## Highlighting

<u>Keystroke</u>	Function	<u>Note</u>		
Emacs provides different ways of highlighting text as well as lines and columns. It performs highlighting on search operations but can also be instructed to highlight regular expressions, matched delimiters, the current line, the current column, the fill column where automatic text wrapping occurs.  PEL provides the pel-pkg-for-highlight customization group to control some aspect of highlighting. The user options are:				
<ul> <li>pel-use-auto-highlight-symbol activates the <u>auto-highlight-symbol</u> external package.</li> <li>pel-use-iedit activates <u>iedit</u> external package which allows you to interactively edit all symbols inside current scope or marked region.</li> <li>pel-use-fill-column-indicator activates the <u>fill-column-indicator</u> external package for Emacs versions earlier than 27.1.</li> <li>This highlights a vertical line on the fill-column, the column where automatic line wrapping occurs (when the mode is active).</li> <li>pel-use-highlight-indentation activates the <u>highlight-indentation</u> external package that helps see the indentation.</li> </ul>				
<ul> <li>pel-use-vline activates vline.el to create a vertical bar across the entire buffer that moves point (the cursor).</li> <li>pel-use-rainbow-delimiters activates rainbow-delimiters.el that highlights matching parens delimiters.</li> <li>pel-use-rainbow-mode activates rainbow-mode external package which highlights strings containing color codes.</li> </ul>				
<f11> h <f1></f1></f11>	(pel-help-pdf &optional OPEN-WEB-PAGE)	Open the <u>N Highlight</u> local PDF. If the prefix argument (like <b>C-u</b> or <b>M</b> ) is used, then it opens the remote GitHub hosted raw PDF instead. If the <b>pel-flip-help-pdf-arg</b> useroption is set it's the other way around.		
<f11> h <f2></f2></f11>	(pel-customize-pel &optional OTHER- WINDOW)	Customize the following PEL support:  1. PEL support for highlighting (pel-pkg-for-hightlight)  2. PEL support for mode line (pel-pkg-for-modeline)  3. PEL support for parens (pel-pkg-for-parens)  • If OTHER-WINDOW is non-nil (use C-u), display in other window.		
<f11> h <f3></f3></f11>	(pel-customize-library &optional OTHER- WINDOW)	Customize Emacs support for buffer highlight management: <u>auto-highlight-symbol</u> , <u>iedit, highlight-indentation, rainbow-mode, rainbow-delimiters, smartparens, vline, fill-column-indicator</u> (for Emacs version earlier than 27.1)		
<f11> h F</f11>	(font-lock-mode &optional ARG)	Toggle syntax highlighting in this buffer (Font Lock mode).  • With a prefix argument ARG, enable Font Lock mode if ARG is positive, and disable it otherwise.		
These commands are used to highlight matching parentheses, but also braces and square brackets. Can be used in any editing mode, not restricted to Lisp only (but very useful in for editing Lisp code).				
<f11> h (</f11>	(show-paren-mode &optional ARG)	Toggle visualization of matching parens (Show Paren mode).  • With a <b>C-u</b> prefix argument ARG, enable Show Paren mode if ARG is positive, and disable it otherwise. If called from Lisp, enable the mode if ARG is omitted or nil.		
• <f12> M-9 • <m-f12> M-9</m-f12></f12>		► The <f12> M-9 and <m-f12> M-9 bindings are available for several programming modes.</m-f12></f12>		
<f11> h R</f11>	(rainbow-delimiters-mode &optional ARG)	Highlight nested parentheses, brackets, and braces with different colours according to their depth.  • Customize the depth and colours with M-x customize-group rainbow-delimiters or wit hPEL access its customization group with the <f11> h <f3> key sequence and select rainbow-delimiters.  • Requires: rainbow-delimiters.el  • PEL activates it when the pel-use-rainbow-delimiters user option is set to t.</f3></f11>		
This mode is a quick way to highlight what has been recently changed in the buffer.  Note: All highlighting in a buffer is non persistent: it is forgotten when buffer is killed.				
