## Lispy — Short & Sweet Semantically Aware Lisp Editing



Dogarintian	Kow	Function	No.40
<u>Description</u>	The <b>lispy</b> minor mod	Function e provides modal-like editi	Note ing to Emacs for Lisp-like languages with very few keys when point is before ( or after ) "paren".
Lispy: Context-based	<ul> <li>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.</li> </ul>		
modal editing of	This table lists the lispy command keys, with links to the <u>Lispy function Reference</u> for each one.		
Lisp code	This requires the <u>lispy</u> external package. PEL downloads, installs and activates lispy when the <b>pel-use-lispy</b> user option is set to <b>t</b> .  To get lispy mode run when Emacs visits a file of a specified mode, include the major mode in the PEL user-option <b>pel-modes-activating-lispy</b> .		
Ref: Lispy function	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		
Reference	comfortab	le with it you will want to a	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-	Prompt to customize:  1. PEL lispy support for Emacs Lisp and Common Lisp
Lispy and Lispy itself.	SPC M-L	WINDOW)	2. lispy itself.
Toggle Lispy mode		(pel-lispy-mode	<ul> <li>If OTHER-WINDOW is non-nil (use C-u), display in another window.</li> <li>Toggle lispy-mode on/off. Lispy is a minor mode for navigating and editing LISP dialects.</li> </ul>
See also:	• <f12> M-L • <m-f12> M-L</m-f12></f12>	&optional ARG)	Requires lispy external package.  PEL downloads, installs and configure it when pel-use-lispy user
<u>\$\partial \text{\text{\$\gamma}\$}\text{\$\text{\$\gamma}\$}\text{\$\delta\$}\text{\$\gamma\$}\tex</u>	<f11> SPC 1</f11>		option is set to t. Please read the information on <u>lispy web site</u> .
4 pt - Emacs Lisp	M-L		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.
Cotting Code Holp	Use the following key	vs to pop information insid	le the current window or into a help buffer. See the <u>N Help/Info</u> table for more help commands
Getting Code Help See also: Fleip/Info			available even when lispy mode is off.
Describe function at	C-1	(lispy-describe-inline)	Display documentation of current Lisp function (or variable if marked) as a pop-up overplayed window.
point			If docstring is too long it is displayed inside a *lispy-help* buffer.      The state of th
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 arguments	C-2	(lispy-arglist-inline)	Show the argument list of current function.
	<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	With lispy, numer	ic arguments can be typed	d as straight numbers: there's no need to use M-2 to provide the argument 2, just type 2.
Arguments in Lispy	For example just	st type two characters 4, for	ollowed by <b>c</b> to create 4 clones of the following S-expression (sexp).
		nly when point is just befons, such as the ] and [ ke	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	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.		
See: <u>∑ Cursor</u> .  Set multiple cursors	xm	(lispy-cursor-ace)	Add a cursor at a visually selected paren using an Avy target.
Add extra cursor(s)	All	(nopy career doe)	Only one cursor can be added with local binding. Any amount can be added with a global binding.
Add cursors down	C-7	(lispy-cursor-down	Return to single cursor with C-g  Add ARG cursors using 'lispy-down'.
See: <u>S Cursor</u> .		ARG)	I found that using the multi-cursor commands directly works well, and often better, than this command.
Incort	<f12> 7 The following keys insert and modify whitespace.</f12>		
Insert			
Insert a space	<space></space>	(lispy-space ARG)	Insert one space, with position depending on ARG: If ARG is 2, amend the current list with a space from current side. If it is 3, switch to the different side beforehand.
	. If often an enemina	delimiter and before a pre-	• If jammed between parens, "( (" unjam: "(  (".
	o <space></space>	(special-lispy-other-	ace (after wrapping a sexp, for example), do the opposite and delete the extra space, "(  foo)" to "( foo)".  Alternative to 'lispy-space': leave point on the other side.
	U-SPACE/	space)	
Insert a new indented line	• C-m • RET	(lispy-newline-and- indent-plain)	Insert new line and indent next line appropriately
Insert a colon	· RET	(lispy-colon)	Insert a colon and precede it by a space in situations where a tag could be written.
Insert a caret	^	(lispy-bat)	Insert a caret and precede it by a space in required situations.
