

Indenting & Tab

Description	Keystroke	Function	Note
<u>Indentation under Emacs</u> - Use hard tabs or spaces for indentation - Set hard-tab visual width - Adjust tab stop - Show tab/indent settings - Align on return - Insert hard-tab - To next tab stop - tabify & untabify - Behaviour of tab key - Insert newline, split line - Indent region - Delete indentation - Move to 1st non-blank - Indenting /un-indenting rigidly - Text alignment on newline Indent-tools dtrt-indent, Indent-bars Smart-shift, Smart-tabs References	Emacs controls indentation and behaviour of the tab key according to various rules controlled by the buffer's major mode. - The modes default behaviour may be modified by the use of minor modes. - Several major modes identify one or several variable that control indentation levels and behaviour. Some use default indentation variables. - Some programming languages (such as Go) impose hard-tab for indentation, using tab for indentation and space for alignment. Works very nicely. - There are several indentation schemes: hard-tab only for indentation, spaces only for indentation, hard-tabs for indentation space for alignment, free mix of hard-tabs and spaces for indentation and whitespace. - Emacs can support all those schemes. It can tabify or untabify source code. - Emacs controls the <i>display rendering</i> of hard tabs via the tab-width customizable user-option variable. - The indentation width is often independent from the tab width but not always. Again it depends on the major mode used. PEL supports all indentation schemes and various indentation mechanisms and has its own extensions. For each explicitly supported mode you can configure the indentation with and use of hard tabs for the mode. This is used for all files you create. It also support automatic adjustment for files you edit that have been created by others and use a different indentation width and use of hard-tabs. - It provides activation of following external packages by turning on the corresponding pel-use customizable user-option (setting it to t): - The dtrt-indent external package  pel-use-dtrt-indent Detects indentation width & use of hard-tabs in file, then adjust settings to adapt. - The tbindent external package  pel-use-tbindent Minor mode that translates of space indented buffers into tab-based with different width. - The indent-bars external package  pel-use-indent-bars Provides ability to show indent bar at each indentation level. - The indent-tools external package  pel-use-indent-tools Provides commands to alter indentation of code. - The smart-shift external package  pel-use-smart-shift Provides ability to shift text areas left/right by indentation levels. - The smart-tabs external package  pel-use-smart-tabs Use it when using tabs for indentation and spaces for alignment. ☞ To help people that have visual problems with small indentation, PEL uses the tbindent-mode provided by the tbindent package which provides the tbindent-mode, a minor mode that converts the indentation of the whole buffer to hard tabs of the same width as indentation width. - Change the indentation visual rendering with the pel-set-tab-width command. - When saving the file all indentation is converted back to spaces with the same convention as when you opened the file!		
Last updated on:	2026-05-13	See Showing Information About Indentation and Hard Tab Control under PEL and  Indentation Styles	
Open this PDF file. See also: 📖 Help/Info	<f11> <tab> <f1>	(pel-help-pdf &optional OPEN-WEB-PAGE)	Open the 📖 Indentation local PDF. With C-u or M-- open the remote GitHub hosted file instead. If the pel-flip-help-pdf-arg user-option is set it's the other way around.
📖 Customize PEL highlighting control	<f11> <tab> <f2>	(pel-customize-pel &optional OTHER-WINDOW)	Customize PEL support for indentation management If OTHER-WINDOW is non-nil (use C-u) , display in other window.
📖 Customize Emacs indentation control	<f11> <tab> <f3>	(pel-customize-library &optional OTHER-WINDOW)	Customize Emacs indentation groups: indent, Indent-bars indent-tools , dtrt-indent , smart-shift . If OTHER-WINDOW is non-nil (use C-u), display in another window.
Toggle use of hard tabs for indentation in the current buffer. Affect new code written.	The use of hard tabs or spaces for indentation is controlled by the Emacs (customizable) variable indent-tabs-mode. See also: 📖 Whitespace This variable has global impact, but can be overridden by directory local value, file local value and buffer local value.		