<f11> h C</f11>	(highlight-changes-mode &optional ARG)	Toggle highlighting changes in this buffer (Highlight Changes mode).  • With a prefix argument ARG, enable Highlight Changes mode if ARG is positive, and disable it otherwise.  • In this mode the most recent changes in the buffer are highlighted.  • However, when this is enabled, the syntax highlighting does not work properly for the new text.		
Highlighting the current line may help to find the cursor when editing with big windows. These commands control line highlighting.				
• <f11> h - • <f11> 0</f11></f11>	( <b>hl-line-mode</b> &optional ARG)	Toggle highlighting of the current line (HI-Line mode) in the current buffer.		
When same buffer is sh     Change that with pel	ighlighting might show in each of them. 11> h s			
type than the alternative, v	which exists for consistency, re	o hit <f11> 0 quickly to toggle line highlighting on and off (that key binding is easier to emember that you can use <f1> k to get help for a specific key binding and see all the s other bindings.)</f1></f11>		
<f11> h s</f11>	(pel-toggle-hl-line-sticky)	Toggle current line highlight to all windows showing the current buffer or just the current one.		
<f11> h h</f11>	(pel-set-highlight-color COLORNAME)	Toggles the value of 'hl-line-sticky-flag' between t and nil.  Set the colour of the highlight line used in the line highlight mode (affects all buffers).		
<ul> <li>Prompt for color name, use tab completion to show available colours with their names.</li> <li>The change does not persist when Emacs is closed. To select a persistent color, then customize the highlight user option (see next row).</li> </ul>				
<f11> h H</f11>	(pel-customize-highlight)	Open the customize buffer to change the <b>highlight</b> user option color and other attributes.		
<ul> <li>As with all customizations, you can activate the change for this Emacs session or save it to make it persist across Emacs sessions.</li> <li>With this you can set other attributes such as underlining (which will underline only text present in the buffer, useful to detect end-of-line whitespace), and other attributes.</li> </ul>				
Using rainbow mod	de: highlight the color of colo	r codes. 🤞 See color code names in rainbow customization group.		
<f11> h c</f11>	(rainbow-mode &optional ARG)	Colorize strings that represent colors.  • This will fontify with colors the string like "#aabbcc" or "blue".  • Requires: rainbow-mode  • PEL activates it when pel-use-raibow-mode user option is t.		
	Emacs provides different of instructed to highlight regioccurs.  PEL provides the pel-period pel-use-auto-highlice in pel-use-iedit activate in pel-use-fill-column in This highlights a visual pel-use-rainbow-mel-use-rainbo	Emacs provides different ways of highlighting text as we instructed to highlight regular expressions, matched delioccurs.  PEL provides the pel-pkg-for-highlight customization pel-use-auto-highlight-symbol activates the aut pel-use-fill-column-indicator activates the fill-ge this highlights a vertical line on the fill-column. This highlights a vertical line on the fill-column. Pel-use-highlight-indentation activates the highling pel-use-rainbow-delimiters activates rainbow-delimiters activates rainbow-mode activates the flight rainbow-mode activates activates rainbow-mode activates activates rainbow-mode activates activate the change does not persist when Emacs is closed.  *f11> h		

<u>Operation</u>	<u>Keystroke</u>	Function	<u>Note</u>	
Highlight current column	Useful when creating ta	bles or checking indentation m	e entire window at the cursor location. nanually. he vertical line in all buffers; PEL has no binding for it because it slows Emacs too much.	
Toggle Vline Mode See also: ∑ Cursor ∑ Hide/Show	• <f11> h   • <f11> 9</f11></f11>	(vline-mode &optional ARG)	Toggle the display of a vertical line spanning the entire window at the cursor column.  Requires: viine.el  PEL activates it when pel-use-vline user option is t.	
