
















# YAML Data Serialization Support

Operation	Keystroke	Function	Note
<b>Editing <a href="#">YAML</a> files</b>  See also: <a href="#">M CWL</a>	Long <a href="#">YAML</a> files are notoriously difficult to edit properly. Use the external package <a href="#">yaml-mode</a> , a major mode for <a href="#">YAML</a> files. Also use a couple of minor-modes and commands listed in this page to help. <ul style="list-style-type: none"> <li>Aside from the first 3 key bindings listed to access help and customization buffers for <a href="#">YAML</a>, the key bindings listed in this page and their related commands are also described in other <a href="#">PEL</a> PDF pages. The links to these pages are on the first column.</li> </ul> <div>  The <a href="#">yaml-mode</a> external package provides a major mode support for <a href="#">YAML</a>.                <a href="#">PEL</a> provides access to it when the <a href="#">pel-use-yaml</a> user-option is turned on (set to <a href="#">t</a>).             </div> <ul style="list-style-type: none"> <li><a href="#">PEL</a> associates the following file extensions with <a href="#">yaml-mode</a>: <a href="#">.yaml</a>, <a href="#">.yaml1</a>, <a href="#">.eyaml</a>, <a href="#">.raml</a>.</li> </ul>		
<b>Open this PDF file.</b> See also: <a href="#">⌘ Help/Info</a>	<div>&lt;f11&gt; SPC M-y &lt;f1&gt;</div> <div>&lt;f12&gt; &lt;f1&gt;</div>	<div>(<a href="#">pel-help-pdf</a> &amp;optional OPEN-WEB-PAGE)</div>	Open the  <a href="#">YAML</a> local PDF. If the prefix argument (like <a href="#">C-u</a> or <a href="#">M--</a> ) is used, then it opens the remote GitHub hosted raw PDF instead. If the <a href="#">pel-flip-help-pdf-arg</a> user-option is set it's the other way around.
<a href="#">⌘ Customize</a> <a href="#">PEL</a> <a href="#">YAML</a> control	<div>&lt;f11&gt; SPC M-y &lt;f2&gt;</div> <div>&lt;f12&gt; &lt;f2&gt;</div>	<div>(<a href="#">pel-customize-pel</a> &amp;optional OTHER-WINDOW)</div>	Customize <a href="#">PEL</a> <a href="#">YAML</a> support. <ul style="list-style-type: none"> <li>If <a href="#">OTHER-WINDOW</a> is non-nil (use <a href="#">C-u</a>), display in other window.</li> </ul>
<a href="#">⌘ Customize</a> Emacs <a href="#">YAML</a> control	<div>&lt;f11&gt; SPC M-y &lt;f3&gt;</div> <div>&lt;f12&gt; &lt;f3&gt;</div>	<div>(<a href="#">pel-customize-library</a> &amp;optional OTHER-WINDOW)</div>	Customize Emacs <a href="#">YAML</a> support groups: <a href="#">yaml</a> , <a href="#">fly check</a> , <a href="#">indent-tools</a> and <a href="#">smartparens</a> <ul style="list-style-type: none"> <li>If <a href="#">OTHER-WINDOW</a> is non-nil (use <a href="#">C-u</a>), display in other window.</li> </ul>
<b><a href="#">Flycheck</a></b>  See also: <a href="#">⌘ SyntaxCheck</a>	<a href="#">Flycheck</a> is a minor mode for on-the-fly syntax checking. <div>  The <a href="#">flycheck</a> external package                is activated by <a href="#">PEL</a> when the <a href="#">pel-use-flycheck</a> user-option is turned on or another activated <a href="#">PEL</a> user-option requires it.             </div> <div>  Aside from the following 2 key bindings that <a href="#">PEL</a> provides to toggle the <a href="#">flycheck</a> mode, <a href="#">flycheck</a> key prefix is <a href="#">C-c</a> ! as set by its <a href="#">flycheck-keymap-prefix</a> user-option. You can change it for a different key prefix.             </div>		
Toggle <a href="#">flycheck</a> mode for current buffer	<f11> ! !	( <a href="#">flycheck-mode</a> &optional ARG)	Toggle <a href="#">flycheck</a> minor-mode for the current buffer.
