Move cursor to	<home></home>		· · · · · · · · · · · · · · · · · · ·	Brief and CRisP by using repetitive <home> key strokes to move point to beginning</home>			
beginning of line, window, buffer		of line, window and buffer					
·	To beginning of: line, window,	<home></home>	(pel-home)	The behaviour of this command depends on the current point location:  • → beginning of field (if any) → beginning of line → beginning of window →			
See:	buffer			beginning of buffer			
• <u>Navigation</u>	★ PEL Enhanced	, , ,		nes if point is not at the beginning of line or window, 4 times if the line has a field (like s not at the beginning of field.			
	Key ★			C-u prefix is supplied, or Transient Mark mode is enabled and the mark is active.			
		<ul> <li>Scrolls other window whe</li> <li>Shift marking is available</li> </ul>		node is active. See <u>∑ Scrolling</u> .			
	See also: ∑ Scrolling			able; use Fn <left> instead.</left>			
	_			the original position avoid using this key inside keyboard macros when you cannot in invoked. Use <b>C. a</b> instead inside keyboard macros when you want to make point to			
		the beginning of a line.	The Reyboard macro	is invoked. Use <b>C-a</b> instead inside keyboard macros when you want to move point to			
	<end></end>		nctionality available in	Brief and CRisP by using repetitive <end> key strokes to move point to end of line,</end>			
		window and buffer.					
	To end of line, window, buffer	<end></end>	(pel-end)	The behaviour of this command depends on the current point location:			
	★ PEL Enhanced	So to go to end of buffer, type point's position. REPL like I		int is not at the end last window line, or 4 times if there is a field in the line after the mpt lines.			
	Key ★	<ul> <li>If the buffer is narrowed, this command uses the end of the accessible part of the buffer.</li> <li>Push mark at previous position, unless either a C-u prefix is supplied, or Transient Mark mode is enabled and the mark is active.</li> </ul>					
		• Scrolls other window when PEL window scroll mode is active. See ∑ Scrolling.					
		<ul> <li>Shift marking is available</li> <li>On macOS laptops, the </li> </ul>		t in terminal mode. ble; use Fn <right> instead.</right>			
				the original position avoid using this key inside keyboard macros when you cannot			
		guarantee the position when the end of a line.	the keyboard macro	is invoked. Use <b>C-e</b> instead inside keyboard macros when you want to move point to			
		Emacs provides extra key	s for similar operation	S			
	To beginning of	M-<	(beginning-of-	Move point to the beginning of the buffer.			
	buffer	M-<	buffer &optional	With numeric arg N, put point N/10 of the way from the beginning.			
			ARG)	<ul> <li>If the buffer is narrowed, this command uses the beginning of the accessible part of the buffer.</li> </ul>			
				Push mark at previous position, unless either a C-u prefix is supplied, or Transient Mark mode is enabled and the mark is active.			
				Shift marking does not work with this key.			
	To end of buffer	M->	(end-of-buffer	Move point to the end of the buffer.			
			&optional ARG)	<ul> <li>With numeric arg N, put point N/10 of the way from the end.</li> <li>If the buffer is narrowed, this command uses the end of the accessible part of the</li> </ul>			
				buffer.  Shift marking does not work with this key.			
	To left line center,	M-r	(move-to-window-	Position point relative to window.			
	top, bottom of	M-1	line-top-bottom	By default moves to beginning of line at: center, top, bottom of window in			
	window		&optional ARG)	successive calls.  • The recenter-positions user-option can be modified to change that default.			
				Arguments:     A negative argument reverses the order.			
				A numeric argument identifies a line number.			
				Number 0 identifies the first line in window: M-0 M-r : move to top of window			
				<ul> <li>Negative 0 identifies the last line in window: M M-0 M-r: move to end of window</li> </ul>			
				Shift marking does not work with this key.			
Goto routines	C-g	<ul> <li>CRiSP use the <b>C-g</b> key to</li> <li>CRiPer added support for</li> </ul>		g all definitions in the current file. The types of entry listed depends on the file.			
See:  • <u>Nenus</u>	Pop-up a     window menu	Emacs PEL implements se	omething similar but n	nuch more flexible using Emacs imenu mechanism as well as several enhanced input			
• <u>Navigation</u>	listing all function definitions	<ul><li>completion mechanisms s</li><li>Work on PEL is underway</li></ul>		elm. nhance imenu support for several languages and markup languages.			
	Move to imenu	• M-g h	(pel-goto-symbol)	Prompt using for imenu symbol of the current buffer and move point to it.			
	detected symbol definition in	• M-g M-h		Refresh imenu and jump to a place in the buffer using the completion method selected.			