Commenting	Lispy provides the :	, , ,	exp the follows point, as opposed to the standard M-;, also available, which creates a comment at the end
- Commonanty	1 7 7 7	block is marked both com	
Inserting comment	;	(lispy-comment &optional ARG)	Comment ARG sexps.
Insert pairs	The following comma		ers or quotes. They can be typed anywhere.
insert pairs	(	(lispy-parens ARG)	Insert a ( ) parenthesis pair, leave point inside.
Insert a paren pair after	C-8	(lispy-parens-down)	Exit the current S-expr and insert a ( ) parenthesis pair , leave point inside.
end of current list	<f12> 8</f12>	(py pareno down)	
Insert []	}	(lispy-brackets ARG)	Insert a [ ] pair, leave point inside.
Insert {}	{	(lispy-braces ARG)	Insert a { } pair, leave point inside.
Insert " "	"	(lispy-quotes ARG)	Insert a pair of quotes around the point. When the region is active, wrap it in quotes instead.
		<u> </u>	When inside string, if ARG is nil quotes are quoted, otherwise the whole string is unquoted.
Delete	Lispy provide two co	ntext sensitive delete com	mands, but does not bind the <b><deletechar></deletechar></b> key (the 🖾 key, available as <b>Fn</b> 🖾 on Apple laptops).
Delete sexp forward	C-d	(lispy-delete ARG)	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 beginning of sexp/string to allow using C-d again to delete the sexp/string.
Delete sexp backward	DEL	(lispy-delete-	From ") ", delete ARG sexps backwards.
		backward ARG)	Otherwise ('backward-delete-char-untabify' ARG).

Number of the process of the proce	<u>Description</u>	Key	Function	Note
Command    Command   Comma	Navigate with avy			
- ABC as target season - and mark it and mark it is reviewed and mark it is reviewed ABC and target store of the mark it is reviewed ABC and target	<u>commands</u>			
* After state staget copy of mark it was a staget copy of the control of a part of the After strates of the Cornel of Say, to second a larger common of a control of the Cornel of Say, to second a larger common of a control of the Cornel of Say, to second a larger common of a control of the Cornel of Say, to second a larger common of the Cornel of Say, to second a larger common of the Cornel of Say, to second larger common of the Cornel of Say, to second larger common of the Cornel of Say, to second larger common of the Cornel of Say, to second larger common of the Cornel of Say, to second larger common of the Cornel of Say, to second larger common of Say, to sec	<ul><li>ARG sets target scope</li><li>ace highlight targets</li><li>move to selected word</li></ul>	a <b>©</b> *		<ul> <li>Each symbol in S-exp is shown with highlight letter: type that letter to move to the symbol.</li> <li>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:</li> </ul>
symbolic Areas to report and service provided on the control provided position of the control provided and decision to except only and service provided and service provid	<ul><li>ARG sets target scope</li><li>ace highlight targets</li><li>move to selected sub-</li></ul>	- ©*		<ul> <li>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:</li> </ul>
parent approximation (AR)    Special legs year.	symbol & erase to	н 🎯		Sexp is obtained by exiting the list ARG times.
Analysis by Jies  and by-region  The side of comments may be proportionated code when point is before left pasen or after right pasen. Use dit to such that does to control direction.  The sky side to the benefit investment flower providing access to the 3 or right-down and it inclinate.  In precise large-year way to be provided in the control of the side of the si	Move to Ace paren target	q ©*		Updates lispy-back history.
The E ley statis the knight movement lyads a providing access to the 3 project-com and its knight-up. Use a pri any key but 3 of it to alop the hydro.  Move down carrent list 4 percent list 5 percent list 5 percent list 6 percent list 7 percent list 8 percent l	Move to Ace target char	Q ©*		Prompts for character, highlights each one in current sexp as ace target and jump to the selected one.
Move down ARG times inside current (ist a feeb place)  * from beginning of leg percent install to prevent the provision of the percent of the current leg percent of the current leg percent percent of the current leg percent percen				
* Note on the interest of the current list from the beginning of top sever from the here of the current list from the beginning of the from the here of the current list from the beginning of the current list from the beginning of the from the here of the current list from the beginning of the state of the current list from the beginning of the state of the current list from the the state of the current list from the beginning of t	Move left outward	h <	(special-lispy-left ARG)	Move outside list backwards ARG times.
