Lispy — Short & Sweet Semantically Aware Lisp Editing

Description.			Set Semantically Aware Lisp Editing	
<u>Description</u>	The lispy minor mod	Function e provides modal-like editi	Note	
Lispy: Context-based modal editing of Lisp code Ref: Lispy function Reference	The <u>lispy</u> minor mode provides modal-like editing to Emacs for Lisp-like languages with very few keys when point is before (or after) "paren". On other locations keys self insert, but when point (the cursor) is before the left, opening, paren or after the right, closing paren, the keys are interpreted as lispy commands. This table lists the lispy command keys, with links to the <u>Lispy function Reference</u> for each one. This requires the <u>lispy</u> external package. PEL downloads, installs and activates lispy when the pel-use-lispy user option is set to t. To get lispy mode run when Emacs visits a file of a specified mode, include the major mode in the PEL user-option pel-modes-activating-lispy. PEL does not activate lispy for any major mode by default. That's OK to learn lispy by activating it for testing. But once you learn and are comfortable with it you will want to activate when the file is opened automatically by adding the major mode in that list.			
∑ Customize PEL use of Lispy and Lispy itself.	<f11> <f2> SPC M-L</f2></f11>	(pel-cfg-pkg-lisp &optional OTHER- WINDOW)	Prompt to customize: 1. PEL lispy support for Emacs Lisp and Common Lisp 2. lispy itself.	
Toggle <u>Lispy</u> mode See also: • <u>我(- Common Lisp</u> • <u></u> <u>*</u> <u> </u>	• <f12> M-L • <m-f12> M-L <f11> SPC 1 M-L</f11></m-f12></f12>	(pel-lispy-mode &optional ARG)	If OTHER-WINDOW is non-nil (use C-u), display in another window. Toggle lispy-mode on/off. Lispy is a minor mode for navigating and editing LISP dialects. Requires lispy external package. PEL downloads, installs and configure it when pel-use-lispy user option is set to t. Please read the information on lispy web site. pel-lispy-mode calls lispy-mode but also prepares hydra, loaded dynamically with PEL. Set the pel-modes-activating-lispy user-option to activate lispy automatically for major modes.	
Getting Code Help See also: <u>▼ Help/Info</u>			e the current window or into a help buffer. See the ** Help/Info** table for more help commands available even when lispy mode is off.	
Describe function at point	C-1	(lispy-describe-inline)	Display documentation of current Lisp function (or variable if marked) as a pop-up overplayed window. • If docstring is too long it is displayed inside a *lispy-help* buffer.	
See Also: <u>∑ Help/Info</u>	<f12> 1</f12>		The <f12> 1 key can be used even when lispy mode is not active.</f12>	
Describe function	C-2	(lispy-arglist-inline)	Show the argument list of current function.	
<u>arguments</u>	<f12> 2</f12>		The <f12> 2 key can be used even when lispy mode is not active.</f12>	
Describe function/ variable	xh	(lispy-describe)	A shorthand for describe-function or describe-variable, showing help in the *Help* buffer. • If you want to call describe-variable, you should mark the symbol first.	
Show top level form	xw	(lispy-show-top-level)	Show top-level form containing point on mode-line. Eg. inside a defun, show defun name & args.	
Numeric Arguments in Lispy	For example jus This is true o	t type two characters 4, fo	d as straight numbers: there's no need to use M-2 to provide the argument 2, just type 2 . bllowed by c to create 4 clones of the following S-expression (sexp). re (or after) . You can also type numerical arguments with the Meta key prefix for some commands in eys.	
Miscellaneous	Here's a set of comm	nands you might need to u	se very early when using lispy.	
undo	u	(special-lispy-undo)	Deactivate region and 'undo'.	
View: center current sexp	v	(special-lispy-view)	Recenter current sexp to be on the first line of the window. When called twice in a row, recenter back to the original position.	
Multiple Cursors See: <u>∑ Cursor</u> .	Lispy supports operations on multiple cursors, allowing concurrent visible operations on several spots in the current window. PEL activates it when pel-use-multiple-cursors is set to t.			
Set multiple cursors • Add extra cursor(s)	xm	(lispy-cursor-ace)	Add a cursor at a visually selected paren using an Avy target. • Only one cursor can be added with local binding. Any amount can be added with a global binding. • Return to single cursor with C-g	
Add cursors down See: <u>∑ Cursor</u> .	C-7 <f12> 7</f12>	(lispy-cursor-down ARG)	Add ARG cursors using 'lispy-down'. I found that using the multi-cursor commands directly works well, and often better, than this command	
Insert	The following keys in	sert and modify whitespace	<u>De</u> .	
Context sensitive space insertion	<space></space>			
	If after an opening delimiter and before a space (after wrapping a sexp, for example), do the opposite and delete the extra space, "(foo)" to "(foo)".			
	o <space></space>	(special-lispy-other-space)	Alternative to 'lispy-space': leave point on the other side.	
Insert a new indented line	• C-m • RET	(lispy-newline-and- indent-plain)	Insert new line and indent next line appropriately	
Insert a colon	:	(lispy-colon)	Insert a colon and precede it by a space in situations where a tag could be written.	
Insert a caret	^	(lispy-hat)	Insert a caret and precede it by a space in required situations. Used for Clojure metadata marker.	
