## Input Completion (Emacs default, Helm, Ido, Ivy, Counsel) 🚧

Operation	Keystroke	Function	Notes		
Input Completion	When Emacs prompts for the name of a file, buffer, variable, function, command (and more) it offers a way to complete your input using several input completion methods. Emacs default completion is based on the <ab>tab&gt;key. Just type the beginning of what your search and hit <ab>to get a list of potential candidates in the minibuffer and complete your entry by adding characters. Or after issuing the command type <ab>tab&gt;twice to get the complete list. This is the Emacs standard input completion mechanism. There are several other packages that provide other ways of performing input completion. The Ido package is bundled with Emacs. Helm, Ivy and Counsel are external packages that must be installed and support ELPA compliant package managers (which PEL uses).  PEL supports the input completion packages listed below. If you select one or several of the external packages through PEL customization PEL configure them for you and make them available. You select which one you want to use when Emacs starts (via customization) and then when Emacs run you can use a PEL command to select another input completion engine. PEL eases the exploration and you can then use the input completion engine that first your tasks best and change dynamically any time.</ab></ab></ab>				
Input Completion Mode Selection	PEL supports several input completion modes that kick in with the M-x, C-x b, C-x C-f, <f1> o and many other commands. PEL supports the following input completion modes:</f1>				
(See also: ∑ Input Completion)	1. Emacs' default tab completion 2. Helm mode completion 3. Ido mode completion 4. Vy mode completion 5. Ivy mode completion 6. Ido/Helm mode where Ido is used for dealing with Files and buffers and Helm is used everywhere else (including all Helm specific commands).  Use <f11><f1> c, to customize the PEL completion group user options above.</f1></f11>				
	• Set the pel-initial-completion-mode user option to select which completion mode is used when Emacs starts.  As soon as one of the extra completion mode is activated via the corresponding pel-use- user option, PEL makes the following commands available to				
Select the completion mode	<f11> M-c</f11>	le and to see which one is currently action (pel-select-completion-mode)	Prompt user for completion mode to activate. The available modes depend on what is currently activated by customization. See the list above.		
Show what completion mode is currently used.	<f11> ? c</f11>	(pel-show-active-completion- mode)	Display the completion mode currently used.		
Helm Input Completion	The Helm external package is very powerful and comes with a large set of features.  It does not use the minibuffer and does not use the <tab> key for completion; you just need to type some part of the text you search for and Helm will pattern match it. Once you enter a command with Helm input completion a Helm buffer shows a list of potential match with the most probable on top. The list is updated as you type and refine your search pattern.  You can resize the Helm window when it is opened.  You can navigate the pattern match list, select one or several matches (for some of the commands that open the Helm buffer like when you type C-x b to switch/open other buffer or when you type C-x C-f to find/open file(s).  You can also perform other actions on the selections such as opening a file as root. And you can perform a Helm action and keep the Helm window open (as it normally closes right after you made your selection for the command you were executing.  And Helm comes with extensions of other commands, like running top and allowing pattern match to filter the list of processes you want to see.  See the document title "A package in a league of its own: Helm" for a more comprehensive overview with screen shots.  PEL provides a basic configuration for Helm that is similar to the extended config described in that document. But it does not set Helm values that can be customized. Customize Helm with M-x customize-group helm or with <fi11> <f1> G helm.  PEL sets the Helm global prefix to be C-c h. Once helm mode is active (or ido/helm mode) you can execute global Helm commands via that prefix key.  The following sections list the commands you can use inside a Helm window buffer.</f1></fi11></tab>				
Resize Helm Window	Use the following command	to reposition the Helm buffer window	from horizontal to vertical, going through the 4 possible quadrants of the frame.		
Resize Helm window	C-t	(helm-toggle-resplit-and-swap-windows)	Multi key command to re-split and swap helm window.  First call runs 'helm-toggle-resplit-window', and second call within 1s runs 'helm-swap-windows'.		
Navigate Helm Pattern buffer	The following commands move the currently selected pattern line in the Helm pattern buffer list				
Move to next pattern	• C-n • <down></down>	(helm-next-line &optional ARG)	Move selection to the next ARG line(s).  • When numeric prefix arg is > than the number of candidates, then move to the last candidate of current source (i.e. don't move to next source).		
Move to previous pattern	• C-p • <up></up>	(helm-previous-line &optional ARG)	Move selection to the ARG previous line(s).  • Same behavior as 'helm-next-line' when called with a numeric prefix arg.		
Move down 1 page	• C-v • <pgdn></pgdn>	(helm-next-page)	Move selection forward with a pageful.		
Move up 1 page	• M-v • <pgup></pgup>	(helm-previous-page)	Move selection back with a pageful.		
Move to top of list	M-<	(helm-beginning-of-buffer)	Move selection at the top of helm buffer list.		
Move to end of list	M->	(helm-end-of-buffer)	Move selection at the bottom of helm buffer list.		
Select patterns in Helm Pattern buffer	The following commands, available only for some input lists, allow you to mark several patterns to be processed.				
Toggle line selection	• C-SPC • C-@	(helm-toggle-visible-mark ARG)	Toggle helm visible mark at point ARG times.  If ARG is negative toggle backward.		
Select all	м-а	(helm-mark-all &optional ALL)	Mark all visible unmarked candidates in current source.  • With a prefix arg mark all visible unmarked candidates in all sources.		
Operate on selection	The following commands ar	e used to act on the selected items fro	m the Helm list		
Copy Helm selection to current buffer	• C-c C-i • C-c <tab></tab>	(helm-copy-to-buffer)	Copy selection or marked candidates to 'helm-current-buffer'.  Note that the real values of candidates are copied and not the display values.		
Act on selection	• <tab> • C-i</tab>	(helm-select-action)	Select an action for the currently selected candidate.  • If action buffer is selected, back to the helm buffer.		
Perform action on current pattern without quitting Helm	• C-j • M-C-i	(helm-execute-persistent-action &optional ATTR SPLIT)	Perform the associated action ATTR without quitting helm.  • The action applies to the current pattern, not lines that might have been selected.		
Helm Help	Once Helm is running the following command open Helms manual.				
Open Helm Manual (in Org mode format)	• C-h m • C-c ?	(helm-help)	Generate helm's help according to 'help-message' attribute.  If 'helm-buffer' is empty, provide completions on 'helm-sources' to choose its local documentation.  If source doesn't have any 'help-message' attribute, a generic message explaining this is added instead.  The global 'helm-help-message' is always added after this local help.		

Operation	Keystroke	Function	Notes
Launching Helm Search			
Helm special commands	Helm provides the following commands that integrate with other tools.  With PEL, when Helm or Ido/Helm mode is active the <f11> h key prefix is active giving quick access to these useful helm commands.</f11>		