Section   Sect	<ul><li>never exit current list</li><li>from beginning of top</li></ul>	j <u>↓</u>		<ul> <li>With point at the top level move to the next top-level form. Inside a list move to each</li> <li>Guaranteed to never exit the list: 99j moves to the last element of the current list.</li> </ul>
• never eat current last - from end of top level - from the previous one - from end of top level - from the previous one - from end of top level - from the previous one - from end of top level - from the previous one - k - from end of top level - from the previous one - k - from end of top level - from the previous one - k - from end of top level - from the previous one - k - from end of top level - from the direction of - current paren - from end of top level - from the direction of - current paren - from end of top level - from end of top level - from end of top level - from the direction of - current paren - from end of top level - from end of top level - from end of top level - from the direction of - current paren - from end of top level - from end of top level - from end of top level - from the direction of - current paren - from end of top level - from end of the end - from end of top level - from end of top level - from end of top level - from the direction of - current paren - from end of top level - from the direction of - from end of top level - from the direction of - from end of top level - from the direction of - from end of top level - from the direction of - from end of top level - from the direction of - from end of top level - from the end - from the end - from end of top level - from the end - from end of top level - from the end - f		-3	(lispy-knight-down)	Move down left-most paren to the next line (can exit list).
on each line    Nove outside list forward   1	never exit current list     from end of top level	k Ť	(special-lispy-up ARG)	Guaranteed to never exit the list: 99k moves to the first element of the current list.
Peres in strings and comments are ignored:			(lispy-knight-up)	Move up left-most paren to the previous line (can exit list)
*** ARG: ***	Move outside list forward .	1 /		
Seginarian of Location	move in the direction of current paren  • ( → down • ; → down	f		<ul> <li>At left: move to next left paren (move going down the file).</li> <li>Move forward into a list, then each sub-list, then to beginning of next top-level list.</li> <li>At right: move to previous right parent (move going up the file).</li> </ul>
ine. Reveal Outline  Move to end of line. In string: to end of line. In string: to end of line. In string: to end of string. Again: back to original  Move forward to end of list. Again: back to original  Move forward to end of list. If this point is inside string, move outside string.  Move forward to end of list. If this point is inside string, move outside string.  Move backward to beginning of top level form to the next  Move backward to beginning of list If the point is list a HRG times or until error.  Also active incide strings and comments. Use } to insert a [1] pair.  Move backward to beginning of list If the point is list a HRG times or until error.  Move backward to beginning of list If the point is list a HRG times or until error.  Move backward to beginning of list If the point is list a HRG times or until error.  Move backward to beginning of list If the point is list a HRG times or until error.  Move backward to beginning of previous list, up to out of current top-level list and then to previous top level form to previous one  If the point is list forward is the point is not before the beginning or after the end of a list.  Move outside list forward  C-3 (lispy-right ARG)  Move outside list forward  C-3 (lispy-right ARG)  With no argument, or using Meta prefixed numerical arguments, this key can be typed anywhere.  If before '(' move after ')' and vice-versa.  Move outside list forward  ARG)  Move outside list forward  Or restore past positions, type b around parens.  The C-3 key sequence is not available in terminal mode. PEL provides <f12> 3 as an alternative.  Move part in side of the previous position is located in a string or a comment.  Move outside list forward (we level and right) ARG times.  ARG)  Move past a list forward (we level and right) ARG times.  PEL provides <f12> 3 as an alternative.  Move outside list forward (we level and right) ARG times.  ** Howeve self-insert when point is located in a string or a comment.  ** Howeve self-insert when point is located in a string or a comme</f12></f12>		A	beginning-of-defun	Forward to beginning-of-defun. When called twice in a row, restore the previous point and mark positions.