	<f11> <tab> m <f11> t w I	(pel-toggle-indent-tabs-mode &optional ARG)	Toggle whether indentation can insert hard tab characters in the current buffer. - If ARG is positive set to use hard tabs, otherwise force use of spaces only. - This uses Emacs indent-tabs-mode function and provides more feedback.
Toggle tbindent mode 😓😓 Edit space indented files with wider indentation!	<f11> <tab> i m	(tbindent-mode &optional ARG)	Toggle minor mode that automatically changes to tab-based indentation allowing wider rendering via larger tab widths. Save files without the tabs, with original indent scheme.  Requires the tbindent external package. Activate with  pel-use-tbindent
Set hard-tab width: the <i>visual rendering</i> of hard tabs for the current buffer Does not change buffer/file content	<f11> <tab> w	(pel-set-tab-width N)	Change the tab-width of the current buffer, only affecting the display rendering of hard tabs inserted in the buffer text. Prompts for a new value in the [2, 8] range.
	- This modifies a buffer local value of the the tab-width user-option. The change is temporary and affects the current buffer only. - PEL provides a specialized user-option to set the default value of tab-width for several major modes. For example, to change the tab width used for all Go source code files, change the 'pel-go-tab-width' user-option variable instead. See the documentation of each major mode for more information.		
Tab stops	Emacs keeps track of a set of “ <i>tab-stop</i> ” columns that can be used as reference points to align text. Something similar to typewriter tab-stop .		
Change the tab stops used by M-i	<f11> <tab> e	(edit-tab-stops)	Opens a *Tab Stops* buffer . Identify the tab stops in the first line with colons. Use C-c C-c to activate and exit the buffer. The tab stop take effect at the top of the buffer, as used by M-i
Show Indentation settings For several major modes, a PEL mode-specific user-option is used to set the indentation width for the major mode. Like pel-c-indent-width for C buffers. PEL stores the value into the indentation control variable used by the mode (like c-basic-offset in C buffers). These control the configured indentation for the mode which is used when new files are created. Files written by others may not conform to your customized indentation settings, but PEL can adapt when pel-use-dtrt-indent is on.	<f11> <tab> ? <f11> ? <tab> - The first line shows the buffer name and date. - The first group of user options control the indentation. The PEL user-option is normally shown first if there is one for the mode. - The next group list user-options are less important but may also be used. - All user-option variables are help buttons; click or hit return on them to open help specific buffer about the variable. - If pel-use-dtrt-indent is on, the customized values may be overridden by dtrt-indent detection of indentation scheme.	(pel-show-indent &optional APPEND) <pre> ---Indentation Width Control and Space/Tab Insertion Rendering from emacs.c * Indentation Control: - pel-c-indent-width : 4 - c-basic-offset : 2 Note: `pel-c-indent-width' controls indentation for new files as PEL uses its value and stores it in the other variables for the mode shown above. However, `dtrt-indent-mode' may detect a different indentation scheme for already written files and change the Emacs indentation and hard-tab controlling variable after PEL has set their value(s). In that case you will see a different value in the above list and a message note describing the adjustment made by `dtrt-indent-mode'. - standard-indent : 4 - tab-always-indent : t - indent-line-function : c-indent-line - c-syntactic-indentation : t * Hard Tab Control: - The hard tab rendering width is for c buffer is controlled by </pre> These are buttons you can press to access more info and change values	Print info about indentation control in a *pel-indent-info* help-mode buffer. - Buffer-specific values of relevant user-options as buttons to use to get more info and change their customized values. Includes major-mode specific ones. - Clear previous buffer content. Use prefix arg (like C-u) to append instead.
Toggle text alignment on pel-newline-and-indent-below See also: 📖 Align See the alignment control variable list with: <pre><f11> t a ?</pre>	<f11> M-RET	(pel-toggle-newline-indent-align)	Toggle variable <i>pel-newline-does-align</i> for the local buffer. It affects the way function ' pel-newline-and-indent-below ' operates.