Commenting		key that comments the se	xp the follows point, as opposed to the standard M-;, also available, which creates a comment at the end mands comment it.	
Inserting comment	;	(lispy-comment &optional ARG)	Comment ARG sexps. • C-u; un-comments.	
Insert pairs	The following commands insert pairs of delimiters or quotes. They can be typed anywhere.			
insert a paren pair	((lispy-parens ARG)	Insert a () parenthesis pair, leave point inside.	
Insert a paren pair after end of current list	C-8 <f12> 8</f12>	(lispy-parens-down)	Exit the current S-expr and insert a () parenthesis pair , leave point inside.	
Insert []	}	(lispy-brackets ARG)	Insert a [] pair, leave point inside.	
Insert { }	{	(lispy-braces ARG)	Insert a { } pair, leave point inside.	
Insert " "	и	(lispy-quotes ARG)	Insert a pair of quotes around the point. When the region is active, wrap it in quotes instead. • When inside string, if ARG is nil quotes are quoted, otherwise the whole string is unquoted.	
Delete	Lispy provide two context sensitive delete commands, but does not bind the <deletechar></deletechar> key (the 🖾 key, available as Fn 🖾 on Apple laptops). • <f11> DEL</f11> x deletes the S-expression at point. It deletes a complete list when point is on the parens.			
See also: <u>Set & Paste</u> Delete sexp forward	C-d	(lispy-delete ARG)	lete list enclosing point as long is inside the list and not on a parens. See <u>➤ Cut & Paste</u> Delete ARG chars or sexps depending on context. Delete sexp, string when point is at the beginning of the sexp or string. When point is at end of sexp/string, delete any trailing whitespace and move to	
Delete sexp backward	DEL	(lispy-delete-	beginning of sexp/string to allow using C-d again to delete the sexp/string. From ") ", delete ARG sexps backwards.	
		backward ARG)	Otherwise ('backward-delete-char-untabify' ARG).	

<u>Description</u>	Key	Function	Note	
Mark a region	Mark S-expression with the following commands.		ds. See the command a above: it allows marking any symbol using avy.	
Mark symbol	M-m	(lispy-mark-symbol)	Mark current symbol. Can be issued anywhere.	
Mark/Unmark list &	m	(special-lispy-mark- list ARG)	Mark the current sexp, moving point to the other end. • If mark is already active, deactivate it instead. When ARG is more than 1, mark ARGth element.	
mark car: select car of marked list	i	(lispy-mark-car)	Mark the car of currently active region. Moves point after the first symbol in the list.	
Grow marked area: include next/prev sexp	>	(special-lispy-slurp ARG)	Grows marked S-expression to include next.	
Shrink marked area: exclude next/prev sexp	<	(special-lispy-barf ARG)	Shrink marked S-Expression: exclude the one at current end of list of marked S-expressions.	
Kill, Copy & Paste See also: <u>Set & Paste</u>	0	below maintain the consis mands to kill and copy S-	tency of the list parens. expressions when point is inside and not on parens: <f11> - (and <f11> = (See <u>> Cut & Paste</u></f11></f11>	
Kill string or list at point	C-, <f12> DEL</f12>	(lispy-kill-at-point)	Kill the quoted string or the list that includes the point. ➡ The C-, key binding is not available in terminal mode. PEL provides the <f12> DEL alternative.</f12>	
Kill word forward	M-d	(lispy-kill-word ARG)	Kill ARG words, keeping parens consistent.	
Kill word backward	M-DEL	(lispy-backward-kill- word ARG)	Kill ARG words backward, keeping parens consistent.	
Kill line	C-k	(lispy-kill)	Kill line, keeping parens consistent.	
Kill from point to end of list	M-k	(kill-sentence &optional ARG)	Kill from point to end of list. • With arg, repeat; negative arg -N means kill back to Nth start of list.	
Copy region or sexp to kill ring	n	(special-lispy-new-copy)	Copy marked region or sexp to kill ring.	
Paste	P	(special-lispy-paste ARG)	When region is active, replace it with current kill. Forward to yank otherwise. • When ARG is given, paste at that place in the current list.	
Navigate with avy commands	 By default the scor 	be is the current list. Use a	a command numerical prefix to select a larger outer scope. r(s) identifying the target to move to that word and select it. They all use avy navigation.	
ace symbol move ARG sets target scope ace highlight targets move to selected word and mark it	a ©*	(special-lispy-ace- symbol ARG)	Jump to a symbol within the current S-exp and mark it. • Each symbol in S-exp is shown with highlight letter: type that letter to move to the symbol. • S-exp scope is obtained by exiting the list ARG times: default is 1: current S-exp. to select a larger scope S-exp, use a numeric argument: • Example: 3a selects 3 layers of enclosing S-exp to select ace targets.	
ace sub-word ARG sets target scope ace highlight targets move to selected sub-word and mark it	- @*	(special-lispy-ace- subword ARG)	Similar to lispy-ace-symbol, but selects a subword instead. • S-exp scope is obtained by exiting the list ARG times: default is 1: current S-exp. to select a larger scope S-exp, use a numeric argument: • Example: 3a selects 3 layers of enclosing S-exp to select ace targets.	
Move to Ace target symbol & erase to replace	н 🎯	(special-lispy-ace- symbol-replace ARG)	Jump to a symbol within the current sexp and delete it , leaving point at location to type the new symbol. • Sexp is obtained by exiting the list ARG times. • Calls lispy-ace-symbol and deletes the selected symbol.	