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.  If this point is inside string, move outside string.  If this point is inside string, move outside string.  If this point is inside string, move outside string.  If this point is inside string, and provided is the point is not before the beginning or after the end of a list.  If this point is inside string, and comments. Use } to insert a [ ] pair.  If this point is inside string, and comments.  If this point is inside string, move outside string, and comments.  If this point is not before the beginning or after the end of a list.  If this point is not before the beginning or after the end of a list.  If wove backward to beginning of previous list, up to out of current top-level list and then to previous top level institute of the point is not before the beginning or after the end of a list.  If wove backward to beginning of previous list, up to out of current top-level list and then to previous top level institute of the point is not before the beginning or after the end of a list.  If wove backward to beginning of previous list, up to out of current top-level list and then to previous top level institute inside strings and comments.  If wove backward to beginning of previous list, up to out of current top-level list and then to previous top level inside strings and comments.  If wove outside list forwards (up level and right) ARG times.  If wove outside list forwards (up level and right) ARG times.  If each of the point is not before the beginning or after the end of a list.  If wove outside list forwards (up level and right) ARG times.  If each of the point		С-а	\	
ist - from beginning of top level form to the next    Can type it from any location, even when point is not before the beginning or after the end of a list.   Also active inside strings and comments. Use } to insert a [ ] pair.	In string: to end of string.	С-е	2. 7.7	<ul> <li>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.</li> </ul>
From beginning of top level form to the next    Move backward to beginning of list		1	(lispy-forward ARG)	
beginning of list	<ul> <li>from beginning of top</li> </ul>			
Move outside list forward   C-3   (lispy-right ARG)   Move outside list forwards (up level and right) ARG times. Ignore parens in strings.   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.   The C-3 key sequence is not available in terminal mode. PEL provides <f12> 3 as an alternative.    </f12>	beginning of list  from end of top level	ι	(lispy-backward ARG)	<ul> <li>Move backward to beginning of previous list, up to out of current top-level list and then to previous top level-list.</li> <li>Can type it from any location, even when point is not before the beginning or after the end of a list.</li> </ul>
Move outside list forward    C-3		d		·
Move outside list forward but self-insert inside strings and comments  Navigation History  Move back  b (special-lispy-back ARG)  Mark a region  Mark S-expression with the following commands.  Mark unmark list  Mark Larra select car of marked list  Move outside list forwards (up level and right) ARG times.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • However self-insert when point is located in a string or a comment.  • If position isn't special, move to previous or error.  • Lispy back history updated by: <b>f</b> , <b>h</b> , <b>i</b> , <b>j</b> , <b>k</b> , <b>1</b> , <b>m</b> , and <b>q</b> . These commands are identified with • If position isn't special, move to previous or error.  • Lispy back history updated by: <b>f</b> , <b>h</b> , <b>i</b> , <b>j</b> , <b>k</b> , <b>1</b> , <b>m</b> , and <b>q</b> . These commands are identified with • If position isn't special, move to previous or error.  • Lispy back history updated by: <b>f</b> , <b>h</b> , <b>i</b> , <b>j</b> , <b>k</b> , <b>1</b> , <b>m</b> , and <b>q</b> . These commands are identified with • If position isn't special, move to previous or error.  • Lispy back history.  • If position isn't special, move to previous position in lisps-back history.  • If position isn't special, move to previous position in lisps-back history.  • If position isn't special, move to previous position in lisps-back history.  • If position isn't special, move to previous position in li		C-3	,	Move outside list forwards (up level and right) ARG times. Ignore parens in strings.  • With no argument, or using Meta prefixed numerical arguments, this key can be typed anywhere.
but self-insert inside strings and comments  Navigation History  To restore past positions, type b around parens. The commands marked with ♣ update lispy back history.  Move back  b (special-lispy-back ARG)  Move point to ARGth previous position in lisps-back history.  If position isn't special, move to previous or error.  Lispy back history updated by: f, h, i, j, k, 1, m, and q. These commands are identified with ♣  Mark a region  Mark S-expression with the following commands.  See the command a above: it allows marking any symbol using avy.  Mark symbol  Mark wymbol  Mark (ispy-mark-symbol)  Mark current symbol. Can be issued anywhere.  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 the car of currently active region. Moves point after the first symbol in the list.		<f12> 3</f12>		
Move back    Move point to ARGth previous position in lisps-back history.   If position isn't special, move to previous or error.   Lispy back history updated by: f, h, i, j, k, 1, m, and q. These commands are identified with ③    Mark a region   Mark S-expression with the following commands. 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   Mark   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 the car of currently active region. Moves point after the first symbol in the list.	but self-insert inside	)		
Mark a region  Mark S-expression with the following commands.  Mark symbol  Mark ymbol  Mark Unmark list  Mark car: select car of marked list  Mark aregion  Mark S-expression with the following commands.  If position isn't special, move to previous or error.  Lispy back history updated by: f, h, i, j, k, 1, m, and q. These commands are identified with   Mark S-expression with the following commands.  See the command a above: it allows marking any symbol using avy.  Mark current symbol. Can be issued anywhere.  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 the car of currently active region. Moves point after the first symbol in the list.	Navigation History	To restore past position	ons, type <b>b</b> around paren	s. The commands marked with 各 update lispy back history.