	current buffer			• Modify user interface currently used with M-g <f4> h.</f4>			
	<b>*</b> *			<ul> <li>The command sets a ref-marker before moving. Return to previous location by typing M-,</li> </ul>			

Concept	CRiSP key	Emacs Key	command	<u>Description</u>		
	Move to imenu detected symbol definition of all opened buffers **	• M-g y • M-g M-y	(pel-goto-symbol- any-buffer)	Prompt using for imenu symbol of all loaded menu supported buffers and move point to the selection.  Provide input completion using the currently selected method (emacs-default, ido, ivy or helm).  Select the default completion method by customization setting pel-use-imenuanywhere.  Modify user interface currently used with M-g <f4> y.  The command sets a ref-marker before moving. Return to previous location by typing M-,</f4>		
Undo See <u>∑ Undo/Redo/</u> Repeat/Arg	Alt-u • undo	<ul> <li>CRiSP supports an omnipotent undo: it undoes everything including movements in buffer.</li> <li>Emacs undo is different: it undoes changes to buffers, not movement. The default Emacs undo can also undo an undo, ma redo. This is confusing to many newcomers to Emacs so it's possible to use the undo-tree external package which separat undo from redo and assigns 2 different commands. PEL provides user option to select which mechanism to use. You can restrict undo operation to a region of a buffer.</li> <li>See <u>Sundo/Redo/Repeat/Arg</u> for more information.</li> </ul>				
	Undo : pel-use-undo-tree = nil	• C-/ • C-x u • M-u • C-z • S-z • %-z • <f11> u u</f11>	(undo &optional ARG)	Undo last changes using standard Emacs undo. Also used to undo an undo, causing a redo!  • A numeric ARG serves as a repeat count.  If you are not familiar with standard Emacs undo, please first read about it before using it.		
	Undo : pel-use-undo-tree = t		(pel-undo &optional ARG)  • (undo-tree-undo &optional ARG)  • (undo &optional ARG)	<ul> <li>It might seems strange at first to use the same key to undo and redo.</li> <li>Undo changes. Does not redo.</li> <li>A numeric ARG serves as a repeat count.</li> <li>In Transient Mark mode when the mark is active, only undo changes within the current region. Similarly, when not in Transient Mark mode, just C-u as an argument limits undo to changes within the current region.</li> <li>C-/ only works in graphics mode</li> <li>s-z and %-z only work in macOS graphic mode. Note: with PEL, %-z is s-z.</li> <li>PEL uses this when the pel-use-undo-tree user option is t. PEL uses the undo-tree package instead of the default undo.</li> <li>With PEL, when pel-use-undo-tree is t, this key is bound to pel-undo which uses undo-tree-undo by default.</li> <li>You can, however toggle the local or global undo-tree-mode by issuing the M-x global-undo-tree-mode or M-x undo-tree-mode. If the undo-tree-mode is not set in the buffer, PEL will use the Emacs standard undo command until the undo-tree-mode is re-enabled.</li> </ul>		
	Redo : pel-use-undo-tree = t	• M-U • <f11> u r • S-Z • 光-Z</f11>	(pel-redo &optional ARG)  • (undo-tree-redo &optional ARG)  • (undo &optional ARG)  ARG)	Redo changes. A numeric ARG serves as a repeat count.  • In Transient Mark mode when the mark is active, only redo changes within the current region. Similarly, when not in Transient Mark mode, just C-u as an argument limits redo to changes within the current region.  • s-z and ℋ-z only works in graphics mode  • Note: with PEL, ℋ-z is s-z.  PEL uses the undo-tree package instead of the default undo.  Under PEL activate the undo-tree package by setting the pel-use-undo-tree user option to t.  With PEL, when pel-use-undo-tree is t, this key is bound to pel-redo which uses undo-tree-redo by default.  • You can, however toggle the local or global undo-tree-mode by issuing the M-x global-undo-tree-mode or M-x undo-tree-mode. If the undo-tree-mode is not set in the buffer, PEL will use the Emacs standard undo command until the undo-tree-mode is re-enabled.		
	Show undo tree : pel-use-undo-tree = t	<f11> u v</f11>	(undo-tree- visualize)	Show undo tree of current buffer. The *undo tree* keys are:  • <up>/<down> : move up/down the undo tree nodes • <right>/<left> : changes branch when at a branch root • s : toggle selection mode: normally moving restores right away, this other mode allows you to move in the tree without changing the controlled buffer until RET is typed. • d : shows diff between buffer and currently selected undo node!! • t : toggles showing relative timestamp on undo nodes  PEL uses the undo-tree package instead of the default undo.  Under PEL activate the undo-tree package by setting the pel-use-undo-tree user option to t.  With PEL, this is available when pel-use-undo-tree is t but also while the global or local undo-tree-mode is active, which it should be unless you explicitly disabled one of these via the global-undo-tree-mode or undo-tree-mode commands. If that is the case, re-enable the undo-tree-mode and you will be able to use the command.</left></right></down></up>		
	Switch branch of undo tree : pel-use-undo-tree = t	<f11> u x</f11>	(undo-tree-switch- branch BRANCH)	Switch to a different BRANCH of the undo tree.  • This will affect which branch to descend when *redoing* changes using 'undotree-redo'.  • PEL uses the <u>undo-tree package</u> instead of the default undo.  • Under PEL activate the undo-tree package by setting the <u>pel-use-undo-tree</u> user option to t.  • I with PEL, this is available when pel-use-undo-tree is t but also while the global or local undo-tree-mode is active, which it should be unless you explicitly disabled one of these via the global-undo-tree-mode or undo-tree-mode commands. If that is the case, re-enable the undo-tree-mode and you will be able to use the command.		
	Goto last change	<f11> u \</f11>	(goto-last-change &optional MARK- POINT MINIMAL- LINE-DISTANCE)	Set point to the position of the last change.  • Consecutive calls set point to the position of the previous change.  • With a prefix arg (optional arg MARK-POINT non-nil), set mark so C-x C-x will return point to the current position.  This requires the goto-last-change.el package.  Under PEL set the pel-use-goto-last-change user option to activate this.		