	- If <i>pel-newline-does-align</i> is t, it aligns several syntactic element in the current block: the comments, the assignments.  set modes that automatically activates <i>pel-newline-does-align</i> by adding the major mode to pel-modes-activating-align-on-return user option. - This affects the behaviour of the following commands: pel-cc-newline (assigned to RET in CC modes like c-mode, c++-mode and d-mode). pel-newline-and-indent-below (assigned the M-RET)		
Show state of text modes - whether hard tabs are used for indentation, tab-width - whether newline aligns text - electric-quote-mode - delete-selection-mode - enriched-mode - overwrite-mode - case folding - subword, superword, glass modes - visible-mode, smart-dash-mode - paragraph definition - Output example ➡	<f11> t m ?	(pel-show-text-modes)	Display the state of the various text modes in the mini buffer.
	Quickly show several settings inside the mode line: the tab settings, text alignment on newline, whitespace mode, etc... Text Modes Status: <pre> - Local indent-tabs-mode : off: use spaces, Tab width = 8 - Local newline does align : off . Automatically activated by modes (<f11> t a <f2>): (c-mode c++-mode sh-mode) - Local electric-quote-mode : off , electric-quote-local-mode: not loaded. - whitespace-mode : not loaded, show-trailing-whitespace : off , indicate-empty-lines: off. - enriched-mode : not loaded. - overwrite mode : off , delete-selection-mode : off. - case-fold-search : on , sort-fold-case : not loaded. - subword mode : off , superword mode : on , glass-mode: not loaded. - visible-mode : off , smart-dash-mode : not loaded. - Sentences end with 2 space characters. - paragraph-start : "^L\\ []*\$" - paragraph-separate : "[^L]*\$" </pre>		

Description	Keystroke	Function	Note
Align on return	The following commands control indentation on return. The behaviour can be modified and PEL provides a quick command to list relevant user options.		
Display current buffer's vertical alignment behaviour See also: ↗ Align	<f11> t a ?	(pel-align-info &optional APPEND)	Print information about text aligning info in a "pel-align-info" help-mode buffer. - Prints current state and values of relevant user-options as buttons to help: M-RET behaviour in current buffer: show if that command aligns text or not. - whether the modes are activating vertical alignment on return. - Clear previous buffer content. Use prefix arg (like C-u) to append instead.
Insert an indented line below current line See also: ↗ Align	M-RET <f11> <tab> RET	(pel-newline-and-indent-below)	Insert an indented line just below current line. - Also align vertically if mode was activated for the buffer with <f11> M-RET . - See current behaviour with <f11> t a ?
Inserting hard tab	Regardless of <tab> key behaviour, it is possible to insert a hard tab character with C-q <tab>		
Insert Literal Tab	C-q <tab>	(quoted-insert ARG) <tab>	Inserts a hard tab inside buffer. Render text according to value of tab-width .
Insert whitespace to next tab-stop	Regardless of <tab> key behaviour, it is possible to insert spaces (or combinations of hard tab and spaces) to put point to the next “tab-stop” with M-i The location of tab-stops can be modified with (edit-tab-stop), bound to <f11> <tab> e .		
Insert spaces or tabs to next defined tab-stop column	M-i	(tab-to-tab-stop)	Insert spaces or tabs to next defined tab-stop column. Use <f11> <tab> e to modify position of the tab stops.
	The exact location of the next tab stop is identified by the value of the tab-stop-list and tab-width for the current buffer.		
Tabify & untabify	The following two commands can be used to replace hard tabs in a file with the corresponding number of space characters while retaining the same indentation and vice-versa.		
Replace tabs with spaces in a region See also: ↗ Whitespace	<f11> t w SPC	(untabify START END &optional ARG)	Convert all tabs in region to multiple spaces, preserving columns. - If called interactively with prefix ARG, convert for the entire buffer. - First select a region (Use C-x h for selecting the whole file). Then use the <i>untabify</i> function to replace all tabs by spaces in that region.
Replace multiple spaces with tabs in a region See also: ↗ Whitespace	<f11> t w <tab>	(tabify START END &optional ARG)	Convert multiple spaces in region to tabs when possible. - A group of spaces is partially replaced by tabs when this can be done without changing the column they end at. - If called interactively with prefix ARG, convert for the entire buffer.