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. <ul> <li>If mark is already active, deactivate it instead.</li> <li>When ARG is more than 1, mark ARGth element.</li> </ul> mark car: select car of marked list     i     Mark the car of currently active region. Moves point after the first symbol in the list.	Move back	b		If position isn't special, move to previous or error.
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 the car of currently active region. Moves point after the first symbol in the list.	Mark a region	Mark S-expression w	ith the following command	ds. See the command <b>a</b> above: it allows marking any symbol using avy.
list ARG)  • 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 list ARG)  • If mark is already active, deactivate it instead. When ARG is more than 1, mark ARGth element.  Mark the car of currently active region. Moves point after the first symbol in the list.	Mark symbol	M-m	(lispy-mark-symbol)	Mark current symbol. Can be issued anywhere.
marked list	Mark/Unmark list &	m		
		i	(lispy-mark-car)	Mark the car of currently active region. Moves point after the first symbol in the list.
Grow marked area > (special-lispy-slurp ARG) Grows marked S-expression to include next.	Grow marked area	>	11.	Grows marked S-expression to include next.
Shrink marked area (special-lispy-barf ARG) Shrink marked S-Expression: exclude the one at current end of list of marked S-expressions.	Shrink marked area	<		Shrink marked S-Expression: exclude the one at current end of list of marked S-expressions.

<u>Description</u>	Key	Function	<u>Note</u>
Cut & Paste			
Copy region or sexp to	n	(special-lispy-new-	Copy marked region or sexp to kill ring.
kill ring Paste	P	(special-lispy-paste	When region is active, replace it with current kill. Forward to yank otherwise.
- 40.0	-	ARG)	When ARG is given, paste at that place in the current list.
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			
goto definition using	g	(special-lispy-goto	Jump to symbol within files in current directory. Prompt for symbol and jump to it.
directory tags		&optional ARG)	<ul> <li>When ARG isn't nil, call 'lispy-goto-projectile' instead.</li> <li>See <u>lispy goto wiki page</u>.</li> </ul>
goto definition using projectile base directory	• 0g	(lispy-goto-projectile)	Jump to symbol within files in ('projectile-project-root').
goto definition in local	• ogp	(special-lispy-goto-	Similar to lispy-goto, but only current file's tags are used instead of whole directory's tags.
file		local &optional ARG)	
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)	
Pop tag	• D	(special-pop-tag-	Go back from where it came with Follow
	• M-,	mark) (pop-tag-mark)	
Narrow/Widening		,	ept the selected region, allowing work on that region alone.
See also: <b>∑ Narrowing</b>	Widen it back to see	ee the complete buffer aga	ain.
Narrow current sexp   region	N	(special-lispy-narrow ARG)	Narrow current sexp or region.
Widen	W	(special-lispy-widen)	Widen back to see the complete buffer.
Operating on		· · · · · · · · · · · · · · · · · · ·	perate on a marked region of code:
Regions	<ul> <li>Activate a region</li> <li>m To mark a se</li> </ul>		
		mbol by its ace target lette exp within the list with:	er. Use numeric argument to widen scope out of current list.
		next sexp in the current li	
			grow/shrink operations apply to the current side of the region. Move point to the other side of the region
	• d to move to t	he other side of the region	1.
		region with another sexp of	
		egion by one sexp on the centire parent list with the p	
		entire parent list with the per mark to only the first chi	point at the end. ild (the car) of the current list
	Operate on the re     m Deactivate the	gion:	
	• u Deactivate the	ne region and undo.	
	• <b>s</b> Move region		
	<ul><li>w Move region</li><li>t Move region</li></ul>	one sexp up. inside sexp selected with	ace target
		change the order of appli in kill ring without de-active	ication of two S-exprs that contain region vating the mark.
		on with current kill.	
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-	Pop back to where M was last invoked.