See <u>Marking</u>	Alt-I marks the control and a recontrol a	mark text from a character to urrent line ctangular region of text.  ursor to move freely over voic does not allow that: the cursor y marking is done in Emacs. es 2 position in the buffer:	l area: area where ther	es to including/excluding the cursor. e is no character in the buffer.
	By Default Emacs of This affects the wat Emacs also manag  the point: the loc  the mark: the loc highlighted wher is active.	does not allow that: the cursor y marking is done in Emacs. es 2 position in the buffer:		e is no character in the buffer.
	This affects the way Emacs also manag • the point: the loc • the mark: the loc highlighted wher is active.	y marking is done in Emacs. es 2 position in the buffer:	r can move up to the e	
		cation of the other end of a ba		the "region" or "marked region". This region may exist and NOT be highlighted. It is nsient Mark Mode", enabled by default, which highlights the region when the mark
	<ol> <li>One <u>local ma</u>         The maximun     </li> <li>One <u>global m</u></li> </ol>	ark ring, which holds the ma	ring is a list of position controlled by the "mark rkers of the marks set	
То	o cancel a current	t mark, type C-g		
Se	ee the <u>Narking</u> re	eference table for more inform	ation. Some comman	ds are shown here.
	how mark ring tats	• <f11> . ? • <f11> ? .</f11></f11>	(pel-mark-ring- stats)	Show info about global and buffer local mark and mark rings; their current and maximum size, buffer and positions for each mark ring entry.  • Use it to understand the impact of commands on the mark and mark rings.
ac	et mark & ctivate/ eactivate it	• C-SPC • C-@ • <f11> . s</f11>	(set-mark- command ARG)	Set the mark where point is and toggle its activation.  If mark was not active it activates it: moving the cursor further will show the marked area (the region) if transient mode is enabled (the default in Emacs).  If the mark is active, de-activates it.  Issuing the command twice (C-SPC C-SPC) sets the mark location and deactivates it.
se ind re	lark region by emantic unit, ncrease marked egion on each nvocation.	• M-= • <f11> . =</f11>	(er/expand-region ARG)	Increase selected region by semantic units.  • With prefix argument expands the region that many times.  • If prefix argument is negative calls 'er/contract-region'.  • If prefix argument is 0 it resets point and mark to their state before calling 'er/expand-region' for the first time.
Marking text area with navigation key	x Powerful ommand ★   Lit-a/Alt-m mark beginning to including/ excluding cursor	support shift marking: • All cursor keys without r	ctionality by using "Sh modifiers: <up>, <dow< td=""><td>This command is very powerful: the first time it's typed it selects a word, if you type it again it will expand the selection, and again, and again. The expansions follow the semantics of the current major mode: it is aware of the semantics of several programming languages.  ■ Once M-= is typed, you can quickly type the following single keys in sequence:  • = to expand the region,  • - to contract the region,  • 0 to reset the operation.  If you wait too long, then you have to use M-= again to continue the expansion, otherwise the region is de-activated.  Note that you can also use the following key chords to control the contraction of the selected text without having to worry about time:  • M- M-= to contract the region  • M-0 M-= to reset the operation.  • Also you can use the cursor keys to expand or contract the region and C-x C-x to exchange mark and point to expand the other side of the region with cursors.  ■ M-= is normally assigned to count-words-region. PEL binds <f11> c W to count-words-region instead.  □ This requires the expand-region package.  □ Under PEL, activated with pel-use-expand-region user option.  ■ The PEL package uses this command and key binding for it, a popular binding for this command is C-= but that key does not work in text terminal mode. The standard Emacs binding for M-= is normally count-words-region used for counting words in region, but PEL provides <f11> c r for that.</f11></f11></td></dow<></up>	This command is very powerful: the first time it's typed it selects a word, if you type it again it will expand the selection, and again, and again. The expansions follow the semantics of the current major mode: it is aware of the semantics of several programming languages.  ■ Once M-= is typed, you can quickly type the following single keys in sequence:  • = to expand the region,  • - to contract the region,  • 0 to reset the operation.  If you wait too long, then you have to use M-= again to continue the expansion, otherwise the region is de-activated.  Note that you can also use the following key chords to control the contraction of the selected text without having to worry about time:  • M- M-= to contract the region  • M-0 M-= to reset the operation.  • Also you can use the cursor keys to expand or contract the region and C-x C-x to exchange mark and point to expand the other side of the region with cursors.  ■ M-= is normally assigned to count-words-region. PEL binds <f11> c W to count-words-region instead.  □ This requires the expand-region package.  □ Under PEL, activated with pel-use-expand-region user option.  ■ The PEL package uses this command and key binding for it, a popular binding for this command is C-= but that key does not work in text terminal mode. The standard Emacs binding for M-= is normally count-words-region used for counting words in region, but PEL provides <f11> c r for that.</f11></f11>
See <u>» Navigation</u>	for copy/paste revious line			with more is listed in the <u>Navigation</u> reference table.  Move cursor vertically up ARG lines.  • <b>c</b> - <b>p</b> : ► Shift marking is available in graphics mode, not in terminal mode.