Toggle <a href="#">flycheck</a> mode for all buffers	<f11> ! M-!	( <a href="#">global-flycheck-mode</a> &optional ARG)	Toggle <a href="#">Flycheck</a> mode in all buffers. <ul style="list-style-type: none"> <li><a href="#">Flycheck</a> mode is enabled in all buffers where ‘<a href="#">flycheck-mode-on-safe</a>’ would do it.</li> </ul>
<ul style="list-style-type: none"> <li><a href="#">Flycheck</a> buffer/file</li> </ul>			
Syntax Check current buffer	C-c ! c	( <a href="#">flycheck-buffer</a> )	Start checking syntax in the current buffer. <ul style="list-style-type: none"> <li>Get a syntax checker for the current buffer with ‘<a href="#">flycheck-get-checker-for-buffer</a>’, and start it.</li> </ul>
Check syntax of current file	C-c ! C-c	( <a href="#">flycheck-compile</a> CHECKER)	Run CHECKER via ‘ <a href="#">compile</a> ’. <ul style="list-style-type: none"> <li>CHECKER must be a valid syntax checker. Interactively, prompt for a syntax checker to run.</li> <li>Instead of highlighting errors in the buffer, this command pops up a separate buffer with the entire output of the syntax checker tool, just like ‘<a href="#">compile</a>’.</li> </ul>
<b>Highlight current column</b>	The following command provide a vertical line across the entire window at the cursor location. <ul style="list-style-type: none"> <li>Useful when creating tables or checking indentation manually.</li> <li><a href="#">vline</a> also provides the <a href="#">vline-global-mode</a> to activate the vertical line in all buffers; <a href="#">PEL</a> has no binding for it because it slows Emacs too much.</li> </ul>		
<b>Toggle Vline Mode</b> See also: <ul style="list-style-type: none"> <li><a href="#">⌘ Highlight</a></li> <li><a href="#">⌘ Hide/Show</a></li> </ul>	<div>• &lt;f11&gt; h  </div> <div>• &lt;f11&gt; 9</div>	<div>(<a href="#">vline-mode</a> &amp;optional ARG)</div>	Toggle the display of a vertical line spanning the entire window at the cursor column. <div>  Requires: <a href="#">vline.el</a>  <a href="#">PEL</a> activates it when <a href="#">pel-use-vline</a> user option is <a href="#">t</a>.         </div>
<b>Indented Text Folding</b>	The following command folds (hide or show) all lines that are indented more than the current line. <ul style="list-style-type: none"> <li>You can also use the <a href="#">f</a> key inside the <a href="#">indent-tools</a> Hydra, shown below, to fold indented sections.</li> </ul>		
Toggle hiding lines more indented than current line  See also: <a href="#">⌘ Hide/Show</a>	<f11> M-/ M-/	( <a href="#">pel-toggle-hide-indent</a> )	Toggle hiding lines more indented than current line. <ul style="list-style-type: none"> <li>Affects the entire buffer. Not syntax sensitive. Can be used anywhere.</li> </ul> <div>  Do not modify the buffer while lines are hidden, it's allowed but its using selective display and you don't see what you change.         </div>
<b><a href="#">Indent-tools</a></b>	The <a href="#">indent-tools</a> external package provides several commands to indent, un-indent and navigate across indented text levels. <ul style="list-style-type: none"> <li>It provides a minor mode and a key <a href="#">hydra</a> that provides all of these commands.</li> </ul> <div>  The <a href="#">indent-tools</a> external package                <a href="#">PEL</a> activates it when the <a href="#">pel-use-indent-tools</a> user-option is turned on (set to <a href="#">t</a>).             </div> <ul style="list-style-type: none"> <li>This also automatically activates the <a href="#">hydra</a> external package.</li> </ul> <div>  <a href="#">PEL</a> provide a global key binding to its key <a href="#">hydra</a> and provides the ability to activate the proposed key binding globally and for python mode:             </div> <ul style="list-style-type: none"> <li><a href="#">pel-indent-tools-key-bound</a> : activates the <a href="#">C-c</a> &gt; key binding either globally or for python-mode only.</li> </ul>		