Move to symbol within	~~4	mark) (special-lispy-goto	
files of current directory	ogd	ARG)	Jump to symbol within files in current directory.  • When ARG isn't nil, call 'lispy-goto-projectile' instead.  Stop with C-g.
Move to Elisp command	oge	(special-lispy-goto-	Jump to Elisp commands within current file. Prompts using ivy completion mechanism.
pithing current file	ogf	elisp-commands) (special-lispy-follow)	When ARG is non-nil, force a reparse     Follow to 'lispycurrent-function'.
	ogi	(special-lispy-goto-	Jump to definition of ARGth element of current list.
		def-down)	·
	ogl	(special-lispy-goto- local)	Jump to symbol within current file.  • When ARG is non-nil, force a reparse.
	ogq	(special-lispy-quit)	Remove modifiers.
	ogr	(special-lispy-goto- recursive)	Jump to symbol within files in current directory and its subdirectories. 🗘 Potentially long search process.
	Liony provide a lav	,	Stop with C-g.
Transform code		l	nation commands. Once you know them they speed up Lisp code editing.
<u>clone</u>	С	(special-lispy-clone ARG)	Clone sexp ARG times.  When the sexp is top level, insert an additional newline.
Move S-expr	The following operation	ons essentially move or m	nodify 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.
SORP OF FORIOUT			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.
			$(progn (foo) \underline{(}bar)) \rightarrow \rightarrow (progn \underline{(}(foo) bar))$
			$(progn (foo)_(bar)) \rightarrow > \rightarrow (progn (foo (bar)))$
			(F-291 (200)_(201)) / / (F2091 (100 (Bull))]

Description	Key	Function	<u>Note</u>
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)
			$(progn (foo) (bar)) \rightarrow < \rightarrow (progn (foo) ()\underline{b}ar)$
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))
			<pre>(+ my-count your-count their-count)</pre>
Raise: current and next previous sexp as replacement for their parent	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.
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.  (if (> (sum count1 coun2 count3) 30)  (when verbose
Move current sexp up	w	(special-lispy-move-	(message "over 30")))  Move current sexp or region up arg times. Don't exit the parent list. Also works for outlines.
Move sexp down in list	s	up ARG) (special-lispy-move-	Move current sexp or region down arg times. Don't exit the parent list. Also works for outlines.
Splice the current list into the parent list	/	(special-lispy-splice ARG)	Splice ARG sexp into the containing (parent) list. Move the point to the next list to splice in appropriate direction. If there are none within the parent list, move to the parent list in appropriate direction.
Teleport: move current	t ©*	(special-lispy-teleport	((a) (b) (c)) → / → (a (b) (c))  Move current sexp to Ace target inside current function.
sexp to Ace target	tt ©*	ARG)	Use numerical argument to move that many sexp  Move current sexp to Ace target to any sexp inside current window.
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    (do-something with-this)    (do-something with-that))</pre>
			<pre>(do-something with-this) (progn   (do-something with-that))</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.  (100) ((200) (300))  ((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-it-again)  (progn (do-this) (do-that) (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-again))  (progn (do-this) (do-that)) (do-it-again)
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.
Reverse list	xR	(lispy-reverse)	Reverse the current list or region selection.  does not handle quoted list properly: it inserts <b>quote ly-raw</b> as the last element of the new list.  One way to deal with this is to remove the quote, then reverse and put the quote back.
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 one line	О	(special-lispy-oneline)	Turn current sexp into one line.  • Move comments ahead of sexp.
Stringify current sexp	s	(special-lispy-stringify &optional ARG)	Transform current sexp into a string.  • Quote newlines if arg isn't 1.
Bind var: current sexp to let bound variable	xb	(lispy-bind-variable)	Transform the current list expression into a let-bound variable; iedit-mode is used to name the new variable. Use <b>M-m</b> to finish naming the variable.  • Bind current expression as variable.  • 'lispy-map-done' is used to finish entering the variable name. The bindings of 'lispy-backward' or 'lispy-mark-symbol' can also be used.
Unbind a let bound variable	xu	(lispy-unbind-variable)	Substitute let-bound variable  • Unbind a let-bound variable. Also works for Clojure.