Behaviour of Tab Key	In Emacs the behaviour of the <tab> key depends on the major mode of the current buffer. This key is rebound by several major mode. - In text modes, tabs default to inserting hard tabs corresponding to a alignment at every 8 columns. However, if there is text in the above lines, the tab moves to the spot under the word above. Note that if a line is full of text (without any space), then the tab stops controlled by the ruler take effect again. - In several programming modes the tab key does not insert anything, it adjusts the line indentation. according to surrounding code		
Indent current line (or region)	<tab>	(indent-for-tab-command &optional ARG)	Indent the current line or region, or insert a tab, as appropriate.
	- This function either inserts a tab, or indents the current line, or performs symbol completion, depending on ‘tab-always-indent’. The function called to actually indent the line or insert a tab is given by the variable ‘indent-line-function’. - If a prefix argument is given, after this function indents the current line or inserts a tab, it also rigidly indents the entire balanced expression which starts at the beginning of the current line, to reflect the current line’s indentation. - In most major modes, if point was in the current line’s indentation, it is moved to the first non-whitespace character after indenting; otherwise it stays at the same position relative to the text. - If ‘transient-mark-mode’ is turned on and the region is active, this function instead calls ‘indent-region’. In this case, any prefix argument is ignored.		
	  The behaviour of the tab key vastly differ between major modes. This ranges from not moving the cursor at all if the indentation is identified as correct for the current context, to cycling through various potential positions to just what someone new to Emacs would expect. Much more has to be documented on the behaviour of that key and how it can be controlled and customized. It’s quite possible that the best way to document its behaviour would be to place a description inside the table of each major mode.		
	<tab>	indent-for-tab-command &optional ARG)	In Lisp related modes. - indent-line-function = indent-relative. - tab-always-indent = t
	 Several major modes adjust the behaviour of the tab key to perform semantically aware indentation, such as what is being done in Lisp.		
	<tab>	(c-indent-line-or-region &optional ARG REGION)	In C related modes: Indent active region, current line, or block starting on the line. - In Transient Mark mode, when the region is active, reindent the region. - With prefix argument, rigidly reindent the expression starting on current line. - Otherwise reindent just the current line.
Indent lines of list after point Example: CLBC s3.lisp	C-M-q	(indent-sexp &optional ENDPOS) (c-indent-exp &optional SHUTUP-P)	Indent each line of the list starting just after point. The command used depends on the major mode of the current buffer.
Newline & indent			
Insert new-line and maybe indent	C-j	(electric-newline-and-maybe-indent)	Add new line and indent next line. Indentation is controlled by the variable left-margin . Pressing Tab anywhere on the line also indents the line properly.
Insert new-line and maybe indent	RET	(pel-cc-newline &optional N)	Insert a newline and perhaps align. With argument N repeat N times. For newline insertion, operate according to the value of the variable ‘pel-cc-newline-mode’.
Split current line & indent	C-M-o	(split-line &optional ARG)	Split current line, moving portion beyond point vertically down. - If the current line starts with ‘fill-prefix’, insert it on the new line as well. - With prefix ARG, don’t insert ‘fill-prefix’ on new line.
Indent Region	C-M-\	(indent-region START END &optional COLUMN)	Indent each nonblank line in the region. - A numeric prefix argument specifies a column: indent each line to that column. - With no prefix argument, the command chooses one of these methods and indents all the lines with it: - If ‘fill-prefix’ is non-nil, insert ‘fill-prefix’ at the beginning of each line in the region that does not already begin with it. - If ‘indent-region-function’ is non-nil, call that function to indent the region. - Indent each line via ‘indent-according-to-mode’.
Indent relative to line above	<f11> <tab> r	(indent-relative &optional FIRST-ONLY UNINDENTED-OK)	Space out to under next indent point in previous nonblank line. An indent point is a non-whitespace character following whitespace.