Move to Ace paren target	q ©	(special-lispy-ace- paren &optional ARG)	Highlights each symbol in current sexp as ace target and jump to the selected one. • Updates lispy-back history. • S-exp scope is obtained by exiting the list ARG times: default is 1	
Move to Ace target char	Q ©*	(special-lispy-ace- char)	Prompts for character, highlights each one in current sexp as ace target and jump to the selected one.	
Navigate by-list		the state of the s	de when point is before left paren or after right paren. Use d to switch side to control direction. providing access to the j knight-down and k knight-up. Use z , or any key but j or k to stop the hydra.	
Move left outward	h <	(special-lispy-left ARG)	Move outside list backwards ARG times.	
Move down current list never exit current list from beginning of top level form to the next	j <u>↓</u>	(special-lispy-down ARG)	Move down ARG times inside current list. • With point at the top level move to the next top-level form. Inside a list move to each • Guaranteed to never exit the list: 99j moves to the last element of the current list. • Moves downward to next to comment if issued from point at start of comment line (on the ;;).	
Move down left-most parens on each line	• zj • j	(lispy-knight-down)	Move down left-most paren to the next line (can exit list).	
Move up current list never exit current list from end of top level form to previous one	k T	(special-lispy-up ARG)	Move up ARG times inside current list. Guaranteed to never exit the list: 99k moves to the first element of the current list. Moves upward to previous to comment if issued from point at start of comment line (on the ;;).	
Move up left-most parens on each line	• zk	(lispy-knight-up)	Move up left-most paren to the previous line (can exit list)	
Move outside list forward	1 /	(special-lispy-right ARG)	Move outside list forwards ARG times. • Parens in strings and comments are ignored.	
Flow via current paren ♣ · (→ down · ; → down ·) → up	f ,	(special-lispy-flow ARG)	Move in the direction of current paren inside current list and then to the next/previous list: • At left: move to next left paren (move going down the file or into the list). • Move forward into a list, then each sub-list, then to beginning of next top-level list. • At right: move to previous right parent (move going up the file). • Don't enter strings or comments.	
Move to beginning of current defun	A	(special-lispy- beginning-of-defun &optional ARG)	Forward to beginning-of-defun. When called twice in a row, restore the previous point and mark positions.	
Move to beginning of line. Reveal Outline	C-a	(lispy-move- beginning-of-line)	Move to beginning of line	
Move to end of line. In string: to end of string. Again: back to original	С-е	(lispy-move-end-of- line)	Forward to 'move-end-of-line' unless already at end of line. Then return to the point where it was called last, when it was in a string, back to the end paren close to where it was. If this point is inside string, move outside string.	
Move forward to end of list from beginning of top level form to the next	1 →	(lispy-forward ARG)	Move forward list ARG times or until error. •	
Move backward to beginning of list from end of top level form to previous one	. 1	(lispy-backward ARG)	Move backward ARG times to beginning of previous list, up to out of current top-level list and then to previous top level-list. •	

<u>Description</u>	Key Function Note			
Move to different (other) side of sexp	different) Switch to the different side of current sexp. • If before '(' move after ')' and vice-versa.		·	
Move outside list forward	Just outside parens the argument can be typed as strength numbers.		 With no argument, or using Meta prefixed numerical arguments, this key can be typed anywhere. Just outside parens the argument can be typed as strength numbers. 	
Move outside list forward but self-insert inside) /	(lispy-right-nostring ARG)	The C-3 key sequence is not available in terminal mode. PEL provides <f12> 3 as an alternative. Same as lispy-right: move outside list forwards (up level and right) ARG times. • However self-insert when point is located in a string or a comment.</f12>	
Navigation History	To restore past positi	ons type b around parer	s. The commands marked with 🕭 update lispy back history.	
Move back	b	(special-lispy-back	Move point to ARGth previous position in lisps-back history.	
		ARG)	 If position isn't special, move to previous or error. Lispy back history updated by: f, h, i, j, k, l, m, and q. These commands are identified with 	
Search			cific list scope. See <u>Search/Replace</u> for more search operations, including the unbounded occur search.	
Occur search inside the current top-level sexp	У	(special-lispy-occur)	Do an occur for the current top-level sexp. Go back-to-paren afterwards. This is useful e.g. to see where a particular variable is used within the current defun.	
Goto Definition	• Some of the comm	nands prompt using the iv	e cross reference system available to jump to the definition of the specified symbol. y completion mechanism. More information on input completion is available in <u>Sompletion/Input</u> h the og prefix the next letter is interpreted within this group. To get out you must type the letter q .	
goto definition using directory tags	g	(special-lispy-goto &optional ARG)	Jump to symbol within files in current directory. Prompt for symbol and jump to it. • When ARG isn't nil, call 'lispy-goto-projectile' instead. • See <u>lispy goto wiki page</u> .	
goto definition in local file	G	(special-lispy-goto- local &optional ARG)	Similar to lispy-goto, but only current file's tags are used instead of whole directory's tags.	
Follow: jump to definition	F	(special-lispy-follow)	When region is active jump to the definition of marked symbol. Otherwise jump to the definition of the first symbol in current sexp.	
	M	(lispy-goto-symbol SYMBOL)	• M can be issued from any position.	