Ne	lext line	• C-n • <down></down>	TRY-VSCROLL)  (next-line &optional ARG TRY-	• <up> : ► Shift marking works with this command.  Move cursor vertically down ARG lines.</up>
let	eft/previous char	• <down></down>	VSCROLL) (left-char & optional	<ul> <li>C-n : ► Shift marking is available in graphics mode, not in terminal mode.</li> <li><down> : ► Shift marking works with this command.</down></li> </ul> Move point N characters to the left (to the right if N is negative).
ICI		-2010-	N)	On reaching beginning or end of buffer, stop and signal error.  Shift marking works with this command.
let	eft/previous char	С-Ъ	(backward-char &optional N)	Move point N characters backward (forward if N is negative).  • On attempt to pass beginning or end of buffer, stop and signal error.  • Interactively, N is the numeric prefix argument.  • If N is omitted or nil, move point 1 character backward.  • Depending on the bidirectional context, the movement may be to the right or to the left on the screen. This is in contrast with <left>.  ➤ Shift marking is available in graphics mode, not in terminal mode.</left>
riç	ght/next char	<right></right>	(right-char &optional N)	Move point N characters to the right (to the left if N is negative).  On reaching beginning or end of buffer, stop and signal error.  ➡ Shift marking works with this command.
rig	ght/next char	C-f	(forward-char &optional N)	Move point N characters forward (backward if N is negative).  On reaching end or beginning of buffer, stop and signal error.  Interactively, N is the numeric prefix argument.  If N is omitted or nil, move point 1 character forward.  Depending on the bidirectional context, the movement may be to the right or to the left on the screen. This is in contrast with <right>.  Shift marking is available in graphics mode, not in terminal mode.</right>

Concept	CRISP key	Emacs Key	command	<u>Description</u>					
Marking rectangle area See <u>Nectangles</u>	Alt-c • mark column for copy/paste	<ul> <li>Since CRiSP allows the cursor to move anywhere, even over "void" space (where the position does not correspond to a character inside the buffer), it also marking any are with a horizontal/vertical line or a rectangle by starting the marking with Alt-c and moving the cursor to the opposite end of the line or rectangle.</li> <li>Emacs does not have a command to mark a rectangle indicating that further operations are related to a rectangle area. Emacs supports copying a rectangle area but it must be done using several commands.</li> <li>To operate (copy, kill, delete) on a rectangle area the user must: <ol> <li>first define the rectangle area by setting the mark (for example with C-SPC or by using Shift marking).</li> <li>then move the cursor (point, in Emacs-speak) to the location of the opposite corner of the rectangle.</li> <li>Finally use a rectangle copy, kill or delete command: one of the the first 3 commands below.</li> </ol> </li> <li>To paste a rectangle area into the buffer, use the yank-rectangle command (bound to C-x r y)</li> </ul>							
			• Also note that Emacs normally does not allow moving the cursor into the "void" space. It can be done, but a special mode must be activated to do so (more on that below).						
	Save rectangle text See also: <u>&gt; Cut &amp; Paste</u>	• C-x r M-w • <f11> = r</f11>	(copy-rectangle- as-kill START END)	Copy the region-rectangle and save it as the last killed one.					
	Kill text in rectangle  See also:  • » Cut & Paste	• C-x r k • <f11> - r</f11>	(kill-rectangle START END &optional FILL)	Delete the region-rectangle and save it as the last killed one.  • If the buffer is read-only, Emacs will beep and refrain from deleting the rectangle, but put it in 'killed-rectangle' anyway. This means that ou can use this command to copy text from a read-only buffer. (If the variable 'kill-read-only-ok' is non-nil, then this won't even beep.)					
	Delete rectangle text	C-x r d	(delete-rectangle START END &optional FILL)	Delete (don't save) text in the region-rectangle.  The same range of columns is deleted in each line starting with the line where the region begins and ending with the line where the region ends.  With a prefix (or a FILL) argument, also fill lines where nothing has to be deleted.					
	Yank last killed rectangle	С-х г у	(yank-rectangle)	Yank the last killed rectangle with upper left corner at point.					
	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.  Issue the command then move cursor to identify area.  Unaffected by 'void' space on sorter lines! Making this very useful to:  insert or remove indentation after some leading text (like inside a table).  delete or fill a rectangle of text with any columns of text.					
	See: <u><b>∑</b> Cursor</u>	Requires the multiple-cu	rsors external packaç	ge. 🛂 With PEL, set the <b>pel-use-multiple-cursors</b> user-option set to t to activate it.					
Marking complete lines  See <u>Marking</u>	Alt-I • mark line	<ul> <li>CRiSP uses Alt-1 (ell) to mark a complete line, regardless of the column location of the cursor.</li> <li>Emacs does not explicitly support that concept.</li> <li>However, PEL does add commands for that, using the concept of "Shift marking", using the Shift key with other listed below. With these commands the cursor position does not matter: the entire line is marked. Note that you line with S-cdown&gt; and <s-up> but the cursor must be at the beginning of the line to mark the entire line.</s-up></li> <li>More information is available in the Marking reference table.</li> </ul>							
	Mark line(s) going down	• M-S- <down> • <f11> . <down></down></f11></down>	(pel-mark-line- down &optional N)	Mark current line or N line forward for going down.  Set mark at beginning of line, move point to line end.  Without argument select the current line. With numeric argument N, selects the current line and N-1 lines below.  Once the line is marked this way, pressing the same keys or <down> key alone</down>					
	Mark line(s) going up	• M-S- <up> • <f11> . <up></up></f11></up>	(pel-mark-line-up &optional N)	grows the region by one more line downward.  Mark current line or N previous lines for going up.  • Move point to start of line, set mark at end of line.  • Without argument select the current line. With numeric argument N, selects the current line and N-1 lines above.  ➤ Once the line is marked this way, pressing the the same keys or <up> key alone grows the region by one more line downward.</up>					
Listing current buffers See <u>&gt; Buffers</u>	Alt-b • List file buffers	example.     Emacs handles a large set shells, compilation logs, et session. Emacs also has l name that start with a spa     Emacs has several comma	of buffers: buffer for fact. On a typical Emac buffers that are norma ce).	ffers. Most CRiSP buffers are file buffers, it also supports other buffer types, shells for files, buffers not associated with files (yet), special buffers with no file associated, is session the number of buffers is normally bigger than the equivalent CRuSP ally hidden but can be shown if you happen to know their name (which normally have a ers, listing them, change the current buffer. There is also a large number of package ome are shown here, more are listed in the <u>Suffers</u> reference table.					