	The following line shows the indentation points in this line. <pre> ^ ^ ^ ^ ^ ^ ^ ^ </pre> - If FIRST-ONLY is non-nil (ie. using C-u prefix) then only the first indent point is considered. - If the previous nonblank line has no indent points beyond the column point starts at, then ‘tab-to-tab-stop’ is done, if both FIRST-ONLY and UNINDENTED-OK are nil, otherwise nothing is done. - If there isn’t a previous nonblank line and UNINDENTED-OK is nil, call ‘tab-to-tab-stop’. Essentially, this command inserts whitespace at point, until point is aligned with the first non-whitespace character on the previous line (actually, the last non-blank line). If point is already farther right than that, run tab-to-tab-stop instead—unless called with a numeric argument, in which case do nothing.		
Delete Indentation, join line to the previous one See also: ↗ Cut & Paste ↗ Whitespace	M-^ <f11> ⌘ 6 <f6> 6	(delete-indentation &optional ARG)	Join this line to previous and fix up whitespace at join. - If there is a fill prefix, delete it from the beginning of this line. - With argument, join this line to following line.
Move to fist nonbank character on the line	M-m	(back-to-indentation)	Move point to the first non-whitespace character on this line.

Indentation — References

Title & URL		Description				
<u>Understanding GNU Emacs and Tabs</u>		Overview description of how Emacs handle the Tab key, often used for strict indentation in many editors. In Emacs it can do much more.				
<u>GNU Emacs Manual - Indentation</u>						
<u>GNU Emacs Manual - Indentation for Programs</u>						
<u>Indentation Basic Concepts Tutorial @ XEmacs</u>		A tutorial on indentation written by KaiGrossjohann				
Tabs or space for indentation??						
Indentation and hard-tab use Style	Advantages	Disadvantages	Popularity	Support by PEL	Supported by	
- Use hard-tabs for indentation. - Uncontrolled use of space and hard-tabs for indentation.	Smaller file size	May render indentation differently on printer and sites such as Github. The code may look misaligned when not using the proper rendering width for hard-tab characters.	Often used for C, Emacs Lisp and languages used by users of programming editors that can easily deal with this, such as Emacs.	Yes	PEL mode-specific customizable user-options that are stored into the Emacs relevant indentation-controlling variables.	
- Use hard-tabs for indentation. - Controlled use of hard-tabs for indentation, spaces for alignment.	- Ease of indentation width. - Visual rendering of indentation can be narrowed or widened by simply changing the visual rendering (the width) of a hard-tab character. - Smaller file size.	May render indentation differently on printer and sites such as Github.	Used by Go and some project that use C and some other programming languages.	Yes	- PEL mode-specific customizable user-options that are stored into the Emacs relevant indentation-controlling variables. smart-tabs - Adjust use of hard-tabs and indentation width settings used by foreign files when dtrt-indent is used (via pel-use-dtrr-indent).	
Use spaces only. No hard tabs.	The rendering is the same everywhere; on all printers and even on Github which botches support for hard tabs.	- Cannot adjust visual width rendering of indentation, a useful feature for visually challenged people: the indentation with is directly tied to the file content. - Larger file size.	Widely popular strategy for most programming languages as of 2025, despite the growing concern for the use of small indentation width (2 mostly) that is difficult to see for some people.	Yes	- PEL mode-specific customizable user-options that are stored into the Emacs relevant indentation-controlling variables. - Adjust use of hard-tabs and indentation width settings used by foreign files when dtrt-indent is used (via pel-use-dtrr-indent).	
<u>Smarttabs @ GitHub</u>		Starttabs source code repository.				
Indentation Styles for Curly Bracket Languages						
<u>Indentation Styles @ Wikipedia</u>						
<u>StackOverflow - Emacs BSD/Allman Style with 4 Space Tabs?</u>						
<u>GNU Emacs Manual - Styles</u>						
<u>Emacs BSD/Allman Style with 4 Space Tabs?</u>						
<u>Emacs: Linux Kernel Style but with Allman/BSD Style Braces?</u>						
<u>Emacs Wiki - Indenting C</u>						
<u>Indent preprocessor directives as C code in emacs</u>		Does not fully address the way I want to have multi-indentations for pre-processor				
<u>elisp code - ppindent.el</u>		Implements pre-processor indentation with the # always in the first column. Not yet exactly what I want.				
<u>Demystify C++ Metaprograms using Emacs</u>						
<u>Programming in C++, Rules and Recommendations</u>		ellemtel style				