Open the <a href="#">indent-tools</a> hydra  See also: <a href="#">⌘ Indentation</a>  The <a href="#">indent-tools</a> hydra provide keys you can use to navigate across the indented <a href="#">YAML</a> elements.	<div>&lt;f11&gt; &lt;tab&gt; &gt;</div> <div>C-c &gt;</div>	<div>(<a href="#">indent-tools-hydra/body</a>)</div>	Activate the e body in the "indent-tools-hydra" hydra.  <div>  With <a href="#">PEL</a>, this key binding is only available when:           </div> <ul style="list-style-type: none"> <li>globally, when <a href="#">pel-indent-tools-key-bound</a> is set to <a href="#">globally</a>,</li> <li>in python-mode only when <a href="#">pel-indent-tools-key-bound</a> is set to <a href="#">python</a>.</li> <li>The actual key is selected by <a href="#">indent-tools</a> <a href="#">indent-tools-keymap-prefix</a> user-option, the default is <a href="#">C-c</a> &gt;</li> </ul>
The heads for the associated hydra are: <div>             &gt;: ‘indent-tools-indent’,              &lt;: ‘indent-tools-demote’,              B: ‘indent-tools-indent-end-of-defun’,              c: ‘indent-tools-comment’,              U: ‘indent-tools-uncomment’,              P: ‘indent-tools-indent-paragraph’,              l: ‘indent-tools-indent-end-of-level’,              K: ‘indent-tools-kill-tree’,              C: ‘indent-tools-copy-hydra/body’,              s: ‘indent-tools-select’,              e: ‘indent-tools-goto-end-of-tree’,              u: ‘indent-tools-goto-parent’,              d: ‘indent-tools-goto-child’,              S: ‘indent-tools-select-end-of-tree’,              n: ‘indent-tools-goto-next-sibling’,              p: ‘indent-tools-goto-previous-sibling’,              i: ‘helm-imenu’,              j: ‘forward-line’,              k: ‘previous-line’,              SPC: ‘indent-tools-indent-space’,              _: ‘undo-tree-undo’,              L: ‘recenter-top-bottom’,              f: ‘yafolding-toggle-element’,              q: exit           </div>		<div> <pre> --UUU:----F1  somedata.yaml  All (1,0)  (YAML WK Fly Anzu) --   Indent        Navigation        Actions -----+-----+----- &gt; indent        j v                K kill &lt; de-indent     k A                i imenu 1 end of level  n next sibling      C Copy... E end of fn     p previous sibling  c comment P paragraph     u up parent        U uncomment (paragraph) SPC space       d down child       f fold - undo          e end of tree      q quit f11 TAB &gt; </pre> </div> <div>  The <a href="#">f</a> key toggles the element folding. Press once to hide the sub-tree, press-again to display it back.         </div>	

Operation	Keystroke	Function	Note
<b>Smartparens Mode</b> • <a href="#">Smartparens manual</a>  See also: <a href="#">Σ ℥ Smartparens</a>	Simplify insertion of matching pairs with the <a href="#">smartparens</a> minor mode. PEL binds a set of keys, described below, to toggle activation of that mode.  This uses the <a href="#">smartparens</a> external package.  PEL activates it when <a href="#">pel-use-smartparens</a> is set to <b>t</b> . <ul style="list-style-type: none"> <li>Mode line lighter: <ul style="list-style-type: none"> <li>smartparens-mode: SP</li> <li>smartparens-strict-mode: SP/s</li> </ul> </li> </ul>		
Help on smartparens	<b>&lt;f11&gt; ( ?</b>	( <a href="#">sp-cheat-sheet</a> &optional ARG)	Generate a cheat sheet of all the smartparens interactive functions. Shows inside Emacs buffer. <ul style="list-style-type: none"> <li>Without a prefix argument, print only the short documentation and examples.</li> <li>With non-nil prefix argument ARG, show the full documentation for each function.</li> <li>You can follow the links to the function or variable help page. <ul style="list-style-type: none"> <li>To get back to the full list, use M-x help-go-back.</li> </ul> </li> <li>You can use ‘beginning-of-defun’ and ‘end-of-defun’ to jump to the previous/next entry.</li> <li>Examples are fontified using the ‘font-lock-string-face’ for better orientation.</li> </ul>
Describe user system	<b>&lt;f11&gt; ( M-?</b>	( <a href="#">sp-describe-system</a> STARTERKIT)	Describe user’s system. Prompt for starter kit: Evil, Spacemacs, Vanilla. <ul style="list-style-type: none"> <li>The output of this function can be used in bug reports.</li> </ul>
Toggle smartparens mode	<b>&lt;f11&gt; ( (</b>	( <a href="#">smartparens-mode</a> &optional ARG)	Toggle smartparens mode.