	List all buffers	C-x C-b	(list-buffers &optional ARG)     (ibuffer &optional OTHER- WINDOW-P)	Display a list of existing buffers in a buffer named "*Buffer List*", the buffer displays information about all buffers and enters the <i>Buffer Menu Mode</i> . See the keystrokes for the Buffer Menu Mode below.  The PEL package the 'ibuffer' function instead, which provides more functionality, working like dired, allowing to sort by name, size, mode, filtering by mode (hit return on the mode of a buffer). Type <f1> m to get the list of possible actions that can be done on the listed buffers.</f1>					
	Switch to buffer	С-х в	(switch-to-buffer BUFFER-OR-NAME &optional NORECORD FORCE-SAME- WINDOW)	Switch window to display the previous, or another buffer (entered at prompt).  Switch window to display the previous, or another buffer (entered at prompt).  The invisible buffers have a name that start with a space. To see them type space and tab and a list of those buffers will appear before the list of visible buffers.					
	Open Buffer Menu	<c-f10></c-f10>	(buffer-menu- open)	Start key navigation of the buffer menu. Lists the buffers by major-mode when several buffers of the same major-mode are opened. This is the keyboard interface to <c-down-mouse-1></c-down-mouse-1>					
Save File See File-mngt	Alt-w • save current buffer to file	save the buffer to it. The r	ave" buffer to a file. If main commands are s	the file is locked by another process Emacs prompts and you must "steal" the file to hown below. But much more is available. See the complete list in the <u>File-mngt</u> the ibuffer buffer list command described above.					
	Save file to disk	• C-x C-s • ₩-s	(save-buffer &optional ARG)	Save current buffer to associated file. By default, it makes the previous version into a backup file if previously requested or if this is the first save.  • With C-u: marks this version to become a backup when the next save is done  • With C-u C-u: makes the previous version into a backup file  • With C-u C-u: marks this version to become a backup when the next save is done, and makes the previous version into a backup file.  • With prefix 0: never make the previous version into a backup file.  • On macOS in graphics mode only: %-s brings a OS file-save dialog.					

Concept	CRiSP key	Emacs Key	command	<u>Description</u>	
	Save all/some files	С-х s	(save-some- buffers &optional ARG PRED)	Prompt for files that are modified. Options:  • y : save  • n : don't save  • C-r : look at the buffer in question  • d : view differences with diff-buffer-with-file	
	Write buffer to specified file	C-x C-w	• (write-file FILENAME &optional CONFIRM) • (ido-write-file)	Similar to "Save-As": prompt for the filename.  • Can also be yanked in the mini buffer, use M−n to edit it.	
Deleting/Killing Text	In CRiSP there is contretrieve what vectors.     Emacs has two differences.	vas deleted.	when text is deleted it'	s gone. You can't get a copy of what was deleted. You can undo the deletion, but	
See <u>Sut &amp; Paste</u>	Text kill operat internal buffer the operations separations separations the last kill ring Right after a yau Emacs provides	Once the text is deleted it's gone and not retrievable just like in CRiSP. This is not used much in Emacs though.  tions. This is closer to the CUA text cut operation. But with a twist: Emacs killed text is remembered inside the Emacs kill ring, an hat remembers the text that was killed. Text killed in consecutive operations is concatenated inside a single kill buffer entry. Text killed in arrated by at least one other non-kill command is stored in new kill ring entries.  g entry can be yanked back inside a buffer. The main key for that is C-y but PEL binds other keys (see below in the Paste section).  Ink operation, you can change the entry yanked with another entry from the kill ring by using the yank-pop command (bound M-y).  Is operation to kill character, word, symbols, S-expressions (text within parentheses) semantic entities of code, paragraphs, code function, ee the Cut & Paste reference table for more information.			
Delete - line	Alt-d • Delete line	<ul> <li>In CRiSP, deleting a line is done with Alt-I.</li> <li>In Emacs, C-w kills a line (remembers the kine in the kill buffer). With PEL, if you want to delete the line type C C-w. Also, with PEL, if there is a region marked, C-w will kill that region (or delete it if you type C C-w).</li> </ul>			
See <u>&gt; Cut &amp; Paste</u>	Kill/Delete marked region/line(s)	• C-w • <f11> - 1</f11>	(pel-kill-or-delete- marked-or-whole-	Flexible region/whole-line kill/delete. Argument controls behaviour (see next cell below).	