Move back from symbol definition jump	D	(special-pop-tag- mark)	Go back from where it came with Follow.	
	м-,	(pop-tag-mark)	M-, can be issued from any position.	
Move to definition of selected lisp element	oga	(special-lispy-goto- def-ace ARG)	Jump to definition of selected element of current sexp. • Sexp is obtained by exiting list ARG times.	
Move back: pop tag	ogb (special-pop-tag-mark) Pop back to where M was last invoked.		Pop back to where M was last invoked.	
Move to symbol within files of current directory	ogd	Jump to symbol within files in current directory. ARG) ARG ARG ARG ARG ARG ARG AR		
Move to Elisp command pithing current file	oge	(special-lispy-goto- elisp-commands)	Jump to Elisp commands within current file. Prompts using ivy completion mechanism. • When ARG is non-nil, force a reparse.	
Follow to the function definition	ogf	(special-lispy-follow)	Follow to 'lispycurrent-function'.	
Jump to definition of ARgth element of current list.	ogj	(special-lispy-goto- def-down)	Jump to definition of ARGth element of current list. Super this when an argument is a function call. This moves point to the definition of that function.	
Jump to definition of symbol	ogl	(special-lispy-goto-local)	Jump to symbol within current file. Prompts with ivy. • When ARG is non-nil, force a reparse.	
goto definition using projectile base directory	• 0g • ogp	(special-lispy-goto- projectile)	Jump to symbol within files in ('projectile-project-root').	
Quit the 'og' command	ogq	(special-lispy-quit)	Remove modifiers.	
Jump to definition of symbol at point	ogr	(special-lispy-goto-recursive)	Jump to symbol within files in current directory and its subdirectories. ⚠ Potentially long search process. • Search tags in complete directory tree. Stop with c - g .	
Narrow/Widening		 Narrowing hides everything in the buffer except the selected region, allowing work on that region alone. Widen it back to see the complete buffer again. 		
See also: Narrowing Narrow current sexp	N	(special-lispy-narrow	Narrow current sexp or region.	
region		ARG)		
Widen Operating on	W The commands listes	(special-lispy-widen)	Widen back to see the complete buffer. perate on a marked region of code:	
Regions	 Activate a region first with one of: m To mark a sexp. a To mark a sexp. a To mark a sexp. Select another sexp within the list with: j To select the next sexp in the current list. k To select the previous sexp in the current list. k To select the previous sexp in the current list. First select the region growing side. The grow/shrink operations apply to the current side of the region. Move point to the other side of the region with: d to move to the other side of the region. Grow or shrink the region with: Strenk the region with another sexp on the current side. Shrinks the region by one sexp on the current side. To mark the entire parent list with the point at the beginning. To reduce the mark to only the first child (the car) of the current list Operate on the region: m Deactivate the region and undo. c Clone region and keep it active. s Move region on sexp down. w Move region inside sexp selected with ace target C Convolute: exchange the order of application of two S-exprs that contain region n Copy region in kill ring without de-activating the mark. P Replace region with current kill. 			

<u>Description</u>	Key	Function	<u>Note</u>
Format code	The following comma	and do not modify the sem	nantics of the code, they just add or remove whitespace.
Turn current sexp into	О	(special-lispy-oneline)	Turn current sexp into one line. Move comments ahead of sexp.
one line			<pre>(progn (one) (two) (three))</pre>
Convert current sexp into multi-line	м	(special-lispy-alt- multiline &optional SILENT)	Spread current sexp over multiple lines. When SILENT is non-nil, don't issue messages. • Especially useful on results of macroexpand. The wrapping may not occur for small lists or symbols. [progn (one) (two) (three)) [progn (one) (two) (three))
Transform code	Lispy provide a large	number of code transform	nation commands. Once you know them they speed up Lisp code editing.
clone	С	(special-lispy-clone	Clone sexp ARG times.
		ARG)	• When the sexp is top level, insert an additional newline. ((one) (two) (three)) ((one) (two) (three))
Transform S-expr	The following operati	ons essentially move or m	odify S-expressions. Use these to write and refactor code.
Slurp: grow either current sexp or region	>	(special-lispy-slurp ARG)	 Grow either current sexp or region (if it's active) in appropriate direction. Opposite of lispy-barf. With an arg of 0, grow as far as possible. With an arg of -1, grow until the end of the line where the current sexp ends or as far as possible before that position. <pre>(progn (foo) _(bar)) → > → (progn _(foo) bar))</pre> (progn (foo)_(bar)) → > → (progn _(foo (bar)))
Barf: shrink either current sexp or region	<	(special-lispy-barf ARG)	Shrink either current sexp or region (if it's active) in appropriate direction. Opposite of lispy-slurp. (progn (foo) (bar)) → < → (progn (foo))_(bar) (progn (foo) (bar)) → < → (progn (foo) ()bar)
Move current sexp to the	oh	(special-lispy-move-	Move current sexp (or marked region) to the left, outside current list, ARG times.
