








Emacs support for Unix Shell Scripting

Description	Keystroke	Function	Note
UNIX-like Shell Script Editing See: <u>comparison of command shells</u>	Emacs provides the built-in sh-mode to support UNIX-style shell script programming. <ul style="list-style-type: none"> It supports several shell variants including: <ul style="list-style-type: none"> bash, csh, ksh, sh, the Bourne shell zsh Several other shel types are supported . Use the sh-set-shell command to force the use of a specific shell type, with C-c : <p> PEL activates Unix shell-script support with the  pel-use-sh user-options. <ul style="list-style-type: none"> When it is turned on the <f11> SPC h prefix is made available. In a shell script <code> </code> buffer these commands are accessible via the <f12> key. It also activates the ability to activate minor modes for the sh major mode through the PEL pel-sh-activates-minor-modes user-option. </p> <p>  PEL provides the following customizable user-options. From a UNIX shell file, the <f12> <f2> key sequence opens the customization group for them. <ul style="list-style-type: none"> pel-make-script-executable : when turned on (set to t), Emacs makes the saved shell script file executable. PEL provides the ability to automatically identify shell scripts that must be sourced and are therefore not executables: <ul style="list-style-type: none"> pel-shell-sourced-script-file-name-prefix: use a regexp to identify name of files that are meant to be sourced. pel-shell-script-extensions: identified file extensions that can be used to prevent PEL to recognize them as shell files to source. </p> <p> PEL also provide specialized code templates that are taking the above user-options into account. The commands distinguish a shell script file that must be executable from one that must be sourced and generates different text. </p>		
Open this PDF file. See also: ⌘ Help/Info 	<f11> SPC h <f1> <f12> <f1>	(pel-help-pdf &optional OPEN-WEB-PAGE)	Open the ⌘(- UNIX Shell local PDF. If the prefix argument (like C-u or M--) is used, then it opens the remote GitHub hosted raw PDF instead. If the pel-flip-help-pdf-arg user-option is set it's the other way around.
 ⌘ Customize PEL UNIX Shell support	<f11> SPC h <f2> <f12> <f2>	(pel-customize-pel &optional OTHER-WINDOW)	Customize PEL UNIX Shell support. <ul style="list-style-type: none"> If OTHER-WINDOW is non-nil (use C-u), display in another window.
 ⌘ Customize Emacs UNIX Shell support	<f11> SPC h <f3> <f12> <f3>	(pel-customize-library &optional OTHER-WINDOW)	Customize Emacs UNIX Shell support: sh, sh-script, sh-indentation. <ul style="list-style-type: none"> If OTHER-WINDOW is non-nil (use C-u), display in another window.
Set the buffer shell type	C-c :	(sh-set-shell SHELL &optional NO-QUERY-FLAG INSERT-FLAG)	Set this buffer's shell to SHELL (a string). Prompts, support tab-completion. <ul style="list-style-type: none"> When used interactively, insert the proper starting <code>#!/-</code>line, and make the visited file executable via 'executable-set-magic', perhaps querying depending on the value of 'executable-query'. Calls the value of 'sh-set-shell-hook' if set. Shell script files can cause this function be called automatically when the file is visited by having a 'sh-shell' file-local variable whose value is the shell name (don't quote it).
Execute region in a sub-shell	C-M-x	(sh-execute-region START END &optional FLAG)	Pass optional header and region to a subshell for noninteractive execution. <ul style="list-style-type: none"> The working directory is that of the buffer, and only environment variables are already set which is why you can mark a header within the script. With a positive prefix ARG, instead of sending region, define header from beginning of buffer to point. With a negative prefix ARG, instead of sending region, clear header. Print result on the echo area if it fits, otherwise into the "Shell Command Output" buffer.