	★PEL Enhanced Key ★	• <kp-subtract> • #-x</kp-subtract>	line &optional N)	In graphics mode this also copies text to the OS clipboard.  With PEL in non-numlock mode, the <keypad-subtract> (the keypad -</keypad-subtract>	
	Available in PEL non numlock mode			key) is bound to this command. <b>⑤</b> On macOS in graphics mode only: PEL rebinds ℜ−x from (kill-region) to this command, making this easy to use key able to perform more. <b>⑤</b> See the ∑ Marking table to mark (select) a text region to use with this command.	
Delete to end of line See <u>∑ Cut &amp; Paste</u>	See also:  •	Scenarios: With no arg: with no active/visible with an active/visible With arg 0: (M-0 C-w) With a non zero arg: With no region active With arg -: (M- With arg -1: (M- With arg -3: (M- With arg -3: (M- With arg -3: (M- With arg -3: (M- With arg active/ With any negative With no argument This replaces the standa marked. When text is killed i  C-S-  In CRISP Alt-k deletes to the macs provides a command to delete the PEL provides a command a command to delete the PEL provides a command to delete the	ased on presence of re ll/delete region's text, abs(N) lines, start at po and the line is empty, e region: kill current line region: kill region's te: kill region's text, whe e/visible:  - C-w) or (C C 4 C-w) : kill 4 lines - 3 C-w) : delete 3 livisible: mark argument: delet or any positive argum rd Emacs binding to k t is killed with kill-region (kill-whole-line & optional ARG)  the end of line.  Ind to kill to the end of text although that wound to delete text to the	cint. then delete line instead of killing it.  interpretation is active/visible or not.  including current line  1	
	Delete to end of line	• C-K • <f11> - E</f11>	(pel-delete-to-eol)	The M-I binding works properly in graphics mode.  Delete text from cursor to end of line.  Nothing is copied to the kill ring.	
Paste See <u>&gt; Cut &amp; Paste</u>	C-v • paste	<ul> <li><fi>&lt; Fili&gt; ■</fi></li> <li>Nothing is copied to the kill ring.</li> <li>CRiSP is CUA compliant and uses C-v to paste. CRiSP also support the <insert> key.</insert></li> <li>Emacs was designed before CUA was designed and published. It can support it via the cua-mode (see ∑M CUA) but that mode interferes with other operations. For new Emacs users it's often best to learn to use Emacs without it at first.</li> <li>Instead use the following keys and use the yank command to paste text in. It is bound to C-y. Notice that PEL also maps it to the <insert> key.</insert></li> <li>Also remember that Emacs keeps all killed or copied text inside a kill-ring and the yank command retrieves the top entry of the kill ring. That may not be what you wanted to insert. You can then use yank-pop (bound to M-y) to replace what you just yanked in by the next entry in the kill-ring. If enabled the pop-up-kill-ring pops a menu of all kill-ring entries and you just select the one you want.</li> </ul>			
	Yank last killed into buffer  See also: ∑  Numkeypad	・ C-y ・ 光-v ・ <kp-0></kp-0>	( <b>yank</b> &optional ARG)	Reinsert ("paste") the last stretch of killed text.  • More precisely, reinsert the most recent kill, which is the stretch of killed text most recently killed OR yanked. Put point at the end, and set mark at the beginning without activating it. With just C-u as argument, put point at beginning, and mark at end. With argument N, reinsert the Nth most recent kill.  ■ 第一▼ In graphical mode: supports OS clipboard.  ■ With PEL, <kp-0> which is also the location of the <insert> key on some keyboard, performs the same yank operation when the keypad numlock is off. See ▼■ Numkeypad</insert></kp-0>	

Concept	CRiSP key	Emacs Key	command	Description
	Replace last yank with previous kill	м-у	(yank-pop &optional ARG)	Replace just-yanked stretch of killed text with a different stretch.  This command is allowed only immediately after a 'yank' or a 'yank-pop'. At such a time, the region contains a stretch of reinserted previously-killed text. 'yank-pop' deletes that text and inserts in its place a different stretch of killed text.  With no argument, the previous kill is inserted. With argument N, insert the Nth previous kill. If N is negative, this is a more recent kill.  The sequence of kills wraps around, so that after the oldest one comes the newest one.  Also referred to as: "yank next".
	Pop-up menu with kill ring content, to select entry to insert at point.	<f11> M-y</f11>	(popup-kill-ring)	Pop-up a menu that shows all entries in kill ring, allowing insertion of a specified kill ring entry at point.  • While the pop-up menu is available, it's also possible to perform interactive search in kill ring text: only matching entries will now show in the pop-up men  • Available only in graphics mode when popup-kill-ring package and its prerequisites pos-tip and popup are installed.  • PEL activates this when the pel-use-popup-kill-ring user option is set to t.  • Use <f11> - <f2> to access its customization group.</f2></f11>
Copy See <u>&gt; Cut &amp; Paste</u>	<b>C-c</b> • copy	<ul> <li>CRiSPer binds Alt-keypa</li> <li>Emacs was designed before interferes with other opera</li> </ul>	<ul><li>ad + to copy the word ore CUA was designed ations. For new Emacs</li></ul>	opy a marked area. CRiSPer also supports the <b>keypad +</b> to copy marked area. Also at the cursor.  and published. It can support it via the cua-mode (see <u>MCUA</u> ) but that mode is users it's often best to learn to use Emacs without it at first. the kill buffer from where it can be restore (yanked).