<u>left</u>		left)	<pre>(progn</pre>
Move current sexp inside first element of list below	oj	(special-lispy-down-slurp)	Move current sexp or region to become the first element of next sexp. $ \frac{(100)}{((200)(300))} $
Move current sexp to become last element of list above	ok	(special-lispy-up- slurp)	Move current sexp or region to become the last element of the list above. • If the point is by itself on a line or followed only by right delimiters, slurp the point into the previous list. • This can be of thought as indenting the code to the next level and adjusting the parentheses accordingly. (progn (do-this) (do-that)) (do-it-again) (do-it-again)
Move current sexp to the right, outside current list	ol	(special-lispy-move- right)	Move current expression (or marked region) to the right, outside the current list. Do it ARG times. (progn (do-this) (do-that) (do-it-now)) (do-it-now)
Join List	+	(special-lispy-join)	Join next/previous element into current list, as in the next 2 examples. ((one) (two) (three)) ((one two) (three)) ((one) (two) (three))
Split List	M-j	(lispy-split)	Split S-expressions from character at point as shown in the 4 examples below.
			(<u>1</u> 11 222 333) (<u>1</u> 11 222 333)
			(111 2 22 333) (111)
			(222 333)
			(111 2 <u>2</u> 2 333) (111 2) (22 333)
			((one) (three)) ((one)) ((two) (three))
Raise: use current sexp as replacement for its parent	r	(special-lispy-raise ARG)	Use current sexp or region as replacement for its parent. Do so ARG times. (let ((total 0))
Raise: current and next	R	(special-lispy-raise- some)	Use current sexp and the following (if called from the left), or the preceeding (if called from the right) sexps, or the active region as replacement for their parent.
replacement for their parent			(progn (two) (three) (three))
Convolute: Exchange the order of application of 2 closest outer forms Example animation	С	(special-lispy- convolute ARG)	Exchange the order of application of two closest outer forms, relative to current expression or region. Replace ((,,, (with (,,,((where and ,,, is arbitrary code. When ARG is more than 1, pull ARGth expression to enclose current sexp. When ARG is nil, convolute only the part above sexp.
		(anadel Ve	(if (> (+ count1 count2) 30) (when verbose (if (> (+ count1 count2) 30) (message "over 30"))) (message "over 30")))
Move current sexp up	W	(special-lispy-move- up ARG)	Move current sexp or region up arg times. Don't exit the parent list. Also works for outlines. (progn (one) (two) (three) (three)
Stringify current sexp	• S • C-u "	(special-lispy-stringify &optional ARG)	Transform current sexp into a string. Quote newlines if arg isn't 1. (progn (one) (two) (three)) (progn (one) (two) (three))

<u>Description</u>	Key	Function		Note
Move sexp down in list	s	(special-lispy-move-	Move current sexp or region down arg times. Don't	exit the parent list. Also works for outlines.
		down ARG)	(progn (one) (three) (two))	<pre>(progn (one) (two) (three))</pre>
Splice the current list into the parent list	/	(special-lispy-splice ARG)	Splice ARG sexp into the containing (parent) list. Medirection. If there are none within the parent list, mo	ove the point to the next list to splice in appropriate we to the parent list in appropriate direction. (a (b) (c))
Teleport: move current sexp to Ace target	t @*	(special-lispy-teleport ARG)	Move current sexp to Ace target inside current func • Use numerical argument to move that many sexp In the example below, after typing t, the ace target	
			one) ctwo) dthree))	(one (three)) (two)
	tt 🎯 🔭		Move current sexp to Ace target to any sexp inside	current window. Same as above with a wider scope.
Reverse list	• xR • x?R • x C-h R	(lispy-reverse)		quote ly-raw as the last element of the new list. e quote, then reverse and put the quote back. ((three) (two) (one) progn)
			' <u>(</u> 111 222 333)	(111 222 333) quote ly-raw)
			<u>(</u> 111 222 333)	<u>(</u> 333 222 111)
Refactoring	The following comma	ands provide refactoring fa	cilities.	
turn nested if into cond	• xc	(lispy-to-cond)	Transform current 'if' expressions to equivalent 'cor	nd' expression.
	• x?c • x C-h c		<pre>(if is-one (one)</pre>	<pre>(cond (is-one</pre>
			(if is-two	(is-two
			(two) (if is-three	(two)) (is-three
turn and into pasted if	,	(liant to ifa)	(three))))	(three)))
turn cond into nested if expressions	• xi • x?i	(lispy-to-ifs)	Transform current 'cond' expression to equivalent 'i	(if is-one
	• x C-h i		(one))	(one)
			(is-two (two))	(if is-two (two)
			(is-three (three)))	<pre>(if is-three (three))))</pre>
Bind var: current sexp to let bound variable	(lispy-bind-variable) Transform the current list expression into a let-bound variable; iedit-mode is used to name the n variable. Use M-m to finish naming the variable. Bind current expression as variable. Bind current expression as variable. 'lispy-map-done' is used to finish entering the variable name. The bindings of 'lispy-backward.			