Highlight Fill Column	The fill column identifies the end of line where line wrapping occurs.  • Some development groups impose a style where a line limited to a specified length. This helps see this limit as you type.			
Toggle ruler line on fill column  See also:  •	• <f11> h \ • <f11> <f5> \ • <f11> 8</f11></f5></f11></f11>	(fci-mode &optional ARG)     (display-fill-columnindicator-mode &optional ARG)	Toggle a vertical ruler line shown at the buffer's fill-column.  • For Emacs earlier than 27.1, it requires the fill-column-indicator external package activated by PEL use-fill-column-indicator user option set to t.  • For Emacs 27.1 or later, the built-in display-fill-column-indicator-mode is used.  • Inci-mode interferes with pop-up menu displays in terminal-mode, at least with the one used by flyspell-correct-word-before-point: the menu lines become all jagged, they do not line up vertically. The problem does not affect Emacs running in graphics mode.	
Highlight Indentation	Both require highlight-	indentation external package.	PEL activates it when pel-use-highlight-indentation user option is t.	
Highlight indentation based on spaces	<f11> h M-i</f11>	(highlight-indentation- mode &optional ARG)	Highlight indentation minor mode highlights indentation based on spaces.	
Highlight indentation of current line	<f11> h M-c</f11>	(highlight-indentation- current-column-mode &optional ARG)	Highlight Indentation minor mode displays a vertical bar corresponding to the indentation of the current line	
Ruler	Shows a ruler at the top of the window indicating several markers:		<pre>n · - e · nw · aspellbash emacs-black - ttys007 - \%8 Tools Lisp-Interaction Help !3!#!5!6!7!</pre>	
Show the ruler	<f11> b -</f11>	(ruler-mode &optional ARG)	Toggle display of ruler in header line (Ruler mode) in window(s) of current buffer.  • With a prefix argument ARG, enable Ruler mode if ARG is positive, and disable it otherwise.	
See also:  Filling/Justification	<ul> <li>The ruler markers are:         <ul> <li>Current cursor position</li> <li>Marks every 5 positions.</li> <li># Current comment-column value, set by C-x;</li></ul></li></ul>			
Automatic Symbol Highlighting	The following require the	he <u>auto-highlight-symbol</u> exter	rnal package.	
Toggle auto-highlight- symbol mode	<f11> h a</f11>	(auto-highlight-symbol- mode &optional ARG)	Toggle Auto Highlight Symbol Mode: in that mode the symbol at point and all its instances in the visible part of the buffer is highlighted after some delay. More testing and documentation needed for this.	
Interactive Highlighting	Highlight Specified Text or Text Matching Regexp (Hi Lock Mode)			
Enable/disable highlight lock mode	<f11> h L</f11>	(hi-lock-mode &optional ARG)	<ul> <li>Toggle selective highlighting of patterns (Hi Lock mode).</li> <li>With a prefix argument ARG, enable Hi Lock mode if ARG is positive, and disable it otherwise.</li> <li>When text is already highlighted toggling the mode off will remove all highlighting; turning it back on will not restore the highlighting.</li> </ul>	
Enable highlight lock mode to all buffers	<f11> h G</f11>	(global-hi-lock-mode &optional ARG)	Toggle Hi-Lock mode in all buffers.  • With prefix ARG, enable Global Hi-Lock mode if ARG is positive; otherwise, disable it.	
Highlight text that match regexp	• M-s h r • <f11> h r</f11>	(highlight-regexp REGEXP &optional FACE)	Set face of each match of REGEXP to FACE.  • Interactively, prompt for REGEXP using 'read-regexp', then FACE. Use the global history list for FACE.	
Highlight entire line that contain text that matches regexp	• M-s h l • <f11> h l</f11>	(highlight-lines-matching- regexp REGEXP &optional FACE)	Set face of all lines containing a match of REGEXP to FACE.  • Interactively, prompt for REGEXP using 'read-regexp', then FACE. Use the global history list for FACE.	