	Copy region or line at point  ★PEL Enhanced Key ★	<pre>• M-W • <f11> = 1 • <f11> + • <kp-separator></kp-separator></f11></f11></pre>	(pel-copy-marked- or-whole-line)	Flexible copy to kill ring.: copy visible region if any, otherwise copy current line to kill ring.  In terminal (TTY) mode the keypad + key is interpreted as <kp-separator> on macOS so this key is available.  Replaces standard binding to kill-ring-save which only copies region  See the Marking table to mark (select) a text region to use with this command.</kp-separator>
	See also:  •		If N = 0: copy regi If a region is active If no region is active If no argument, If N > 0: copy cu If I < 0: copy cu All copied lines are c All copy operations a	s controlled by the (optional) argument: on (regardless of whether it is visible or not. s/visible: copy the region's text. re/visible copy N lines: (N=1) copy current line. urrent line and N-1 following lines. rrent line and N-1 previous lines. omplete. The copied text is saved in the kill-ring. ure performed by 'kill-ring-save' (the original binding for that key). text is also copied to the OS clipboard.
	Copy complete word at point  See also:  Numkeypad  Text Modes	• <f11> = w • <c-kp-add></c-kp-add></f11>	(pel-copy-word- at-point)	Copy word at point. Shows the text copied in the echo area.  See table ∑ Text Modes for information on text modes that affects this.  The <f11> t m ? command displays the mode and the <f11> t m prefix allows modifications of the mode.  See changing the word mode to include or exclude some characters as word delimiters:  subword-mode. To toggle that mode: <f11> t m b  superword-mode . To toggle that mode: <f11> t m p</f11></f11></f11></f11>
	Copy complete symbol at point  See also:   Numkeypad	<pre>   <f11> = .   M-+   <m-kp-add> </m-kp-add></f11></pre>	(pel-copy-symbol- at-point)	Copy symbol at point. Syntax depends on the syntax table for the buffer.  • Shows the text copied in the echo area.  • The syntax of the symbol depends on the major mode used by the current buffer.
	CRiSPer commands	are not and these last one  • Emacs PEL command is a modes you must use the language sensitive but it is other mode has different of  • For example, if you war <f12> f.</f12>	s insert the C pre-proculso available from any onger <f11> SPC c spossible to insert the comment style, the oth at to insert a C function to temporary change to</f11>	types. The Esc-m and Esc-f are langiugae sensitive but the Esc-d, Esc-i and Esc-losessor statement sin any type of files.  mode, but the <f12> prefix is mapped to that command only in c-mode, on other reprefix. The commands to insert module header and function header blocks are m inside another type of file by using the longer prefix. Note, however that if the er comment style is used.  In definition block inside a reStructuredText file you could use <f11> SPC c  the mode to c-mode (using M-x c-mode) and then use <f12> <f12> f to enter</f12></f12></f11></f12>
Insert File Module Header  See:  • ∑ Inserting Text • 我I - C	• creates module header, etc.	has the ability to write cod and does not lend itself to  • Emacs PEL has a similar r  • a generic file-type agno	le templates for severa being used by various nechanism: stic skeleton template	he top of the file using the comment mechanism appropriate for the type of file and all programming languages. The layout of the generated code is mostly hard-coded is teams having different requirements.  Some programming and markup languages. It currently supports C, Emacs Lisp,
<u> </u>		Erlang, reStructuredTex PEL generated skeleton te The PEL language-special Read PEL user's manua C: Controlling PEL	t. Support for more la emplates are customiza- lized tempo skeleton cal section related to the	nguages will be developed. able via a set of user option variables to selectively enable various styles or features. an also be completely replaced by your own code (but not the generic ones). e skeleton for the programming language of interest:
	Insert generic file module header blockinsert generic file module header block — Language agnostic	<f6> h</f6>	(pel-generic-file- header)	<ul> <li>Insert a file header block at the top of the file.</li> <li>Works only for buffer visiting a file.</li> <li>Supports all programming and markup language files that have a dedicated major mode. It is also available in buffers for major modes explicitly supported by the <f12> <f12> key prefix. This way, those modes can use two different commands to insert file header blocks, each having its own different format.</f12></f12></li> <li>It supports several programming and markup language and uses the comment style identified by the file extension. If the comment style is unknown the command prompts for one.</li> <li>The layout of the entered text is controlled by user options. It is possible to create a user-specified skeleton this command will used instead of the one provided by PEL.</li> </ul>

Concept	CRiSP key	Emacs Key	command	Description		
	<ul> <li>PEL creates key bindings to invoke the skeletons in the supported major modes, using the same key prefix sequence for each mode: <f12> <f12>, with the same key bindings for equivalent concepts (such as file header block) as much as possible.</f12></f12></li> <li>Several aspects of the PEL Emacs Lisp Source Code Style is controlled by the user options inside the pel-c-code-style group. This group can be edited with <f12> <f2> from a C mode buffer and include the following options relevant for a module header:         <ul> <li>pel-c-skel-module-header-block-style: allows selecting a user-define module-header comment block.</li> <li>pel-c-skel-comment-with-2-star: controls the format of C-style continuation comments.</li> <li>pel-c-skel-insert-file-timestamp: set whether an automatically updated timestamp is inserted in the file header block.</li> <li>set whether blocks use horizontal separator lines.</li> <li>pel-c-skel-module-section-titles: identifies the documentation markup used.</li> <li>pel-c-skel-with-license: identifies whether section titles are created and identifies these section titles.</li> <li>pel-c-skel-with-license: set whether file header blocks use open source software license text controlled by lice.</li> <li>lf set, include guards using pre-processor symbols made out of the file base name and automatically generated UUID strings are inserted in C header files.</li> </ul> </f2></f12></li> <li>Once a skeleton was just entered (or later by activating the pel-tempo-mode) you can move to the next or previous point of interest (so called tempo-mark with the standard tempo-mode keys C-c M-f and C-c M-b or some other keys like C-c and C-c.</li> </ul>					
		<f12> <f12> h</f12></f12>	(pel-c-file-header)	Insert a large file header the includes sections controlled by the user options in the <b>pel-c-code-style</b> customization group and some aspects of the C style currently active.		