			mark-symbol' can also be used. ((one) (two) (three))	(let ((((one) (two) (three)))) _)
			After issuing the xb command type the name of the variable (like new-var) here. It shows inside the definition block and just outside.	<pre>(let ((new-var ((one) (two) (three)))) new-var)</pre>
Unbind a let bound variable	xu	(lispy-unbind-variable)	Substitute let-bound variable Unbind a let-bound variable. Also works for Cloju Current version fails to update the values of the	
			(defun foobar () (let (<u>f</u> x 10) (y 20)	<pre>(defun foobar () (let ((y 20)</pre>
			(z 30)) (fool x y z)	(fool 10 y z) (fool 10 z y)
			(foo2 x z y) (foo3 y x z)	(foo3 y 10 z) (foo4 y z 10)
			(foo4 y z x) (foo5 z x y) (foo6 z y x)))	(foo5 z 10 y) (foo6 z y 10)))
Inline current function or macro call	• xf • x?f	(lispy-flatten ARG)	Inline current function or macro call, i.e. replace it w The function should be interned and its body finc	
	• x C-h f		Pass the ARG along. (setq-local foo 10)	<pre>(set (make-local-variable 'foo)</pre>
		m , ,		10)
Inline current function/ macro call with a let	• xF • x?F	(lispy-let-flatten)	Inline a function at the point of its call using 'let'. Given the following defun on the right:	(defun add (a b)
	• x C-h F		Typing xF to the code below transforms it in the code to the right below.	"Add A and B." (+ a b))
			<pre>(defun sum-squared (a b) "Sum of A squared + B squared." (add (* a a) (* b b)))</pre>	(defun sum-squared (a b) "Sum of A squared + B squared." (let ((a (* a a)) (b (* b b))) (+ a b)))
turn current lambda into a defun	xd	(lispy-to-defun)	Turn the current lambda or toplevel sexp or block ir Prompts for the name of the new defun. Replace and keep the defun S-expression in the kill ring.	e the lambda S-expression by the function quoted name
			<pre>(mapcar (lambda (x) (* x x))</pre>	<pre>(mapcar #'square</pre>
			Type xd to extract the lambda: Lispy prompts for the name of the defun and replace it as above right. Then use C-y to insert the defun form as shown at right.	(defun square (x) (* x x))

Posture that must be continued by the	Description	Key	Function	1	<u>Note</u>
Desire got the second control of the second		хD	(lispy-extract-defun)	 Prompts for the name of the new defun, turn the below. 	
Provided to a recommend service of the control service the work in color service the color servi			following code, issue the xD command at the beginning of the form to	<pre>(defun some-func (&optional count) "Do something." (if count</pre>	untdown: %d\n" count))
Transform current scorp* region into a function call Page Pa			prompts for a new function name and insert the new function	<pre>(while (progn</pre>	wn: %d\n" count))
The newly generated function call The newly generated function rate of placed above the current function. Staff to the quity for the new function rate and augments. In the fact this lepts, poss [[cost [1 + - + + + + + + + + + + + + + + + + +				"Do something." (if count (insert-countdown)_	
After typing at a name-less ofdurit from a created above an empty from. Then type the name of the order to the experiments of the superments of the supermen	•	xk	(lispy-extract-block)	The newly generated function will be placed above	ve the current function.
After typing at its anternities defun from is creative above an empty from. The truly be the name of the arguments which will be populated in both forms as shown to the right. To complete, typing and point will move to the right of the coming parent. Itum. current defun into a immedial continued in the common of the arguments which will be possibled in the first. To complete, typing and point will move to the right of the coming parent. Itum. current defun into a immedial continued in the common of the comm				<pre>(one)) (is-two (two)) (is-three</pre>	<pre>(cond (is-one</pre>
Evaluate Code The following commands allow deep intropection into France Lisp code and some extent code is not always created in the nicest-looking way. Emacs help proposes the interest of the following commands allow deep intropection into France Lisp code and so some extent code written in other tanguage. Evaluate Code The following commands allow deep intropection into France Lisp code and so some extent code written in other tanguage. Evaluate task at commands allow deep intropection into France Lisp code and so some extent code written in other tanguage. Evaluate task at commands allow deep intropection into France Lisp code and so some extent code written in other tanguage. Evaluate exp c (special-lispy-eval-and-servi). Eval current regionises. Eval current regionises. Eval current sext & replace. Eval current sext in the content of the of the other window. Control ARGS ArGS Eval current sext in the content of other window. Eval current sext in the content of the other window. Eval current sext in the content of other window. Eval current sext in the content of other window. Eval current sext in the content of other window. Eval current sext in the content of other window. Eval current sext i				above an empty form. Then type the name of the defun followed by the name of the arguments which will be populated in both forms as shown to the right. To complete, type [and point will move to the	<pre>(defun new-func (is-one is-two is-three) (cond (is-one</pre>
Evaluate Code The following commands allow deep introspection into Emacs Lisp code and to some extent code written in other language. Eval current regionisesp. Togle between last threaded macro form and unthreaded form. (if 40 (- (/ 25 (+ 20 5)))) (thread-last (+ 20 5) (/ 25) (-) (+ 40)) As the example shows, the thread-last code is not always created in the nicest-looking way. Emacs help proposes this instead: (thread-last (+ 20 5) (/ 25) (-) (+ 40)) As the example shows, the thread-last code is not always created in the nicest-looking way. Emacs help proposes this instead: (thread-last (+ 20 5) (/ 25) (-) (+ 40)) As the example shows, the thread-last macro user-option. It default to the Emacs Lisp proposes the instead: (thread-last (+ 20 5) (/ 25) (-) (+ 40)) As the example shows, the thread-last macro user-option. It default to the Emacs Lisp code and to some extent code written in other language. Eval last example shows, the thread-last macro user-option. It default to the Emacs Lisp code and to some extent code written in other language. Eval last example shows, the thread-last macro user-option. It default to the Emacs Lisp code and to some extent code written in other language. Eval last example shows, the thread-last macro user-option. It default to the Emacs Lisp code and to some extent code written in other language. Eval current regionisesp. Eval current regionises described in described in the current buffer after the evaluated expression. Eval current sexit is example. Eval current regionises described in the current buffer after		x1	(lispy-to-lambda)	<pre>_(defun add (a b) "Add 2 numbers."</pre>	"Add 2 numbers."