Generic code skeletons • tempo skeletons See also: <ul style="list-style-type: none"> ⌘ Inserting Text T Templates 	Several mechanisms have been developed to allow easy insertion of predefined text in Emacs. <ul style="list-style-type: none"> Emacs provides the built-in skeleton mechanism and the tempo skeletons. <ul style="list-style-type: none"> PEL supports both. They are used a little bit differently. <ul style="list-style-type: none"> PEL provides key bindings to the tempo skeletons: the generic code templates, accessible via the <f6> prefix key, and the language-specific code templates, accessible via the <f12> key prefix. <p> PEL provides generic tempo skeletons the handle UNIX shell script files. </p>		
 ⌘ Customize PEL Text Insertions control	<f6> <f2>	(pel-customize-pel &optional OTHER-WINDOW)	Customize PEL generic tempo skeleton customization groups that control the format of the various skeletons including the generic skeleton used by the <f6> h key (se below). <ul style="list-style-type: none"> If OTHER-WINDOW is non-nil (use C-u), display in other window.
Insert generic file module header block — Language agnostic After inserting the template, navigate though areas that must be filled with: <ul style="list-style-type: none"> tempo-forward-mark: C-c . tempo-backward-mark: C-c , 	<f6> h	(pel-generic-file-header)	Insert a file header block at the top of the file. Works only for buffer visiting a file. <p>  The command key binding <f6> h is available only 1 second after Emacs has started. </p>
	<p>  Specify the format of the header via the user-options in the pel-pkg-generic-code-style customization group accessible via <f6> <f2> <ul style="list-style-type: none"> Inside a sh-mode buffer the <code><f12> <f2></code> provides access to the pel-pkg-for-sh customization group which provides important user-option for the control of the template format and is the parent of the pel-sh-script-skeleton-control customization group. The files that have no extensions are often used in Unix-like OS shell scripts. These files are also supported as Emacs can recognize them if they are stored in a bin directory. PEL also has special support for them and is controlled by the pel-sh-script-skeleton-control customization group, which is accessible as a child of the main group. </p> <p>  After inserting the template you can use the tempo-forward-mark and tempo-backward-mark to move point to the beginning of each section that must be filled. </p>		
Toggle pel-tempo-mode	<f6> SPC	(pel-tempo-mode &optional ARG)	Toggle PEL tempo mode on/off. <p> PEL tempo mode activates C-c . and C-c , , as well as to C-c C-. and C-c C-, key bindings to navigate across tempo mark hot-spots. When pel-tempo-mode is active the pel-tempo-mode lighter (⚡) is shown on the status bar. The second set of keys are only available when Emacs runs in graphics mode. </p> <p>  The pel-generic-file-header command inserts the text using a tempo skeleton: the PEL tempo mode is automatically activated by typing <f6> h. </p>
Jump to next tempo mark	<ul style="list-style-type: none"> C-c M-f C-c . C-c C-. 	(tempo-forward-mark)	Jump to the next mark in 'tempo-back-mark-list': the location where code must be updated inside the inserted skeleton. <ul style="list-style-type: none"> These key key bindings are only available when pel-tempo-mode is active.
Jump to previous tempo mark	<ul style="list-style-type: none"> C-c M-b C-c , C-c C-, 	(tempo-backward-mark)	Jump to the previous mark in 'tempo-back-mark-list': the location where code must be updated inside the inserted skeleton. <ul style="list-style-type: none"> These key binding are only available when pel-tempo-mode is active.
Shell statement Insertion	The sh-mode provides the following commands to insert shell scripts code elements with templates defined with the Emacs skeleton language . All of these statement insertion command share the same extra description: <ul style="list-style-type: none"> This is a skeleton command (see 'skeleton-insert'). Normally the skeleton text is inserted at point, with nothing "inside". If there is a highlighted region, the skeleton text is wrapped around the region text. A prefix argument ARG says to wrap the skeleton around the next ARG words. A prefix argument of -1 says to wrap around region, even if not highlighted. A prefix argument of zero says to wrap around zero words---that is, nothing. This is a way of overriding the use of a highlighted region. 		