		. Drompto for file purpose	and inpart a complete t	See some examples in the PEL manual.		
		required by customization  If the file is a C header, file base name and an when activated by custoff the file is a C source horizontal separator lin	n, license text if require inserts a safe and por automatically generate tomization (default is o code file, it inserts a si les. The blocks identified the PEL tempo skeleton	table C pre-processor #include guard statement that uses a symbol made out of the ed UUID string. This eliminates possibility of include header file clash. It is inserted		
Insert C	Esc-f	CRiSPer Esc-f prompts for	or a function name and	d insert a function header with a fixed format.  The mat is customizable via a set of user potions. A fully customized skeleton can also be		
function header	creates function     header and asks     for function     name,     creates function	created and used instead	of PEL's default. The	appropriate user options are listed below.  acting the function name from the text at point. That might be implemented in the		
See: • <u>\$\partial 1 - C</u>	header based on function name where cursor is,					
	edited with <f12>     pel-c-skel-con     pel-c-skel-use     pel-c-skel-doc     pel-c-skel-fun     pel-c-skel-fun      pel-c-skel-fun</f12>	with the same key bindings for equivalent concepts (such as file header block) as much as possible.  Several aspects of the PEL Emacs Lisp Source Code Style is controlled by the user options inside the pel-c-code-style group. This group can be edited with <f12> <f2> from a C mode buffer and include the following options relevant for a function header template:  • pel-c-skel-comment-with-2-star  • pel-c-skel-use-separators  • pel-c-skel-use-separators  • pel-c-skel-doc-markup  • identifies the documentation markup used.  • pel-c-skel-insert-function-sections: set whether C function templates are inserted in the function description comment.  • pel-c-skel-function-define-style  • pel-c-skel-function-define-</f2></f12>				
	Insert a function definition with	<f12> <f12> f</f12></f12>	(pel-c-function)	Insert a C function definition code and comment template. See some examples in the PEL manual.		
	comment block					
Insert C #define statement	Esc-d • insert C #define statement					
See: • <u>\$1 - C</u>	Insert #define	<f12> <f12> d</f12></f12>	(pel-c-define)	Insert a C pre-processor #define statement.  • If there is text between the beginning of the line and point, insert the statement on the next line, otherwise insert it on the current line, even if there is text after point (to allow inserting it before the name of the symbol to define).		
Insert C #include statement	Esc-i • insert C #include <> statement					
See: • 1/201 - C	Insert #include <.h>>	<f12> <f12> i</f12></f12>	(pel-c-include-lib)	Insert a C pre-processor #include <> statement to include a library file.  If there is text between the beginning of the line and point, insert the statement on the next line, otherwise insert it on the current line.  If there is text after point, insert a new line to place that text on the next line.  The .h extension is written between the angle brackets and point left right before the period. The next tempo mark is placed at the end of the line (so C-c . move point there).		
	Insert #include ".h"	<f12> <f12> I</f12></f12>	(pel-c-include- local)	Insert a C pre-processor #include "" statement to include a local file.  If there is text between the beginning of the line and point, insert the statement on the next line, otherwise insert it on the current line.  If there is text after point, insert a new line to place that text on the next line.  The .h extension is written between the angle brackets and point left right before the period. The next tempo mark is placed at the end of the line (so C-c . move point there).		

Concept	CRISP key	Emacs Key	command	<u>Description</u>
Insert commented separator line	Esc-I • Insert commented separator line	<ul> <li>CRiSPer Esc-I (ell) inserts a commented line on the current line, using the current margin for the line length.</li> <li>Emacs PEL implements something similar, mapped to <f6> I (ell) as well as <f11> i I (ell). It supports several programming and markup language and uses the comment style identified by the file extension. If the comment style is unknown the command prompts for one.</f11></f6></li> </ul>		
See:  • <u>Somments</u> See:  • <u>Somments</u>	Insert commented line See also: ∑ Comments	• <f11> i 1 • <f6> 1</f6></f11>	(pel-insert-line &optional LINELEN)	Insert a (commented) line before/at current line.  If point is at the beginning of the line insert it there.  If point is in the middle of a line, move point at beginning of line before inserting it.  The number of dash characters of the line is specified by LINELEN:  If LINELEN is not specified the buffer's fill-column value is used.  It supports several programming and markup language and uses the comment style identified by the file extension. If the comment style is unknown the command prompts for one.  ■ fill-column is customizable and can be used as a file or directory variable.