Toggle between last threaded macro form and untireaded forms. Toggle current expression between the sat-threaded macro form and the unthreaded forms.		xr	,	Eval current expression and replace it with the resul	t.
As the example shows, the thread-last code is not always created in the nicest-looking way. Emacs help proposes this instead: Characteristics February Februar	threaded macro form and	х>		Toggle current expression between the last-thread	ed macro form and the unthreaded forms.
Evaluate Code The following commands allow deep introspection into Emacs Lisp code and to some extent code written in other language. See Lispy demo 2 showing the substitution model for procedure described in classic Structure and Interpretation of Computer Programs in action. Eval current region(sex). Insert result. Eval current region(sex). Insert result. Eval current sex & (lispy-eval-and-replace) Eval current sex). Eval current sex in the content of the of the other-window Aprilon ARG is 2, insert the result as a comment. Eval current sex in the content of the of the other-window Aprilon ARG is 2, insert the result will be inserted in the current buffer after the evaluated expression. Eval current sex in the content of the of the other-window Approval—and-replace) Eval current expression in the context of other window. In case the point is on a let-bound variable, add a "setq". When ARG is non-init, force select the window. Like 'eval-expression', but for current language (Emacs Lisp, Common Lisp, Clojure, etc) Evaluate current defun See also: 131-Emacs Lisp (lispy-edebug ARG) Evaluate the top level form point is in, stepping through with Edebug. Evaluate the top-level form point is in, stepping through with Edebug. On the function from this sexp. 4xe (edebug-defun) Evaluate the top level form point is in, stepping through with Edebug. On the function from this sexp. Evaluate the function from this sexp.				As the example shows, the thread-last code is not help proposes this instead: (thread-last 5 (+ 20) (/ 25) - (+ 40))	ot always created in the nicest-looking way. Emacs
See Lispy demo 2 showing the substitution model for procedure described in classic Structure and Interpretation of Computer Programs in action. Eval last sexp e				Emacs Lisp thread-last macro.	
Eval current region sexp. E (special-lispy-eval-and-insert) Eval current region or sexp. The result will be inserted in the current buffer after the evaluated expression.	Evaluate Code				
See also: 191 - Emacs Lisp 2xe	Eval last sexp	е			
Eval current sexp in the content of the of the other window Eval current expression in the context of other window Septional ARG Eval current expression in the context of other window In case the point is on a let-bound variable, add a 'setq'. When ARG is non-nil, force select the window. When ARG is no		Е	* *	Eval current region or sexp. The result will be inserted	ed in the current buffer after the evaluated expression.
content of the of the other window other-window & coptional ARG) • In case the point is on a let-bound variable, add a 'setq'. • When ARG is non-nil, force select the window. Evaluate current expression for current language xv (lispy-eval-expression) Like 'eval-expression', but for current language (Emacs Lisp, Common Lisp, Clojure, etc) EDegug Support The following commands can be used to start, use and stop an Emacs Lisp edebug session or Clojure cider debug session. EDebug current defun See also: xe (lispy-edebug ARG) Start/stop edebug of current thing depending on ARG.		xr	,	Eval last sexp and replace it with the result.	
EDegug Support The following commands can be used to start, use and stop an Emacs Lisp edebug session or Clojure cider debug session. The documentation below assumes Emacs Lisp. More info should be added for Clojure. EDebug current defun See also: YNI - Emacs Lisp (lispy-edebug ARG) Start/stop edebug of current thing depending on ARG. • ARG is 1: 'edebug-defun' on this function. • ARG is 2: 'eval-defun' on this function. • ARG is 3: 'edebug-defun' on the function from this sexp. • ARG is 4: 'eval-defun' on the function from this sexp. 1xe (edebug-defun) Evaluate the top level form point is in, stepping through with Edebug. Evaluate the top-level form point is in, stepping through with Edebug. On the function from this sexp. 4xe (eval-defun EDEBUG- Evaluate the top level form point is in, stepping through with Edebug. On the function from this sexp.	content of the of the	р	other-window	• In case the point is on a let-bound variable, add a	
The documentation below assumes Emacs Lisp. More info should be added for Clojure. EDebug current defun See also: \$\frac{1}{2}\text{Pi} - Emacs Lisp\$ The documentation below assumes Emacs Lisp. More info should be added for Clojure. \$\frac{1}{2}\text{More info should be added for Clojure.} \$\frac{1}{2}\text{RG is 1: 'edebug-defun' on this function.} \$\frac{1}{2}\text{RG is 1: 'edebug-defun' on the function from this sexp.} \$\frac{1}{2}\text{RG is 1: 'edebug-defun' on the function from this sexp.} \$\frac{1}{2}\text{RG is 1: 'edebug-defun' on the function from this sexp.} \$\frac{1}{2}\text{RG is 1: 'edebug-defun' on the function from this sexp.} \$\frac{1}{2}\text{RG is 1: 'edebug-defun' on the function from this sexp.} \$\frac{1}{2}\text{RG is 1: 'edebug-defun' on the function from this sexp.} \$\frac{1}{2}RG is 1: 'edebug-defun' o	expression for current	xv	(lispy-eval-expression)	Like 'eval-expression', but for current language (Em	acs Lisp, Common Lisp, Clojure, etc)
See also: ***PI - Emacs Lisp** ***PI - Ema	EDegug Support	_			ure cider debug session.