Highlight matches of phrase	• M-s h p • <f11> h p</f11>	(highlight-phrase REGEXP & optional FACE)	<ul> <li>Set face of each match of phrase REGEXP to FACE.</li> <li>Interactively, prompt for REGEXP using 'read-regexp', then FACE. Use the global history list for FACE.</li> <li>When called interactively, replace whitespace in user-provided regexp with arbitrary whitespace, and make initial lower-case letters case-insensitive, before highlighting with 'hi-lock-set-pattern'.</li> </ul>	
Highlight symbol found near point	• M-s h . • <f11> h .</f11>	(highlight-symbol-at- point)	Highlight each instance of the symbol at point.  • Uses the next face from 'hi-lock-face-defaults' without prompting, unless you use a prefix argument.	
<u>Un-highlight</u>	• M-s h u • <f11> h u</f11>	(unhighlight-regexp REGEXP)	Remove highlighting of each match to REGEXP set by hi-lock.  • Interactively, prompt for REGEXP, accepting only regexps previously inserted by hi-lock interactive functions. If REGEXP is t (or if <b>C-u</b> was specified interactively), then remove all hi-lock highlighting.	
List Highlighted Text			first command below, then edit if needed and then use the second command to highlight e the highlighting info in comments for persistency, and later re-highlight them using these	
Insert current highlighting regexp/face pairs in buffer at point in comments.	• M-s h w • <f11> h w</f11>	(hi-lock-write-interactive- patterns)	Write interactively added patterns, if any, into buffer at point.  • Interactively added patterns are those normally specified using 'highlight-regexp' and 'highlight-lines-matching-regexp'; they can be found in variable 'hi-lock-interactive-patterns'.	
Extract regexp/face pairs from comments in current buffer and highlight them.	• M-s h f • <f11> h f</f11>	(pel-hi-lock-find-patterns)	Add patterns from the current buffer to the list of hi-lock patterns.  • Does nothing if the current major mode's symbol is a member of the list hi-lock-exclude-modes.  pel-hi-lock-find-patterns is a thin wrapper over hi-lock-find-patterns that displays a warning if executed when the buffer is not already in hi-lock-mode.	

<u>Operation</u>	<u>Keystroke</u>	Function	<u>Note</u>
<u>iEdit mode</u>	iEdit Mode - Edit multiple regions in the same way simultaneously. Shis mode is very useful.  This requires the iedit external package. PEL downloads, installs it when any of the pel-use-iedit or pel-use-lispy user options is set to t.		
Toggle iedit mode  See also:  • <u>∑ Cursor</u> • <u>∑ Search/Replace</u>	• C-; • <f11> e • <f11> h i • <f11> m i</f11></f11></f11>	(iedit-mode &optional ARG)	Toggle iEdit mode: edit all symbols in scope or region simultaneously.  ⚠ Both iEdit and Flyspell use the C-; key as their default binding.  • PEL detects and reports that situation: modify the binding of one of them if you see it.  ➤ See ∑ Search/Replace where all the iedit-mode commands are described.
Variables			
hi-lock-file-patterns-policy	Controls whether Hi Lock mode should automatically extract and highlight patterns found in a file when it is visited. Its value can be nil (never highlight), ask (query the user), or a function. If it is a function, hi-lock-find-patterns calls it with the patterns as argument; if the function returns non-nil, the patterns are used. The default is ask. Note that patterns are always highlighted if you call hi-lock-find-patterns directly, regardless of the value of this variable.		

## Highlight - References

Topic & Link	Description & Notes		
Gnu Emacs - 14.13 - Interactive Highlighting	Describes interactive highlighting, a topic for most of the commands listed above.		
The Definitive Guide To Syntax Highlighting	A blog, written in 2104, that provides an overview of the highlighting that can be done with Emacs.		