			$\Delta$

Description	Key	Function	<u>Note</u>
turn nested if into cond	xc	(lispy-to-cond)	Transform current 'if' expressions to equivalent 'cond' expression.
turn current lambda into	xd	(lispy-to-defun)	Turn the current lambda or toplevel sexp or block into a defun.
a defun	жD	(lispy-extract-defun)	Extract the marked block as a defun.  • For the defun to have arguments, capture them with 'lispy-bind-variable'
Inline current function or macro call	xf	(lispy-flatten ARG)	Inline current function or macro call, i.e. replace it with function body. The function should be interned and its body find-able.  • Pass the ARG along.
	xF	(lispy-let-flatten)	Inline a function at the point of its call using 'let'.
turn cond into nested if	xi	(lispy-to-ifs)	Transform current 'cond' expression to equivalent 'if' expressions.
<u>expressions</u>	xk	(lispy-extract-block)	Transform the current sexp or region into a function call.
			<ul> <li>The newly generated function will be placed above the current function.</li> <li>Starts the input for the new function name and arguments.</li> <li>To finalize this input, press "[".</li> </ul>
turn current defun into a lambda	xl	(lispy-to-lambda)	Turn the current function definition into a lambda.
Eval sexp and replace it with its result	xr	(lispy-eval-and- replace)	Eval current expression and replace it with the result.  (delete-dups (sort '(3 1 7 5 3 4 2 1 4 7) #'<))  (1 2 3 4 5 7)
Toggle between last	x>	(lispy-toggle-thread-	Toggle current expression between the last-threaded macro form and the unthreaded forms.
threaded macro form and unthreaded form		last)	(± 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 5 (+ 20) (/ 25) - (+ 40))  • The macro used used may be customized in 'lispy-thread-last-macro' user-option. It default to the Emacs Lisp thread-last macro.
EDegug Support			
	xe	(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.
	хj	(lispy-debug-step-in)	Eval current function arguments and jump to definition
ERT test support			
	xt	(lispy-view-test)	View better the test at point.
	хT	(lispy-ert)	Call ('ert' t): run all ERT tests.
Outline operations	Also see <b>C-a</b> 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	With no active region: (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.
<b>Evaluate Code</b>			
Eval last sexp	е	(special-lispy-eval ARG)	Eval last sexp. Display result in echo area.  • When ARG is 2, insert the result as a comment.
Eval current region sexp. Insert result.	E	(special-lispy-eval- and-insert)	Eval current region or sexp. The result will be inserted in the current buffer after the evaluated expression.
	xv	(lispy-eval-expression)	Like 'eval-expression', but for current language (Emacs Lisp, Common Lisp, Clojure, etc)
Eval current sext & replace it at point	xr		
Eval current sexp in the content of the of the other window	p	(special-lispy-eval- other-window &optional ARG)	<ul> <li>Eval current expression in the context of other window.</li> <li>In case the point is on a let-bound variable, add a 'setq'.</li> <li>When ARG is non-nil, force select the window.</li> </ul>
EDebug current defun	xe		edebug current defun. Or cider-debug-defun-at-point for Clojure.
	2xe		2xe will eval current defun instead.
Debug - step in	хj		<ul> <li>Evaluate the arguments at the current function's call</li> <li>Jump to the function's definition</li> <li>Set the result of evaluation to the function's arguments</li> </ul>
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.
Execute Tests: run ert	хT		
Buffer/Region operations			

<u>Description</u>	Key	Function	Note
Store current buffer and region for further operation	хВ	(lispy-store-region- and-buffer)	Store current buffer and 'lispybounds-dwim'.
Ediff regions	В	(special-lispy-ediff- regions)	Comparable to 'ediff-regions-linewise'.  • First region and buffer come from 'lispy-store-region-and-buffer'  • Second region and buffer are the current ones.
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	( <b>special-lispy-visit</b> ARG)	Visit another file within this project using <u>projectile</u> or <u>find-file-in-project</u> .  • Use <b>v</b> to open the file in the current window.  Use <b>2v</b> to open the file in another window.
See: <u>Nerojectile</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.		
Others ##			
	жC	(lispy-cleanup)	
	• xC-h • x?	(lispy-x-more- verbosity)	
	xn	(lispy-cd)	Change the current REPL working directory. Not implemented for Emacs Lisp.
	хр	(lispy-set-python- process)	