Toggle smartparens-strict mode	<b>&lt;f11&gt; ( )</b>	( <a href="#">smartparens-strict-mode</a> &optional ARG)	Toggle the strict smartparens mode. <ul style="list-style-type: none"> <li>When strict mode is active, ‘delete-char’, ‘kill-word’ and their backward variants will skip over the pair delimiters in order to keep the structure always valid (the same way as ‘paredit-mode’ does). This is accomplished by remapping them to ‘sp-delete-char’ and ‘sp-kill-word’. There is also function ‘sp-kill-symbol’ that deletes symbols instead of words, otherwise working exactly the same (it is not bound to any key by default).</li> <li>When strict mode is active, this is indicated with “/s” after the smartparens indicator in the mode list</li> </ul>
Toggle smartparens mode	<b>&lt;f11&gt; ( M-(</b>	( <a href="#">smartparens-global-mode</a> &optional ARG)	Toggle Smartparens mode in all buffers. <ul style="list-style-type: none"> <li>With prefix ARG, enable Smartparens-Global mode if ARG is positive; otherwise, disable it.</li> <li>Smartparens mode is enabled in all buffers where ‘turn-on-smartparens-mode’ would do it.</li> </ul>
Toggle smartparens-strict mode	<b>&lt;f11&gt; ( M-)</b>	( <a href="#">smartparens-global-strict-mode</a> &optional ARG)	Toggle Smartparens-Strict mode in all buffers. <ul style="list-style-type: none"> <li>With prefix ARG, enable Smartparens-Global-Strict mode if ARG is positive; otherwise, disable it.</li> <li>Smartparens-Strict mode is enabled in all buffers where ‘turn-on-smartparens-strict-mode’ would do it.</li> </ul>
<b>Smart-shift</b>  See also: <a href="#">Σ Indentation</a>	The <a href="#">smart-shift</a> external package simplifies shifting a complete line or region of lines right or left but also up or down. <ul style="list-style-type: none"> <li>It is implemented as a minor or global minor mode that must be enabled first. You can identify the smart-shift-mode inside one of the pel-&lt;mode&gt;-activates-minor-modes user-options to activate it automatically. You can also use the commands manually or through the key bindings provided by PEL to activate the smart-shift-mode in the current buffer or globally for all buffers.</li> <li>PEL controls it through customization user-options: <ul style="list-style-type: none"> <li> The <a href="#">smart-shift</a> external package  PEL activates it when the <a href="#">pel-use-smart-shift</a> user-option is turned on (set to t).</li> <li> PEL also provides the <a href="#">pel-smart-shift-keybinding</a> user-option that allows you to select additional alternative key bindings for the smart-shift commands that shift line(s). By default the key bindings are using <b>C-c</b> as a key prefix. With PEL you can also use a control key for the cursor or change the prefix key to use the <b>&lt;f9&gt;</b> key. The 3 possible key bindings are shown below but only one of them will be available at any given time. The one available is the one selected by the user-option value.</li> </ul> </li> </ul>		
Toggle smart-shift mode in current buffer	<b>&lt;f11&gt; &lt;tab&gt; s</b>	( <a href="#">smart-shift-mode</a> &optional ARG)	Activate/de-activate the smart-shift mode in the current buffer. <ul style="list-style-type: none"> <li>Activate the line-shift key bindings listed below, in the current buffer. <ul style="list-style-type: none"> <li>With PEL, the actual key binding selected for the line shift commands depend on the value of the <b>pel-smart-shift-keybinding</b> user-option.</li> </ul> </li> </ul>
Toggle smart-shift mode globally	<b>&lt;f11&gt; &lt;tab&gt; S</b>	( <a href="#">global-smart-shift-mode</a> &optional ARG)	<ul style="list-style-type: none"> <li>Toggle Smart-Shift mode in all buffers.</li> <li>With prefix ARG, enable Global Smart-Shift mode if ARG is positive; otherwise, disable it.</li> <li>Smart-Shift mode is enabled in all buffers where ‘smart-shift-mode-on’ would do it.</li> </ul>
Shift line or region right	<ul style="list-style-type: none"> <li><b>C-c &lt;right&gt;</b></li> <li><b>C-c &lt;C-right&gt;</b></li> <li><b>&lt;f9&gt; &lt;right&gt;</b></li> </ul>	( <a href="#">smart-shift-right</a> &optional ARG)	Shift the line or region to the ARG times to the right.  With PEL <b>one</b> of the extra key bindings can be enabled via the <b>pel-smart-shift-keybinding</b> user-option. So unlike other cells only one of the last 2 key bindings is available in the smart-shift minor mode.
Shift line or region left	<ul style="list-style-type: none"> <li><b>C-c &lt;left&gt;</b></li> <li><b>C-c &lt;C-left&gt;</b></li> <li><b>&lt;f9&gt; &lt;left&gt;</b></li> </ul>	( <a href="#">smart-shift-left</a> &optional ARG)	Shift the line or region to the ARG times to the left.  With PEL <b>one</b> of the extra key bindings can be enabled via the <b>pel-smart-shift-keybinding</b> user-option. So unlike other cells only one of the last 2 key bindings is available in the smart-shift minor mode.