2xe (eval-defun EDEBUG- IT) Evaluate the top-level form containing point, or after point. 3xe (edebug-defun) Evaluate the top level form point is in, stepping through with Edebug. On the function from this sexp. 4xe (eval-defun EDEBUG- Evaluate the function from this sexp.	See also:	xe	(lispy-edebug ARG)	 ARG is 1: 'edebug-defun' on this function. ARG is 2: 'eval-defun' on this function. ARG is 3: 'edebug-defun' on the function from 	this sexp.
3xe (edebug-defun) Evaluate the top level form point is in, stepping through with Edebug. On the function from this sexp. 4xe (eval-defun EDEBUG- Evaluate the function from this sexp.		1xe	(edebug-defun)	Evaluate the top level form point is in, stepping thro	ugh with Edebug.
4xe (eval-defun EDEBUG- Evaluate the function from this sexp.		2xe	· ·	Evaluate the top-level form containing point, or after	r point.
					ugh with Edebug. On the function from this sexp.
		4xe	Y	Evaluate the function from this sexp.	

<u>Description</u>	Key	Function	<u>Note</u>	
Debug - step in	xj	(lispy-debug-step-in)	Evaluate the arguments at the current function's call Jump to the function's definition Set the result of evaluation to the function's arguments	
EDebug stop	Z	(special-lispy-edebug- stop)	Does the same as q in edebug, except current function's arguments will be saved to their current values. This allows to continue debugging with lispy-eval (e) from edebug's current context. The advantage is that you can edit the code as you debug, as edebug puts your code in read-only mode.	
ERT test support	More information abo	out the Emacs Lisp Regres	sion Testing system in <u>** ERT</u>	
Execute Tests: run ert	хT	(lispy-ert)	Call ('ert' t): run all ERT tests.	
View test at point	xt	(lispy-view-test)	View better the test at point.	
Outline operations	Also see C-a above	which moves to beginning	of line and reveals outlines.	
Toggles on off org-mode- like outline	I	(special-lispy-shifttab ARG)	Toggles on/off an org-mode-like outline. • To make this work, lispy-mode will modify outline-regexp and outline-level-function for the current buffer while it's on.	
Indent / hide/show outline	i	(special-lispy-tab)	If in outline: hide/show outline, otherwise indent all code of current paren • When region is active, call 'lispy-mark-car'.	
Next outline level	J	(special-lispy-outline- next ARG	Takes a numeric prefix arg and calls outline-next-visible-heading arg times or until past the last outline-regexp.	
Previous outline level	К	(special-lispy-outline- prev ARG)	Takes a numeric prefix arg and calls outline-previous-visible-heading arg times or until past the first outline-regexp.	
Ediff Operations See: Diff & Merge	Then use the B core		ession or region. S-expression or region and open an Ediff session comparing these 2 sections of code. from one section to the other, etc	
Store current buffer and region for further operation	• xB • x?B • x C-h B	(lispy-store-region- and-buffer)	Select S-expression or region, the side A of a diff session started by executing the command B below.	
Ediff regions ★★	В	(special-lispy-ediff- regions)	Select the S-expression or region, the side B of an Ediff session and start that Ediff session. Comparable to 'ediff-regions-linewise'. First region and buffer come from 'lispy-store-region-and-buffer' Second region and buffer are the current ones.	
Buffer operations				
Save buffer	xs	(save-buffer &optional ARG)	Save current buffer in visited file if modified. Same as C-x C-s	
Visit another file	v	(special-lispy-visit ARG)	Visit another file within this project using <u>projectile</u> or <u>find-file-in-project</u> . • Use V to open the file in the current window. Use 2V to open the file in another window.	
See: <u>Projectile</u>	Customize lispy-visit-method to select what function to use. • PEL supports both of these external packages, and use the pel-use-projectile and pel-use-find-file-in-project user-options to download and activate each one. Unless you are familiar with find-file-in-project you may find projectile more useful and faster.		ackages, and use the pel-use-projectile and pel-use-find-file-in-project user-options to download and	
Others				
Perform cleanup	жC	(lispy-cleanup)	Perform cleanup. Remove all comments in buffer after current point position that start with ;; =>	
Execute specified command	• x C-h • x?	(lispy-x-more-verbosity)	A Hydra that provides access to several other commands accessible with the following blue letters. bnd : Bind variable cnd : lispy-to-cond def : lispy-to-defun ede : Execute edebug-defun fla : help : lispy-describe: Open help buffer on the specified function symbol if : lispy-to-ifs jmp : blk : lmb : mul : rep : sav : unb : vt : Bnd : lispy-store-region-and-buffer Rev : lispy-reverse erT : Run ERT test.	
Python Support	The following comma	ands are only available for	spy, lispy for Python, in a Python source code file.	
Set Python Process	хр	(lispy-set-python- process)		
Change current directory	xn	(lispy-cd)	Change the current Python REPL working directory.	