Insert a case/switch	C-c C-c	(sh-case &optional STR ARG)	Insert a case/switch statement.
Insert a for loop	C-c C-f	(sh-for &optional STR ARG)	Insert a for loop.

Description	Keystroke	Function	Note
Insert function definition	C-c ((sh-function &optional STR ARG)	Insert a function definition.
Insert a if statement	<ul style="list-style-type: none"> C-c <tab> C-c C-i 	(sh-if &optional STR ARG)	Insert a if statement.
Insert an indexed loop from 1 to n.	C-c C-1	(sh-indexed-loop &optional STR ARG)	Insert an indexed loop from 1 to n.
Insert a getopt loop	C-c C-o	(sh-while-getopts &optional STR ARG)	Insert a while getopt loop. <ul style="list-style-type: none"> Prompts for an options string which consists of letters for each recognized option followed by a colon ':' if the option accepts an argument.
Insert a repeat loop definition	C-c C-r	(sh-repeat &optional STR ARG)	Insert a repeat loop definition.
Insert a select statement	C-c C-s	(sh-select &optional STR ARG)	Insert a select statement.
Insert an until loop	C-c C-u	(sh-until &optional STR ARG)	Insert an until loop.
Insert a while loop	C-c C-w	(sh-while &optional STR ARG)	Insert a while loop.
Show indentation	C-c ?	(sh-show-indent ARG)	Show how the current line would be indented. <ul style="list-style-type: none"> This tells you which variable, if any, controls the indentation of this line. If optional arg ARG is non-null (called interactively with a prefix), a pop up window describes this variable. If variable 'sh-blink' is non-nil then momentarily go to the line we are indenting relative to, if applicable.
Set indentation for current line	C-c =	(sh-set-indent)	Set the indentation for the current line. If the current line is controlled by an indentation variable, prompt for a new value for it.
Learn indentation from current line	C-c <	(sh-learn-line-indent ARG)	Learn how to indent a line as it currently is indented. <ul style="list-style-type: none"> If there is an indentation variable which controls this line's indentation, then set it to a value which would indent the line the way it presently is. If the value can be represented by one of the symbols then do so unless optional argument ARG (the prefix when interactive) is non-nil.
Learn indentation from buffer	C-c >	(sh-learn-buffer-indent &optional ARG)	Learn how to indent the buffer the way it currently is. <ul style="list-style-type: none"> If 'sh-use-smie' is non-nil, call 'smie-config-guess'. Otherwise, run the sh-script specific indent learning command, as described below. Output in buffer ""indent*" shows any lines which have conflicting values of a variable, and the final value of all variables learned. When called interactively, pop to this buffer automatically if there are any discrepancies. If no prefix ARG is given, then variables are set to numbers. If a prefix arg is given, then variables are set to symbols when applicable -- e.g. to symbol '+' if the value is that of the basic indent. If a positive numerical prefix is given, then 'sh-basic-offset' is set to the prefix's numerical value. Otherwise, sh-basic-offset may or may not be changed, according to the value of variable 'sh-learn-basic-offset'. Abnormal hook 'sh-learned-buffer-hook' if non-nil is called when the function completes. The function is abnormal because it is called with an alist of variables learned. ⚠️ This command can often take a long time to run.
Go to beginning of command	M-a	(sh-beginning-of-command)	Move point to successive beginnings of commands.
Go to end of command	M-e	(sh-end-of-command)	Move point to successive ends of commands.
Comments			
Toggle display of comments in buffer or active region See also: ☞ Comments	<f11> ; ;	(hide/show-comments-toggle &optional START END)	Toggle hiding/showing of comments in the active region or whole buffer. <ul style="list-style-type: none"> If the region is active then toggle in the region. Otherwise, in the whole buffer. 📦 This requires the hide-comnt.el package (see ☞ Comments).  PEL activates it when the pel-use-hide-comnt user option is t .