Shift line or region up	<ul style="list-style-type: none"> <li><b>C-c &lt;up&gt;</b></li> <li><b>C-c &lt;C-up&gt;</b></li> <li><b>&lt;f9&gt; &lt;up&gt;</b></li> </ul>	( <a href="#">smart-shift-up</a> &optional ARG)	Shift the line or region to the ARG times to the upwards.  With PEL <b>one</b> of the extra key bindings can be enabled via the <b>pel-smart-shift-keybinding</b> user-option. So unlike other cells only one of the last 2 key bindings is available in the smart-shift minor mode.
Shift line or region down	<ul style="list-style-type: none"> <li><b>C-c &lt;down&gt;</b></li> <li><b>C-c &lt;C-down&gt;</b></li> <li><b>&lt;f9&gt; &lt;down&gt;</b></li> </ul>	( <a href="#">smart-shift-down</a> &optional ARG)	Shift the line or region to the ARG times to the downwards  With PEL <b>one</b> of the extra key bindings can be enabled via the <b>pel-smart-shift-keybinding</b> user-option. So unlike other cells only one of the last 2 key bindings is available in the smart-shift minor mode.

## YAML & Emacs – References

Description & URL	Notes
<b>YAML</b>	
<b>YAML @ Wikipedia</b>	Overview, syntax, criticisms
<b>YAML official home page</b>	Links to YAML specification, links to various resources and projects. <ul style="list-style-type: none"> <li><a href="#">YAML 1.2 Specs</a></li> <li><a href="#">YAML 1.1 Specs</a></li> <li><a href="#">YAML 1.0 Specs</a></li> </ul>

Description & URL	Notes
YAML Resource sites	<ul style="list-style-type: none"> <li>• <a href="#">Learn YAML in Y Minutes</a></li> <li>• Online YAML validator (runs <a href="#">yamllint.py</a>) ⚠️ No link as the site is not using https. Instead install <a href="#">yamllint.py</a> locally and use it on the command line or via Emacs.</li> </ul>
StrictYAML	A stricter, type-safe YAML
StrictYAML @ Github	
StrictYAML @ hitchdev (Python libraries)	
RAML	RESTful API Modeling Language : RAML files have the .raml file extension.
	<ul style="list-style-type: none"> <li>• <a href="#">RAML @ Wikipedia</a></li> <li>• <a href="#">RAML.org</a></li> <li>• <a href="#">RAML Spec @ GitHub</a></li> </ul>
Common Workflow Language	Common Workflow Language (CWL) uses a <a href="#">subset of YAML</a> and provides YAML supporting tools.
See also: <a href="#">Y  CWL</a>	<ul style="list-style-type: none"> <li>• <a href="#">CWL home page</a> <ul style="list-style-type: none"> <li>• <a href="#">CWL User Guide</a></li> <li>• <a href="#">CWL YAML Guide</a></li> </ul> </li> </ul>
Emacs support for YAML	
yaml-mode (major mode for YAML)	<ul style="list-style-type: none"> <li>• <a href="#">yaml-mode @ GitHub</a></li> <li>• <a href="#">Yaml Mode @ Emacs Wiki</a></li> </ul>
indent-tools	<ul style="list-style-type: none"> <li>• <a href="#">indent-tools @ GitLab</a></li> <li>• <a href="#">indent-tools @ Melpa</a></li> </ul>
smartparens	<p>The smartparens mode can help deal with data that is within matching pair of characters.</p> <ul style="list-style-type: none"> <li>• <a href="#">smartparens @ GitHub</a></li> <li>• <a href="#">smartparens documentation</a></li> </ul>
Emacs/YAML Support Articles	
Blogs about YAML editing on Emacs	<ul style="list-style-type: none"> <li>• <a href="#">The best ways to work with yaml files in Emacs</a>, from Chmouel Boudjnah's blog, 2016-09-07</li> <li>• <a href="#">Editing ansible files in Emacs</a>, from Enis Özgen, 2017-12-29</li> </ul>
General blogs about YAML	<ul style="list-style-type: none"> <li>• <a href="#">10 YAML tips for people who hate YAML</a> <ul style="list-style-type: none"> <li>• BTW, the last tip is: use something else... well... S-expressions are very flexible and powerful.</li> </ul> </li> </ul>